



New species and records of alpheid shrimps, genera *Salmoneus* Holthuis and *Parabetaeus* Coutière, from the tropical western Atlantic (Decapoda, Caridea)

ARTHUR ANKER

Instituto Smithsonian de Investigaciones Tropicales, Apartado 0843–03092, Balboa, Ancón, Panamá, República de Panamá / Smithsonian Tropical Research Institute, Naos Unit 0948, APO AA 34002, USA. E-mail: anker@si.edu

Abstract

Six species of the alpheid shrimp genus *Salmoneus* Holthuis, 1955, including two new species, are reported from the tropical western Atlantic. *Salmoneus ortmanni* (Rankin, 1898) is reported for the first time from Atol das Rocas, Brazil and Aruba, Netherlands Antilles. *Salmoneus carvachoi* n. sp. is described on the basis of specimens previously misidentified as *S. ortmanni* from Guadeloupe, French Antilles, and is also known to occur in Brazil. The main difference between *S. carvachoi* n. sp. and *S. ortmanni* is the much more slender dactylus of the third to fifth pereopods in the first species. The two species also appear to be ecologically separated: *S. carvachoi* n. sp. prefers silt-mud bottoms of estuaries and mangroves, while *S. ortmanni* occurs mostly in the rocky-coraline algae intertidal and on seagrass beds with reef patches, under rocks and coral rubble. *Salmoneus rocas* n. sp. is described on the basis of a single specimen collected at Atol das Rocas; this species belongs to the mostly Indo-Pacific *S. serratidigitus* (Coutière, 1896) species complex. *Salmoneus teres* Manning & Chace, 1990 and *S. setosus* Manning & Chace, 1990 previously known only from the isolated Ascension Island in the central Atlantic, are reported for the first time from the tropical western Atlantic: Guadeloupe and northeastern Brazil, respectively. Finally, *Parabetaeus hummelincki* (Schmitt, 1936) is recorded for the first time in Brazil.

Key words: *Salmoneus*, *Parabetaeus*, Alpheidae, Caridea, new species, new records, western Atlantic, Brazil

Introduction

The alpheid shrimp genera *Salmoneus* Holthuis, 1955 and *Parabetaeus* Coutière, 1897 are among the biologically and taxonomically poorest known carideans. This is mainly due to their small size – usually less than 10 mm in total length; inconspicuous colour patterns – often colourless and semitransparent; and cryptic life style – most species dwell deep in crevices, under rocks, among rubble or in burrows of other crustaceans, which also explains their apparent rarity.

Salmoneus is currently represented by three species in the western Atlantic: *S. ortmanni* (Rankin, 1898), *S. arubae* (Schmitt, 1936) and *S. cavicolus* Felder & Manning, 1986 (Rankin, 1898; Schmitt, 1936; Chace, 1972; Felder & Manning, 1986). However, this number does not reflect the actual diversity of this genus in the western Atlantic region, which is probably closer to 14 (Anker & Marin, 2006; A. Anker, pers. obs.).

Salmoneus is characterized mainly by the asymmetrical and usually unequal chelipeds, with the major chela (or both chelae) being carried folded against the merus; the absence of a distinct articulated plate on the sixth abdominal somite; the well developed rostrum; the well-marked acute orbital spines; the typical alpheid gill formula, which includes an arthrobranch above the third maxilliped and five strap-like epipods on the coxae of the third maxilliped and the first to fourth pereopod (e.g., Banner & Banner, 1973; Chace, 1988); and finally, by the presence of an appendix masculina invariably in both sexes (Carvacho, 1989). This latter