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(Crustacea, Decapoda) from Korea**

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

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韓國未記錄 집게類(甲殼綱, 十脚目) 3種에 관하여

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### 摘 要

1969년부터 1970년까지 著자들이 南韓의 江原道, 全羅北道 海岸地方에서 採集한 집게類(異尾類)를 同定 調査한 結果, 數種의 韓國未記錄種을 얻었다. 이들 중 3種, 즉 *Pagurus cavimanus* (Miers), *P. gracilipes* (Stimpson), *P. anomalus* (Balss)를 記載 報告한다.

Examining the anomuran specimens collected from the coastal seas of Gangweon-do (Province) and Jeonrabug-do (Province), Korea by the present authors in May, 1969 and August, 1970, they found several species which were new to the fauna of Korea. Among them, they describe three species briefly in the present paper. They are deeply grateful to Dr. Sadayoshi Miyake, Faculty of Agriculture, Kyushu University, Japan for his kindness to help them to identify these species and send useful literatures to them.

### Family Paguridae Dana, 1852

#### 1. *Pagurus cavimanus* (Miers, 1879)

Korean name: Omogson-chamjibge

(오목손 참집게)

(Fig. 1 A, B, C, D)

*Eupagurus cavimanus* Miers, 1879, pp. 21, 48,

pl. 3, fig. 1, (Type locality: Japanese seas-Tsugaru strait). —: Balss, 1913, p. 58, fig. 34. —: Yokoya, 1933, p. 81. —: Yamaguchi & Yamada, 1955, p. 132.

*Pagurus munitus*: Rathbun, 1904, p. 161, pl. 5, fig. 2.

*Pagurus cavimanus*: Makarov, 1938, pp. 178-179 (English, p. 169), fig. 68, B. —: Miyake, 1957, p. 87.

### Material examined

5♂♂, 5♀♀ (1 ovig.) from Mugho, Gangweon-do (Province) August 25, 1970. All materials were collected with gill nets. In males, length of anterior part of carapace=cl: 14.0~17.0mm, width of anterior part of carapace=cw: 14.1~17.6mm, length of eyestalk=el: 6.7~8.2mm, length of right cheliped=rcl: 75.2~90.8mm(except broken specimens), length of left cheliped=lcl: 56.2~63.3mm(except broken specimens), length of right first ambulatory leg=al: 71.9~87.6mm(except broken specimens); in females,

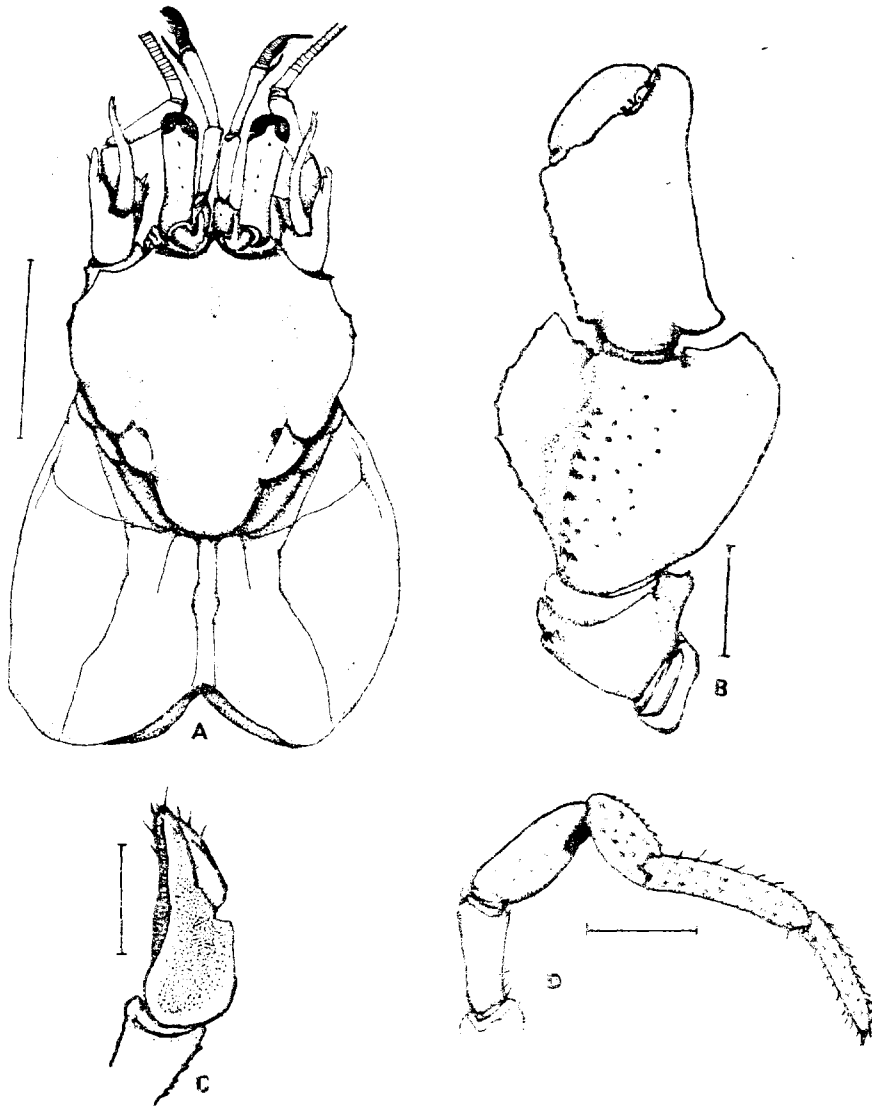


Fig. 1. *Pagurus cavimanus* (Miers). Male. Scale lines 10 mm.  
A. Carapace B. Right cheliped C. Left cheliped D. Right first ambulatory leg.

cl: 9.4~14.2 mm, cw: 9.4~14.7 mm, el: 5.0~6.9 mm, rcl: 35.5~62.8 mm, lcl: 29.7~45.3 mm, al: 43.1~62.6 mm.

#### Description

Carapace with a small acute median frontal lobe. The chelipeds very unequal. The longer (right) cheliped, with the arm very short, tri-

gonous and the dilated carpus ornamented with the crest on its dorsal surface. The palm of left cheliped is concave on its outer surface. The first and second pairs of ambulatory legs slender, nearly smooth and with short stiff hairs on their upper and lower margins. The shape of the citharistic scales entire and concave

above. The scaphocerites are long, reaching the tips of the eyes.

**Distribution**

Korea (East sea); Japan (from Hokkaido to middle of Honshu); Vladivostok; Bering Sea; Alaska (southward and eastward to Portlock Bank and Juneau).

**2. *Pagurus gracilipes* (Stimpson, 1858)**

Korean name: Nabjagson-chamjibge

(남각손 참집게)

(Fig. 2 A, B, C)

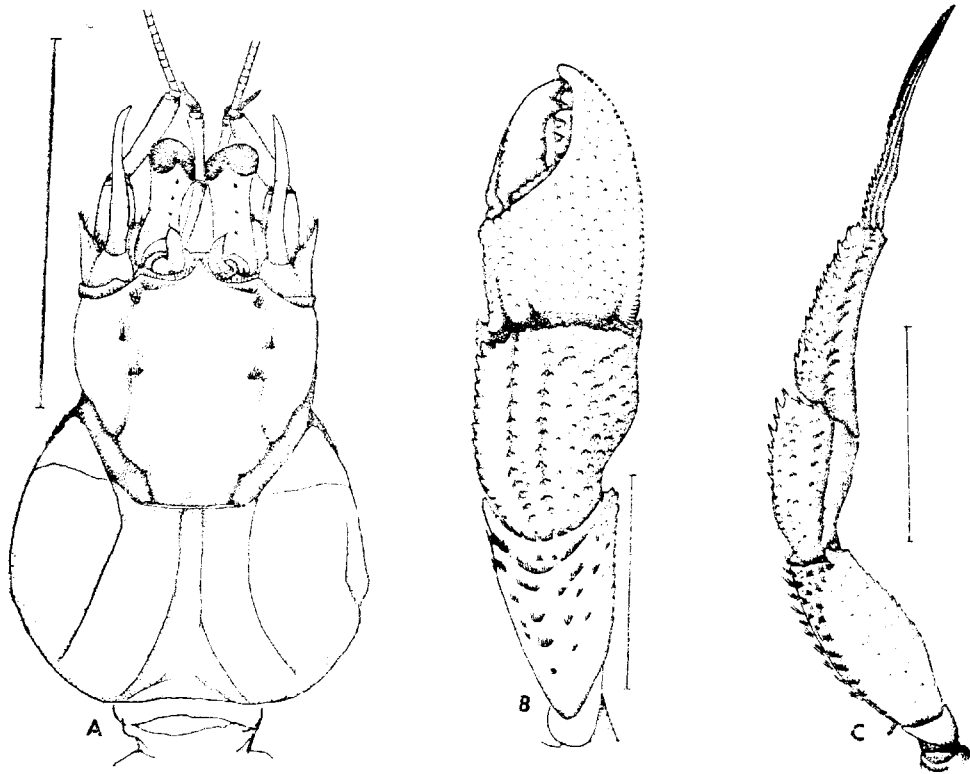
*Eupagurus gracilipes* Stimpson, 1858, p. 243

(83); 1907, pp. 217-218 (Type locality: Off the coast of Nippon, 38° N, at a depth of 30 fathoms: Hakodadi Bay). —: Balss, 1913, p. 56. —: Yamaguchi & Yamada, 1955, p. 132.

*Pagurus gracilipes*: Makarov, 1938, pp. 184-185 (English pp. 175-176), pl. 4, fig. 4. —: Miyake, 1957, p. 87.

**Material examined**

1♂ (cl: 6.3 mm, cw: 7.0 mm, rel: 35.8 mm, lcl: 23.6 mm, al: 41.3 mm) from Gunsan, Jeonra bug-do (Province), in May 20, 1969. 1♂ (cl: 6.0 mm, cw: 6.7 mm, el: 4.1 mm, rel: 35.2 mm, lcl: 22.8 mm, al: 40.4 mm) from Aninjin, Gangweon-do (Province), in August 26, 1970.



**Fig. 2.** *Pagurus gracilipes* (Stimpson). Male. Scale lines 10 mm. A. Carapace B. Right cheliped C. Right first ambulatory leg.

### Description

Carapace comparatively convex, rostrum prominent and acute. Eyes very short and thick, ophthalmic scales acute and slightly grooved on its dorsal surface and the margin of it denticulated densely. Right cheliped large and strong, with the palm covered with minute granules. Left cheliped smaller than right one. Two pairs of anterior ambulatory legs slender, and longer than the chelipeds. The dactyli of them very

sharp, long and twisted.

### Remarks

As Makarov described the merus of right cheliped, it is smooth and has a denticulated anterior edge, and furthermore the authors could observe striae on its dorsal surface and six or seven spines on its anterior edge.

### Distribution

Korea (East Sea, Yellow Sea); Japan (from Ha-

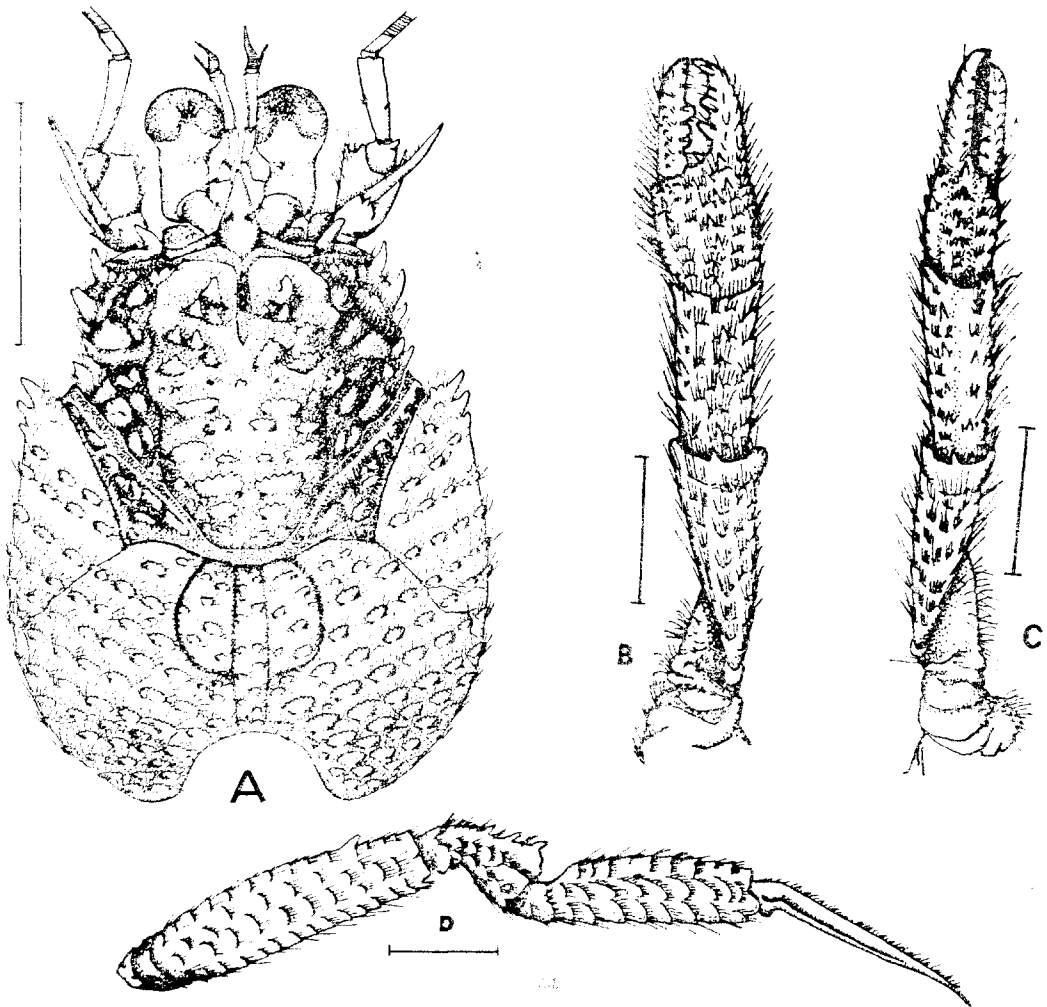


Fig. 3. *Pagurus anomalus* (Bass). Male. Scale lines 10 mm.

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

kodate to Kyushu); Soviet shores of Japan Sea (Sedemi Bay, Troitsa Bay).

### 3. *Pagurus anomalus* (Balss, 1913)

Korean name: Jageunbae-chamjibge

(작은배 참집게)

(Fig. 3. A, B, C, D)

*Eupagurus anomalus* Balss, 1913, p. 53, fig. 32 (Type locality: Nagasaki). — Terao, 1914, pp. 499-500, fig. (p. 499). — Yokoya, 1933, p. 80.

*Pagurus anomalus*: Makarov, 1938, pp. 196-197 (English, pp. 185-187), pl. 4, fig. 5.

#### Material examined

12♂♂ from Sogcho, Gangweon-do (Province), in August 22, 1970. Measurements —cl: 7.3~10.9 mm, cw: 8.6~13.3 mm, el: 3.1~4.7 mm, rel: 32.5~50.2 mm, lcl: 31.3~47.6 mm, al: 52.4~81.7 mm (except broken specimens).

#### Description

Anterior and posterior part of carapace very hard and covered with flat and fused granules, beneath them the short hairs present anteriorly. Ophthalmic scales very small. Chelipeds very small and short, the right cheliped is longer than the left one. The first and second pairs of ambulatory legs much longer than the chelipeds and transverse squamiform striae present on their surfaces. The abdomen is very small and the animal stuffs only the abdomen into the shell.

#### Distribution

Korea (East Sea); Japan (from Tsugaru Strait to Nagasaki, Kyushu); Soviet shores of Japan Sea (from De Kastro Bay to Furehelm Island).

#### SUMMARY

Three anomuran species (Crustacea, Decapoda).

*Pagurus cavimanus* (Miers), *P. gracilipes* (Stimpson) and *P. anomalus* (Balss) were collected from the coastal seas of Gangweon-do (Province) and Jeourabug-do (Province) in May, 1969 and August, 1970 and described as the additional species to the fauna of Korea.

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