

[단보, Short communication]

Three unrecorded marine mollusks from Korea

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ABSTRACT

Three marine mollusk species were collected in 2019 years from the Jeju island waters of Korea. They were identified as *Monoplex exaratus* (Reeve, 1844), *Mipus eugeniae* (Bernardi, 1853), and *Electroma alacorvi* (Dillwyn, 1817) that come out into the unrecorded species in Korea. As a result, Korean Cymatiidae was 11 species of seven genera, the Muricidae was 22 species of 13 genera, and the Family Vulsellidae, to which *E. alacorvi* belongs, is first recorded in Korea.

Keywords: Unrecorded species, marine mollusk, *Monoplex exaratus*, *Mipus eugeniae*, *Electroma alacorvi*, Vulsellidae.

INTRODUCTION

From 2019 to 2020, mollusks collected by the gill net were surveyed near Seogwipo Port in Jeju Island. As a result, three Korean unrecorded species were found and these species were identified as *Monoplex exaratus* (Reeve, 1844), *Mipus eugeniae* (Bernardi, 1853), and *Electroma alacorvi* (Dillwyn, 1817). The *M. exaratus* belongs to order Littorimorpha, and currently has 10 species of seven genera in Cymatiidae. The *M. eugeniae* belongs to order Neogastropoda and currently has 49 species of 24 genera in Muricidae. The *Electroma alacorvi* belongs to order Ostreida and the family Vulsellidae is first recorded on the Korean mollusks list.

These specimens were identified mainly using details of external morphology and, for more detailed observation, stereo microscopes were also used. For identification, Okada (1967), Wilson (1994), Higo *et al.* (1999), Min *et al.* (2004), Xu & Zhang (2008), Poppe (2008), and Okutani *et al.* (2017) were referenced; the

classification system is based on Lee (2016), NIBR (2019), and WoRMS (2021).

SYSTEMATIC ACCOUNTS

Class Gastropoda Cuvier, 1795 복족강
Subclass Caenogastropoda Cox, 1960 신생복족아강
Order Littorimorpha Golikov & Starobogatov, 1975
총알고둥목
Superfamily Tonnoidea Suter, 1913 위고둥상과
Family Cymatiidae Iredale, 1913 곤봉수염고둥과
Genus *Monoplex* Perry, 1810 각시수염고둥속

1. *Monoplex exaratus* (Reeve, 1844) 입주름수염고둥 (신칭) (Fig. 1, A)

Trton exaratus Reeve, 1844, pl. 13, no. 50.

Cymatium (Monoplex) exaratum: Okutani *et al.*, 2017, p. 874, pl. 163, fig. 6.

Monoplex exaratus: Powell, 1979, p. 165; Robin, 2008, p. 158, fig. 1.

Lotorium (Cymatium) kiiense G. B. Sowerby III, 1915,

Cymatium (Monoplex) exratum kiiense: Higo *et al.*, 1999.

Cabestanimorpha euclia Cotton, 1945.

Cymatium zimara Iredale, 1929.

Tritonium granulatum Dunker, 1871.

Type locality: None designated.

Habitat: Subtidal to depth of 150 m. Rocky and gravel bottom.

Received: June 18, 2021; Revised: June 22, 2021; Accepted: June 29, 2021

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1225-3480/24787

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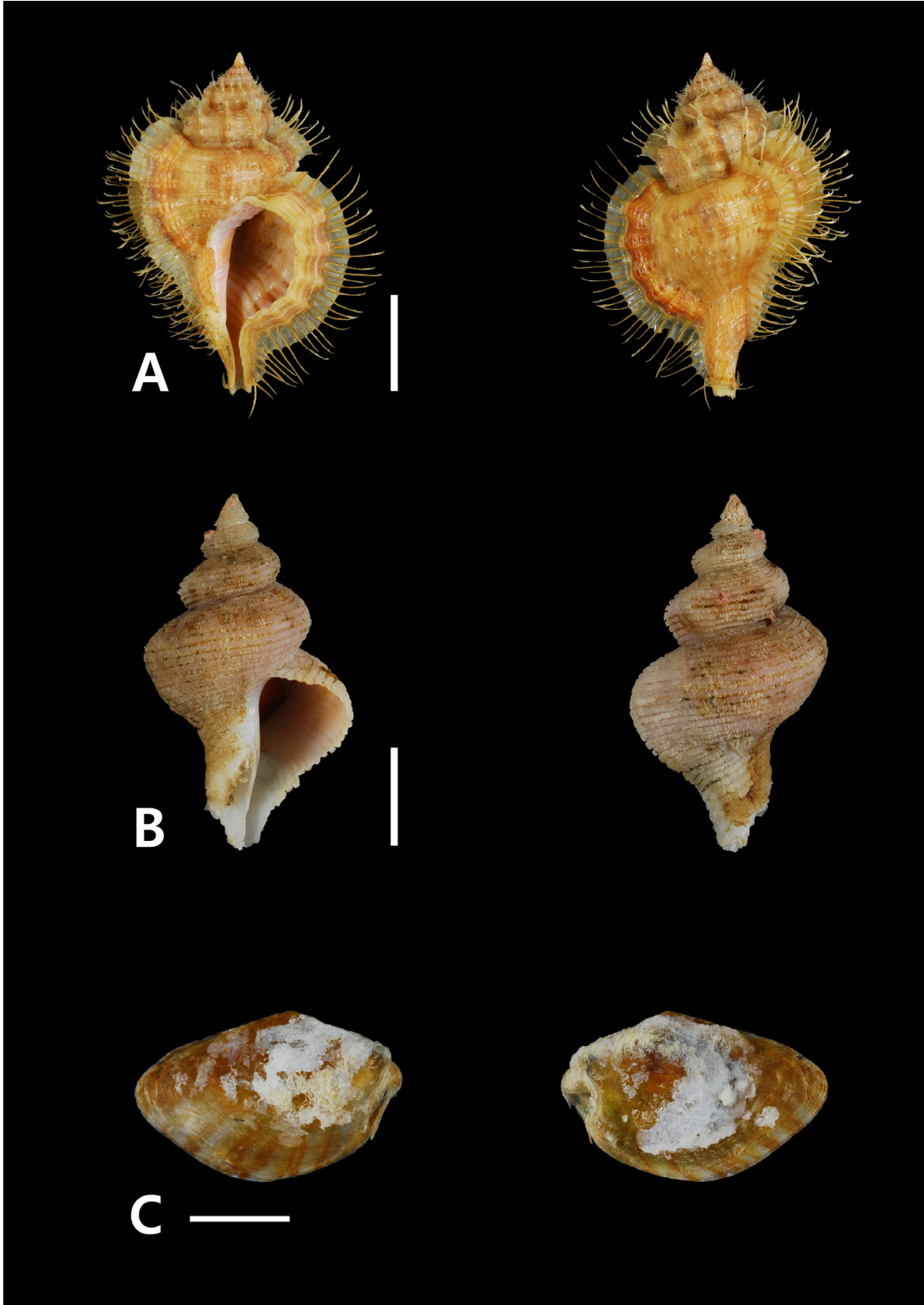


Fig. 1. New record Korean marine mollusks. **A**, *Monoplex exaratus*. Scale 18 mm; **B**, *Mipus eugeniae*, Scale 15 mm **C**, *Electroma alacorvi*. Scale 8 mm.

Distribution: Korea, Japan, Australia, the Hawaiian Islands, the Red Sea, and South Africa.

Material examined: 1 specimen (Seogwipo, Seogwipo-si, Jeju-do: 6.v.2019).

Measurement: Height 55 mm. width 30 mm.

Description: Shell medium-sized, angulate-fusiform, moderately thin but solid, with about 9-10 whorls. Spire low, with wide apical angle, about 70°. Protoconch pointed, less than 1 mm in diameter. Surface yellowish-white or reddish-brown and slightly glossy. Sculpture of wide, wrinkled, lamellate axial varices, usually with 3 or 4 flat, relatively thick spiral cords between them; lamellate varices often longest at shoulder. Spire width gradually decreasing; sutures deep, whorls defined. Body whorl large and moderately inflated, base moderately constricted; lamellate axial varices extending to siphonal canal. Aperture widely ovate; outer lip thickened and strongly dentate, interior yellowish or reddish-white, curved and glossy. Inner lip narrow and weakly wrinkles, covered with white or lightly brown callus; columella relatively long and straight, sometimes with small nodules the bottom. Siphonal canal relatively long and opened. Umbilicus absent.

Subclass Caenogastropoda Cox, 1960 신생복족아강
 Order Neogastropoda Wenz, 1939 신복족목
 Superfamily Muricoidea Rafinesque, 1815 빨소라상과
 Family Muricidae Rafinesque, 1815 빨소라과
 Subfamily Coralliophilinae Chenu, 1859 산호살이고둥아과
 Genus *Mipus* de Gregoria, 1885 산호살이딸기고둥속

2. *Mipus eugeniae* (Bernardi, 1853) 잔고리산호살이고둥 (신칭) (Fig. 1, B)

Pyrula eugeniae Bernardi, 1853, pp. 305-306.
Pseudomurex eugeniae: Okada, 1967, p. 110.
Coralliophila (Mipus) eugeniae: Okutani *et al.*, 2017, p. 968, pl. 262, fig. 12.
Mipus eugeniae: Wilson, 1994, p. 20, pl. 7, fig. 24; Higo *et al.*, 1999, p. 218; Poppe, 2008, p. 246, pl. 418, figs. 6. 7; Robin, 2008, p. 289, fig. 3.

Type locality: China seas.

Habitat: Sand bottom, 20-100 m in depth.

Distribution: Korea, Japan, Southwards to the Philippines, and Australia.

Material examined: 1 specimen (Seogwipo, Seogwipo-si, Jeju-do: 6.v.2019).

Measurement: Height 50 mm, width 30 mm.

Description: Shell small to medium-sized, broadly-fusiform. Shell moderately thin but solid, with about 7-8 whorls. Spire relatively low, with relatively narrow apical angle, about 40°. Protoconch pointed, less than 1 mm in diameter. Surface usually yellowish-white or yellowish-brown. Sculpture with moderately thick and dense spiral cords. Spire whorls generally inflated and rounded. Spire rapidly tapering and sutures deep, whorls clearly defined. Body whorl large and inflated; periphery round; base inflated, with closely-spaced spiral cords extending to siphonal canal. Aperture round, situated below body whorl; outer lip moderately thin and rounded, crenulated by spiral cords extending to lip; interior light yellow, smooth and glossy. Inner lip moderately narrow and covered with glossy yellowish-white callus; columella rounded and relatively short, covered with thick callus. Siphonal canal relatively long, slightly bent to left, and moderately narrow. Siphonal fasciole moderately developed; umbilicus reduced, narrowly open.

Class Bivalvia Linnaeus, 1758 이매패강
 Subclass Autobranchia Grobben, 1894
 Infraclass Pteriomorphia Beurlen, 1944 익형하강
 Order Ostreida Férussac, 1822 굴목
 Superfamily Pterioidea Gray, 1847 진주조개상과
 Family Vulsellidae Gray, 1854 번개무늬진주조개과 (신칭)
 Genus *Electroma* Stoliczka, 1871 전기줄무늬진주조개속 (신칭)

3. *Electroma alacorvi* (Dillwyn, 1817) 전기줄무늬진주조개 (신칭) (Fig. 1, C)

Mytilus alacorvi Dillwyn, 1817, p. 322.
Electroma alacorvi: Bernard *et al.*, 1993, p.39; Higo *et al.*, 1999, p. 432.
Avicula cochenhauseni Dunker, 1872.
Avicula costellata Lamarck, 1819.
Avicula electrina Reeve, 1857.
Avicula flammata Reeve, 1857.
Avicula japonica Dunker, 1852.

Avicula livida Deshayes, 1836.
Avicula malleoides Reeve, 1857.
Avicula pulchella Reeve, 1857.
Avicula rutila Reeve, 1857.
Avicula smaragdina Reeve, 1857.
Avicula spadicea Dunker, 1852.
Meleagrina ovata Quoy & Gaimard, 1835.
Electroma ovata (Quoy & Gaimard, 1835): Okutani *et al.*, 2017, pp. 1181, pl. 481, fig. 6; Xu & Zhang, 2008, p. 71, fig. 193.
Electroma pygmaea Iredale, 1939.
Electroma tragulata Iredale, 1939.
Margaritifera semiaurita Mörch, 1853.
Meleagrina tongana Quoy & Gaimard, 1835.
Mytilus meleagridis Bruguière, 1792.

Type locality: The coasts of the South Sea Islands.

Habitat: Intertidal to 20 m., rocks and coral.

Distribution: Korea, Japan, Philippines, South China, Red Sea to Australia, Indo Pacific.

Material examined: 1 specimen (Seogwipo, Seogwipo-si, Jeju-do: 6.v.2019).

Measurement: Length 23 mm, height 15 mm.

Description: Shell small sized, ovate to suborbicular in outline, with a straight dorsal margin, without each end a wing-like ear. Valves generally asymmetrical, moderately compressed and wide, length longer than height. Surface somewhat smooth, yellowish-white or yellowish brown, with radiate irregular reddish brown lines or bands. Postero-dorsal margin long, oblique, and rounded at anterior margin. Antero-dorsal margin short, slight protruding, and rounded at anterior margin; ventral margin slightly rounded or straight.

ACKNOWLEDGMENTS

This work was supported by a grant from the National Institute of Biological Resources (NIBR), funded by the Ministry of Environment (MOE) of the Republic of Korea (NIBR202102203).

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