

# The Brachyuran Crabs (Crustacea: Decapoda) of Ulreung Island, Korea

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The eight species, *Cryptodromia tumida*, *Scyra compressipes*, *Chionoecetes opilio*, *Achaeus japonicus*, *Halicarcinus orientalis*, *Portunus gladiator*, *Neoliomera insularis*, *Pinnotheres sinensis*, are added to the brachyuran fauna of the Ulreung and Dogdo Islands. One of eight species, *Halicarcinus orientalis*, is new to Korean waters. With the previously known 20 species from these areas, the total 28 species are listed and one unrecorded species is described.

**KEY WORDS:** Brachyuran crabs, Decapoda, Ulreung Island.

The brachyuran (Crustacea: Decapoda) fauna of Ulreung Island has been poorly known and the twenty species have been recorded from Ulreung and Dogdo Islands (Kim, 1973; Kim, 1977; Kim and Choe, 1981; Kim and Kim 1982). The present study was based on the materials collected during the periods from the July 1989 to August 1991 in Ulreung Island. Specimens were obtained from fishing nets, and collected by hand and scuba diving. In the present study, 24 species were examined. Of these, two species are waiting for the further study, and the rest 22 species were identified. The results shows that eight species are newly recorded from the areas of the Ulreung and Dogdo Islands and contain one unrecorded species from Korea. The 28 species are listed in this paper and one unrecorded species are described with illustrations. The "Material Examined" section lists all specimens examined. The "Literatures" section in each species lists the references of the species from Ulreung and Dogdo Islands.

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## Systematic Account

**Infraorder Brachyura Latreille, 1803** 단미 하목  
**Section Dromiacea De Haan, 1883** 해면치레 절  
**Superfamily Dromioidea De Hann, 1883** 해면치레 상과  
**Family Dromiidae De Haan, 1883** 해면치레 과

1. *Cryptodromia tumida* Stimpson, 1858 갯가해면치레

**Material Examined.**-1 ♂, Hyölam, July 14, 1989; 1 ♂, Samsönam, Nov. 16, 1990.

**Literatures.**-Kim, 1973: 276, pl. 74, fig. 50, textfig. 78; Kim and Kim, 1982: 148.

**Remarks.**-In Korea, this species was known to occur in the areas of Korea Strait and Cheju Island. The present specimens are first reported from the areas of East Sea as well as from Ulreung and Dogdo Islands.

**Section Oxyrhyncha Latreille, 1803** 첨두 절  
**Superfamily Majoidea Samouelle, 1819** 물맞이게 상과  
**Family Majidae Samouelle, 1819** 물맞이게 과

**2. *Pugettia quadridens quadridens* (De Haan, 1839) 뿔맞이게**

**Material Examined.**-2 ♀ (ovig.), Hyōlam, July 14, 1989; 2 ♂♂, 4 ♀♀ (ovig.), Kulam, July 11, 1989 (scuba); 5 ♀♀ (ovig.), Taepungch'wi, July 15, 1989; 1 ♂, Naesoojōn Yaksoori, July 13, 1989; 1 ♂, Dodong (fishing net), July 16, 1989; 6 ♂♂ (3 young), Dodong, Nov. 16, 1990; 1 ♂, Samsōnam, Nov. 16, 1990; 1 ♂, Dodong, May 20, 1990

**Literatures.**-Kim, 1973: 530, pl. 53, fig. 194, text-fig. 248; Kim and Choe, 1981: 197; Kim and Kim, 1982: 154.

**3. *Scyra comparessipes* Stimpson, 1857 납작뿔게**

**Material Examined.**-2 ♂♂, Dodong, July 16, 1989

**Literatures.**-Kim, 1973: 538, pl. 53, fig. 20, text-fig. 252; Kim, 1985: 80.

**Remarks.**-This species is a new record from Ulreung and Dogdo Islands.

**4. *Chionoecetes opilio* (O. Fabricius, 1788) 대게**

**Material Examined.**-4 ♀♀, Dodong, July 16, 1989.

**Literatures.**-Kim, 1973: 525, pl. 52, fig. 19, text-fig. 245; Kim, 1985: 79.

**Remarks.**-This species is a new record from Ulreung and Dogdo Islands.

**5. *Hyas coartatus* Leach, 1815 두꺼비게**

**Material Examined.**-2 ♂♂, 2 ♀♀, Dodong, July 16, 1989.

**Literatures.**-Kim, 1973: 523, pl. 51, fig. 189, text-fig. 243; Kim and Kim, 1982: 154.

**6. *Achaeus japonicus* De Haan, 1839 아케우스게**

**Material Examined.**-1 ♂, 2 ♀♀, Dodong, July 16, 1989.

**Literatures.**-Kim, 1973: 517, pl. 50, fig. 185, text-fig. 238; Kim and Chang, 1985: 45.

**Remarks.**-This species is a new record from Ulreung and Dogdo Islands.

**Superfamily Hymenosomatoidea MacLeay, 1838 말랑게 상과**

**Family Hymenosomatidae MacLeay, 1838 말랑게 과**

**7. *Rhynchoplax messor* Stimpson, 1858 주걱말랑게**

**Material Examined.**-1 ♀ (ovig.), Sōmmok, July 16, 1989; 1 ♂, 3 ♀♀ (ovig.), Kulam, July 11, 1989 (scuba); 3 ♂♂, 3 ♀♀ (2ovig.), Hyōlam, July 14, 1989 (scuba); 1 ♀ (ovig.), Taepungch'wi (Hyōnpo), July 15, 1989; 1 ♀ (ovig.), Naesoojōn Yaksoori, July 13, 1989; 2 ♂♂, Samsōnam, Nov. 16, 1990; 1 ♂, Kwanūmdo, Nov. 16, 1990.

**Literatures.**-Kim, 1973: 507, pl. 98, fig. 179, text-fig. 231; Kim and Choe, 1981: 197; Kim and Kim, 1982: 153.

**8. *Halicarcinus orientalis* Sakai, 1932 같은뿔말랑게 [신칭] Fig. 1**

*Halicarcinus orientalis* Sakai, 1932: 42, pl. 2, fig. 1, text-fig. 1.-Sakai, 1976: 146, pl. 46, fig. 1.

**Material Examined.**-1 ♀ (ovig.), Tonggumi, July 12, 1989.

**Description.**-Carapace defined by marginal rim; rim circular in shape. Dorsal surface of carapace convex in mesogastric, cardiac, epibranchial, and mesobranchial regions, and with H grooves indistinct. Frontal region with three lobules subequal and equidistantly disposed. Lateral margin of carapace with three obtuse spine-like tubercles; one in midlength, one in anterior one fourth, and one between these two.

Both chelipeds equal in length and shape of this female specimen. Palm of chela as long as fingers, dilated laterally. Fingers deflexed inwards, with little gape on proximal half when closed; distal half with irregular teeth; tips crossing each other when closed.

Walking legs similar in shape, slender with dense curled hairs on superior and inferior margins especially, without any spinulation. Dactyli of all walking legs biunguolate at tip; lower one curved

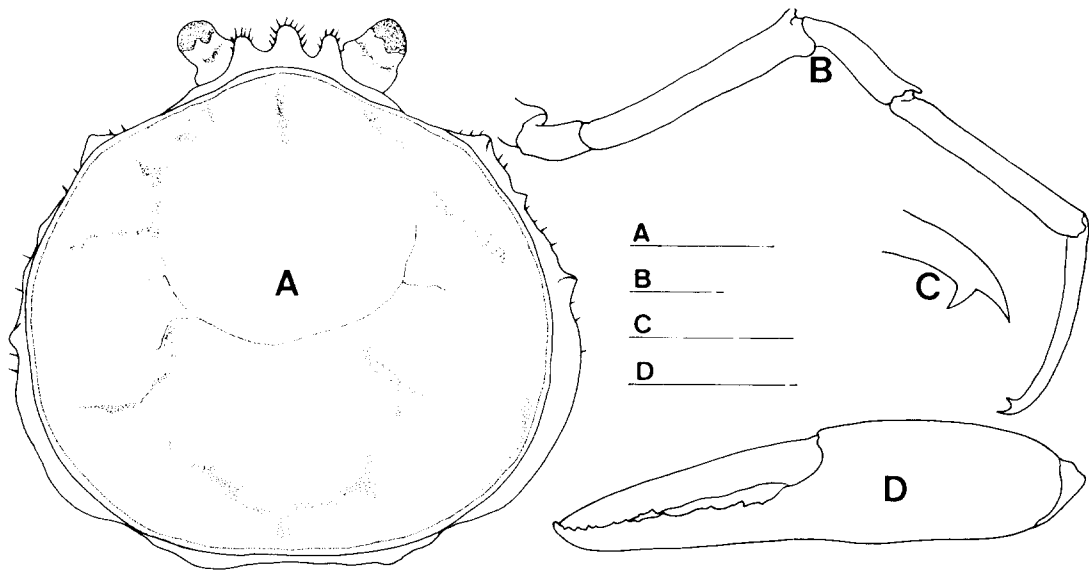


Fig. 1. *Halicarcinus orientalis*, ovigerous female, carapace length 3.5 mm, carapace breadth 3.7 mm: A, carapace; B, right first walking leg; C, same, tip of dactylus; D, fingers and palm of right cheliped. Scale bars: A, B, D = 1 mm, C = 0.05 mm.

inferiorly.

**Remarks.**—Five species of family Hymenosomatidae have been known in Korean waters, three in the genus *Rhynchoplax*, one in the genus *Elamena*, and one in the genus *Trigonoplax*. From the present study another genus, *Halicarcinus*, is known to occur in Korean waters. The total six species can be distinguished from each other by the general shape of carapace and the shape of the frontal region (Fig. 2). This species is also easily distinguished from the species of *Rhynchoplax* in Korean waters by the biungulate dactyli of walking legs. The present species was known to be endemic to Japan. Now the world distribution of this species extends to the area of Ulreung Island, Korea.

**Type Locality.**—Ise Bay, Japan.

**Distribution.**—Japan: Tokyo Bay, Sagami Bay, Izu Peninsula, Ise Bay, Kii Peninsula, Tosa Bay and Nagasaki. Now from Ulreung Island, Korea.

**Section Cancridea Latreille, 1803** 은행계 절

**Superfamily Cancroidea Latreille, 1803** 은행계 상과

**Family Cancridae Latreille, 1803** 은행계 과

**9. *Cancer gibbosulus* De Haan, 1835** 두드러기 은행계

**Literatures.**—Kim, 1973: 331, pl. 18, fig. 81, textfig. 115; Kim and Choe, 1981: 197; Kim, 1985: 81.

**10. *Cancer amphioetus* Rathubn, 1898** 꼬마은행계

**Literatures.**—Kim, 1973: 332, pl. 79, fig. 82, textfig. 116; Kim and Choe, 1981: 197; Kim and Kim, 1982: 149; Kim, 1985: 81.

**Section Brachyrhyncha Borradaile, 1907** 방두 절  
**Superfamily Portunoidea Rafinesque, 1815** 꽃게 상과

**Family Portunidae Rafinesque, 1815** 꽃게 과

**11. *Ovalipes punctatus* (De Haan, 1833)** 깨다시 꽃게

**Literatures.**—Kim, 1973: 346, pl. 19, fig. 89., textfig. 122; Kim and Kim, 1982: 150.

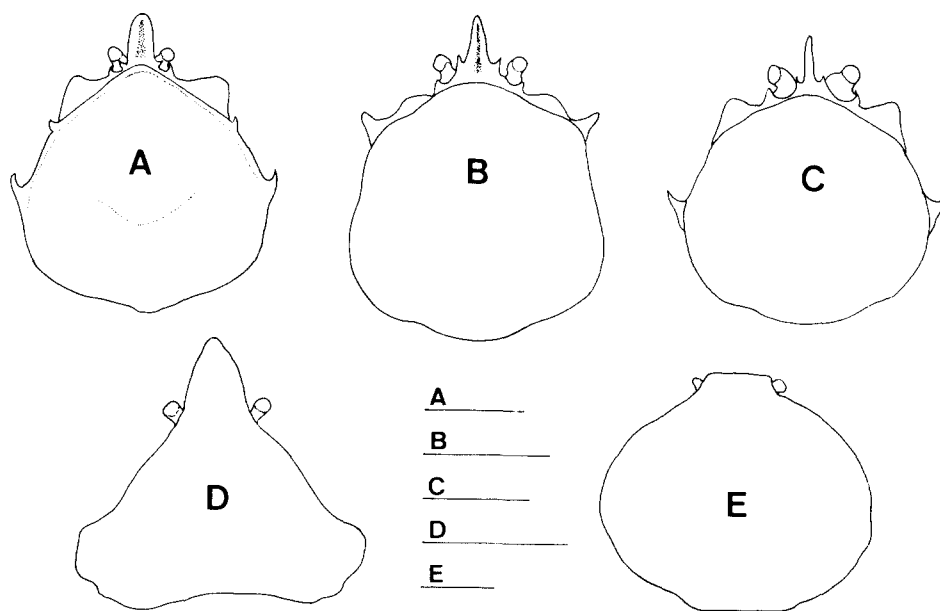


Fig. 2. Outline of carapces of five species of family Hymenosomatidae. A, *Rynchoplax messor*; B, *R. coralicola*; C, *R. setirostris*; D, *Trigonoplax unguiformis*; E, *Elamena truncata*. Scale bars: A, B, D, E = 2 mm; C = 1 mm.

12. *Portunus trituberculatus* (Miers, 1876) 꽃게

꽃게

**Literatures.**-Kim, 1973: 353, pl. 21, fig. 93, textfig. 126.

**Material Examined.**-1 ♂, 2 ♀♀ (ovig.), Dodong (fishing net), July 10, 1989; 1 ♂, Dodong (fishing net), May 20, 1990.

13. *Portunus gladiator* Fabricius, 1789 두드러기 꽃게

**Material Examined.**-2 ♂♂, Dodong (fishing net), July 10, 1989.

**Literatures.**-Kim, 1973: 356, pl. 81, fig. 95, textfig. 128.

**Remarks.**-In Korea, this species was known to occur in the areas of Korea Strait and Cheju Island. The present specimens are first reported from the area of East Sea as well as from Ulreung and Dogdo Islands in Korea.

**Literatures.**-Kim, 1973: 347, pl. 20, fig. 90, textfig. 123; Kim and Choe, 1981: 197; Kim and Kim, 1982: 138, 150.

**Superfamily Xanthoidea** MacLeay, 1838 부채계 상과

**Family Xanthidae** MacLeay, 1939 부채계 과

14. *Thalamita sima* H. Milne Edwards, 1834 두갈래민꽃게

**Literatures.**-Kim, 1973: 368, pl. 24, fig. 102, textfig. 137; Kim and Kim, 1982: 150.

16. *Neoliomera insularis* (White, 1847) 꼬마매끈이송편게

**Material Examined.**-1 ♂ (young), Taepungch'wi (Hyönpo), July 15, 1989.

**Literatures.**-Kim, 1973: 374, pl. 82, fig. 105, textfig. 139.

15. *Liocarcinus corrugatus* (Pennant, 1777) 주름

**Remarks.**-In Korea, this species was known to occur in the areas of Korea Strait and Cheju Island. The present specimens are first reported from the area of East Sea as well as from Ulreung and Dogdo Islands.

**17. Gaillardielus orientalis (Odhner, 1925) 털부채계**

*Actaea rueppelli orientalis*.-Kim, 1973: 385, pl. 27, fig. 112., textfig. 148; Kim and Choe, 1981: 197; Kim and Kim, 1982: 151.

*Gaillardielus orientalis*.-Kim and Chang, 1985: 54.

**Material Examined.**-1 ♂, Hyölam, July 14, 1989; 1 ♀, Dodong (fishing net), May 20, 1990.

**Remarks.**-This species belonged to genus *Actaea* previously. Later Guinot (1976) recombined this species with genus *Gaillardielus*.

**18. Pilumnus minutus De Haan, 1835 애기털보부채계**

**Material Examined.**-5 ♀♀ (2ovig.), Hyölam, July 14, 1989; 1 ♂, Kulam, July 11, 1989; 4 ♂♂, 7 ♀♀ (3ovig., 2juv.), Hyölam, July 14, 1989; 1 ♂, 2 ♀♀ (1ovig., 1juv.), Tonggumi, July 12, 1989; 2 ♂♂, 1 ♀ (ovig.), Sömmok, July 16, 1989; 4 ♂♂, 9 ♀♀ (1ovig., 4juv.), Taepungch'wi (Hyön-po), July 15, 1989; 1 ♀, Gwanüm-do, Nov. 16, 1990.

**Literatures.**-Kim, 1973: 395, pl. 83, fig. 117, textfig. 155; Kim and Choe, 1981: 197; Kim and Kim, 1982: 151.

**19. Actaea semblatae Guinot, 1976 옴부채계**

*Actaea savingyi*.-Kim, 1973: 383, pl. 83, fig. 111, textfig. 147; Kim and Choe, 1981: 197; Kim and Kim, 1982: 151.

*Actaea semblatae*.-Kim and Chang, 1985: 54.

**material Examined.**-2 ♂♂, Hyölam, July 14, 1989.

**Remarks.**-This species was known as *Actaea savingyi* H. Milne Edwards, 1834. Guinot (1976) synonymized this species with *Actaea semblatae*.

**20. Atergatis reticulatus De Haan, 1833 주름송편계**

**Material Examined.**-1 ♂, Hyölam, July 14, 1989; 1 ♂, Dodong (fishing net), July 10, 1989.

**Literatures.**-Kim, 1973: 377, pl. 26, fig. 107, textfig. 142; Kim and Choe, 1981: 197.

**21. Macromedaeus distinguendus (De Haan, 1935) 꽃부채계**

**Literatures.**-Kim, 1973: 379, pl. 27, fig. 108, textfig. 143; Kim and Choe, 1981: 196; Kim and Kim, 1982: 151.

**Superfamily Grapsidoidea MacLeay, 1838 바위계상과**

**Family Grapsidae MacLeay, 1838 바위계과**

**22. Pachygrapsus crassipes Randall, 1839 바위계**

**Material Examined.**-5 ♂♂, 2 ♀♀ (2ovig.), Hyölam, July 16, 1989; 1 ♂, Sömmok, July 16, 1989; 1 ♂, 1 ♀ (ovig), Tonggumi, July 12, 1989; 2 ♂♂, Dodong (fishing net), July 10, 1989.

**Literatures.**-Kim, 1973: 459, pl. 40, fig. 151, textfig. 197; Kim and Choe, 1981: 196; Kim and Kim, 1982: 152.

**23. Acmaeopleura parvula Stimpson, 1858 애기비단계**

**Literatures.**-Kim, 1973: pl. 91, fig. 152, textfig. 199; Kim and Kim, 1982: 152.

**24. Hemigrapsus penicillatus (De Haan, 1835) 풀계**

**Literatures.**-Kim, 1973: 473, pl. 42, fig. 159, textfig. 207; Kim and Kim, 1982: 153.

**25. Gaetice depressus (De Haan, 1835) 납작계**

**Literatures.**-Kim, 1973: 477, pl. 43, fig. 162, textfig. 211; Kim and Kim, 1982: 153.

**26. Cyclograpsus intermedius Ortmann, 1894 비단계**

**Material Examined.**-1 ♂, Sadong 2 dong, July 17, 1989; 4 ♂♂, 1 ♀, 1juv., Naesoojön Yaksoori, July 13, 1989.

**Literatures.**-Kim, 1973: 492, pl. 46, fig. 171, textfig. 220; Kim and Choe, 1981: 196; Kim and Kim, 1982: 153.

**27. *Hemigrapsus sanguineus* (De Haan, 1835)**

무늬발게

**Material Examined.**-5 ♂♂, 1 ♀ (ovig.), Hyölam, July 14, 1989; 1 ♂, Ch'önboo, July 15, 1989; 1 ♂, Sömmok, July 16, 1989; 1 ♂, Dodong (fishing net), July 10, 1989.

**Literatures.**-Kim, 1973: 472, pl. 42, fig. 158, textfig. 206; Kim and Kim, 1982: 153.

**Superfamily Pinnotheroidea De Haan, 1833** 속살이게 상과

**Family Pinnotheridae De Haan, 1833** 속살이게과

**28. *Pinnotheres sinensis* Shen, 1932** 굴속살이게

**Material Examined.**-1 ♀, Hyöam, July 14, 1989.

**Literatures.**-Kim, 1973: 415, pl. 86, fig. 128, textfig. 167; Kim and Kim, 1982: 151.

**Remarks.**-In Korea, this species was known to occur in the areas of Korea Strait, Cheju Island, and Yellow Sea. The present specimen is first reported from the area of East Sea as well as from Ulreung and Dogdo Island in Korea.

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**울릉도 해역의 게류(갑각상강 : 십각목)**

김 원 (서울대학교 자연과학대학 분자생물학과)

울릉도와 독도 근해에 서식하는 게류의 종류상에 8종, *Cryptodromia tumida*, *Scyra compressipes*, *Chionoecetes opilio*, *Achaeus japonicus*, *Halicarcinus orientalis*, *Portunus gladiator*, *Neoliomera insularis*, *Pinnotheres sinensis*, 이 새로이 추가된다. 이 중에서 한종, *Halicarcinus orientalis*은 한국미기록종이다. 과거 이 지역에서 알려진 20종의 게류를 포함한 총 28종에 대한 분류 목록을 작성하였으며, 한국미기록종에 대해서는 기재를 하였다.