

# Three Unrecorded Species of Archaeogastropoda (Gastropoda) from Korean Waters

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Three species of Archaeogastropoda were found new to the fauna of Korea, and are described in this paper. These include *Emarginula crassicosata* Sowerby, 1863, *Collisella cassis* (Eschscholtz, 1833), and *Collonista amakusaensis* Habe, 1960. As the result, the Korean marine Archaeogastropod fauna comprises 10 families, 67 species and 9 subspecies.

**KEY WORDS:** Gastropoda, Archaeogastropoda, Unrecorded species, South Korea

Total 64 species and 9 subspecies of marine Archaeogastropoda have been reported from Korean Waters (Adams and Reeve, 1848; Nomura and Hatai, 1928; Okada and Fujita, 1933; Shiba, 1934; Kamita and Sato, 1941; Uchida and Yamamoto, 1942; Habe, 1944; Lee, 1956a, 1956b, 1958; Yoo, 1959, 1976; Kang, 1971; Choe and Kim, 1988; Choe and Yoon, 1990).

We studied archaeogastropod specimens collected at 4 different locations in South Korea from October 1987 to June 1990, and report three hitherto unrecorded species of Archaeogastropoda from Korean Waters: *Emarginula crassicosata* Sowerby, 1863, *Collisella cassis* (Eschscholtz, 1833), and *Collonista amakusaensis* Habe, 1960.

## Results

**Class Gastropoda** 복족 강

**Order Archaeogastropoda** 원시복족 목

**Family Fissurellidae** 구멍삿갓조개 과

**Genus *Emarginula* Larmarck, 1801** 열쇠구멍삿갓조개 속 (신칭)

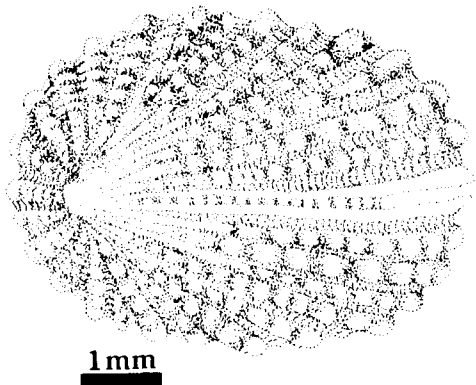
**1. *Emarginula crassicosata* Sowerby, 1863** 넓은이랑삿갓조개 (신칭)

**(Fig. 1; Plate-figs. 1, 4, 5)**

*Emarginula crassicosata* Sowerby, 1863 (Thesaurus conchyliorum, vols. 1-5, Cited from Kuroda and Habe, 1952); Hirase, 1941 (p.34, pl. 63, fig. 1); Kawamoto and Tanabe, 1956 (p.4); Habe and Kosuge, 1967 (p.3, pl.2, fig.5); Higo, 1973 (p.14); Kira, 1975 (p.5, pl.5, fig. 1); Okada, 1981 (p.20); Inaba, 1982 (p.73); Habe and Okutani, 1987 (p.36, 222, 223); Watanabe and Naruke, 1988 (p.29).

**Type locality:** Unknown.

**Material examined:** 1 specimen, Sogwip'o Supsom (sandy bottoms 12 m), Aug. 11, 1989 (J. R. Lee).



**Fig. 1.** *Emarginula crassicosata* Sowerby, 1863.

**Description:** White cone-shaped shell, small and thin. Height 2.85 mm, length of aperture 6.15 mm and breadth of aperture 4.45 mm. Ellipse in basal outline. Apex situated at about 9/10 of total length from anterior end, shifted toward back. Some 20 strong radial ribs and growth lines bearing remarkable knobs radiated from apex. A narrow slit, 2.25 mm long at anterior end of longitudinal axis. Inside of shell white. Rhipidoglossate radula.

**Distribution:** Southern half of Japan (Seto Inland Sea, Choshi, Shikoku, Boso Peninsula as north limit, Tohoku, and Kyshu); Western Pacific.

**Habitat:** On rocks and among gravels from subtidal zone down to 30 m deep.

**Family Acmaeidae** 흰삿갓조개 과

**Genus *Collisella* Dall, 1871** 두드럭배말 속 (신칭)

**2. *Collisella cassis* (Eschscholtz, 1833)**

흰줄무늬두드럭배말 (신칭)

(Fig. 2; Plate-figs. 2, 6)

*Acmaea cassis* Eschscholtz, 1833 (M.H. Rathke in F. Eschscholtz, Zool. Atlas, V. 1833, 19, Cited from Sherborn, 1924); Sherborn, 1924 (p.1122).

*Patelloida (Tectura) cassis pelta*: Kuroda and Koba, 1933 (p.53).

*Collisella pelta*: Oyama, 1963 [*Collisella* (2), figs. 10-14]; Habe and Ito, 1979 (p.7, pl.3, fig. 10).

**Type locality:** Unknown.

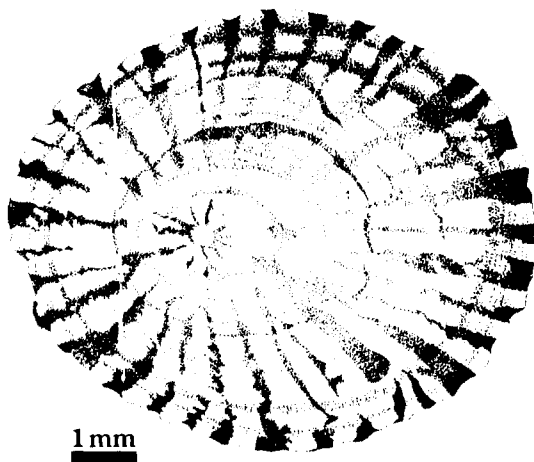


Fig. 2. *Collisella cassis* (Eschscholtz, 1833).

**Material examined:** 7 specimens, Taech'ongdo Satandong, Oct. 3, 1987 (B.L. Choe); 26 specimens, Soch'ongdo Yedong, Oct. 4, 1987 (B. L. Choe).

**Description:** Shell cone-shaped with ovate base. Height of shell 8.60 mm (range, 6.00-10.70 mm), length of aperture 25.25 mm (range, 13.60-26.10 mm) and breadth of aperture 22.00 mm (range, 10.50-22.40 mm). Blackish brown surface sculptured with 25-30 white radial stripes. Apex white and placed anterior to center. Inner side white, surrounded by black brown and white interior margin. Docoglossate radula.

**Distribution:** Japan (Shumushu Island, Kurile and Araido Island); America (California, Alaska); Canada.

**Habitat:** On rocks and among gravels between tide marks.

**Family Turbinidae** 소라 과

**Genus *Collonista* Iredale, 1918** 콩알고둥 속 (신칭)

**3. *Collonista amakusaensis* Habe, 1960**

흰콩알고둥 (신칭)

(Fig. 3; Plate-fig. 3)

*Collonista amakusaensis* Habe, 1960 [Publications of Seto Marine Biological Laboratory, Kyoto University, Shirahama, Wakayama Pref., 8(2): 295, Tf.3 (HT), Cited from Habe, 1977]; Habe, 1977 (p.21, pl.5, fig. 7); Higo, 1973 (p.41).

**Type locality:** Tomioka Bay, Amakusa-gun,

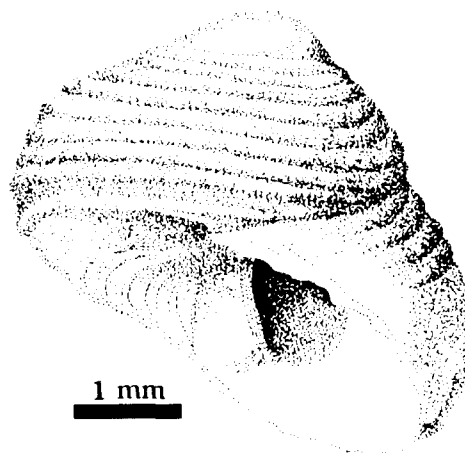


Fig. 3. *Collonista amakusaensis* Habe, 1960.

Kumamoto Pref., Kyushu.

**Material examined:** 1 specimen (empty), Ch'ujado Hoinggando, Jun. 23, 1990 (SCUBA).

**Description:** Small, low conical shell white and solid. Height of shell 4.20 mm, breadth 5.40 mm. Embryonic whorl brown in color. Body whorl occupied 5/6 of shell and has 10 thick spiral lines above round periphery. Suture deep. Base somewhat inflated and with 13 spiral cords. Aperture round. Outer margin and basal lip thin but columellar margin thick. Umbilicus absent.

**Distribution:** Japan (Honshu, Shikoku, Kyushu).

**Habitat:** On rocks and among gravels between tide marks.

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한국산 원시복족목(복족강)의 3 미기록 종  
 최병래 · 윤숙희 (성균관대학교 이과대학 생물학과)

1987년 10월부터 1990년 6월까지 남한의 4개 지역에서 채집한 한국산 원시복족류를 동정 정리한 결과, *Emarginula crassicostata* Sowerby, 1863, *Collisella cassis* (Eschscholtz, 1833)와 *Collonista amakusaensis* Habe, 1960의 3종이 한국 미기록 종으로 밝혀졌기에 이들 종에 관하여 기재 보고한다.

## PLATE

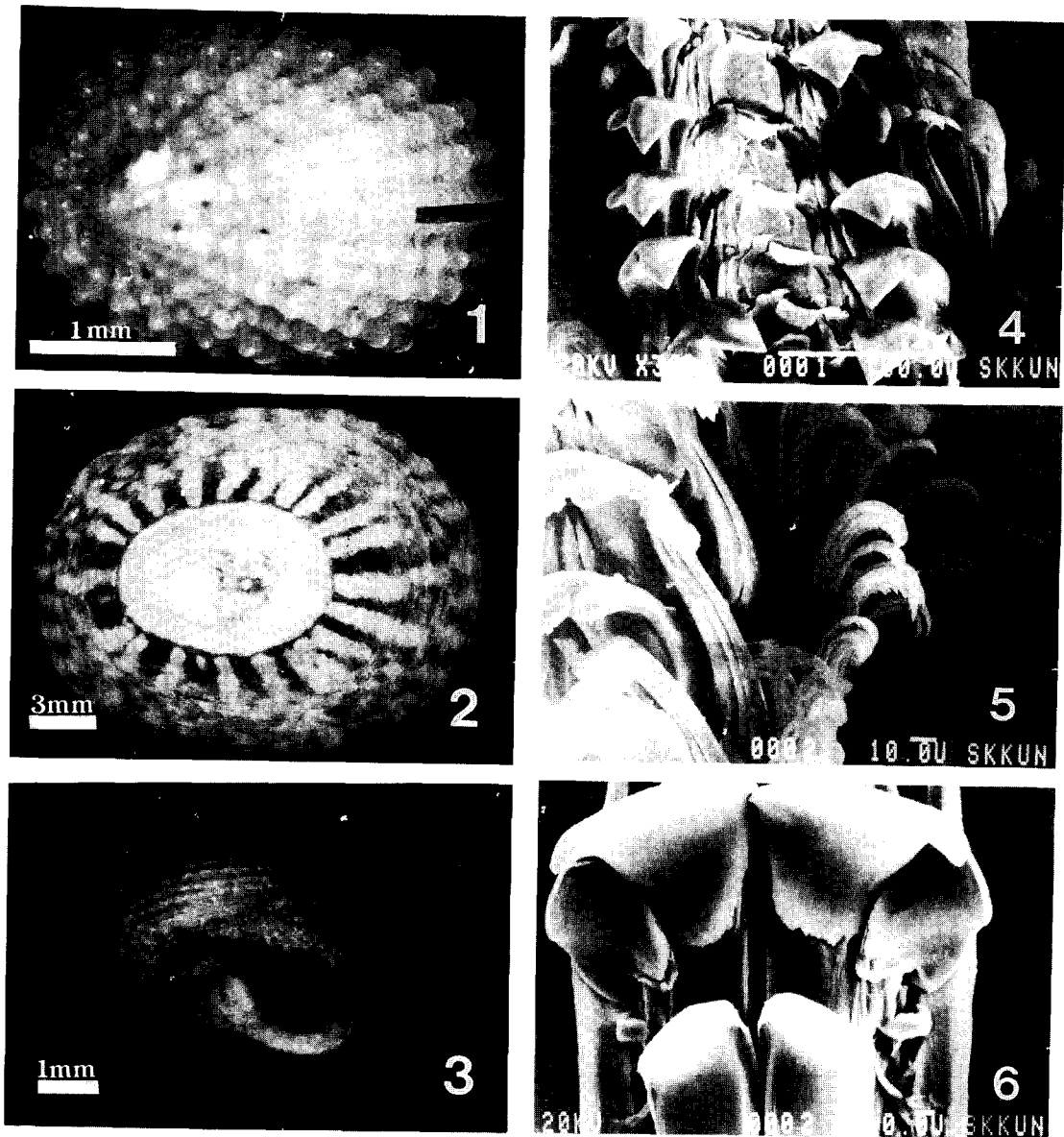


Fig. 1. Shell of *Emarginula crassicosata* Sowerby, 1863.

Fig. 2. Shell of *Collisella cassis* (Eschscholtz, 1833).

Fig. 3. Shell of *Collonista amakusaensis* Habe, 1960.

Fig. 4. Central and lateral teeth of *Emarginula crassicosata* Sowerby, 1863; radula.

Fig. 5. Marginal teeth of *Emarginula crassicosata* Sowerby, 1863; radula.

Fig. 6. Central and lateral teeth of *Collisella cassis* (Eschscholtz, 1833); radula.