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A new strikingly-colored species of the genus *Galathea* Fabricius, 1793 (Crustacea: Decapoda: Anomura: Galatheidae) from the Ryukyu Islands, Japan

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Abstract

A new shallow-water squat lobster, *Galathea ryuguu*, is described on the basis of material obtained from a colony of unidentified sea fan of the genus *Muricella* Verrill, 1868. The new species is most closely allied to *G. squamea* Baba, 1979, but is distinguished by the ornamentation and armature of the carapace, third maxilliped, and ambulatory legs.

Key words: Crustacea, Decapoda, *Galathea*, new species, Okinawa, sea fan

Introduction

Macpherson & Robainas-Barcia (2015) revised the squat lobster genus *Galathea* Fabricius, 1793, and recognized 160 species, including 91 new species, from the Indian and Pacific Oceans. Until their work, 21 species of the genus had been recorded from the Ryukyu Archipelago, which is defined as the entire island chain between Kyushu in south Japan and Taiwan (cf. Baba *et al.* 2008; Baba & Fujita 2008; Osawa & Higashiji 2012): *G. aegyptiaca* Paul'son, 1875; *G. albatrossae* Baba, 1988; *G. amamiensis* Miyake & Baba, 1966; *G. amboinensis* De Man, 1888; *G. bimaculata* Miyake & Baba, 1966; *G. chura* Osawa & Higashiji, 2012; *G. continua* Baba & Fujita, 2008; *G. guttata* Osawa, 2004; *G. inflata* Potts, 1915; *G. lenis* Baba, 1969; *G. leptochelir* Baba & Fujita, 2008; *G. maculiabdominalis* Baba, 1972; *G. mauritiana* Bouvier, 1914; *G. orientalis* Stimpson, 1858; *G. patae* Osawa, 2006; *G. pilosa* De Man, 1888; *G. platycheles* Miyake, 1953; *G. pubescens* Stimpson, 1858; *G. subsquamata* Stimpson, 1858; *G. tanegashimae* Baba, 1969; and *G. ternatensis* De Man, 1902. However, Macpherson & Robainas-Barcia (2015) concluded that the records of some species could be referred to those of their new species. For example, the specimens of *G. aegyptiaca* [as *G. australiensis* Stimpson, 1858 by Miyake & Baba (1966)] and *G. mauritiana* [as *G. affinis* Ortmann, 1892 by Miyake & Baba (1966) and Kamezaki *et al.* (1988)] probably belong to *G. corbariae*, *G. acis* or other related species; *G. acis* was indeed recorded from the Ryukyu Islands (Macpherson & Robainas-Barcia 2015). Additionally, *G. peitho* Macpherson & Robainas-Barcia, 2015, was described from the Ryukyu Islands as well as from some other Indo-West Pacific localities.

In Okinawa Island of the Ryukyus, skilful SCUBA divers, Naoki Shirakawa and Yusuke Yamada recently found striking blue-colored squat lobsters on a colony of unidentified sea fan of the genus *Muricella* Verrill, 1868. Examination of two collected specimens has shown that they belong to an undescribed species of the genus *Galathea* herein described as new to science.

Postorbital carapace length (pcl), the indication of specimen size, is measured along the dorsal midline from the posterior margin of the orbit to the posterior margin of the carapace, and the breadth is at the widest point, excluding spines. The length of the rostrum is measured from the tip to between the basal lateral incisions, and the breadth is between left and right lateral basal incisions. Total lengths of the pereopods are measured from the proximal margin of the merus to the tip of the dactylus. Article lengths of the chelipeds and ambulatory legs are measured along the dorsomesial and extensor margins, excluding spines but including rounded distal projections if present, respectively. The general terminology employed largely follows Baba *et al.* (2009, 2011) and Macpherson & Robainas-Barcia (2015). Abbreviations used in the text include: Mxp3 (third maxilliped), P1 (first pereopod,