

First record of *Hirtomurex nakamurai* (Muricidae: Gastropoda) from Korean waters

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A single specimen in the subfamily Coralliophilinae in Family Muricidae was collected from Jeju-do by SCUBA diving survey. It was identified as *Hirtomurex nakamurai* Kosuge, 1985 based on external morphological characteristics. The Coralliophilinae species, commonly known as coral snails, are broadly distributed in tropical and temperate oceans from shallow subtidal zones up to 1,000 m in depth. To date, only four *Coralliophila* species in the subfamily Coralliophilinae have been reported from Korean waters. Prior to this report, *Hirtomurex* species has not been reported from Korean waters yet. As a result of this study, a total of five species in two genera of subfamily Coralliophilinae are recorded as Korean mollusk fauna.

Keywords: Coral snail, Coralliophilinae, *Hirtomurex nakamurai*, Jeju-do, Korea

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INTRODUCTION

Species of subfamily Coralliophilinae, commonly known as coral snails, are broadly distributed worldwide in tropical and temperate oceans from shallow subtidal zones up to 1,000 m in depth (Oliverio and Gofas, 2006; Oliverio, 2009). They are coral dwellers that inhabit on anthozoans and feed on their tissue and excreta (Thatch, 2007; Oliverio, 2009). Coral snails use the snout to feed on the prey because they do not have radula (Thatch, 2007). The morphological characteristics of coralliophilines species have high intraspecific variations. Therefore, it is difficult to identify them at species-level (Oliverio and Gofas, 2006). Up to date, approximately 250 coralliophilines species have been recorded in the world (Oliverio and Gofas, 2006; Oliverio, 2009), and four *Coralliophila* species (*Coralliophila rubrococcinea* Melvill and Standen, 1901, *C. abnormis* (E.A. Smith, 1878), *C. jeffreysii* E.A. Smith, 1879, and *C. morishimai* Kuroda and Shikama in Shikama, 1966) in the subfamily Coralliophilinae have been reported from Korean waters (Choe and Park, 1997; Lee and Min, 2002; Kil *et al.*, 2012).

In this study, a single specimen of coral snail was col-

lected from Jeju-do near Munseom Island. This specimen was identified as *Hirtomurex nakamurai* Kosuge, 1985 based on its external morphological characteristics. Genus *Hirtomurex* is new to Korean waters. From now, a total of five species of two genera in the subfamily Coralliophilinae are recorded as Korean mollusk fauna.

MATERIALS AND METHODS

A single specimen was collected by SCUBA diving survey from Jeju-do near Munseom Island on July 29th, 2015. Specimen was observed under a stereomicroscope (SZX10, Olympus, Japan). Photograph of the external shape was taken with a DSLR camera (Canon, 5D Mark 2, Japan). The specimen was fixed and preserved in 70% ethyl alcohol and deposited at National Institute of Biological Resources, Incheon, Republic of Korea.

SYSTEMATIC ACCOUNTS

Class Gastropoda Cuvier, 1795
Order Neogastropoda Wenz, 1938

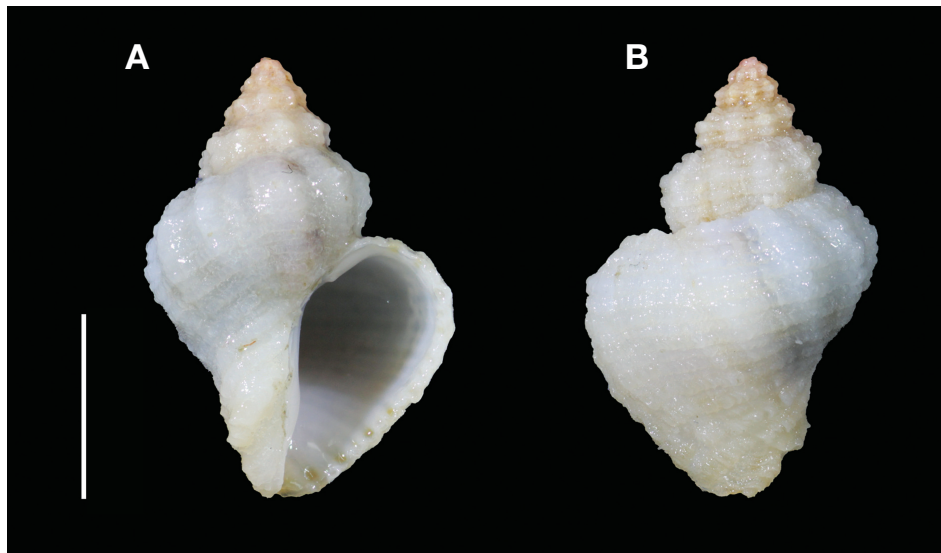


Fig. 1. *Hirtomurex nakamurai* Kosuge, 1985. A. Ventral view; B. Dorsal view. Scale bar: 5 mm.

Family Muricidae Rafinesque, 1825
 Subfamily Coralliophilinae Chenu, 1859
 산호살이고둥아과 (신칭)
 Genus *Hirtomurex* Coen, 1922
 이형산호살이고둥속 (신칭)

***Hirtomurex nakamurai* Kosuge, 1985**

분홍꼭지이형산호살이고둥 (신칭) (Fig. 1)
Hirtomurex nakamurai Kosuge, 1985: 45, Pl. 16, figs. 1-2; Kosuge and Suzuki 1985: 26, Pl. 37; Wilson, 1994: 244-245, Pl. 7, fig. 13.
Babelomurex (Hirtomurex) nakamurai: Okutani, 2000: 408-409, Pl. 203, fig. 239.

Type locality. Tosa bay, Japan, about 150 m.
Material examined. 1 individual (NIBRIV0000659610), Jeju-do, Seogwipo-si, near Munseom (islet), July 29, 2015, collected by SCUBA diving at 25 m in depth.
Description. Shell small, thick and robust. Breadth 10 mm and 5/6 of shell length: body whorl inflated and 3/4 of total length; aperture oval and 1/2 of shell length. Whorls 5-6 with constricted suture, rounded shoulder and peripheries glossy white or pale yellow. Spire whorls low, strong axial costae crossed by spiral costae, apex light pink. Aperture auriform, posterior end rounded and internal color white; outer lip shallowly concave, edge finely plicae; inner lip straightly downwards. Columella callus thick and aslant curved. Siphonal canal moderately short and open.
Habitat. In coral at subtidal zone.
Distribution. Australia, Vietnam, China, Japan, and Korea.
Remarks. *Hirtomurex* species have high intraspecific

morphological variations (Oliverio and Gofas, 2006) with similar characteristics (e.g., body color, shape, aperture figure, and shell size etc., Okutani, 2000). Especially, *H. nakamurai* closely resembles *H. isshikiensis* (Shikama, 1971) in morphological features. In spite of high resemblance of shell figures, these two species have a few differences in their morphological characteristics. Both species have similar body color of white affiliation with fine spiral ribs on the body whorl. However, *H. nakamurai* differs from *H. isshikiensis* in the proportion of the body length and breadth. *H. nakamurai* breadth is 5/6 of total length. On the other hand, *H. isshikiensis* breadth is 2/3 of the whole body length. In addition, *H. isshikiensis* has scaly shoulder spines whereas *H. nakamurai* does not.

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