



## Additions to the decapod crustacean fauna of the Hawaiian Islands, III. A new species of the genus *Babamunida* (Crustacea: Galatheidae) from Hawaii based on morphological and molecular evidence

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### Abstract

*Babamunida kanaloa* n. sp., a new galatheid from approximately 250 m depth off the Northwestern Hawaiian Islands (French Frigate Shoals), is described. DNA sequence data from two gene regions (16S and CO1) corroborates the placement of this new species in the genus *Babamunida*. Images taken independently using the Deep Submergence Vehicle *Pisces IV* are almost certainly of the same species based on overall size and color pattern and provide limited ecological information. This new species brings the number of species in the genus *Babamunida* to six and the total number of galatheid species known from the Hawaiian Islands to four (possibly higher depending on some previous records that might be questionable).

**Key words:** Anomura, squat lobster, DNA, 16S, CO1, taxonomy, central Pacific, ROV, Hawaii

### Introduction

At least three, and possibly seven, species of the anomuran family Galatheidae are currently known from Hawaii. The three "confirmed" species are *Paramunida hawaiiensis* (Baba, 1981), *Phylladorhynchus integrirostris* (Dana, 1852), and *Galathea spinosorostris* Dana, 1852 (Dana 1852; Baba 1981). Additional and somewhat questionable reports exist for four other species of galatheids. Titgen (1988) reported *Agononida normani* Henderson, 1885, from the Molokai Channel, and *Munida* aff. *heteracantha* Ortmann, 1892, from Hawaii, records that were also noted by Chave & Malahoff (1998: tab. 1). Chave & Malahoff (1998) also reported, from Loihi and Johnston Atoll, *Munida brucei* Baba, 1974, a species that was subsequently placed in the genus *Babamunida* by Cabezas *et al.* (2008). Because the type locality of *B. brucei* is off Kenya, it is possible that the species reported by Chave & Malahoff (1998) is the new species described herein (see below) or another undescribed or unreported species. Chave & Malahoff (1998: tab. 1) also reported an undescribed species of *Munida*, referred to by them as "*Munida* sp. 3 (pink)," and an unidentified galatheid ("galatheid long-armed"), from various locations in the Hawaiian Islands.

Of the above, apart from the unknown status of some of the species listed by Chave & Malahoff (1998), only *P. hawaiiensis* is endemic to the Hawaiian Archipelago. The other species are much more widely distributed, with *G. spinosorostris* and *P. integrirostris* both ranging throughout the Indo-Pacific.

In October 2006, as part of a survey of the marine invertebrates and algae of French Frigate Shoals, Northwestern Hawaiian Islands (NWI) (see Martin *et al.* 2009), we collected a single large male of a new species of the genus *Babamunida* Cabezas, Macpherson & Machordom, 2008, from a baited "lobster" trap.