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Alpheopsis balaeniceps sp. nov., an unusual alpheid shrimp (Decapoda: Caridea) from French Polynesia

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Abstract

Alpheopsis balaeniceps sp. nov. is described based on a single male specimen from Moorea, French Polynesia. The new species is unique within the genus *Alpheopsis* Coutière, 1896 in possessing balaeniceps-type setae on the fingers of both chelipeds, being especially well developed on the major chela. Within the family Alpheidae, this feature exists only in some species of the distantly related genus *Alpheus* Fabricius, 1798, however, only on the minor cheliped. This convergence between *Alpheopsis* and *Alpheus* is another example of the remarkable diversity and plasticity of the alpheid chelipeds.

Key words. Alpheidae, *Alpheopsis*, new species, alpheid shrimp, Pacific Ocean, French Polynesia

Introduction

Alpheopsis Coutière, 1897 currently contains 21 species of small to medium-sized alpheid shrimps, with a worldwide distribution (De Grave & Fransen 2011). Most species are found in shallow and moderately deep waters (0–100 m), although one Indo-West Pacific species was dredged from almost 800 m (Banner & Banner 1977). *Alpheopsis* remains taxonomically one of the most problematic alpheid genera. Anker *et al.* (2005) called *Alpheopsis* in its present definition a “heterogeneous and rather poorly defined species assemblage lacking distinct autapomorphies”. In addition, several species of *Alpheopsis* are taxonomically poorly known, for instance, *Alpheopsis biunguiculata* Banner, 1953, described based on an incomplete and possibly juvenile specimen, *Alpheopsis garricki* Yaldwyn, 1971, described superficially and without any illustrations, or *Alpheopsis harperi* Wicksten, 1984, described with extremely inaccurate figures (Banner 1953; Yaldwyn 1971; Wicksten 1984). Nevertheless, the general shape of the frontal margin of the carapace (with or without orbital teeth), the presence of a well-developed articulated plate on the sixth pleonite, the shape and armature of the chelipeds, as well as the alpheid-typical gill formula, usually enable a relatively quick assignment of specimens to *Alpheopsis sensu lato*.

During a survey of shallow-water marine invertebrates in Moorea, French Polynesia (under the Moorea Biocode project), in 2009, the author collected an unusual specimen of *Alpheopsis* that presented unique characters for the genus and was therefore immediately recognised as belonging to an undescribed species. This species is described and illustrated below. The holotype is deposited in the collections of the Florida Museum of Natural History, University of Florida, Gainesville, FL, USA (FLMNH UF). Comparative material is deposited in the collections of the Muséum National d’Histoire Naturelle, Paris, France (MNHN). Carapace length (cl, in mm) was measured along the mid-dorsal line, from the tip of the rostrum to the posterior margin of the carapace.

Specimens listed below, all from Papua New Guinea, were examined as comparative material:

Alpheopsis aequalis Coutière, 1897 [*sensu lato*]: 1 ov. female (cl 2.6 mm), sta. PR186, Madang lagoon, coll. A. Anker and Z. Đuriš, 05.xii.2012 [PR186-PZD-567B]; 2 males (cl 2.6, 2.7 mm), sta. PR23, Madang lagoon, 5°13'46.44"S 145°47'58.02"E, depth: 15 m, coll. B. Faure *et al.*, 12.xi.2012 [PR23-PZD-168B]; 1 ov. female (cl 3.7 mm), sta. PR119, Madang lagoon, northern side of Kranket Island, depth: 1–10 m, under coral rubble, coll. A. Anker and Z. Đuriš, 28.xi.2012 [PR119-PZD-442A]; 1 male (cl 2.8 mm), sta. PR202, Madang lagoon,