

# The first record of *Bursa (Bursa) bufonia* (Gmelin, 1791) (Caenogastropoda, Bursidae) from Korea

Hyun-Jong Kil, Jun-Sang Lee<sup>1</sup> and Dong-Bum Koh<sup>2</sup>

National Institute of Biological Resources, Incheon 404-708

<sup>1</sup>Institute of Environmental Research, Kangwon National University, Chunchon 200-701

<sup>2</sup>JeJu Hanbit Psychiatric Clinic, 560, Samdo-dong, Jeju-shi 690-031

## ABSTRACT

The specimens of bursid snail, *Bursa (Bursa) bufonia* (Gmelin, 1791) were collected from Jeju Island, Korea and diagnostic characters were analysed. This is the first report of the family Bursidae and the genus *Bursa* in the Korean waters.

**Key words:** Caenogastropoda, Bursidae, *Bursa (Bursa) bufonia*.

## INTRODUCTION

The family Bursidae is a marine gastropod called "frog snail" due to the shell shape of dorsoventrally compressed form and strong nodulose pattern on the shell surface. Especially characteristic features of the family are the permanent anal siphon in the mantle edge, accommodated in the shell by a deep posterior canal in the outer lip. Periostracum usually absent or very thin. They are active predators feed on polychaetes. Many species of genus *Bursa* are found on tropical shallow water coral reefs and rocks. This family is extremely homogeneous group in which no subfamilies can be recognised (Beu, 1980).

A total of 55 species in 6 genera have been proposed for recent species and the genus *Bursa* consist of 25 species reported from the world (Abbott and Boss, 1989). There are 20 species include 10 *Bursa* species from Japan (Okutani, 2000) and 15 species include 5 *Bursa* species from China (Qi, 2004)

have been reported respectively, but there was no record in Korea. In this study, the unrecorded *Bursa (Bursa) bufonia* discovered from Jeju Island, at the subtidal zone 15 m in depth is redescribed.

## SYSTEMATIC ACCOUNTS

Class Gastropoda Cuvier, 1791 복족강  
Superorder Caenogastropoda Cox, 1959 신생복족상목  
Order Sorbeoconcha Ponder and Lindberg, 1997 홉강목  
Family Bursidae Thiele, 1929 가시고둥과  
Genus *Bursa* Röding, 1798 두꺼비고둥속 (신칭)  
***Bursa (Bursa) bufonia* (Gmelin, 1791) 무사마귀두꺼비고둥 (Fig. 1).**

*Murex bufonius* Gmelin, 1791, p. 3534.

*Ranella bufonia* Reeve, 1844, p. 103.

*Bursa bufonia* Beu, 1986, p. 322. figs. 180, 181; Qi, 2004, p. 77, pl. 47, fig. c; Dharma, 2005, p. 194, pl. 72, fig. 15; Min and Lee, 2007, p. 160, fig. 651; Poppe, 2008, p. 620, pl. 225, fig. 5.

*Bursa (Bursa) bufonia* Higo et al., 1999, p. 160.

*Bursa bufonia bufonia* Okutani, 2000, p. 269, fig. 6.

*Bursa tuberosissima* Okutani, 2000, p. 269, fig. 10.

**Type locality.** No designated.

**Materials examined.** 1 individual, 16 November 2003, 15 m in depth, Munseom, Seogwipo-si, Jeju Island (33°13'38.6"N, 126°34'4.10"E).

**Measurement.** 47 mm in height; 33 mm in width.

Received: December 10, 2012 ; Accepted: December 18, 2012

Corresponding author: Jun-Sang Lee

Tel: +82 (33) 250-7409 e-mail: sljun@kangwon.ac.kr

1225-3480/24460

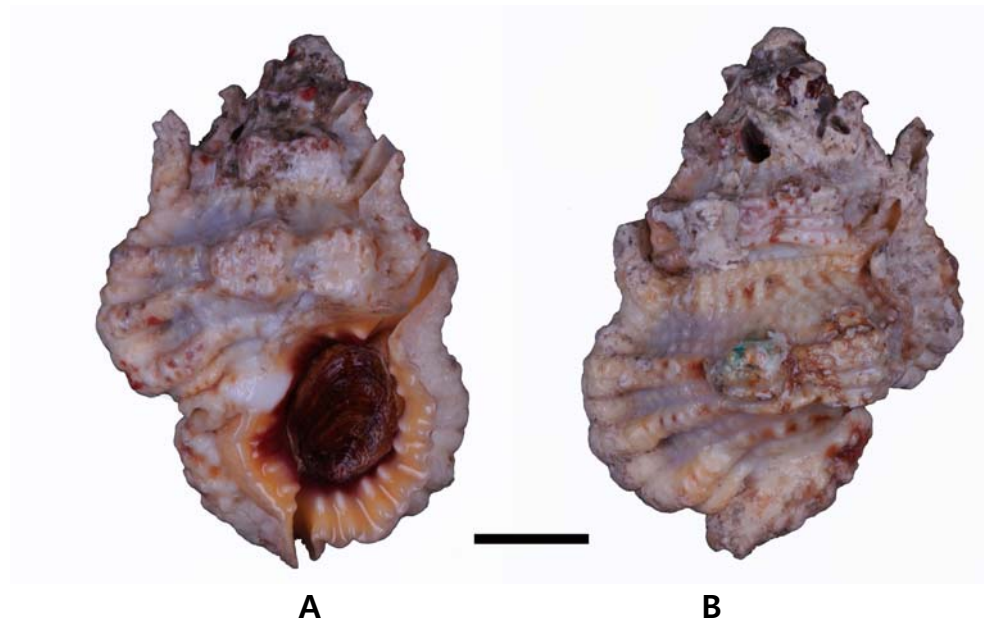


Fig. 1. *Bursa (Bursa) bufonia*. A. Ventral view, B. Dorsal view. Scale Bar = 10 mm.

**Description.** Shell medium size, thick and solid, dorsum and ventral compressed, with row of varices on both sides; outer surface sculptured by fine granulose spiral threads; a row of knobs on the shoulder of spire, and 3 row on the body whorl, first row strongest, other gradually weak; aperture nearly circular, yellow inside, outer lip expanded, with 4-5 pairs of heavy denticles on its margine, inner lip thick, expanded, umbilicus covered, anterior canal short, curved, posterior canal long, semi-tubular.

**Habitat.** Rocks and coral reefs in subtidal zone.

**Distribution.** Korea, Japan, China, Taiwan, Philippines, Indonesia.

#### Acknowledgment

This study was supported by Discovery of Korean Indigenous Species Project, NIBR (National Institute of Biological Resources).

#### REFERENCES

- Abbott, R.T. and Boss, K.J. (1989) A classification of the living mollusca. American Malacologists, Inc. Melbourne, Florida, USA.  
 Beu, A.G. (1980) Australian gastropods of the family

Bursidae: Part 1 - The families of Tonnacea, the genera of Bursidae, and revision of species previously assigned to *Tutufa* Jousseaume, 1881. *Records of the Australian Museum*, **33**: 248-324.

- Beu, A.G. (1986) Taxonomy of gastropods of the families Renellidae (= Cymatiidae) and Bursidae. Part 2. Descriptions of 14 new modern Indo-West Pacific species and subspecies, with revisions of related taxa. *New Zealand Journal of Zoology*, **13**(3): 273-355.  
 Dharma, B. (2005) Recent & Fossil Indonesian Shells. Conchbooks. Hackenheim, Germany. pp. 1-424.  
 Gmelin, J.F. (1791) Systema Nature. 13th edition. Vol. 1(6): 3021-3910. Leipzig, Germany.  
 Higo, S., Callomon, P. and Goto, Y. (1999) Catalogue and bibliography of the marine shell bearing mollusca of Japan. Elle Scientific Publications. Osaka, Japan. pp. 1-749.  
 Okutani, T. (2000) Marine mollusks in Japan. Tokai. Tokyo. pp. 1-1171. [In Japanese and English].  
 Min, D.K. and Lee, J.S. (2007). Shell of the World. Min Molluscan Research Institute. pp. 1-426. [In Korean].  
 Poppe, G.T. (2008) Philippine Marine Mollusks. Vol. I. Gastropoda - Part. 1. ConchBooks. Hackenheim, Germany. pp. 1-759.  
 Qi, Z. (Chief Editor). (2004) Seashells of China. China Ocean Press, Beijing, China. pp. 1-418. 193 pls.  
 Reeve, L.A. (1843) Conchologia Iconica. Vol. II. London. pp. 1-227, 22 pls.