



Description of a new genus and two new species of alpheid shrimps from Guam (Crustacea, Decapoda)*

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Abstract

Bruceopsis n. gen. is established for two species, *Bruceopsis projectus* n. gen., n. sp., and *Bruceopsis guamensis* n. gen., n. sp., both from Guam, Mariana Islands, in the tropical western Pacific. The new genus is characterised by having the eyes at least partly covered dorsally and laterally by orbital hoods, the latter with sharp or blunt teeth; the chelipeds equal or unequal in size, symmetrical or asymmetrical in shape, carried extended, moderately or feebly enlarged, with carpus and merus bearing rows of setae mesially, and with simple chelae, lacking a snapping mechanism on the fingers; the third to fifth pereopods with dorsally notched dactyli; the first to fourth pereopods with small dorsolateral coxal lobes; the second pleomere conspicuously enlarged in females; and the posteroventral angle of the sixth pleonite with a well-developed, sometimes projecting articulated plate. *Bruceopsis* n. gen. resembles *Alpheopsis* Coutière, 1896 in general appearance, but may be more closely related to the western Atlantic genera *Coutieralpheus* Anker & Felder, 2005 and *Harperalpheus* Felder & Anker, 2007.

Key words: Caridea, Alpheidae, shrimp, new genus, new species, Guam, Micronesia, Pacific, Indo-West Pacific

Introduction

The shrimp family Alpheidae is one of the most speciose families within the order Decapoda, with presently 44 genera and over 600 species (De Grave *et al.* 2009). Among these genera, no less than 15 are monotypic or include no more than five species that are often known from only one or a few specimens, and sometimes only from the type locality. The relatively high proportion of these “rare genera” (one-third of the total) may be explained by various factors, such as the small size of these alpheids, ranging from 5 to 10 mm and rarely exceeding 15–20 mm in adult total length. Another factor is their extremely cryptic life style: many species are infaunal, others dwell deep inside crevices in coral rubble and reef matrix. The low population density certainly accounts for the rarity of some species. However, it is the insufficient and/or not very targeted sampling that contributes most to the apparent rarity of some of these taxa, and this is especially true for many parts of the Indo-West Pacific. In the last decade a number of new alpheid genera have been described (see De Grave & Anker 2008); most of them represent previously unknown lineages, often with rather unusual characters, such as the presence of comb-like rows of short serrate setae on the mesial face of the cheliped carpi, also known as the carpal cleaning brush or carpo-propodal brush (Bauer 1978; Martin *et al.* 1998). In alpheids, this brush always consists of a few (usually three to six) transversal setal rows on the mesial side of the carpus (carpal brush), but never extending to the mesial or ventromesial side of the propodus (carpo-propodal brush), as in many palaemonids (Felgenhauer & Schram 1979; Bauer 1989), crangonids (Bauer 1978), some hippolytids (Bauer 1978), but also in procarids, stenopodids and dendrobranchiates (Bauer 1989).