



A new genus and three new species of alpheid shrimps (Crustacea, Decapoda, Caridea) from the tropical American coasts

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Abstract

A new alpheid shrimp genus, *Triacanthoneus* **n. gen.**, is established for three new species from shallow marine waters of Central and South America. *Triacanthoneus toro* **n. sp.**, the type species of the new genus, is described based on four specimens from Bocas del Toro, Caribbean coast of Panama. *Triacanthoneus pacificus* **n. sp.** is described on the basis of a single type specimen from the Pacific coast of Panama and an additional specimen from Bahía Malaga, Pacific coast of Colombia. Finally, *Triacanthoneus alacraneus* **n. sp.** is described based on a single specimen collected near Alacranes Reef, off Yucatán Peninsula in the southern Gulf of Mexico. *Triacanthoneus* shares many features with *Salmoneus* Holthuis, 1955, but can be easily distinguished by the presence of three very strong and sharp teeth on the carapace, one being in a mediodorsal position posterior to carapace mid-length, and two in a dorsolateral post-hepatic position. This carapace armature is unique within the family Alpheidae.

Key words: Decapoda, Alpheidae, shrimp, new genus, new species, Panama, Mexico, Colombia, Eastern Pacific, Western Atlantic, transisthmian

Introduction

Most genera of the shrimp family Alpheidae are characterised by a smooth carapace, lacking sculpture in the form of teeth (fixed spines), mobile spines, tubercles, ridges or carinae, or deep grooves. However, there are a few exceptions. For instance, in *Alpheopsis trigona* (Rathbun, 1901), the carapace bears two strong dorsolateral longitudinal carinae running from the orbital teeth to almost near the posterior margin of the carapace, two pairs of shorter lateral longitudinal carinae, and a strong mediodorsal carina (Rathbun 1901). Three longitudinal carinae, including a mediodorsal one, are also present in *Salmoneus tricristatus* Banner, 1959; however, in this species, the carinae are not as strongly developed as in *A. trigona* (Banner & Banner 1973). *Salmoneus armatus* Anker, 2010 has a small, anteriorly directed tooth near the mid-length of the carapace, whereas in *S. rostratus* Barnard, 1962, there is a tubercle at about the same position (Anker 2003a; Anker & Marin 2006; Anker 2010). In *Mohocaris bayeri* Holthuis, 1973, the carapace has one mediodorsal and two dorsolateral, longitudinal, finely granulated ridges (Holthuis 1973). In the highly diversified genus *Alpheus* Fabricius, 1798, a number of species have sharp teeth or ridges on the orbital hoods, whilst others bear a more or less posteriorly situated mediodorsal tubercle (e.g., De Man, 1911, 1915; Banner & Banner 1982). In *Racilius compressus* Paulson, 1875, the dorsal carina of the carapace is strongly elevated (Banner & Banner 1973). In *Leptalpheus felderi* Anker, Vera Caripe & Lira, 2006, the orbital hoods have small ridges on the dorsal surface, above the eyes (Anker et al. 2006). Finally, in *Pseudalpheopsis guana* Anker, 2007, the anterolateral region of the carapace bears a small ridge ending in a blunt tooth just above the pterygostomial angle (Anker 2007).

In 2005, S. De Grave collected a small specimen of a very unusual alpheid shrimp off San Cristobal in Bocas del Toro, Caribbean coast of Panama. This specimen had strong sharp teeth (= fixed spines) on the carapace, one in a mediodorsal position posterior to carapace mid-length, and two in dorsolateral post-hepatic position, features clearly indicating that it belonged to an undescribed taxon. The specimen was found among