



## Description of a new species of *Athanas* Leach, 1814 (Crustacea: Decapoda: Alpheidae) from Madagascar and Japan

ARTHUR ANKER<sup>1</sup> & TOMOYUKI KOMAI<sup>2</sup>

<sup>1</sup>Florida Museum of Natural History, University of Florida, Gainesville, FL, USA. E-mail: [aanker@flmnh.ufl.edu](mailto:aanker@flmnh.ufl.edu)

<sup>2</sup>Natural History Museum and Institute, Chiba, 955-2 Aoba-cho, Chuo-ku, Chiba 260-8682, Japan. E-mail: [komai@chiba-muse.or.jp](mailto:komai@chiba-muse.or.jp)

### Abstract

A new species of alpheid shrimp, *Athanas ahyongi* sp. nov., is described based on two type specimens from Nosy-Bé, Madagascar, and one additional specimen from Okinawa, Ryukyu Archipelago, Japan. The new species differs from all other species of *Athanas* by a unique combination of morphological features, mostly on the frontal region and chelipeds, and has a very characteristic colour pattern. The specimens from Nosy-Bé were collected from burrows of unknown hosts, suggesting a commensal life style.

**Key words:** Decapoda, Caridea, shrimp, Alpheidae, *Athanas*, new species

### Introduction

The alpheid genus *Athanas* Leach, 1814 is represented in the Indo-West Pacific by 28 species, distributed from the Red Sea and South Africa to Japan, South Australia and French Polynesia (e.g. Banner and Banner 1960, 1973; Chace 1988; Bruce 1990; Anker *et al.* 2001; Hayashi 2002; Anker and Ahyong 2007; Anker and Jeng 2007; Anker and Marin 2007; Anker *et al.* 2010), and in the Eastern Atlantic by five species, ranging from Norway to the Black Sea and Gulf of Guinea (Holthuis 1951; Anker and Ahyong 2007). Most species are small, less than 10 mm in total length, and have very cryptic life styles, such as dwelling deep in rubble crevices or in burrows of other, much larger animals (stomatopods, upogebiids, etc.).

In May 2008, while conducting a survey of marine invertebrates in the area of Nosy-Bé in Madagascar (BIOTAS 2008), the first author collected two specimens of *Athanas* with the aid of a suction pump (yabby pump) from burrows on a shallow seagrass-rubble flat; potential host animals were not collected together with the shrimps. Both specimens from Nosy-Bé displayed a very striking, longitudinally striped colour pattern, previously unknown in the genus *Athanas*, strongly suggesting on collection that the species would be unknown to science. In March 2009, Mr. Yusuke Yamada photographed *in situ* several individuals of presumably the same species (based on the colour pattern) in Okinawa, Japan's Ryukyu Archipelago; one of them was collected and sent for identification to the second author. Our examination of the Nosy-Bé and Okinawa specimens confirmed that they all belong to the same, hitherto undescribed species of *Athanas*. An opportunity is taken here to describe this species as new.

The material is deposited in the collections of the Florida Museum of Natural History, University of Florida, Gainesville, FL, USA (FLMNH UF) and Natural History Museum and Institute, Chiba, Japan (CBM). 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. Abbreviations used in the text: fcn, field collection number; P, pereopod.