



<http://dx.doi.org/10.11646/zootaxa.3964.3.4>

<http://zoobank.org/urn:lsid:zoobank.org:pub:FBF10BCB-D8F9-4823-863C-C5CB42F46DAA>

## A new species of the palaemonid shrimp genus *Palaemonella* Dana, 1852 (Crustacea: Decapoda: Caridea) from Okinawa Island, Ryukyu Islands, Japan

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### Abstract

The palaemonid shrimp genus *Palaemonella* Dana, 1852 is currently represented by 21 formally described species worldwide, of which 17 species are known from the Indo-West Pacific. In this study, a new species, *P. okunoi*, is described and illustrated on the basis of two ovigerous female specimens collected from coastal waters in Okinawa Island, Ryukyu Islands, Japan, at depths of 5–30 m. The new species closely resembles *P. hachijo* Okuno, 1999, but the shorter rostrum, more anteriorly located postrostral teeth on the carapace, the presence of a pair of submedian teeth on the fourth thoracic sternite and the less slender pereopods distinguish *P. okunoi* n. sp. from *P. hachijo*. The discovery of the present new species raises the number of Japanese species of *Palaemonella* to eight. An updated key to the Indo-West Pacific species of the genus is presented.

**Key words:** *Palaemonella okunoi*, *hachijo*, key, taxonomy

### Introduction

The palaemonid shrimp genus *Palaemonella* Dana, 1852 (type species: *P. tenuipes* Dana, 1852) is currently represented by 21 species worldwide (De Grave & Fransen 2011), of which 17 species occur in the Indo-West Pacific region (Bruce 1970, 1975, 2002a, 2002b, 2008, 2010; Hayashi 2001, 2009; Li & Bruce 2006; Marin 2008). In addition, three unnamed species are also recognized (Bruce 2003; Li *et al.* 2008; Bruce 2010; Minemizu 2013). Vast majority are considered to be free living (Hayashi 2001; Bruce 2002), although symbiotic association is known for *P. aliska* Marin, 2008 (burrows of alpheid shrimp *Alpheus* cf. *bellulus* Miya & Miyake, 1967; Marin 2008), *P. pottsi* (Borradaile, 1915) (crinoids: Bruce 1970; Minemizu 2000, 2013; Kato & Okuno 2001; Kawamoto & Okuno 2003), and an undescribed species assigned to *P. aff. aliska* (jaw fish: Minemizu 2013). Bathymetric range of the genus is rather wide, ranging from intertidal to upper bathyal depths down to 544 m (Hayashi 2001; Bruce 2002; Li & Bruce 2006; Bruce 2008). Bruce (2002) summarized the taxonomic history of the genus. *Palaemonella* is conservative in the general morphology within the subfamily Pontoniinae, including many symbiotic taxa, and in particular, very similar to *Cuapetes* Clark, 1919 in having a cylindrical body form, the well-developed, toothed rostrum, the presence of a hepatic tooth on the carapace, the presence of a spiniform median process on the fourth thoracic sternite and non-modified, simple dactyli of the third to fifth pereopods. These two genera are distinguished for one another only by the presence (*Palaemonella*) or absence (*Cuapetes*) of a mandibular palp.

The present article serves to describe a new species of *Palaemonella* on the basis of two ovigerous female specimens collected in Okinawa Island, Ryukyu Islands, Japan. The two specimens were collected from coral rubble bottoms at depths of 5–30 m during the faunal investigation on the cryptic and burrowing decapods in Okinawa Islands, and no evidence of symbiotic association was seen during sampling. The new species, *P. okunoi*, is morphologically most similar to *P. hachijo* Okuno, 1999. Differentiating characters between the two species are discussed in detail. An updated identification key to the Indo-West Pacific species of the genus is proposed.

The type material is deposited in the Natural History Museum and Institute, Chiba (CBM), Japan. Postorbital