

# Three Unrecorded Muricid Species from Korean Waters

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## ABSTRACT

The Korean muricid snails are listed include previous record and three unrecorded species, *Morula iostoma*, *Coralliophila morishimai*, and *C. abnormis* collected from Mudo of Jeju-do were redescribed. As a result, the family Muricidae in Korea turned out to be 44 species of 22 genera.

**Key words:** Muricidae, *Morula iostoma*, *Coralliophila morishimai*, *Coralliophila abnormis*.

## INTRODUCTION

Muricid snails are one of the most diverse group among the marine predatory snails and more than 2,500 species are known (Choe and Park, 1997). They are small to large-sized, have highly variable shells of rarely smooth, usually being elaborately sculptured with spiral and axial ribs. Family Muricidae has been split by many workers into several families and subfamilies. But Ponder and Warén (1988) recognised only the Muricinae, Thaidinae and Coralliophilinae.

Since Adams and Reeve (1848) reported three muricid species for the first time in Korea, Schrenck (1867), Smith (1879), Hirase (1907), Nomura and Hatai (1928), Shiba (1934), Yoo (1959), Kim and Rho (1969), Kang *et al.* (1971), Kwon *et al.* (1993), Choe and Park (1997), Lee and Min (2002) have been reported a total of 41 species of 22 genera. However, list of entire species from each papers are not generalized and three unrecorded species are newly found from Jeju-do. As a results, 44 species of 22 genera are listed including previous record and three unrecorded which species are redescribed here.

## RESULT

Throughout this study, 44 species of 22 genera including previous records were identified. Among them, *Morula iostoma*, *Coralliophila morishimai*, and *C. abnormis* are new to the Korean fauna and marked with asterisks in the list.

## LIST OF SPECIES

- Class Gastropoda Cuvier, 1791 복족강  
Superorder Caenogastropoda Cox, 1959 신생복족상목  
Infraorder Neogastropoda Wenz, 1929 신복족하목  
Family Muricidae Rafinesque, 1815 빨소라과  
1. *Haustellum sobrinus* (A. Adams, 1863) 곤봉빨소라  
2. *Chicoreus asianus* (Kuroda, 1942) 빨소라  
3. *Homalocantha anatomica* (Perry, 1811) 은행잎빨고둥  
4. *Rapana bezoar* (Linné, 1767) 썬피빨고둥  
5. *Rapana venosa venosa* (Valenciennes, 1846) 피빨고둥  
6. *Rapana venosa pchiliensis* Grabau and Kiong, 1928 황해피빨고둥  
7. *Morula spinosa* (H. and A. Adams, 1853) 가시빨고둥  
\*8. *Morula iostoma* (Reeve, 1845) 보라입실깨빨고둥 (신칭)  
9. *Muricopsis interserrata* (Sowerby, 1879) 작은가시빨고둥  
10. *Boreotrophon clathratus gunneri* (Loven, 1846) 원통날개지느러미빨고둥  
11. *Boreotrophon beringi* Dall, 1902 높은탑지느러미빨고둥  
12. *Boreotrophon candelabrum* (Reeve, 1848) 지느러미빨고둥

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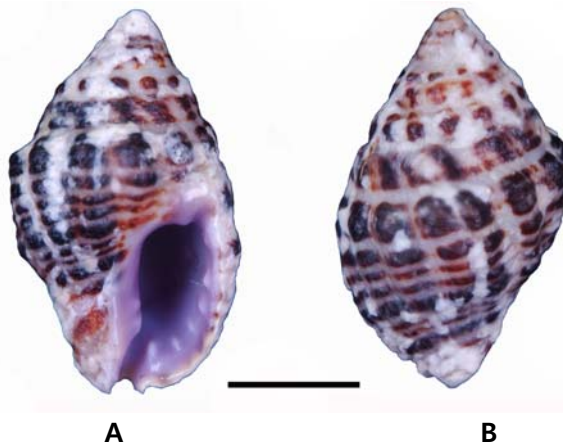


Fig. 1. *Morula iostoma*. A. Ventral view; B. Dorsal view. Scale Bar = 5 mm.

13. *Boreotrophon paucicostatus* Habe and Ito, 1965 넓  
은지느러미빨고둥
14. *Boreotrophon xestra xestra* Dall, 1918 긴입술지느러  
미빨고둥
15. *Boreotrophon pacificus pacificus* Dall, 1902 지느러  
미둥근빨고둥
16. *Boreotrophon pacificus aomoriensis* (Nomura and  
Hatai, 1940) 밤색지느러미작은빨고둥
17. *Boreotrophon cymatus* Dall, 1902 갈색입지느러미빨  
고둥
18. *Boreotrophon alaskanus* Dall, 1902 알라스카지느러  
미고둥
19. *Nipponotrophon scitulus* (Dall, 1891) 격자무늬작은  
고둥
20. *Siphonochelus japonicus* (A. Adams, 1863) 굴뚝빨고둥
21. *Ceratostoma burnetti* (Adams and Reeve, 1850) 입  
빨고둥
22. *Ceratostoma furnieri* (Crosse, 1861) 세빨고둥
23. *Ceratostoma rorifluum* (Adams and Reeve, 1850)  
맷사리
24. *Ceratostoma inornatum* (Récluz, 1851) 어깨빨고둥
25. *Ocinebra lumaria* (Yokoyama, 1920) 주름어깨빨고둥
26. *Murex endermonis* E. A. Smith, 1875 날개어깨빨고둥
27. *Pteropurpura falcata falcata* (Sowerby, 1841) 대롱  
빨고둥
28. *Pteropurpura adunca adunca* (Sowerby, 1834) 날개  
빨고둥
29. *Genkaimurex varicosa* Kuroda, 1953 주름빨고둥
30. *Lataxiena fimbriata* (hinds, 1844) 잔가시빨고둥
31. *Bedevea birileffi* (Lischke, 1871) 입주름빨고둥

32. *Ergalatax contracta contracta* (Reeve, 1846) 탑빨고둥
33. *Maculotriron serriale serriale* (Deshayes, 1834) 꼬  
마흑점밀알고둥
34. *Mancinella echinata* (Blainville, 1832) 밤송이두드럭  
고둥
35. *Thais gradata* (Jonas, 1846) 모난어깨두드럭고둥
36. *Thais bronni* (Dunker, 1860) 두드럭고둥
37. *Thais clavigera* (Küster, 1860) 대수리
38. *Thais luteostoma* (Holten, 1803) 빨두드럭고둥
39. *Necella heyseana* (Dunker, 1882) 옆주름고둥
40. *Nucella freycineti freycineti* (Deshayes, 1839) 팽이  
옆주름고둥
41. *Nucella lamellosa hormica* Dall, 1915 지느러미옆주  
름고둥
42. *Coralliophila rubrococcinea* Melvill and Standen,  
1901 담갈색잔고리고둥
- \*43. *Coralliophila morishimai* Kuroda and Shikama,  
1966 동법산호살이고둥
- \*44. *Coralliophila abnormis* (E. A. Smith, 1879) 굵은이  
랑잔출산호살이고둥

#### DESCRIPTION OF SPECIES

Class Gastropoda Cuvier, 1791 복족강  
 Superorder Caenogastropoda Cox, 1959 신생복족상목  
 Infraorder Neogastropoda Wenz, 1929 신복족하목  
 Family Muricidae Rafinesque, 1815 빨소라과  
 Genus *Morula* Schumacher, 1817 실페빨고둥속(신칭)  
***Morula iostoma* (Reeve, 1845) 보라입실페빨고둥(신칭)(  
 Fig. 1).**  
*Ricinula iostoma* Reeve, 1845, p. 192, sp. 37, pl. V.

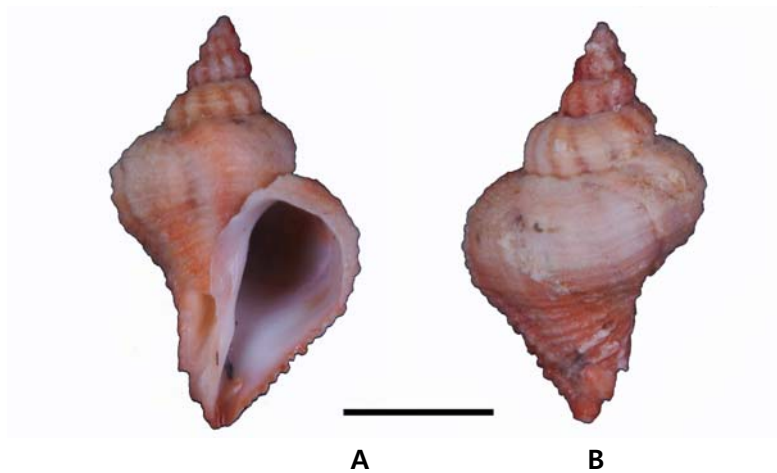


Fig. 2. *Coralliophila morishimai*. A. Ventral view; B. Dorsal view. Scale Bar = 10 mm.

*Thiphoris purpuratus* Pilsbry, 1895, p. 58.

*Morula iostoma* Higo *et al.*, 1999, p. 210; Okutani, 2000, p. 393, fig. 144.

**Type locality.** None designated.

**Materials examined.** 2 individuals, 7 October 2003, 12 m in depth, Saekkiseom, Seogwipo-si, Jeju-do (33°13'38.80"N, 126°34'5.6"E).

**Measurement.** 5.8 mm in height; 1.7 mm in width.

**Description.** Shell globose, small size. Thick and inflated. Periostracum white color. Whorls 9 in number. Apex worn out but evident. Spire low, two rows of spiral cord on each whorl. Suture deep. Spiral cord about 10 in number on body whorl, interval getting narrower to base. Shoulder weakly angulated. Thick axial ribs 12 in number, crossed by spiral cords. Nodules black color. Aperture oval in shape, laterally narrow. purplish within with 5-6 denticles on outer lip, 2 on lower portion of axial lip. Callus knob inflated. Siphonal canal open.

**Habitat.** Gravel bottom about 10-50 m in depth.

**Distribution.** Korea, Japan, Philippine.

Genus *Coralliophila* H. and A. Adams, 1853 산호살이고 등속

***Coralliophila morishimai* Kuroda and Shikama, 1966 동법산호살이고등 (신칭)(Fig. 2).**

*Coralliophila morishimai* Shikama, 1966, p. 22, pl. 1, fig. 3; Higo *et al.*, 1999, p. 216; Okutani, 2000. p. 415, fig. 269.

**Type locality.** Cape Shio, Kii Peninsula.

**Materials examined.** 1 individuals, 4 October 2003, 17 m in depth, Saekkiseom, Seogwipo-si, Jeju-do (33°13'38.80"N, 126°34'5.6"E)

**Measurement.** 27.0 mm in height; 17.0 mm in width.

**Description.** Shell small size, inflated spindle shape, not thick but solid. Periostracum light yellowish orange color. Spire narrow and steeply high. Body whorl strongly inflated laterally. Whorls 6 in number. Suture deep. Axial ribs 10 in number, obscure in body whorl but prominent from penultimate whorl to apex. Shoulder highly angulated. Deep and distinct spiral keels sculptured with interval and fine spiral striae locate between keels. Base laminated. Aperture broad. Outer lip crenulated with spiral keels. Axial lips wide and detached from body whorl. Fasciole narrow. Siphonal canal open.

**Habitat.** Intertidal zone to rocky bottom of 50m in depth.

**Distribution.** Korea, Japan.

***Coralliophila abnormis* E. A. Smith, 1878 굽은이랑잔줄 산호살이고등 (신칭) (Fig. 3).**

*Fusus abnormis* E. A. Smith, 1878, p. 811, pl. L, fig. 10.

*Coralliophila abnormis* Higo *et al.*, 1999, p. 217; Okutani, 2000. p. 419, fig. 288; Poppe, 2008, p. 244, pl. 417, figs. 4-6.

**Type locality.** Off Port Blair, Andaman Island.

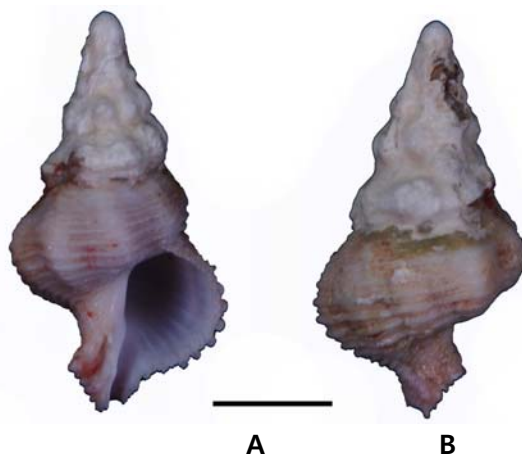


Fig. 3. *Coralliophila abnormis*. A. Ventral view; B. Dorsal view. Scale Bar = 10 mm.

**Materials examined.** 2 individuals, 16 November 2003, 15 m in depth, Munseom, Seogwipo-si, Jeju-do (33°13'38.6"N, 126°34'4.10"E).

**Measurement.** 33.5 mm in height; 18.0 mm in width.

**Description.** Shell small size, pale purplish red color. Spire steeply high. Whorls 8 in number. Periphery of every spire strongly inflated. Suture oblique, deeply channeled and distinct. Axial ribs 8 in number, broad and prominent. Spiral keels deeply sculptured with regular interval and numbers getting increase to body whorl. Aperture circle in shape, outer lip crenulated with spiral keels. Fasciole strongly folded and laminated. Siphonal canal short and twisted. Interior weakly purple in color.

**Habitat.** Intertidal zone to rocky bottom of 150 m in depth.

**Distribution.** Korea, Japan, Philippines, Indian Ocean.

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