



A new species of vent associated *Munidopsis* (Crustacea: Decapoda: Anomura: Galatheidae) from the Western Pacific, with notes on its genetic identification

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Abstract

Munidopsis myojinensis n. sp., herein described and illustrated from Myojin Knoll and Northwest Eifuku Seamount in the Western Pacific, is the tenth species of *Munidopsis* known to be associated with active hydrothermal vents. It resembles *M. starmer* Baba & de Saint Laurent, 1992 in general ornamentation and spination of the body but differs in the erectness of the eyespine and form of the telson plates. Information on genetic identification using mitochondrial sequences (COI) is provided. Distributions of the vent associated *Munidopsis* in the Western Pacific and the habitat of the new species are briefly described.

Key words: Anomura, Galatheidae, *Munidopsis*, Hydrothermal vent, Myojin Knoll, Eifuku Seamount

Introduction

Species of *Munidopsis* (Crustacea: Galatheidae) are found in a variety of shallow to deepwater habitats throughout the Atlantic, Indian and Pacific Oceans (Ambler 1980, Baba 2005, Chevaldonnè & Olu 1996, and Macpherson, in press). Since the first discovery of hydrothermal vents on the Galapagos Rift in 1977 (Corliss *et al.* 1979), numerous biological communities associated with vents have been reported (Desbruyères *et al.* 1982, 1994; Hessler & Lonsdale 1991; Tunnicliffe 1991; Hashimoto *et al.* 1989), among which are species of *Munidopsis* (see Williams 1988). Species of *Munidopsis* are also known from other reducing environments such as cold seeps and whale carcasses (Chevaldonnè & Olu 1996; Martin & Haney 2005; Macpherson, in press).

The genus *Munidopsis* is represented by more than 150 species in the Indo-Pacific and around 70 species in Atlantic Ocean with nine from active hydrothermal vent systems in the world oceans (Williams 1988; Williams & Baba 1989; Baba & de Saint Laurent 1992; Baba 1995, 2005; Schnabel & Bruce 2005; Macpherson & Segonzac 2005; Osawa *et al.*, 2006a, b; Macpherson, in press). To date, four species of *Munidopsis* have been described from Western Pacific hydrothermal vents: *M. marianica* Williams & Baba, 1989 from Mariana Back Arc Basin, *M. lauensis* Baba & de Saint Laurent, 1992 from Lau and North Fiji Basins, *M. starmer* Baba & de Saint Laurent, 1992 and *M. sonne* Baba, 1995, from North Fiji Basin respectively. Three species are