

Marine Gastropods from Ullŭng Island, Korea: Orders Neogastropoda and Basommatophora

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울릉도 해산 복족류—신복족 목 및 기안 목

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적 요

1989년 7월 12일부터 17일까지 울릉도의 10개 지점에서 채집되고 일부 기증받은 해산 신복족류와 기안류의 표본들을 동정한 결과 모두 7과 14속 19종이 되었다. 이로서 울릉도의 신복족목 16종과 기안목 2종이 울릉도 미기록종으로 추가되었으며, 이들 중 *Zafrona (Clathranachis) japonica* (A. Adams, 1860), *Enzinopsis menkeana* (Dunker, 1860), *Polia mollis* (Gould, 1860) 등 3종은 한국 미기록 종이다.

Key words: taxonomy, Neogastropoda, Basommatophora, Ullŭng Island, Korea.

INTRODUCTION

Only the 3 species of 3 families on the marine Neogastropoda and Basommatophora are reported up to date by Kim and Choe (1981) from Ullŭng Island.

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In this paper, the authors identified 19 species of 7 families of Gastropoda that were collected during the period from 12th to 17th of July, 1989 at 10 localities (Fig. 1) of the Ullŭng Island.

The purpose of the present work is to carry out taxonomic studies on the marine Neogastropoda and Basommatophora from Ullŭng Island.

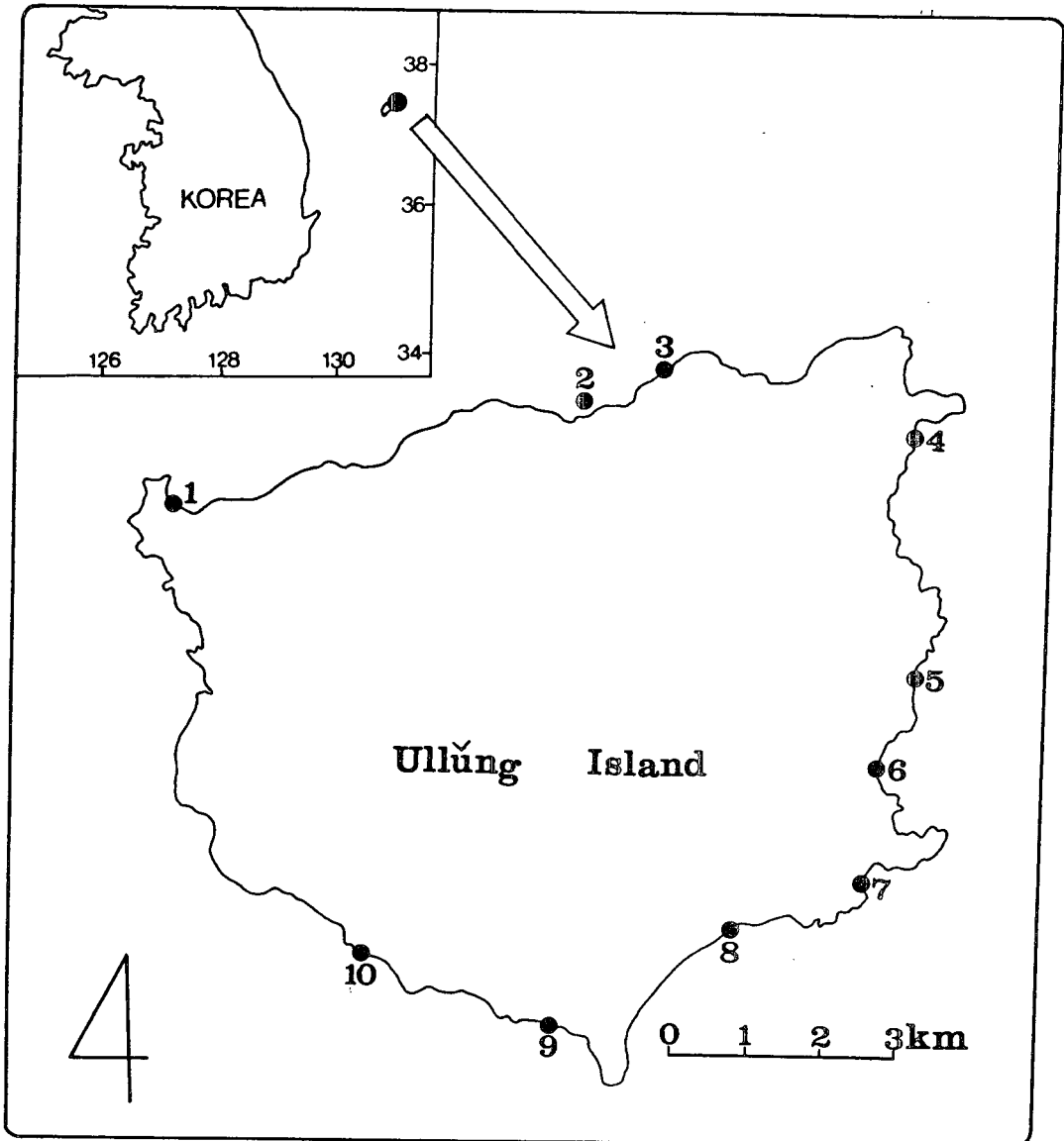


Fig. 1. Map of Ullŭng Island, showing collection localities in the survey.

1. Taep'ungch'wi (대풍취) ; 2. Hyŏlam (혈암) ; 3. Ch'ŏnbu (천부) ; 4. Sŏmmok (섬목) ; 5. Naesujŏn (내수전) ; 6. Chŏdong (저동) ; 7. Todong (도동) ; 8. Sadong (사동) ; 9. T'onggumi (통구미) ; 10. Kulam (굴암).

RESULTS

(*: Newly added species to the fauna of Ullŭng Island.

** : Newly added species to the fauna of Korea)

| | |
|------------------------|--------|
| Subclass Prosobranchia | 전세 아강 |
| Order Neogastropoda | 신복족 목 |
| Superfamily Muricacea | 빨소라 상과 |
| Family Muricidae | 빨소라 과 |

*1. *Reishia luteostoma* (Holten, 1803) 빨두드럭고둥

Buccinum luteostoma Holten, 1803 [Enum. Syst. Conchyl., (1802), p. 52, cited from Kuroda *et al.*, 1971].

Purpura luteostoma: Reeve, 1846 (*Purpura*, sp. 35); Dunker, 1861 (p. 5); Lischke, 1869 (p. 54); Lischke, 1871 (p. 39); Dunker, 1882 (p. 39); Lee, 1956b (p. 74); Kang *et al.*, 1971 (p. 60); Kim & Rho, 1971 (p. 14); Chen *et al.*, 1980 (p. 60).

Stramonita luteostoma: Adams, 1870 (p. 423).

Thais luteostoma: Kanamaru, 1932 (p. 280, fig. 70); Kuroda, 1941 (p. 112); Habe, 1975 (p. 81, pl. 26, fig. 8); Habe & Ito, 1979 (p. 40, pl. 12, fig. 2); Chau *et al.*, 1982 (p. 57, pl. 6, fig. 6); Ma, 1982 (p. 35); Qi *et al.*, 1983 (p. 77); Kim & Kim, 1984 (p. 320); Qi *et al.*, 1989 (p. 57).

Conthais luteostoma: Shiba, 1934 (p. 23).

Purpura (Mancinella) luteostoma: Kawamoto & Tanabe, 1956 (p. 33).

Reishia luteostoma: Kuroda *et al.*, 1971 [p. 223(in Japanese), p. 146(in English), pl. 42, fig. 6]; Higo, 1973 (p. 119); Inaba, 1982 (p. 101).

Thais clavigera: Yoo, 1986 (p. 74, pl. 14, fig. 4).

Type locality: South Sea and Coast of China.

Material examined: 1 specimen, Hyŏlam, Jul. 14, 1989 (SCUBA); 2 specimens, Taep'ungch'wi, Jul. 15, 1989 (B.L. Choe).

Distribution: Kangwŏn, Kyŏngnam, Kyŏnggi, P'ŏngbuk, Mosŭlp'o, Hamnam in Korea; Amami-Ōshima, Seto Inland Sea, Japan Sea, Tsus-Sima, Tatiyama, Hakodadi, Yokohama, Boso Peninsula, Southern Hokkaido, Honshu, Shikoku, Kyushu in Japan; Nanji Islands in China; Taiwan; Southeast Asia.

Habitat: On rocks and among gravels between tide marks down to 20m deep.

2. *Reishia bronni* (Dunker, 1860) 두드럭고둥

Purpura bronni Dunker, 1860 (Malak. Blatt., 6, p. 255, cited from Kuroda *et al.*, 1971); Dunker, 1861 (p. 5, pl. 1, fig. 23); Lischke, 1869 (p. 53, pl. 5, fig. 17); Lischke, 1871 (p. 39, pl. 4, fig. 20); Dunker, 1882 (p. 39); Chen *et al.*, 1980 (p. 60).

Conthais (Mancinella) bronni: Shiba, 1934 (p. 23).

Thais bronni: Ino, 1935 (p. 40); Kamita & Sato, 1941 (p. 3); Kuroda, 1941 (p. 112); Kim & Rho, 1971 (p. 8); Kim *et al.*, 1979 (p. 108); Habe & Ito, 1979 (p. 40, pl. 12, fig. 3); Okada, 1981 (p. 106); Kim & Kwon, 1982 (p. 196); Qi *et al.*, 1983 (p. 77); Kim & Kwon, 1984 (p. 43); Kim & Kim, 1984 (p. 195); Kim & Kim, 1986 (p. 320); Yoo, 1986

(p. 74, pl. 14, figs. 1, 2); Lai, 1987 (p. 68, pl. 32, fig. 10).

Thais (Mancinella) bronni: Hirase, 1941 (p. 79, pl. 110, fig. 4).

Purpura (Mancinella) bronni: Kawamoto & Tanabe, 1956 (p. 33, pl. 12, figs. 109-112); Lee, 1956a (p. 8); Lee, 1956b (p. 74); Kang *et al.*, 1971 (p. 60).

Reishia bronni: Kuroda *et al.*, 1971 [p. 224(in Japanese), p. 146(in English), pl. 42, fig. 7]; Higo, 1973 (p. 119); Kira, 1975 (p. 62, pl. 24, fig. 6); Kim & Choe, 1981 (p. 195, 197); Inaba, 1982 (p. 101); Kim & Kwon, 1983 (p. 322); Kim & Yoon, 1985 (p. 38); Watanabe & Naruke, 1988 (p. 46).

Thais (Reishia) bronni: Oyama, 1973 (p. 38, pl. 11, fig. 21).

Type locality: Dejima, Nagasaki City in Japan.

Material examined: 1 specimen, T'onggumi, Jul. 12, 1989 (SCUBA); 5 specimens, Naesujön, Jul. 13, 1989 (SCUBA); 10 specimens, Hyölam, Jul. 14, 1989 (SCUBA); 2 specimens, Hyölam, Jul. 14, 1989 (Y.J. Kim); 3 specimens, Hyölam, Jul. 14, 1989 (S.S. Yum); 8 specimens (empty 1), Taep'ungch'wi, Jul. 15, 1989 (SCUBA); 4 specimens, Taep'ungch'wi, Jul. 15, 1989 (B.L. Choe); 1 specimen, Sadong, Jul. 17, 1989 (B.L. Choe).

Distribution: Ullüing Island, Wando, The lower Naktonggang, Pusan (Songdo, Suyöng, Haeundae, Yongho), Chejudo, Yösu, Ch'ujado, Maando, Taehüksando, T'ongyöng, Kömundo, Chumunjin, Inch'ön, Kohüing, Hujin, Chagaedo, Soando, Yösödo, Pijindo, Kukto, Kaldo, Tokto, Haegümgang, Hajodo, Chöngdüngdo, Kadökto Taesambudo, Sangbaekto in Korea; Southern Hokkaido, Honshu, Shikoku, Kyushu, Hayama, Ohtsubune, Kanto, Kurosaki, Seto Inland Sea, Japan Sea, Choshi, Yamaguti, Kaminato Chibaken in Japan; North China, Nanji Island in China; Taiwan.

Habitat: On rocks between tide marks down to 20m deep.

*3. *Reishia clavigera* (Küster, 1860) 대수리

Purpura clavigera Küster, 1860 [in Kobelt, Conch. Cab., 3(1-1), p. 186, pl. 31a, fig. 1, cited from Kuroda *et al.*, 1971]; Lischke, 1869 (p. 54, pl. 5, figs. 12-14); Lischke, 1871 (p. 39); Taki, 1951 (p. 129, figs. 13, 14); Chen *et al.*, 1980 (p. 60).

Purpura tumulosa: Lischke, 1869 (p. 56, pl. 5, figs. 15, 16. non Reeve, 1846).

Purpura problematica: Baker, 1891 (Proc. Rochester Acad. Sci., 1, p. 135, pl. 11, figs. 2, 3, cited from Kuroda *et al.*, 1971).

Purpura altispiralis Grabau & King, 1928 (Shells of Peitaiho. Peking, p. 204, pl. 8, fig. 67, cited from Qi *et al.*, 1989),

Conthais (Mancinella) tumulosa clavigera: Shiba, 1934 (p. 23).

Thais clavigera: Kamita & Sato, 1941 (p. 3); Kuroda, 1941 (p. 112); Kim & Rho, 1971 (p. 8); Kim, 1973 (p. 429); Kim & Lee, 1978 (p. 98); Habe & Ito, 1979 (p. 40, pl. 12, fig. 4); Kim *et al.*, 1979 (p. 108); Tsi & Ma, 1980 (p. 439); Okada, 1981 (p. 106); Chau *et al.*, 1982 (p. 56, pl. 6, fig. 7); Hong, 1982 (p. 315); Ma, 1982 (p. 35); Qi *et al.*, 1983 (p. 76); Yoo, 1986 (p. 74, pl. 14, fig. 3); Lai, 1987 (p. 68, pl. 32, fig. 11); Qi *et al.*, 1989 (p. 56, pl. 1, fig. 5).

Thais (Mancinella) tumulosa clavigera: Hirase, 1941 (p. 79, pl. 110, fig. 5).

Purpura (Mancinella) clavigera: Kawamoto & Tanabe, 1956 (p. 33, pl. 13, figs. 113, 114); Lee, 1956a (p. 8); Lee, 1956b (p. 74); Kang *et al.*, 1971 (p. 60).

Reishia clavigera: Kuroda *et al.*, 1971 [p. 224(in Japanese), p. 147(in English), pl. 42, fig. 8]; Higo, 1973 (p. 119); Kira, 1975 (p. 62, pl. 24, fig. 1); Kim & Choe, 1981 (p. 195); Inaba, 1982 (p. 101); Kim & Kwon, 1982 (p. 196); Kim & Kwon, 1983 (p. 322); Kim *et al.*, 1983 (p. 103); Kim & Kim, 1984 (p. 195); Lee *et al.*, 1984 (p. 122); Lee *et al.*,

1985 (p. 96); Kim & Yoon, 1985 (p. 38); Kim & Kim, 1986 (p. 320); Watanabe & Naruke, 1988 (p. 46).

Thais (Reishia) clavigera: Oyama, 1973 (p. 38, pl. 11, fig. 2).

Type locality: Nagasaki in Japan.

Material examined: 3 specimens (empty 2), Kulam, Jul. 11, 1989 (SCUBA); 2 specimens, Kulam, Jul. 11, 1989 (Y.J. Kim); 4 specimens (empty 1), Hyŏlam, Jul. 14, 1989 (SCUBA); 1 specimen, Hyŏlam, Jul. 14, 1989 (Y.J. Kim); 6 specimens (empty 3), Hyŏlam, Jul. 14, 1989 (S.S. Yum); 25 specimens (empty 3), Hyŏlam, Jul. 14, 1989 (B.L. Choe); 6 specimens, Taep'ungch'wi, Jul. 15, 1989 (B.L. Choe).

Distribution: Pusan (Songjŏng, Haeundae, Suyŏng, Yŏngdo, Songdo, Tadaep'o), Hongdo, Poryŏng, Hamp'yŏng, Yulp'o, Hadong, Kŏjedo, Kanggu, Chejudo, Tongyŏng, Taehŭksando, Nulokto, Kalmokto, Chukhangdo, Kaldo, Nŏpto, Ch'ŏngdŭngdo, Kwansado, Tŏkchŏkto, Chumunjin, Nukto, Inch'ŏn, Taesambudo, Ch'ujado, Maando, Kŏmundo, Sangbaekto, Paengnyŏngdo, Changho, Yŏsŏdo, Kogunsangundo, Woldo, Sŏsan, Kukto, Kwangdo, Wando, Hujin, Kogŭmdo, Chagaedo, Aninjin, Pogildo, Pijindo, Haegŭmgang, Western Coast, Tokto, Tonggyŏkyŏlbido, Seokto, Kungshido, Eastern Coast in Korea; Southern Hokkaido, Honshu, Shikoku, Kyushu, Amami Islands, Okinawa, Hayama, Seto Inland Sea, Yamaguti, Choshi, Kanto, Japan Sea in Japan; Nanji Island, Coast of Liaoning to Coast to Guangsi in China; Taiwan; Hong Kong; the Western Pacific.

Habitat: On rocks and among gravels between tide marks down to 20m deep.

*4. *Boreotrophon candelabrum* (Reeve, 1848) 지느러미빨고둥

Fusus candelabrum Reeve, 1848 (*Fusus*, sp. 79).

Trophon candelabrum: Adams, 1862 (p. 375); Sowerby, 1880 (Thes. Conch., 4, *Trophon*, p. 61, pl. 1, fig. 11, cited from Kuroda *et al.*, 1971).

Trophonem candelabrum: Dunker, 1882 (p. 11).

Trophon subclavatus Yokoyama, 1920 [Jour. Coll. Sci. Imp. Univ. Tokyo, 39(6), p. 60, pl. 3, fig. 2, pl. 6, figs. 13, 14, cited from Kuroda *et al.*, 1971].

Boreotrophon stephanos Is. Taki, 1938 [Zool. Mag. (Tokyo), 50(9), p. 401, 403, textfigs. 1, 4, cited from Kuroda *et al.*, 1971].

Trophonopsis (Boreotrophon) candelabrum: Kawamoto & Tanabe, 1956 (p. 32, pl. 13, fig. 118); Kira, 1975 (p. 65, pl. 25, fig. 4).

Boreotrophon candelabrum: Kang *et al.*, 1971 (p. 60); Kuroda *et al.*, 1971 [p. 233(in Japanese), p. 152(in English), pl. 41, fig. 10]; Higo, 1973 (p. 123); Habe & Ito, 1979 (p. 35, pl. 10, fig. 1); Okada, 1981 (p. 103); Inaba, 1982 (p. 102); Chau *et al.*, 1982 (p. 53, pl. 6, fig. 3); Watanabe & Naruke, 1988 (p. 47); Qi *et al.*, 1989 (p. 60, pl. 8, fig. 3).

Trophon (Boreotrophon) candelabrum: Oyama, 1973 (p. 39, pl. 11, figs. 6, 8, 11, 12).

Trophonopsis stephanos: Habe & Ito, 1979 (p. 35).

Trophonopsis candelabrum: Kim *et al.*, 1983 (p. 103).

Type locality: Not mentioned by the author.

Material examined: 1 specimen (empty), Chŏdong, Jul. 16, 1989 (B.L. Choe).

Distribution: Aninjin (Eastern Coast) in Korea; Honshu (Sagami Bay as south limit), Hokkaido, Kamekisho, Choshi, Kanto, Seto Inland Sea, Yamaguti in Japan; China.

Habitat: Sandy and gravelly bottoms between tide marks down to 200m deep.

Superfamily Buccinacea 물레고둥 상과

Family Pyrenidae 무룩과

*5. *Mitrella tenuis* (Gaskoin, 1852) 날씬이보리무룩 (신칭)

Columbella tenuis Gaskoin, 1852 [Proc. Zool. Soc. London, p. 19 (219), p. 2, cited from Kuroda *et al.*, 1971].

Amycla burchardi (sic) Dunker, 1877 (p. 67).

Amycla burchardi: Dunker, 1882 (p. 55, pl. 4, figs. 3, 4).

Pyrena (*Mitrella*) *burchardi*: Shiba, 1934 (p. 24).

Pyrene (*Mitrella*) *burchardi*: Kawamoto & Tanabe, 1956 (p. 34); Lee, 1956a (p. 8); Lee, 1956b (p. 75).

Mitrella burchardi: Kuroda *et al.*, 1971 [p. 242(in Japanese), p. 158(in English), pl. 47, figs. 8, 9]; Higo, 1973 (p. 128); Kira, 1975 (p. 79, pl. 29, fig. 9); Yoo, 1986 (p. 75, pl. 14, figs. 7, 8); Qi *et al.*, 1989 (p. 60); Watanabe & Naruke, 1988 (p. 47).

Mitrella tenuis: Kang *et al.*, 1971 (p. 61); Habe, 1975 (p. 88, pl. 28, fig. 29); Habe & Ito, 1979 (p. 42, pl. 13, fig. 1); Okada, 1981 (p. 113); Inaba, 1982 (p. 103); Tomita & Mizushima, 1984 (p. 333).

Mitrella (*Mitrella*) *burchardi*: Oyama, 1973 (p. 41, pl. 14, fig. 5).

Type locality: Not mentioned by the author (*C. tenuis*); Japan (*A. burchardi*).

Material examined: 1 specimen, Tonggumi, Jul. 12, 1989 (SCUBA).

Distribution: Pusan (Yongho), Yöngil, Taehüksando, Yokchi, Sokch'o in Korea; Seto Inland Sea, Hokkaido, Honshu, Shikoku, Kanto, Kyushu, Hayama, Kamekisho-Mosaki, Choshi, Notsuke Bay, Japan Sea, Yamaguti in Japan; Sakhalin, Kuriles in Russia.

Habitat: On sea weeds among gravels between tide marks down to 20m deep.

*6. *Mitrella bicincta* (Gould, 1860) 보리무룩

Nassa varians Dunker, 1860 (Malak. Blatt., 6, p. 231, cited from Kuroda *et al.*, 1971).

Columbella bicincta Gould, 1860 (p. 335); Habe, 1960 (p. 30).

Columbella araneosa Gould, 1860 (p. 336); Habe, 1960 (p. 17).

Columbella lineolata Gould, 1860 (p. 335).

Amycla varians: Dunker, 1861 (p. 6, pl. 1, fig. 17) (Non Sowerby, 1832, cited from Kuroda *et al.*, 1971); Lischke, 1871 (p. 49).

Columbella dunkeri Tryon, 1883 (p. 129, pl. 49, fig. 15).

Pyrena (*Mitrella*) *variens*: Shiba, 1934 (p. 24).

Pyrene (*Mitrella*) *variens*: Hirase, 1941 (p. 76, pl. 107, fig. 7).

Pyrene araneosa: Yen, 1944 [Proc. California Acad. Sci., (4)23(38), p. 571, pl. 51, fig. 3, cited from Kuroda *et al.*, 1971].

Pyrene lineolata: Yen, 1944 [Proc. California Acad. Sci., (4)23 (38), p. 572, pl. 51, fig. 5, cited from Kuroda *et al.*, 1971].

Pyrene (*Mitrella*) *bicincta*: Kawamoto & Tanabe, 1956 (p. 34, pl. 13, fig. 122); Lee, 1956a (p. 8); Lee, 1956b (p. 75).

Mitrella bicincta: Kang *et al.*, 1971 (p. 61); Kuroda *et al.*, 1971 [p. 241(in Japanese), p. 157(in English), pl. 47, figs. 31-33]; Higo, 1973 (p. 128); Kira, 1975 (p. 79, pl. 29, fig. 1); Habe & Ito, 1979 (p. 42, pl. 13, fig. 2); Okada, 1981 (p. 112); Inaba, 1982 (p. 103); Kim & Kwon, 1982 (p. 196); Kim & Kwon, 1983 (p. 322); Kim *et al.*, 1983 (p. 103); Kim & Kim, 1984 (p. 195); Kim & Kwon, 1984 (p. 43); Lee *et al.*, 1984 (p. 122); Kim & Yoon, 1985 (p. 38);

Lee *et al.*, 1985 (p. 96); Watanabe & Naruke, 1988 (p. 47).

Mitrella (Mitrella) bicincta: Oyama, 1973 (p. 40, pl. 14, figs. 1, 2, 12).

Pyrene bicincta: Tsi & Ma, 1980 (p. 440); Ma, 1982 (p. 36); Qi *et al.*, 1983 (p. 85).

Pyrene varians: Chau *et al.*, 1982 (p. 59, pl. 2, fig. 27).

Type locality: Dejima, Nagasaki (*N. varians*) in Japan; Hong Kong (*C. bicincta* and *C. lineolata*); Kagoshima, Kyushu (*C. araneosa*) in Japan.

Material examined: 1 specimen (empty), Sŏmmok, Jul. 16, 1989 (SCUBA).

Distribution: Tongyŏng, Yŏsu, Pusan, Kŏmundo, Suyŏng, Hujin, Wando, Chejudo, Hajodo, Aninjin, Soando, Pogildo, Chagaedo, Yejakto, Ch'ŏngdŭngdo in Korea; Honshu, Kanto, Shikoku, Kyushu, Southern Hokkaido, Warishima, Hayama, Arasaki, Kamekisho, Jŏgashima, Kagishima Bay, Amadaiba - Kannontsu-kadashi - Maruyamadashi, Yamaguti, Seto Inland Sea, Japan Sea, Kagoshima in Japan; Coast of Liaoning to Hainan Island, China Coast in China; Taiwan; Hong Kong.

Habitat: On sandy and gravelly bottoms between tide marks down to 100m deep.

***. *Zafrona (Clathranachis) japonica* (A. Adams, 1860) 창살무늬무늬 (신칭) (Fig. 2; Plate-fig. 1)

Lachesis japonica Adams, 1860 (p. 411).

Columbella (Anachis) nebulosa Gould, 1860 (p. 333).

Lienardia vadososinuata Nomura & Nino, 1940 (Rec. Oceanogr. Works Japan, 12, p. 77, pl. 1, figs. 9a, 9b, cited from Kuroda *et al.*, 1971).

Clathranachis japonicus: Kuroda & Habe, 1954 (p. 88, figs. 11, 14).

Clathranachis japonica: Kawamoto & Tanabe, 1956 (p. 34, pl. 13, fig. 119).

Zafrona (Clathranachis) japonica: Kuroda *et al.*, 1971 [p. 246 (in Japanese), p. 161 (in English), pl. 47, figs. 22, 23]; Higo, 1973 (p. 131).

Zafrona japonicus: Habe, 1975 (p. 87, pl. 28, fig. 18).

Zafrona japonica: Okada, 1981 (p. 112).



5 mm

Fig. 2. *Zafrona (Clathranachis) japonica* (A. Adams, 1860)
창살무늬무늬

Zafra (*Clathranachis*) *nebulosa*: Inaba, 1982 (p. 104).

Type locality: Mino Sima, Yaguchi Pref., an isle in Japan Sea.

Material examined: 1 specimen (empty), Sömmok, Jul. 16, 1989 (B.L. Choe).

Description: Shell elongated and narrow, acuminate to top. Height 13.85mm, breadth 5.10mm. Whorls 9 in number. Each whorl distinctly reticulated by 4-6 spiral lines and 20 growth lines. Aperture elongated. Fasciole with 13 spiral lines.

Distribution: Seto Inland Sea, Boso Peninsula, Honshu to Kyushu, Japan Sea, Shikoku, Jogashima, Amadaiba-Kannontsukadashi, Kamekisho, Kurosaki, Amadaiba-Kannontsukadashi-Maruyamadashi in Japan; the Western Pacific Region.

Habitat: On sandy and gravelly bottoms from low tide mark down to 100m deep.

Family Buccinidae 물레고둥 과

* * 8. *Enzinopsis menkeana* (Dunker, 1860) 구슬띠물레고둥 (신칭) (Fig. 3; Plate-fig. 2)

Cantharus (*Polia*) *menkeanus* Dunker, 1860 (Malak. Blatt., 6, p. 222, cited from Kuroda *et al.*, 1971).

Cantharus menkeanus: Dunker, 1861 (p. 7, pl. 1, fig. 7).

Polia menkeana: Lischke, 1871 (p. 50); Dunker, 1882 (p. 18).

Tritonidea submenkeana Pilsbry, 1901 (p. 387, pl. 21, fig. 24).

Engina menkeana: Kanamaru, 1932 (p. 280, fig. 49).

Engina (*Enzinopsis*) *menkeana*: Kawamoto & Tanabe, 1956 (p. 35).

Enzinopsis menkeana: Higo, 1973 (p. 141).

Enzinopsis menkeana: Kuroda *et al.*, 1971 [p. 253(in Japanese), p. 166(in English), pl. 44, fig. 7]; Oyama, 1973 (p. 44, pl. 13, fig. 3); Habe, 1975 (p. 95, pl. 31, fig. 3); Okada, 1981 (p. 123); Inaba, 1982 (p. 105).

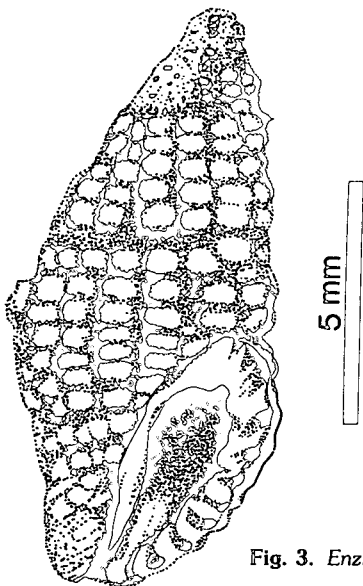


Fig. 3. *Enzinopsis menkeana* (Dunker, 1860) 구슬띠물레고둥

Type locality: Decima (=Dejima), Nagasaki City, Kyushu (*C. menkeana*); Hirado, Nagasaki Pref., Kyushu (*T. submenkeana*) in Japan.

Material examined: 2 specimens (all empty), Kulam, Jul. 11, 1989 (SCUBA); 1 specimen (empty), T'onggumi, Jul. 12, 1989 (SCUBA); 1 specimen (empty), Sömmok, Jul. 16, 1989 (SCUBA).

Description: Shell elongated spindle shape. Whorls 7 in number. Height 11.5mm, breadth 6.3mm. Shell ornamented with blackish brown granules spirally arranged and irregularly arranged white ones. 2 granular lines prominent on whorles. Suture deep, body whorl occupied 3/5 of shell. Outer margin thick and granulated within. Parietal callus with 4 tooth-shaped bosses, inner margin with 2 columellar folds.

Distribution: Japan Sea, Seto Inland Sea, Honshu (Boso Peninsula as north limit), Shikoku, Kyushu, Sagami Bay, Kanto in Japan.

Habitat: On rocks and among gravels between tide marks down to 20m deep.

*9. *Japeuthria ferrea* (Reeve, 1847) 타래고둥

Buccinum ferreum Reeve, 1847a (*Buccinum*, sp. 102).

Fusus viridulus Dunker, 1861 (p. 3, pl. 1, fig. 16).

Euthria ferrea: Smith, 1879 (Proc. Zool. Soc. London, p. 209, pl. 20, figs. 39, 39a, cited from Kuroda *et al.*, 1971).

Euthria ferrea smithii Kobelt, 1881 [Conch. Cab., 3(3b), p. 223, cited from Kuroda *et al.*, 1971].

Euthria viridula: Dunker, 1882 (p. 19, pl. 3, figs. 5-8).

Japeuthria ferrea: Kanamaru, 1932 (p. 280, fig. 52); Ino, 1935 (p. 41); Kuroda *et al.*, 1971 [p. 257(in Japanese), p. 168(in English), pl. 44, figs. 12, 13]; Higo, 1973 (p. 142); Kim *et al.*, 1979 (p. 108); Okada, 1981 (p. 122); Kim & Kwon, 1982 (p. 197); Inaba, 1982 (p. 105); Kim & Kwon, 1983 (p. 322); Kim *et al.*, 1983 (p. 103); Kim & Kim, 1984 (p. 196); Lee *et al.*, 1984 (p. 122); Kim & Kim, 1986 (p. 321); Yoo, 1986 (p. 79, pl. 16, figs. 1, 2); Watanabe & Naruke, 1988 (p. 49).

Pisania (Japeuthria) ferrea: Hirase, 1941 (p. 72, pl. 103, fig. 1); Kawamoto & Tanabe, 1956 (p. 36, pl. 14, fig. 128); Lee, 1956a (p. 8); Lee, 1956b (p. 76); Kang *et al.*, 1971 (p. 61); Oyama, 1973 (p. 44, pl. 14, fig. 14); Kira, 1975 (p. 72, pl. 27, fig. 5).

Type locality: Not mentioned by the author (*B. ferreum*); Decima (=Dejima), Nagasaki City, Kyushu (*F. viridulus*) in Japan.

Material examined: 4 specimens (empty, 1), Ch'önbu, Jul. 15, 1989 (B.L. Choe).

Distribution: Pusan (Yongho, Suyöng), T'ongyöng, Namhae, Wando, Taesambudo, Kömundo, Nöp-to, Yejakto, Chagaedo, Soando, Yösödo, Kukto, Kaldo, Yösu, Ch'ujado, Yokjido, Haekümgang, Hajodo, Ch'öngdüngdo, Kwansado, Kalmokto, Aninjin, Namhae in Korea; Choshi, Seto Inland Sea, Honshu (Boso Peninsula as north limit), Shikoku, Kyushu, Sagami Bay, Kanto, Japan Sea, Yamaguti, Kominato Chibaken in Japan; the Western Pacific Region.

Habitat: Fine sandy bottom between tide marks down to 20m deep.

10. *Kelletia lischkei* Kuroda, 1938 매끈이고둥

Siphonalia kelletii Lischke, 1869 (p. 38, pl. 3, figs. 3, 4) (Non Forbes, 1851, cited from Kuroda *et al.*, 1971); Lischke, 1871 (p. 28).

Siphonalia kelletii S. Hirase, 1908 [Conch. Mag. (Kyoto), 2, p. 1, pl. 23, fig. 1, cited from Kuroda *et al.*, 1971].

Kelletia lischkei Kuroda, 1938 (p. 133. new name for *Siphonalia kelletii* Lischke non Forbes); Kawamoto & Tanabe,

1956 (p. 35); Lee, 1956a (p. 8); Lee, 1956b (p. 76); Kang *et al.*, 1971 (p. 62); Kuroda *et al.*, 1971 [p. 257(in Japanese), p. 168(in English), pl. 46, fig. 5]; Higo, 1973 (p. 143); Kira, 1975 (p. 75, pl. 27, fig. 30); Inaba, 1982 (p. 105); Kim & Kwon, 1982 (p. 197); Kim & Kim, 1984 (p. 195); Yoo, 1986 (p. 80, pl. 16, fig. 9); Watanabe & Naruke, 1988 (p. 49).

Siphonalia (Kelletia) kelletii: Hirase, 1941 (p. 72, pl. 103, fig. 2).

Kelletia lischkei: Kim & Rho, 1971 (p. 8); Kim & Choe, 1981 (p. 197); Okada, 1981 (p. 121).

Type locality: Nagasaki, Kyushu in Japan.

Material examined: 1 specimen (empty), Kulam, Jul. 11, 1989 (SCUBA); 2 specimens (empty 1), Todong (gill net), Jul. 11, 1989. (B.L. Choe); 1 specimen, T'onggumi, Jul. 7, 1989 (SCUBA); 2 specimens, Naesujön, Jul. 13, 1989 (SCUBA); 1 specimen (empty), Hyölam, Jul. 14, 1989 (SCUBA); 5 specimens, Sömmok, Jul. 16, 1989 (SCUBA); 1 specimen, Todong (gill net), May. 20, 1990 (W. Kim).

Distribution: Ullüng Island Sadong (gill net), Pusan Songjöng, T'ongyöng, Yösu, Kyöngbuk, Ch'ujado, Kömundo, Chejudo, Wolsöng, Soando in Korea; Honshu (Boso Peninsula as north limit), Seto Inland Sea, Shikoku, Kyushu, Sagami Bay, Choshi, Japan Sea, Yamaguti in Japan.

Habitat: On rocks from low tide marks down to 50m deep.

* * 11. *Pollia mollis* (Gould, 1860) 밤색털껍질고둥 (신칭) (Fig. 4; Plate-figs. 3, 4)

Pisania mollis Gould, 1860 (p. 327); Habe, 1960 (p. 16).

Tritonidea undulata Schepman, 1891 (Notes Leyden Mus., 13, p. 155, pl. 9, fig. 1, cited from Kuroda *et al.*, 1971).

Tritonidea tosana Pilsbry, 1904 (p. 19, pl. 4, fig. 33).

Cantharis (sic) mollis: Clench, 1952 [Rev. Soc. Mal. Habana, 9(1), p. 5, with fig, cited from Kuroda *et al.*, 1971].

Cantharus (Pollia) mollis: Kawamoto & Tanabe, 1956 (p. 36).

Pollia mollis: Kuroda *et al.*, 1971 [p. 255(in Japanese), p. 167(in English), pl. 44, figs. 10, 11]; Higo, 1973

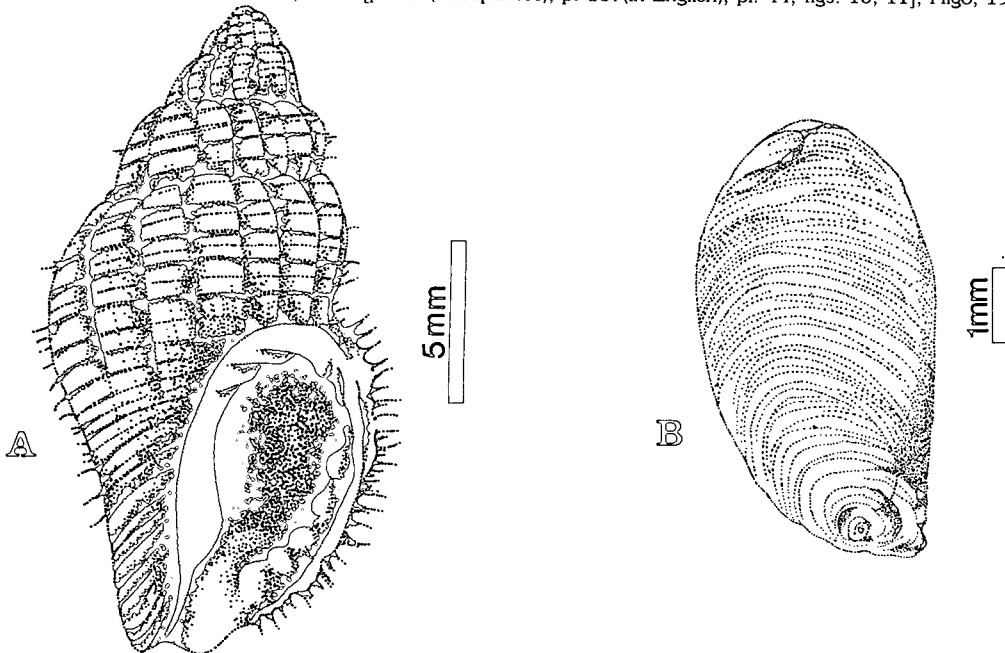


Fig. 4. *Pollia mollis* (Gould, 1860) 밤색털껍질고둥 A, Shell B, Operculum

(p. 141); Habe, 1975 (p. 95, pl. 31, fig. 6); Okada, 1981 (p. 122); Inaba, 1982 (p. 105); Watanabe & Naruke, 1988 (p. 49).

Type locality: Shimoda, Izu Peninsula, Honshu (*P. mollis*); Tosa (Kochi Pref.), Shikoku (*T. tosana*) in Japan.

Material examined: 2 specimens, Kulam, Jul. 11, 1989 (SCUBA); 1 specimen, Naesujŏn, Jul. 13, 1989 (SCUBA); 2 specimens, Ch'ŏnbu, Jul. 15, 1989 (B.L. Choe); 1 specimen, Taep'ungch'wi, Jul. 15, 1989 (SCUBA).

Description: Shell inflated fusiform, with a conic spire. Whorls 7 in number. Height 20.3mm, breadth 10.1mm. Surface covered with a velvety brown periostracum. This species closely resembles *Pollia subrubiginosus* (Smith). But a larger and more inflated shell with distinct narrow cords. Radula formula 1:1:1.

Distribution: Honshu (Boso Peninsula as north limit), Shikoku, Kyushu, Sagami Bay, Seto Inland Sea, Simoda, Choshi, Yamaguti in Japan.

Habitat: On rocks and among gravels between tide marks down to 20m deep. The surface of shell is covered by the cluster of the Hydroid (*Hydractinia epiconcha*).

*12. *Pollia subrubiginosus* (Smith, 1879) 쇠털껍질고둥

Tritonidea subrubiginosus Smith, 1879 (Pro. Zool. Soc. London, p. 206, pl. 20, fig. 40, cited from Kuroda et al., 1971).

Pollia subrubiginosa: Dunker, 1882 (p. 19); Kanamaru, 1932 (p. 280, fig. 55); Kuroda, 1961 (p. 380); Kuroda et al., 1971 [p. 255(in Japanese), p. 167(in English), pl. 43, fig. 21]; Higo, 1973 (p. 142); Inaba, 1982 (p. 105); Watanabe & Naruke, 1988 (p. 49); Habe & Masuda, 1990 (p. 50).

Cantharus fumosus subrubiginosus: Hirase, 1908 [Conch. Mag. (Kyoto), 2(2), p. 29, pl. 25, fig. 30, cited from Kuroda et al., 1971].

Cantharus subrubiginosus: Kanehara, 1931 (p. 41).

Cantharus (Pollia) subrubiginosus: Kawamoto & Tanabe, 1956 (p. 36, pl. 14, fig. 126); Lee, 1958 (p. 18, pl. 2, fig. 2).

Pollia subrubiginosus: Kang et al., 1971 (p. 61); Habe, 1975 (p. 95, pl. 31, fig. 5); Lee et al., 1983 (p. 67); Kim & Shin, 1986 (p. 34).

Type locality: Ukushima, Nagasaki Pref., Kyushu.

Material examined: 5 specimens, Kulam, Jul. 11, 1989 (SCUBA).

Distribution: Chejudo, Tolsando in Korea; Honshu (Boso Peninsula as north limit), Shikoku, Kyushu, Uku-shima, Yamaguti Prefecture in Japan.

Habitat: On rocks and among gravels between tide marks down to 20m deep.

*13. *Buccinum bayani* (Josseaume, 1883) 고운머물레고둥 (신칭)

Tritonium bayani Jousseaume, 1883 (Bull. Soc. Zool. de France, 8, p. 191, pl. 10, fig. 5, cited from Kuroda, 1935).

Buccinum bayani: Teramachi, 1933 (p. 361, textfigs. 1-3, p. 362, textfig. 10; Kuroda, 1935 (p. 158); Higo, 1973 (p. 148); Kira, 1975, p. 77, pl. 28, fig. 14; Habe & Ito, 1979 (p. 66, pl. 23, fig. 5); Habe, 1983 (p. 423, pl. 1, fig. 8); Kim et al., 1983 (p. 103).

Type locality: Not mentioned by the author.

Material examined: 9 specimens, Chŏdong, Jul. 16, 1989 (B.L. Choe).

Distribution: Aninjin in Korea; Japan Sea, Honshu, Hokkaido, Toyama Bay, Kaga, Noto, Echizen

in Japan: Sakhalin in Russia.

Habitat: Muddy bottoms, 100-1000m deep.

Family Nassariidae 좁쌀무늬고둥 과

° 14. *Reticunassa multigranosa* (Dunker, 1847) 외좁쌀고둥

Buccinum multigranosum Dunker, 1847 (Zeit. f. Malakozool., 4, p. 61, cited from Cernohorsky, 1974).

Nassa multigrana: Adams, 1852 (p. 112) (num. null.).

Nassa spurca Gould, 1860 (p. 332).

Nassa dominula Tapparone-Canefri, 1874 (p.123, pl. 1, fig. 17).

Nassa (Hima) acutidentata Smith 1879 (Proc. Zool. Soc. Lond., p. 212, pl. 20, fig. 46, cited from Cernohorsky, 1974); Tryon, 1882 (p. 46, pl. 14, fig. 242).

Nassa (Hima) luteola Smith, 1879 (Proc. Zool. Soc. Lond., p. 212, pl. 20, fig. 47, cited from Kuroda *et al.*, 1971).

Nassa acutidentata: Dunker, 1882 (p. 36).

Nassa (Hima) dominula: Pilsbry, 1895 (Cat. mar. moll. Japan, p. 36, cited from Cernohorsky, 1974).

Nassarius dominulus: Hirase, 1936 (Cat. Jap. Shells, p. 76, pl. 106, fig. 11, cited from Cernohorsky, 1974).

Tritia (Reticunassa) acutidentata: Kawamoto & Tanabe, 1956 (p. 37, pl. 15, fig. 146); Lee, 1956b (p. 76).

Reticunassa acutidentatus: Habe, 1958 (Publ. Akkeshi Mar. Biol. Stat., no. 8, p. 28, pl. 3, fig. 4, cited from Cernohorsky, 1974).

Hinia (Reticunassa) beata: Habe & Igarashi, 1967 [Contrib. Fish. Mus. Hokkaido Univ., no. 6, p. 22 (non *Nassa beata* Gould, 1860), cited from Cernohorsky, 1974]].

Reticunassa spurca: Kuroda *et al.*, 1971 [p. 268(in Japanese), p. 175(in English), pl. 47, figs. 17-19]; Higo, 1973 (p. 151); Kira, 1975 (p. 80, pl. 29, fig. 12); Inaba, 1982 (p. 107); Watanabe & Naruke, 1988 (p. 50).

Reticunassa acutidentata: Kim, 1973 (p. 429).

Reticunassa chibi: Higo, 1973 (p. 151).

Nassarius (Hima) multigranosus: Cernohorsky, 1974 (p. 56, figs. 1-6).

Reticunassa beata: Okada, 1981 (p. 126); Kim & Kim, 1984 (p. 196); Tomita & Mazushima, 1984 (p. 333).

Nassarius (Reticunassa) spurcus: Qi *et al.*, 1989 (p. 69, pl. 7, fig. 16).

Type locality: Hakodadi, Hokkaido (*N. spurca*); Ojika Bay and Ukujima, Goto Islands, Kyushu (*N. acutidentata*) in Japan.

Material examined: 2 specimens (empty 1), Kulam, Jul. 11, 1989 (Y.J. Kim); 1 specimen (empty), Tonggumi, Jul. 12, 1989 (SCUBA); 2 specimens (empty 1), Sömmok, Jul. 16, 1989 (SCUBA).

Distribution: Tongyöng, Paengnyöngdo, Kömundo in Korea; Kurosaki, Hokkaido, Honshu, Shikoku, Kyushu, Amami Islands, Okinawa, Notsuke Bay, Seto Inland Sea, Choshi, Japan Sea in Japan; North China; Sakhalin in Russia.

Habitat: On sandy and gravelly bottoms between tide marks down to 20m deep.

Family Fascioliidae 긴고둥 과

° 15. *Fusinus perplexus* (A. Adams, 1864) 긴빨고둥

Fusus perplexus Adams, 1864 (p. 106).

Fusus inconstans Lischke, 1868 (p. 218); Lischke, 1869 (p. 34, pl. 2, figs. 1-6); Lischke, 1871 (p. 26, pl. 3, figs. 1-5); Dunker, 1882 (p. 110).

Fusus perplexus nagasakii: Smith, 1904 [Misc. Coll., 44(1417), p. 33, cited from Kuroda *et al.*, 1971].

Fusus perplexus nagasaki: Hirase, 1941 (p. 69, pl. 100, fig. 8).

Fusinus perplexus: Kawamoto & Tanabe, 1956 (p. 37); Lee, 1956a (p. 9); Lee, 1956b (p. 77); Kang *et al.*, 1971 (p. 62); Kuroda *et al.*, 1971 [p. 280(in Japanese), p. 183(in English), pl. 49, fig. 4]; Higo, 1973 (p. 157); Oyama, 1973 (p. 46, pl. 14, figs. 26, 28); Kira, 1975 (p. 83, pl. 30, fig. 2); Habe & Ito, 1979 (p. 76, pl. 29, fig. 1); Kim *et al.*, 1979 (p. 108); Okada, 1981 (p. 128); Inaba, 1982 (p. 109); Kim & Kwon, 1983 (p. 323); Watanabe & Naruke, 1988 (p. 51).

Fusinus perplexus: Yoo, 1986 (p. 82, pl. 17, figs. 3-6).

Type locality: Tatiyama, Boso Peninsula, Honshu in Japan.

Material examined: 3 specimens (empty 2), Todong, Jul. 11, 1989 (B.L. Choe); 1 specimen (empty), Chŏdong (fish trap), Jul. 16, 1989 (B.L. Choe); 1 specimen, Sadong, Jul. 17, 1989 (B.L. Choe).

Distribution: Pusan (Songdo, Yongho, Haeundae), Pangŏjin, Ilsanjin, Kŏjedo, Tongyŏng, Namhae, Muan, Kaldŏ, Hajodo, Kogŏmdo in Korea; Seto Inland Sea, Amadaiba-Kannontsukadashi, Choshi, Japan Sea, Sagami Bay, Kanto, Southern Hokkaido, Honshu, Shikoku, Kyushu, Yamaguti in Japan; Taiwan.

Habitat: Sandy bottom of 10-50m deep.

16. *Fusinus forceps salisburyi*: Fulton, 1930 큰귀뿔고둥

Murex forceps Perry, 1811 (Conchology, pl. 2, fig. 4, cited from Kuroda *et al.*, 1971).

Fusus turricula Kiener, 1840 (Icon. Coq. viv., *Fusus*, p. 6, pl. 5, fig. 1, cited from Kuroda *et al.*, 1971).

Fusus turricula Reeve, 1847b (*Fusus*, sp. 23).

Fusinus salisburyi Fulton, 1930 (Proc. Malac. Soc. London, 19, p. 16, pl. 2, fig. 1, cited from Kuroda *et al.*, 1971).

Fusinus forceps salisburyi: Kuroda *et al.*, 1971 [p. 281(in Japanese), p. 183(in English), pl. 49, fig. 2, pl. 51, fig. 4]; Higo, 1973 (p. 158); Kim & Choe, 1981 (p. 197); Inaba, 1982 (p. 109); Okutani *et al.*, 1988 (p. 171).

Fusinus forceps: Kira, 1975 (p. 83, pl. 30, fig. 9).

Type locality: Kii (Wakayama Pref.), Honshu in Japan.

Material examined: Not found in the present materials examined.

Distribution: Ullŭng Island Todong (gill net) in Korea; Jogashima, Honshu, Shikoku, Seto Inland Sea, Choshi, Boso Peninsula to Kyushu in Japan; East China Sea in China.

Habitat: Fine sandy bottom of 20-100m deep.

Superfamily Volutacea 홍줄고둥 상과

Family Mitridae 뿔고둥 과

*17. *Pusia inermis* (Reeve, 1845) 접박이뿔고둥

Mitra inermis Reeve, 1845 (*Mitra*, sp. 279).

Mitra (Pusia) inermis Smith, 1879 (Proc. Zool. Soc. London, p. 216, pl. 20, fig. 53, cited from Kuroda *et al.*, 1971); Dunker, 1882 (p. 53).

Mitra (Costellaria) hizenensis Pilsbry, 1901 (p. 386, pl. 21, fig. 31); Inaba, 1982 (p. 110).

Pusia hizenensis: Kawamoto & Tanabe, 1956 (p. 38); Habe, 1975 (p. 106, pl. 34, fig. 2); Okada, 1981 (p. 135);

Yoo, 1986 (p. 81, pl. 16, figs. 13, 14).

Pusia inermis: Kuroda *et al.*, 1971 [p. 296(in Japanese), p. 193(in English), pl. 53, figs. 24, 25]; Higo, 1973 (p. 169); Inaba, 1982 (p. 110); Watanabe & Naruke, 1988 (p. 52).

Pusia inermis awajensis: Higo, 1973 (p. 169).

Pusia kraussi: Higo, 1973 (p. 169); Habe & Ito, 1979 (p. 45, pl. 13, fig. 10).

Type locality: Philippines (*M. inermis*); Hirado, Nagasaki Pref., Kyushu (*M. hizenensis*) in Japan.

Material examined: 1 specimen (empty), T'onggumi, Jul. 12, 1989 (SCUBA); 1 specimen (empty), Taep'ungch'wi, Jul. 15, 1989 (B.L. Choe).

Distribution: Korea; Seto Inland Sea, Japan Sea, Honshu (Boso Peninsula as north limit), Shikoku, Kyushu, Sagami Bay, Choshi, Yamaguti, Southern Hokkaido in Japan; Philippines; The Pacific.

Habitat: On rocks and gravels between tide marks down to 20m deep.

| | |
|---------------------------|----------|
| Subclass Pulmonata | 유폐 아강 |
| Order Basommatophora | 기안 목 |
| Suborder Archaeopulmonata | 원시유폐 아목 |
| Superfamily Siphonariacea | 고랑딱개비 상과 |
| Family Siphonariidae | 고랑딱개비 과 |

*18. *Sacculosiphonaria japonica* (Donovan, 1834) 고랑딱개비

Patella japonica Donovan, 1834 (Exotic Nat. Hist., 3, pl. 79, cited from Kuroda *et al.*, 1971).

Siphonaria cochleariformis Reeve, 1856 (*Siphonaria*, sp. 28).

Siphonaria alterniplicata Grabau & King, 1928 (Shells of Peitaiho. Peking, 237, pl. 11, figs. 117a, b, c, cited from Qi *et al.*, 1989).

Siphonaria japonica: Kuroda, 1941 (p. 137); Hirase, 1941 (p. 94, pl. 121, fig. 12); Kawamoto & Tanabe, 1956 (p. 52); Lee, 1956a (p. 10); Lee, 1956b (p. 79); Kang *et al.*, 1971 (p. 65); Tsi & Ma, 1980 (p. 443); Chau *et al.*, 1982 (p. 81, pl. 7, fig. 3, pl. 2, fig. 4); Christiaens, 1980 (p. 466); Qi *et al.*, 1989 (p. 143).

Siphonaris (Sacculosiphonaria) cochleariformis: Hubendick, 1946 [Kungl. Vet.-Akad. Nya. Handl., 23(5), p. 43, pl. 2, figs. 33-35, cited from Kuroda *et al.*, 1971].

Sacculosiphonaria japonica: Kuroda *et al.*, 1971 [p. 483(in Japanese), p. 302(in English), pl. 64, fig. 7]; Higo, 1973 (p. 288); Kira, 1975 (p. 201, pl. 69, fig. 8); Kim *et al.*, 1983 (p. 103); Kim & Kim, 1984 (p. 196); Kim & Kim, 1986 (p. 321); Watanabe & Naruke, 1988 (p. 70).

Siphonaria (Sacculosiphonaria) japonica: Christiaens, 1977 (p. 79); Habe & Ito, 1979 (p. 87, pl. 31, fig. 15); Okada, 1981 (p. 188); Inaba, 1982 (p. 145); Yoo, 1986 (p. 89, pl. 19, figs. 1-5).

Siphonaris (Sacculosiphonaria) japonica: Kim & Kwon, 1983 (p. 323).

Type locality: Japan.

Material examined: 2 specimens (all empty), Kulam, Jul. 11, 1989 (SCUBA); 2 specimens (all empty), Kulam, Jul. 11, 1989 (Y.J. Kim); 8 specimens (empty 1), Hyölam, Jul. 14, 1989 (B.L. Choe); 1 specimen, Hyölam, Jul. 14, 1989 (Y.J. Kim); 5 specimens, Sadong (intertide), Jul. 17, 1989 (B.L. Choe).

Distribution: Pusan (Yöngdo), Sangjodo, Hajodo, Kwansado, Ch'ujado, Kwanmaedo, Taesambudo, Kömundo, Taehöksando, Chumunjin, Pijin, Kalmokto, Aninjin in Korea; Japan Sea, Honshu (Boso Peninsula as north limit), Shikoku, Kyushu, Sagami Bay, Seto Inland Sea, Choshi, Hokkaido, Yamaguti in Japan;

North China, Huanghai, Bohai, Coast of Liaoning to Hainan Island in China; Hong Kong.

Habitat: On rocks between tide marks.

*19. *Anthosiphonaria sirius* (Pilsbry, 1894) 꽃고랑딱개비

Siphonaria sirius Pilsbry, 1894 (Nautilus, 8, p. 9, cited from Kuroda *et al.*, 1971); Hirase, 1941 (p. 94, pl. 121, fig. 16); Kawamoto & Tanabe, 1956 (p. 53, pl. 17, fig. 170); Lee, 1958 (p. 21, pl. 4, fig. 2); Kang *et al.*, 1971 (p. 65).

Siphonaria (Siphonaria) sirius: Hubendick, 1946 [Kungl. Vet.-Akad. Nya. Handl., 23(5), p. 50, pl. 3, figs. 24-27, cited from Kuroda *et al.*, 1971].

Anthosiphonaria sirius: Kuroda *et al.*, 1971 [p. 483(in Japanese), p. 303(in English), pl. 64, fig. 9]; Higo, 1973 (p. 288); Kira, 1975 (p. 201, pl. 69, fig. 12); Inaba, 1982 (p. 145); Watanabe & Naruke, 1988 (p. 70).

Siphonaria (Mestosiphon) sirius: Okada, 1981 (p. 188).

Type locality: Sagami, Kashiwajima, Boshu (Chiba Pref., Honshu) in Japan.

Material examined: 1 specimen, Naesujŏn, Jul. 13, 1989 (SCUBA); 7 specimens, Sŏmmok, Jul. 16, 1989 (SCUBA).

Distribution: Korea; Honshu (Boso Peninsula as north limit), Shikoku, Seto Inland Sea, Kyushu, Okinawa, Sagami Bay, Japan Sea, Choshi, Yamaguti, Amami-Ōshima in Japan; The Pacific.

Habitat: On rocks between tide marks.

ABSTRACT

The present study on the classification and description of the marine Neogastropoda and Basommatophora was based on the materials which were collected during the period from 12th to 17th of July in 1989 at ten localities of Ullŭng Island, Korea.

All of 7 families and 19 species were reported including the 16 unrecorded species from the Ullŭng Island as a result of this study.

Among them, 3 species [*Zafrona (Clathranachis) japonica* (A. Adams, 1860), *Enzinopsis menkeana* (Dunker, 1860) and *Pollia mollis* (Gould, 1860)] were new to the fauna of Korea.

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PLATE

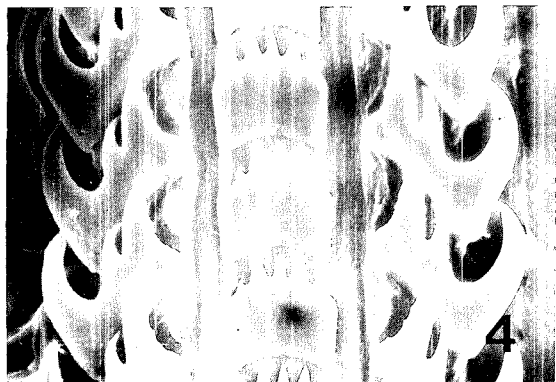
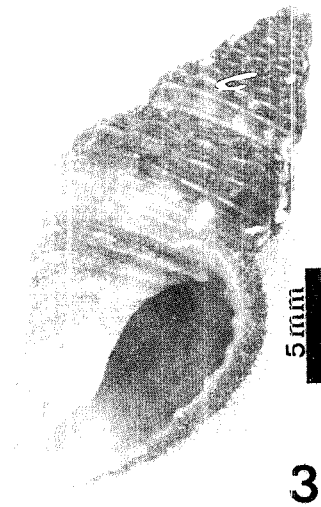
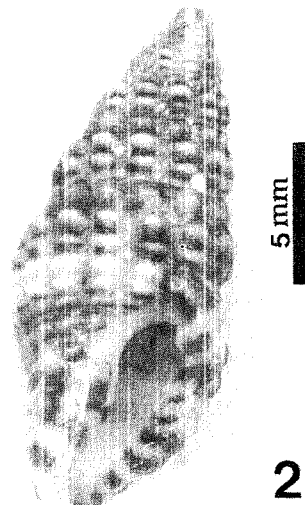
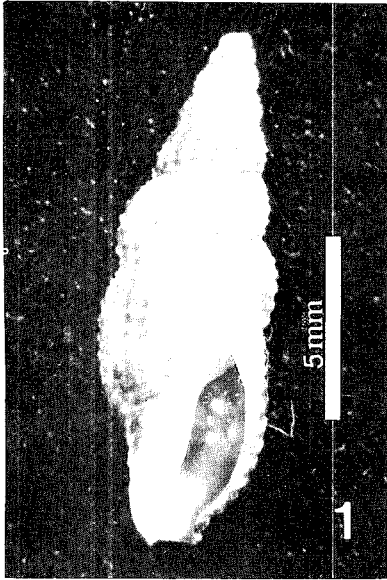


Fig. 1. *Zafrona (Clathranachis) japonica* (A. Adams, 1860) shell, from Sömmok
Fig. 2. *Enzinopsis menkeana* (Dunker, 1860) Shell, from Kulam
Figs. 3, 4. *Pollia mollis* (Gould, 1860): Shell; Radula (X300, 100 μ m), from Ch'önbu