



A new species of *Galathea* Fabricius, 1793 (Crustacea: Decapoda: Anomura: Galatheidae) from Okinawa, southern Japan

MASAYUKI OSAWA¹ & TAKUO HIGASHIJI²

¹Research Center for Coastal Lagoon Environments, Shimane University, 1060 Nishikawatsu-cho, Matsue, Shimane, 690-8504 Japan. E-mail: osawam@soc.shimane-u.ac.jp (corresponding author)

²Okinawa Churaumi Aquarium, 424 Ishikawa, Motobu, Okinawa, 905-0206 Japan. E-mail: t_higashiji@kaiyohaku.or.jp

Abstract

A new species of squat lobster, *Galathea chura* sp. nov., is described from deep-waters off Okinawa Island in the Ryukyus, southern Japan, on the basis of a single specimen found on a colony of unidentified octocoral of the genus *Parisus* Verrill, 1864. The new species resembles *G. magnifica* Haswell, 1882, *G. spinosorostris* Dana, 1852, and *G. tanegashimae* Baba, 1969, in having scale-like or interrupted arcuate ridges on the gastric region of the carapace and epipods on the first or first and second pereopods only, but it is readily distinguished by the absence of epigastric spines.

Key words: Crustacea, Anomura, *Galathea*, new species, Ryukyu Islands, ROV.

Introduction

The genus *Galathea* Fabricius, 1793 is recognized as the most species-rich and most unwieldy group in the family Galatheidae (Baba *et al.* 2009; Ahyong *et al.* 2010). As pointed out by Baba *et al.* (2009), the identity of some species still remains questionable and further taxonomic study is desirable. At present, 75 species are known worldwide and 62 are recorded from the Indo-West Pacific (Baba *et al.* 2008; Baba & Fujita 2008; Dong & Li 2010; Macpherson & Cleve 2010). Although *G. dispersa* Bate, 1859 and *G. intermedia* Liljeborg, 1851 were reported from the western Indian Ocean by Tirmizi & Javed (1993), the two species are more reliably known from various localities in the eastern Atlantic including the Mediterranean Sea (see Baba *et al.* 2008). *Galathea labidolepta* Stimpson, 1858 is recorded from the boundary of the Indian and Atlantic Oceans: Simons Bay in the Cape of Good Hope and East London, South Africa (Stimpson 1858; Doflein & Balss 1913). The majority of species of the genus are usually inhabitants of shallow-waters, but some reach transitional depths or at most the upper bathyal zone (Baba 2005).

In the Ryukyu Islands, southwestern Japan, 19 species of *Galathea* are known (Baba & Fujita 2008). However, all the species are recorded from shallow depths of less than 90 m. As deep-water members of the genus have been recorded from other Japanese localities (Baba 2005), their occurrences can be also expected in the Ryukyu Islands. The Okinawa Churaumi Aquarium has extensively explored the deep-water fauna in the central Ryukyu Islands, using gill nets, cage traps, fishing gears, and remotely operated vehicle (ROV). Recently, a colorful squat lobster was found on a colony of an unidentified octocoral of the genus *Parisus* Verrill, 1864 collected by a ROV (LEO, Kowa, Inc.) from a depth of 188 m off the northwestern coast of Okinawa Island. Examination of the specimen revealed that it is an undescribed species of the genus *Galathea*. The new species is herein described and illustrated.

Materials and Methods

Carapace length (cl), the indication of specimen size, is measured in the midline from the level of the supraorbital margin to the posterior margin of the carapace, and its width is measured excluding lateral marginal spines.