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ADDITION OF THREE ANOMURAN SPECIES TO
THE FAUNA OF KOREA

By

Hoon Soo KIM and Byung Lae CHOE



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韓國產 異尾類의 未記錄 3 種에 關하여

金 熏 洙 · 崔 炳 來

(Received March 1, 1968)

Examining anomuran specimens collected off Sogwipo of Cheju Island by us in July, 1965, we found five species which were new to the fauna of Korea. In the present paper, we describe three species (*Porcellana ornata*, *Dardanus impressus*, *Dardanus crassimanus*) of them.

We are deeply grateful to Dr. Sadayoshi Miyake, Faculty of Agriculture, Kyushu University, Japan for his kindness to help us to identify these species and send useful literatures to us.

Porcellana ornata Stimpson, 1858

(Text-fig. 1; Pl. 1, Fig. 1)

Porcellana ornata Stimpson, 1858, p. 242.

Porcellana ornata: Miyake, 1943, p. 118, figs. 42, 43.

Porcellana ornata: Miyake, 1961, p. 11.

Porcellana ornata: Miyake, Sakai and Nishikawa, 1962, p. 125.

Materials Examined and Illustrated

2 males, length of carapace (cl) and breadth of carapace (cb): 5.8 mm and 5.5 mm (illustrated specimen), 6.6 mm and 5.6 mm; 1 non ovigerous female, cl 3.2 mm, cb 2.8 mm; 4 ovigerous females, cl and cb: 4.7 mm and 4.7 mm, 6.0 mm and 5.7 mm, 5.3 mm and 5.0 mm, 5.1 mm and 4.8 mm; all materials from Sogwipo, Cheju Island, in July 11, 1965, found from live coral.

Description

Carapace.—Subovate, upper surface slightly convex, regions areolated distinctly, protogastric, mesogastric and hepatic regions prominent especially, protogastric region is divided into two lobes, the inner lobe is much larger than the outer one; epigastric region slightly

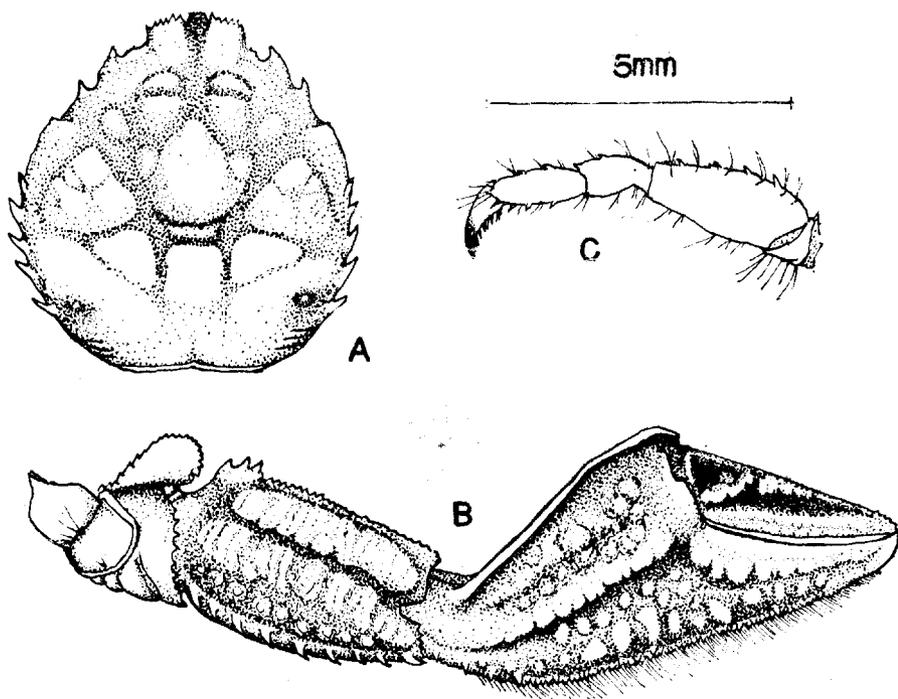


Fig. 1. *Porcellana ornata* Stimpson. male.

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

elevated; metagastric region separated clearly from mesogastric region by a furrow; cardiac region faintly distinct. The front protruding, its margin minutely serrated, the middle portion depressed remarkably, there is a wide groove in the middle of the front, the groove runs to the mesogastric border; a supra-orbital spine present. Lateral margin armed with low five denticles on branchial region, and just behind the last denticle short transverse ridges present on the postero-lateral portion. A small tooth produced in front of the outer proto-gastric region just above the antennal peduncle.

Antennule and antenna.—First peduncle of antennule smooth, longer than broad, anterior free surface nearly triangular, the margin denticulate, each apex bears a prominent spine. Antenna smooth, the second peduncle shorter than broad, a little divergent proximally and bear a spine at inner and outer margin of distal end; third peduncle longer than broad, divergent distally, the upper inner distal end much projecting into a lobe; fourth peduncle shorter than the second or the third one.

Third maxilliped.—Very smooth; ischium broad and its inner margin denticulate; the crest of merus subquadrate and its margin rounded with its anterior portion denticulate.

Sternum.—The sternum of third maxilliped very short and spindle form, but anterior

margins almost straight, it bears a lateral process in each side, the lateral process is very slender and directed forward. Anterior margin of thoracic sternum very convex.

Chelipeds.—Right and left cheliped almost equal, rather broad and flat, upper surface sculptured with ridges and tubercles but under surface rather smooth. Merus has a large denticulate lobe on upper distal end, its distal margin furnished with microscopical spinules; carpus oblong, has two large longitudinal ridges which are sculptured with many minute transverse ridges, outer margin of carpus ornamented with spinules, inner margin serrated and has a small denticulate lobe at its proximal extremity; palm very broad and flat, with a prominent median ridge, inner margin of the palm smooth, but its outer margin ornamented with spinules and feathery hairs. Fingers short and almost equal in length, when closed leave no gap.

Ambulatory legs.—Hairy; merus rather broad, ornamented with four or five spinules on the anterior margin; propodus armed with five or six spinules on posterior margin; dactylus has five spinules.

Telson.—Seven-jointed, central plate largest and antero-lateral ones smallest, its margin furnished with hairs thickly.

Colour (after prolonged alcohol preservation).—Dorsal surface yellowish white, ventral surface whitish, hairs brownish.

Distribution

Korea: Cheju Island; Japan: Tanabe Bay, Inland Sea, Okino-sima, Amakusa, Fukuoka; Hongkong.

Dardanus impressus (de Haan, 1849)

(Text-fig. 2; Pl. 1, Fig. 2)

Pagurus impressus de Haan, 1849, p. 207, p. 49, fig. 3.

Pagurus impressus: Yokoya, 1933, p. 79.

Dardanus impressus: Miyake, 1961, p. 11.

Dardanus impressus: Miyake, Sakai and Nishikawa, 1962, p. 125.

Dardanus impressus: Miyake, 1965, p. 645, fig. 1084.

Material Examined and Illustrated

1 male, length of carapace 12.0 mm, breadth of carapace 11.4 mm, from Sogwipo, Cheju Island, in July 10, 1965.

Description

Carapace.—Subquadrate, slightly longer than broad, slightly convex. Central portion of carapace smooth. The median projection of the front not developed, the lateral projections developed and a little acute. There are some tufts of hairs near the lateral margins. There is a prominent U shaped groove on the surface of the posterior portion of carapace.

Eye stalk and ophthalmic scale.—Eye stalk rather short and thick, does not reach the

tip of the antennal peduncle and much shorter than the antennular peduncle. Two tufts of hairs present on the dorsal surface of the eye stalk, the one in the middle and the other at the tip of eye stalk. Two transverse brownish red bands present on the middle of the eye stalk. Ophthalmic scale is ornamented with some long hairs at the anterior margin, one

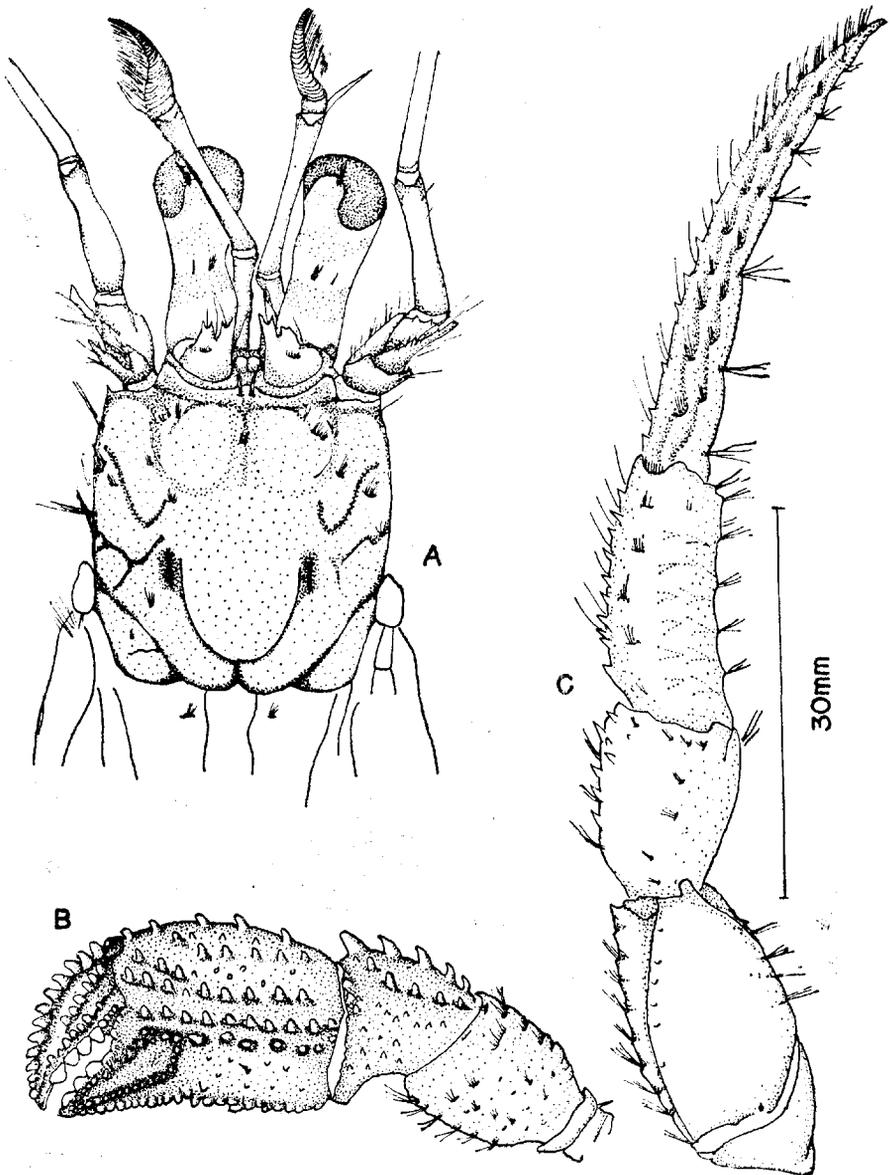


Fig. 2. *Dardanus impressus* (de Haan), male.

A. Anterior part of the body, dorsal view;

B. Left cheliped, outer side;

C. Right second leg (first ambulatory leg), outer side.

anterior margin divided into two lobes, each of which ends in two pointed teeth.

Cheliped.—Left cheliped prominently larger than right one. Ischium and merus of the left cheliped show short triangular prism form; inner edge of ischium furnished with four spines; inner edge of merus projected and divided into two lobes, each of which bears some spiniform denticles, so that this portion looks like a comb of fowl. The dorsal edge of the merus engraved with striae and the distal end bears an acute spine. Outer surface of carpus of the left cheliped is triangular and armed with spinules, inner surface of it is smooth. Outer surface of palm is subquadrate, its upper portion bears seven longitudinal rows of spines and its lower portion bears granules irregularly, inner surface of palm rather smooth. On the outer surface of the movable finger, three rows of thick blunt spines run, the outer two rows reach to the tip. On the outer surface of immovable finger, two rows of thick blunt spines run and reach to the tip, lower margin of the immovable finger granulated. A wedge-shaped groove present on the middle of outer surface of the immovable finger. The fingers armed with four teeth, their surfaces flat, when closed leave no gap, the tip of each finger coloured in black.

Second and third legs.—The third leg is slightly longer than the second leg, dactylus is longer than propodus, upper and lower margins of these legs ornamented sparsely with short hairs. All dactyli twisted slightly, upper margin of them ornamented with dense short hairs. The dactylus of the left third leg shows triangular pillar form, the upper margin of its outer surface ornamented with thick spines and the lower margin of it granulated densely, longitudinal flat and smooth groove present on the middle of the surface.

Colour (after prolonged alcohol preservation).—Dorsal surface of carapace light yellow; ground colour of ambulatory legs is light yellow, some parts of them show light purple, dactyli of them vermilion; ground colour of cheliped is light yellow; some parts (especially carpus) of left cheliped show light purple, its fingers vermilion; granules and spines light purple; hairs golden.

Distribution

Korea: Cheju Island; Japan: from Sagami Bay to Kyushu; Taiwan; Ogasahara Islands.

Dardanus crassimanus (H. Milne Edwards, 1836)

(Text-fig. 3; Pl. 1, Fig. 3)

Pagurus crassimanus H. Milne Edwards, 1836, p. 277.

Pagurus setifer de Haan, 1849, p. 209.

Dardanus crassimanus: Miyake, 1961, p. 11.

Dardanus crassimanus: Miyake, Sakai and Nishikawa, 1962, p. 125.

Dardanus crassimanus: Miyake, 1965, p. 643, fig. 1079.

Material Examined and Illustrated

1 male, length of carapace 20.4 mm, breadth of carapace 19.6 mm, from Sogwipo,

Cheju Island, in July 11, 1965.

Description

Carapace.—Slightly broader than long. Central portion of carapace smooth. The median projection of the front not developed, the lateral projectons short and blunt. There are rows of tufts of hairs near the lateral margins. There is a prominent curved groove between the front and the gastric region.

Eye stalk and ophthalmic scale.—Eye stalk rather long and slender, as long as the antennal peduncle and shorter than the antennular peduncle; its dorsal surface is ornamented with some hairs. The ophthalmic scale is ornamented with long hairs at the anterior margin, three spiniform denticles at its tip.

Cheliped.—Left cheliped prominently larger than right one. Anterior margin of merus provided with a few spinules. Outer distal portion of carpus prolonged very much, and this portion furnished with minute spinules and hairs; dorsal surface of the carpus ornamented with acute spines. The breadth of palm of left cheliped is larger than its length, outer

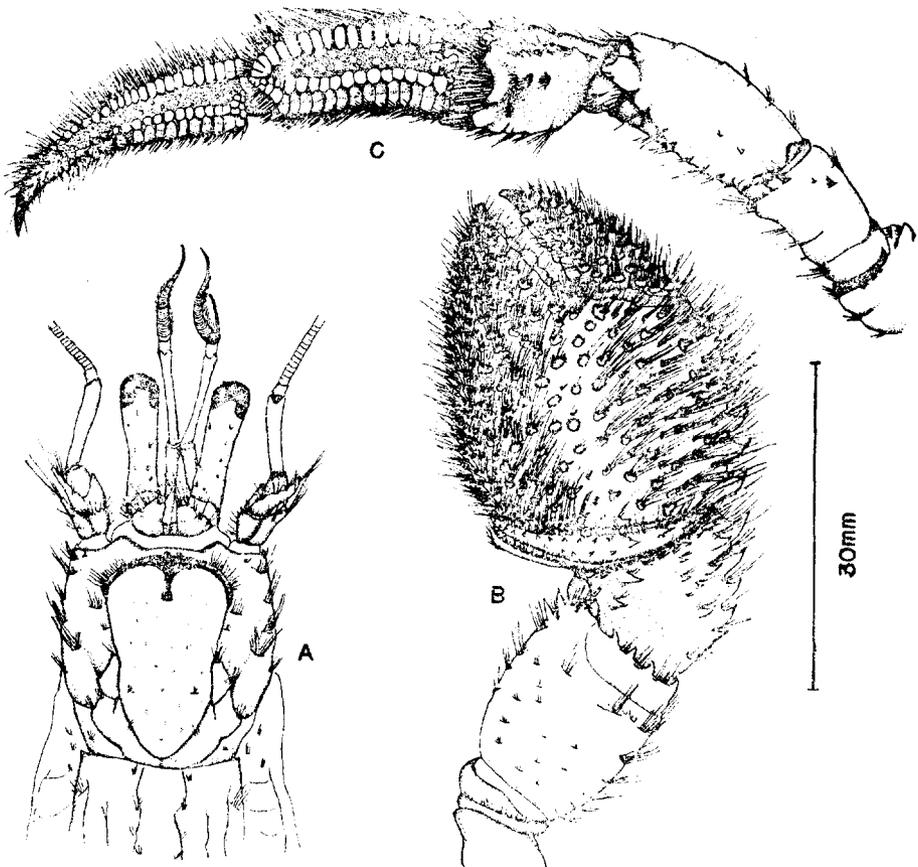


Fig. 3. *Dardanus crassimanus* (H. Milne Edwards), male.
 A. Anterior part of the body, dorsl view;
 B. Left cheliped, outer side;
 C. Left third leg (second ambulatory leg), outer side.

surface of the palm ornamented with small or large tubercles, top of which furnished with one or two black spinules, a tuft of long hairs present in front of each tubercle; rather stout and acute spines prominent at the inner margin of palm, tubercles on inner half portion of its upper surface arranged in several rows longitudinally, but they on outer portion arranged irregularly; under surface of palm is rather smooth and provided with small yellow tubercles; upper surface of fingers ornamented with long hairs and spines, tip of which coloured in black; the fingers are armed with nine teeth, their surface flat, when closed leave almost no gap, the tip of fingers coloured in black.

Second and third legs.—Third leg is slightly longer than the second leg, dactylus is longer than propodus, upper and under margins of these legs ornamented with tufts of long hairs, these tufts of hairs prominent on dactylus and propodus, dactylus has black sharp claw. A flat furrow present on the middle of outer surface of propodus and dactylus of left third leg. The furrow sculptured with round tubercles. The upper margin of the furrows composed of a row of flat tubercles, while the lower margin of the furrows composed of two rows of flat tubercles, the inner one is elevated. These rows of tubercles look like stone-floorings. Long hairs grow densely at the margins of the stone-floorings.

Colour (after prolonged alcohol preservation).—Dorsal surface of carapace orange; legs vermilion, many small light yellow spots are here and there; eye stalk light purple; hairs golden.

Distribution

Korea: Cheju Island; Japan: from Tokyo Bay to Kyushu; India; Australia; South Africa.

摘 要

著者들이 1965年 7월에 濟州島の 西歸浦 近海에서 採集한 甲殼類의 異尾類 中에 5種의 韓國未記錄種이 있었는데 이들 中에서 *Porcellana ornata* Stimpson, *Dardanus impressus* (de Haan), *Dardanus crassimanus* (H. Milne Edwards) 三種을 記載한다.

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PLATE 1

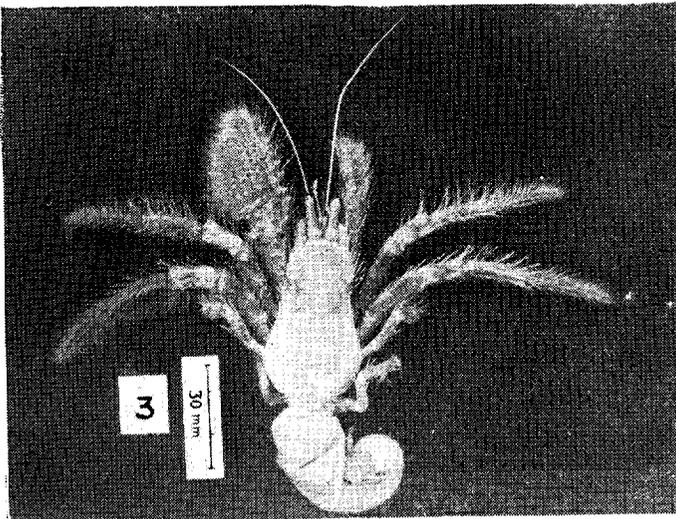
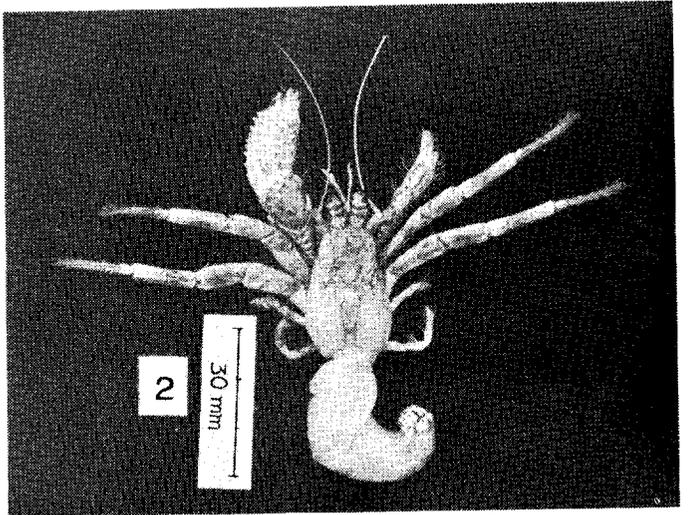
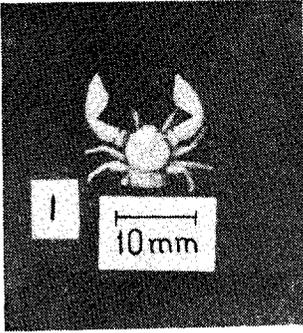


Fig. 1. *Porcellana ornata* Stimpson, male.
Fig. 2. *Dardanus impressus* (de Haan), male.
Fig. 3. *Dardanus crassimanus* (H. Milne Edwards), male.

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1. Min Jai Lee, Studies on the Agarophytes from the Korean Coast. Part 1. On the Seasonal and Regional Variation of Agar-agar Content and Jelly Strength. May, 1967.
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金 熏 洙 · 崔 炳 來

