

New Records of Three Brachyuran Species (Crustacea, Decapoda) from Korea

Hoon Soo Kim* and Byung Lac Choe**

(* Department of Zoology, Seoul National University)
(** Kunsan Fisheries Technical Junior College)

韓國 未記錄 種類(甲殼綱, 十脚目) 3種에 관하여

金 熏 洙* · 崔 炳 來**

(* 서울대 · 文理대 · 動物學科)
(** 蔚山水專)

(Received January 19, 1969)

摘 要

著者들이 1957년부터 1968年 사이에 南韓의 海岸一帶에서 採集한 種類(短尾類) 中 韓國未記錄 3種 즉 *Rhynchoplax coralicola* Rathbun, *Hemigrapsus sinensis* Rathbun 및 *Nanosesarma gordonii* (Shen)를 記載 報告한다.

Examining the crabs collected by us at the coastal seas of South Korea during a period ranging from 1957 to 1968, we found three species which should be added in the list as new to the fauna of Korea. In the present paper these three species are described briefly, the descriptions being stressed on the male first plepod except *Nanosesarma gordonii*.

Family Hymenosomidae

1. *Rhynchoplax coralicola* Rathbun, 1909

Korean name: Bbul-malrang-ge(뿔말랑게)

(Text-figs. 1, 2 A)

Rhynchoplax coralicola Rathbun, 1909, p. 103(cited from Sakai, 1938, 1965). —: Sakai, 1938, p. 199; 1965, English part, p. 63, Japanese part, p. 26, pl. 25, fig. 4.

Material examined

1♂(carapace length=cl: 4.8 mm, carapace breadth=cb: 3.6 mm), from Hanrim, Cheju Island, in July 12, 1965; 4♂♂(cl:3.1—4.2 mm, cb: 2.3—3.5 mm), 1♀(ovig., cl: 4.2 mm, cb: 3.5 mm), from Mijo, Namhae Island, Cholla Nam Province, in July 27, 1967. All materials entangled in the sea-weeds on the rocky beaches at low water marks.

Description

The carapace is quite circular in outline. Regions are distinct and defined by shallow grooves. Rostrum is relatively large and projects slightly upward, consisting of one acuminate central tooth and two small lateral teeth. One tooth situated on the anterolateral border of carapace. Cheliped is slender; female cheliped is smaller than male one; in some specimens male cheliped is distinctly longer than ambulatory legs, but in some it is not so longer. The fingers when closed leave gap on base. The ambulatory legs are very slender; the dactyli are falciform, bearing 6—11 teeth and undulate groove on the anterior surface.

Male first plepod: —Stout, only slightly curved, and regularly tapering to a rounded end. Beyond the basal lobes on the inner surface forwardly directed bristles begin as a fairly dense row which becomes denser and continues to just behind the tip. These bristles bear many very short spinules; the bristles near the tip curved much forwardly. On the outer surface there is also a row of forwardly directed bristles which are sparser and do not bear short spinules.

Distribution

Korea: Cheju Island, Namhae Island; Japan: Aomori Bay, Tokyo Bay, Sagami Bay, Izu Peninsula, coast of

Fukui Prefecture; Formosa; Singapore(type locality).

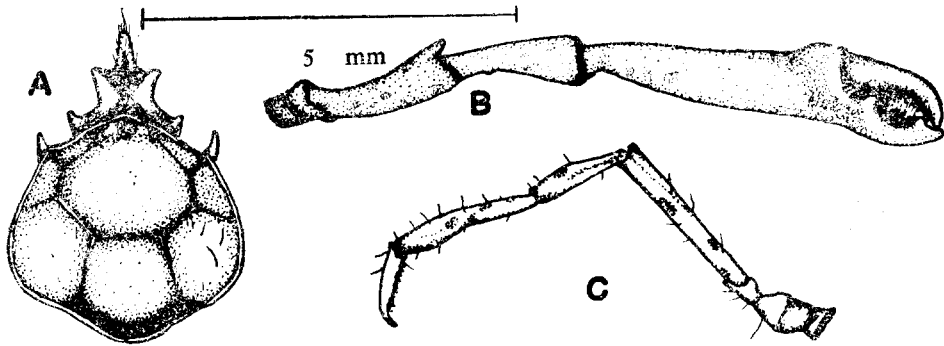


Fig. 1. *Rhynchoplax coralicola* Rathbun, male.

A. Carapace; B. Right cheliped; C. Left ambulatory leg.

Family Grapsidae

2. *Hemigrapsus sinensis* Rathbun, 1929

Korean name: Teolbo-ggoma-pulge(털보꼬마풀개)
(Text-figs. 2B, 3)

Hemigrapsus sinensis Rathbun, 1929, p. 83, pl. 14, figs. 46, 47. —: Sakai, 1955, p. 112.

Material examined

10♂♂, 16♀♀(14♀♀, ovig.), in June 1, 1957; 4♂♂, 5♀♀, in Oct. 15, 1966; 16♂♂, 18♀♀(1♀♀, ovig.), in April 14, 1968; all materials were collected at the oyster bed of intertidal zone of Chagyak Islet off Inchon City. Water of this area is very turbid. We could find many individuals. In males, cl: 4.5–8.3 mm, cb: 5.2–9.6 mm; in females, cl: 4.4–9.5 mm, cb: 6.3–10.2 mm.

Description

As Rathbun and Sakai mentioned, this species resembles *Hemigrapsus penicillatus* (de Haan) in shape, but is very small species and can be distinguished from *H. penicillatus* with its cheliped shape and the granulated lines on the surface of the carapace. The carapace is uneven and the surface roughened with short bristles. Three granulated lines run on the surface of the carapace, of which the one consists of relatively larger granules, is discontinuous, and runs obliquely forward from the inner base of the last lateral tooth, the other two run obliquely backward. Antero-lateral margin is arched, three-toothed, outer margin of the first or orbital tooth large and very convex, third or the last tooth

small. The front is downwardly deflexed, its surface concave both sideways and antero-posteriorly, the anterior edge faintly sinuous. Chelipeds of male and female

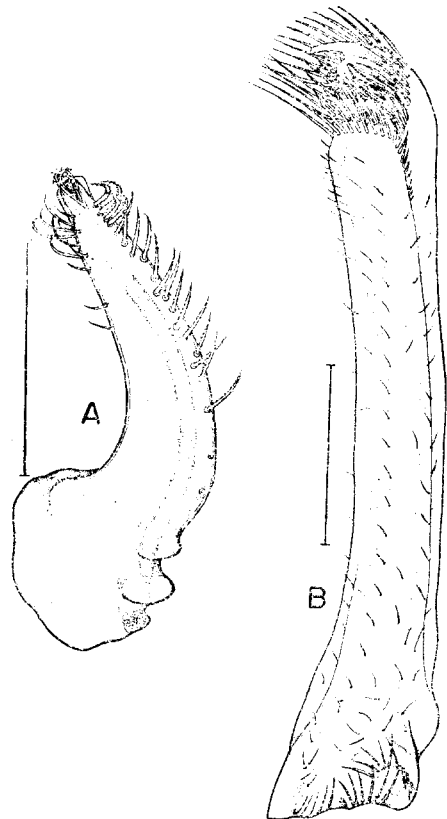


Fig. 2. Male first pleopods. Scale lines, 0.5 mm.

A. *Rhynchoplax coralicola*, left, sternal view;
B. *Hemigrapsus sinensis*, left, sternal view.

are equal, rough with granules (Rathbun observed only females). On the distal half of the outer surface of palms, a large patch of soft hairs is seen in both sexes; in *H. penicillatus* it is seen only in the male. Fingers when closed leave large gap. Rathbun reported that the palms have seven longitudinal rows of granules on their upper and outer surface and Sakai insisted that palms have six such rows, but in our specimens seven rows

are observed.

Male first pleopod:—Stout, faintly curved columnar form, the tip claw-shaped. It bears sparsely short hairs on the whole surface except the end portion, on which long and dense bristles are seen.

Distribution

Korea: Islets off Incheon City; Japan: Ariake Bay; China: Santu, North Fukien(type locality).

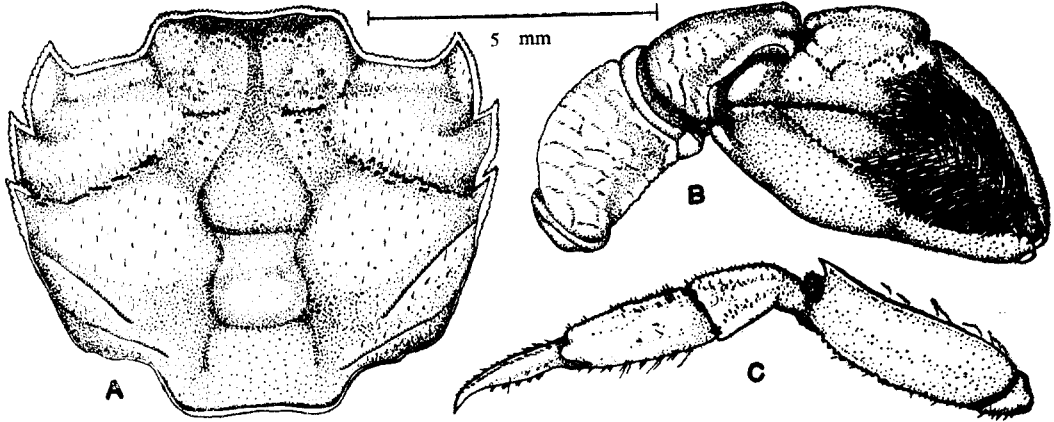


Fig. 3. *Hemigrapsus sinensis* Rathbun, male.

A. Carapace; B. Right cheliped; C. Left first ambulatory leg.

3. *Nanosesarma gordonii* (Shen, 1935)

Korean name: Ggoma-sagag-ge(고마사각게)

(Text-fig. 4)

Sesarma (*Sesarma*) *gordonii* Shen, 1935, p. 27, text-fig. 7(cited from Sakai, 1939, 1965). —: Sakai, 1939, p.

687, pl. 79, fig. 2.

Nanosesarma gordonii: Tweedie, 1950, p. 311(cited from Sakai, 1965). —: Sakai, 1965, English part, p. 204, text-fig. 27, Japanese part, p. 90, pl. 98, fig. 2.

Material examined

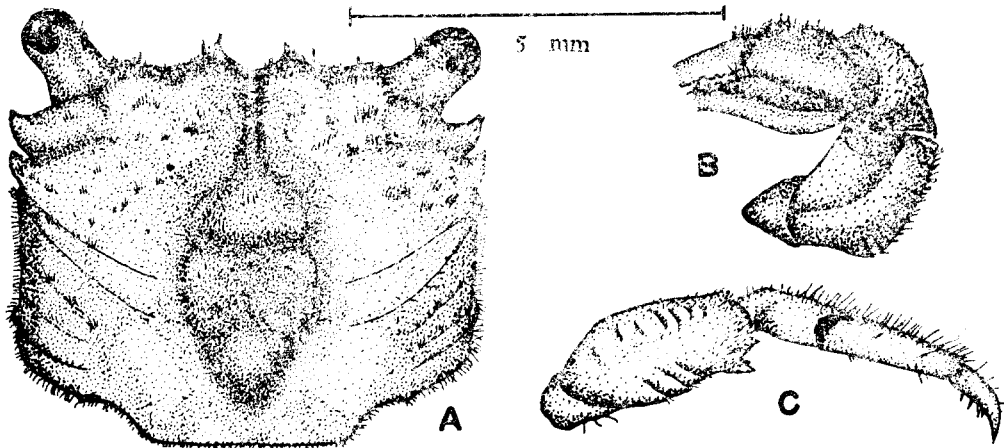


Fig. 4. *Nanosesarma gordonii* (Shen), female.

A. Carapace; B. Left cheliped; C. Right first ambulatory leg.

1♀(ovig., cl: 4.95 mm, cb: 6.10 mm), from Songnam, Namhae Island, Cholla Nam Province, in July 20, 1967.

Description

This small species bears abundant bipinnate hairs on the dorsal surface of the body, a large number of hairs are black and others yellowish. The carapace is square, its surface uneven, and regions are distinct. The anterior edge of the front is deeply and widely sinuous. Antero-lateral margin is two-toothed, the first or orbital tooth is larger than the second one. Sakai insisted that the blue or yellow X-shaped colour-pattern is seen on the surface of carapace, but in our specimen in alcohol such pattern is not recognizable and only irregular patterns are present symmetrically. The cheliped is stout, ornamented densely with hairs on the wrist and palm. The ambulatory legs are ornamented with relatively long hairs on the anterior and posterior borders, the merus is broad and develops thin platelet on its posterior distal portion, which bears some teeth.

Distribution

Korea: Namhae Island of Cholla Nam Province; Japan: Sagami Bay, Izu Peninsula, coast of Okayama Prefecture; China: Peitaiho, Hongkong(type locality).

SUMMARY

Three species of Brachyura (Crustacea), *Rhynchoplax*

coraticola Rathbun, *Hemigrapsus sinensis* Rathbun and *Nanosesarma gordonii* (Shen), are added in the list as new to the fauna of Korea, with brief descriptions stressed on the male first pleopods(except *Nanosesarma gordonii*).

REFERENCES

- Rathbun, M. J., 1909. New crabs from the Gulf of Siam. *Proc. Biol. Soc. Washing.* **22**: 107—114.
- , 1929. New and rare Chinese crabs. *Lingnan Sci. Jour.* **8**: 75—104, pls. 105—125.
- Sakai, T., 1938. Studies on the crabs of Japan. III. Brachygnatha, Oxyrhyncha. Yokendo, Tokyo, 193—364, pls. 20—41.
- , 1955. On some rare species of crabs from Japan. *Bull. Biogeogr. Soc. Jap.* **16—19**: 106—113.
- , 1965. The crabs of Sagami Bay. Maruzen Co., Tokyo, English part, 1—206, Japanese part, 1—92, pls. 1—100.
- Shen, C.J., 1935. On some new and rare crabs of the families Pinnotheridae, Grapsidae and Ocypodidae. *Chinese Jour. Zool.* **1**: 19—40.
- Tweedie, M. W. F., 1950. Notes on grapsoid crabs from the Raffles Museum. 1. A new genus and description of a new species of the subfamily Sesarminae. *Bull. Raffles Mus.*, Singapore, no. **23**: 310—316.