

[단보, Short communication]

# First record of *Littorina (Littorina) kasaka* (Littorinidae: Sorbeoconcha: Gastropoda) from Korea

Lee Junsang and Kil Hyunjong<sup>1</sup>

*Institute of Environmental Research, Kangwon National University, Chunchon 200-701*

<sup>1</sup>*National Institute of Biological Resources, Incheon 404-708*

## ABSTRACT

The Littorinid snail *Littorina (Littorina) kasaka* Reid, Zaslavskaya & Sergievsky, 1991, from Kandwon-do, Korea was recorded as new to the Korean molluscan fauna. Including the new recorded in this study, the family Littorinidae contained seven genera and 16 species in the Korean water.

**Key words:** Littorinidae, *Littorina (Littorina) kasaka*, new recorded, Korea.

## INTRODUCTION

The worldwide family Littorinidae are commonly known as winkles, and are most frequently found on hard substrata in the littoral edge. The shells are small or medium in size, turbinata to conical. Traditionally, the classification of the Littorinidae has been based on a combination of shell and radular feature (Rosewater, 1972). The family Littorinidae contains 13 genera and about 180 species, grouped in three subfamilies, Lacuninae, Laevilittorininae and Littorininae (Beesley *et al.*, 1998). There are 37 species in 10 genera from Japan (Higo *et al.*, 1999) and eight in two genera from China (Qi, 2004) have been reported respectively. Korean molluscan fauna have been established with seven species in four genera of Littorinidae in Korea (Choe and Park, 1997). Recently, 15 species in seven genera have been additionally reported by Lee and Min (2002). By adding one unrecorded species reporting in this study,

the family Littorinidae contains seven genera and 16 species in Korean water. The specimen used in this study was deposited in Institute of Environmental Research at Kangwon National University in Korea.

## SYSTEMATIC ACCOUNTS

Class Gastropoda Cuvier, 1791 복족강

Superorder Caenogastropoda Cox, 1959 신생복족상목

Order Sorbeoconcha Ponder and Lindberg, 1997 흡강목

Family: Littorinidae Gray, 1840 총알고둥과

Genus: *Littorina* Férussac, 1822 총알고둥속

Subgenus: *Littorina s. str.*

***Littorina (Littorina) kasaka* Reid, Zaslavskaya & Sergievsky, 1991 흰띠총알고둥 (신칭) (Fig.1).**

*Littorina kasaka* Reid, Zaslavskaya & Sergievsky, 1991, 1-6, figs.1-4, 8-20.

*Littorina (Littorina) kasaka*: Higo *et al.*, 1999, p. 90; Okutani *et al.*, 2000, p.143, pl. 71. fig. 30; Kantor & Sysoev, 2006, p. 58, pl. 27 C.

*Littorina kurila* Golikov & Kusakin, 1978, p. 292.

**Type locality.** Kasatka point, Iturup island, Kuril islands.

**Materials examined.** 258 individuals, 25 May 2011, the intertidal region, Ayajin, Jukwang-myeon, Goseong-gun, Kangwon-do (38°16'25.9"N, 128°33'22"E).

**Measurement.** 6.5 mm in height; 4.8 mm in width.

**Description.** Shell small size, thin but solid. turbinata in shape with length slightly greater than width.

Received: March 15, 2013; Accepted: March 24, 2013

Corresponding author : Lee Junsang

Tel: +82 (33) 250-7409 e-mail: sljun@kangwon.ac.kr  
1225-3480/24473

This is an Open Access article distributed under the terms of the Creative Commons Attribution Non-Commercial License with permits unrestricted non-commercial use, distribution, and reproducibility in any medium, provided the original work is properly cited.

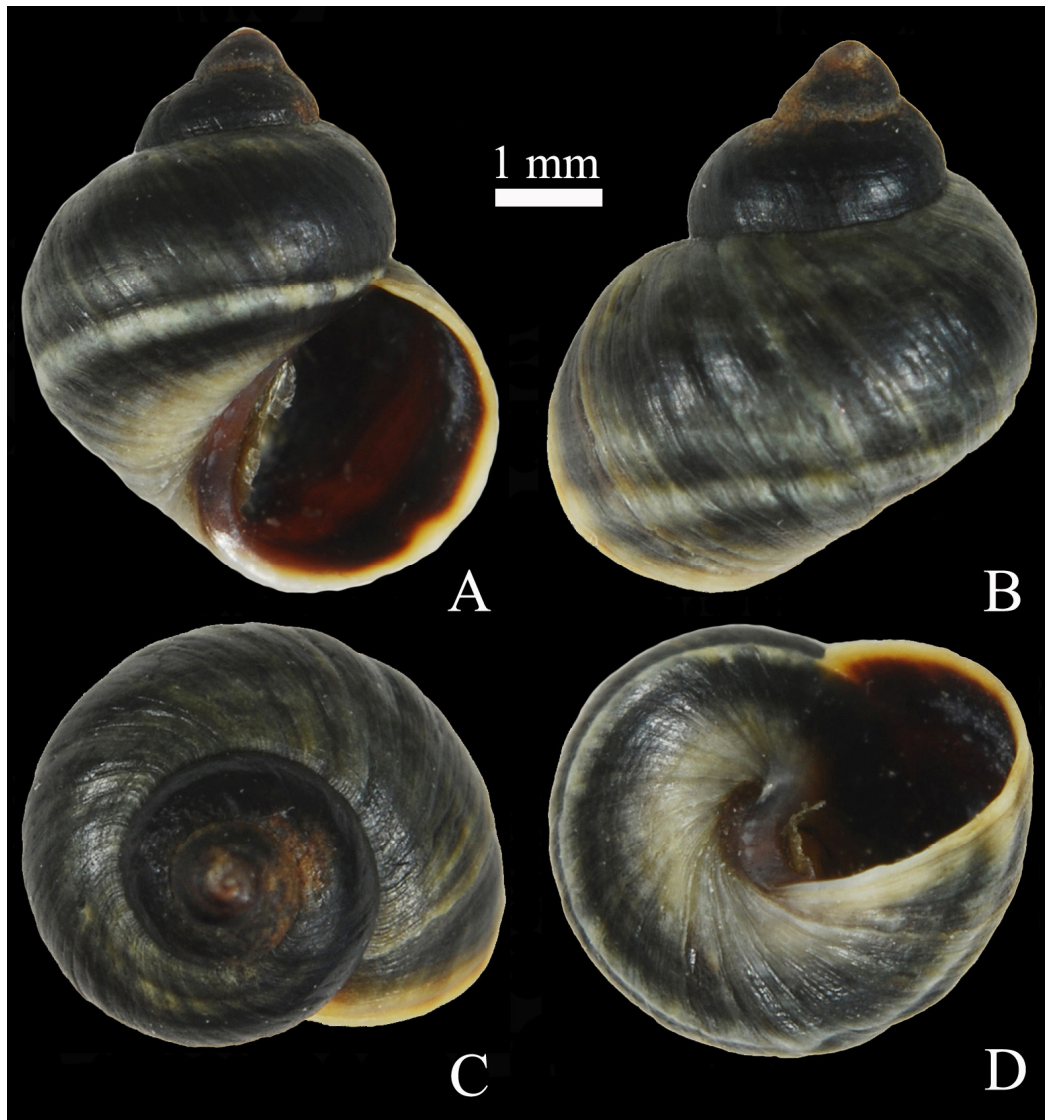


Fig. 1. *Littorina (Littorina) kasaka*. A. ventral view, B. dorsal view, C. apical view, D. basal view.

Outside of shell dark gray in color, with 2-3 white banded in body whorl. Aperture pale yellow to whitish. Spire well developed, pointed, whorls strongly convex with a rounded outline, sutures impressed. Outer surface of shell smooth and generally polished. Aperture semicircular, extending on about half the total length of shell. Outer lip thin, smooth inside. Columella smooth, without an umbilicus. Operculum rounded-ovate in outline, with a subcentral nucleus and smooth external surface.

**Habitat.** On rocks and boulders in intertidal region.

**Distribution.** Hokkaido, Okhotsk Sea, Kuril islands.

#### Acknowledgment

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. (NIBR No. 2013-02-001)

#### REFERENCES

- Beesley, P.L., Ross, G.J.B., and Wells, A. (eds) (1998) The Mollusca: The Southern Synthesis. Fauna of Australia. Vol. 5, Part A, xvi pp. 563. Part B, viii pp. 565-1234, CSIRO Publishing, Melbourne.
- Golikov, A.N. & Kusakin, O.G. (1978) Shell-bearing gastropods of the intertidal zone of the seas of the

- USSR. *Opređeliteli po faune SSSR, izdavaemye Zoologicheskim institutom Akademii nauk SSSR*, 116: 292 p.
- 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.
- Kantor, Y. & Sysoev, A.V. (2006) Marine and brackish water Gastopoda of Russia and adjacent contries: an illustrated catalogue. KMK Scientific Press Ltd. Moscow. [in Russian and English]
- Min, D.K. and Lee, J.S. (2007) Shell of the world. Min Molluscan Research Institute. [in Korean]
- Okutani, T. (2000) Marine mollusks in Japan. Tokai Univ. Tokyo. pp. 1-1171. [In Japanese and English].
- Okutani, T. (ed.) (2000) Marine Mollusks in Japan. pp.1172, Tokai Univ. Press. Tokyo. [in Japanese and English]
- Poppe, G.T. (2008) Philippine Marine Mollusks. Vol. I. Gastropoda - Part. 1. ConchBooks. Hackenheim, Germany. pp. 1-759.
- Qi, Z. (ed.) (2004) Seashells of China. China Ocean Press, Beijing, China. pp. 1-418. 193 pls.
- Reeve, L.A. (1843) Conchologia Iconica. Vol. II. London. pp. 227, 22 pls.
- Reid, D.G., Zaslavskaya, N.I., Sergievsky, S.O. (1991) *Littorina kasaka*, a new species from the Kurile Island and Okhotsk Sea. *Nautilus*, 105: 1-6.