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مركز الكويت للأبحاث العلمية

KUWAIT INSTITUTE FOR SCIENTIFIC RESEARCH

ON A SMALL COLLECTION OF ANOMURAN DECAPODA
FROM KUWAIT, NORTH-WESTERN ARABIAN GULF

by

Hiroshi MOTOH

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During the months March-May in 1972, the author stayed at Kuwait Institute for Scientific Research, took part in rearing and culturing of Penaeid shrimps, *Penaeus semisulcatus*, *Metapenaeus mutatus*, which are the most important shrimps on commercial fishery in Kuwait, and then collected Anomuran Decapodas at several localities.

The present author wishes to express his hearty thanks to Dr. Sadayoshi Miyake, Professor Emer. of the Kyushu University, for his identification of the specimens and his kind guidance and encouragement during this investigation. He is also due to Dr. Kiyoshi Uchihashi, Director of the Fishery Division, Kuwait Institute for Scientific Research, Kuwait, and other staff members of the institute for the facilities during this work.

Systematic List of Species

Class	CRUSTACEA
Order	DECAPODA
Suborder	REPTANTIA
Section	ANOMURA

Family PORCELLANIDAE

- (1) *Petrolisthes lamarckii* (LEACH, 1820)
- (2) *Petrolisthes indicus* DE MAN, 1893
- (3) *Petrolisthes boscii* (AUDOUIN, 1826)

Family DIOGENIDAE

- (4) *Diogenes custos* (FABRICIUS, 1798)

Family ALBUNIDAE

- (5) *Albunea symmysta* (LINNAEUS, 1758)

Description of the species

Family Porcellanidae

- 1 *Petrolisthes lamarckii* (LEACH, 1820)
(Pl. I, Figs. 1,2)

Petrolisthes lamarckii : Miyake, 1942, tex-figs. 23-24, pp. 90-93——Micronesia.

Petrolisthes lamarckii : Miyake, 1943, text-fig. 29, pp. 98 - 100——Japan.

Carapace of the specimen in Kuwait is a little longer than broad, and its surface smooth, polished and areolation. Chelipeds are subequal in both sexes and the anterior margin armed with five or six teeth of which the proximal one is large.

Color in life : Dark green with reddish brown spots.

Habitat : Found commonly under rocks between low tide-marks.

Material examined :

Sex	Carapace length	Carapace width	Date	Locality
♂	11.3 mm	10.8 mm	27 March, 1972	Salmiyah city
♂	11.5	10.5	27 March, 1972	Salmiyah city
♀	10.0	9.9	27 March, 1972	Salmiyah city
Ovig. ♀	14.3	14.4	27 March, 1972	Salmiyah city

2. *Petrolisthes indicus* DE MAN, 1893

(Pl. II, Figs. 1,2)

Petrolisthes indicus : Miyake, 1943, text-figs. 9-10, pp. 69-72.—— Japan.

The upper surface of carapace and ambulatory legs are granulated. Front is deflexed downwards, with three lobes, median lobe much deflexed, lateral not so deflexed. The cheliped has a patch of soft hairs on under surface near the base of the fingers. The outer margin of immovable finger is ornamented with downy hairs thickly in female. Ambulatory legs are sparsely hairy

Color in life : White, sometimes with red spots.

Habitat : Found under rocks between low tide-marks.

Material examined :

Sex	Carapace length	Carapace width	Date	Locality
♂	5.9 mm	5.5 mm	27 March, 1972	Salmiyah city
♂	9.5	8.8	27 March, 1972	Salmiyah city
♂	10.5	9.9	27 March, 1972	Salmiyah city
♀	8.2	8.2	3 May, 1972	Salmiyah city
Ovig. ♀	9.3	9.2	3 May, 1972	Salmiyah city
Ovig. ♀	9.5	9.3	3 May, 1972	Salmiyah city

3. *Petrolisthes boscii* (AUDOUIN, 1826)

(Pl. III, Figs. 1,2)

Petrolisthes boscii : Miyake, 1943, text-figs. 23-24, pp. 90-93——Japan.

Carapace and legs depressed, ornamented with transverse setose crests on all regions. Epibranchial spine present in male specimen, but not seen in smaller female one. Cheliped subequal, left one slightly larger than right in both specimens; arm has an acute tooth at its antero-distal angle; wrist armed with three or four saw-teeth on its anterior margin, of which the male specimen counted four, but the female three; upper surface of palm furnish with squamiform crests or granules with microscopical hairs which gradually pass into small ones becoming acute on the outer margin. Walking legs somewhat hairy; propodus armed with four spinules on its posterior margin; dactylus with three spinules.

Color in life : Carapace, chelipeds, ambulatory legs and abdomen are deep red in areolation.

Habitat : Common under rocks between low tide-marks.

Material examined :

Sex	Carapace length	Carapace width	Date	Locality
♂	10.7 mm	10.5 mm	27 March, 1972	Salmiyah city
Ovig. ♀	8.8	8.7	27 March, 1972	Salmiyah city

Family Diogenidae

4. *Diogenes custos* (FABRICIUS, 1798)

(Pl. IV, Fig. 3)

Diogenes custos : Alcock, 1905, p. 64, pl.6, fig. 1——India.

Diogenes miles : De Man, 1888, p. 232——Mergui Archipelago.

Movable rostrum narrow lamina, with its free margin spinose in anterior half. Antennal acicle bifurcate, its inner or short branch reaches about half-way along its penultimate segment of the peduncle; its outer branch of its acicle reaches beyond the base of the last segment of the peduncle. Cheliped and walking legs armed with spines or spinules on the anterior or inner margins, with fine granules on the upper surfaces.

Habitat : Muddy sand beach.

Material examined :

Sex	Carapace length*	Carapace width	Date	Locality
♂	9.5 mm	6.8 mm	28 April, 1972	Khor-Mufatta
♀	13.5	9.6	28 April, 1972	Khor-Mufatta

* Excluding movable rostrum.

Family Albunidae

5. *Albunea symmista* (LINNAEUS, 1758) (Pl. IV, Figs. 1,2)

Albunea symnista : Thomassin, 1969, p. 138, pl.1, figs. 1-6.——— Madagascar.

Eye-stalk about twice as long as broad; its outer margin divergent posteriorly; its inner margin straight touching each other in the median line, cornea minute. Antennule very long, being three times of the carapace in length, the flagellum multiarticulated, furnished with long hairs on its upper and inner margin. Antenna not longer than the carapace; very hairy; basal joint armed with a lamellate long teeth on the antero-external angle ; flagellum with seven articulations diminishing successively in size.

First leg stout, but short, with short interrupted and setose ridges on the outer surface; palm very short, compressed, and high in proportion to its length, with short, setose ridges arranged obliquely on the outer surface; its anterior margin straight with an acute tooth at the anteroinferior; movable finger slender, acute.

Dactyli of the succeeding three legs foliate, with long hairs on its outer margin; that of the second leg acute, with a round lobe on its proximal end; that of the third leg slender, with a blunt laminate tooth near its proximal end ; that of the fourth leg broad, furnished with two setose ridges longitudinally.

Habitat : Sandy beach.

Material examined :

Sex	Carapace length*	Carapace width **	Date	Locality
Ovig. ♀	17.9 mm	17.9 mm	Middle of May, 1972	Salmiyah city
Ovig. ♀	18.1 mm	19.6 mm	25 June, 1972	off Salmiyah city

* Including rostral spines.

** Including lateral spines.

Literature cited

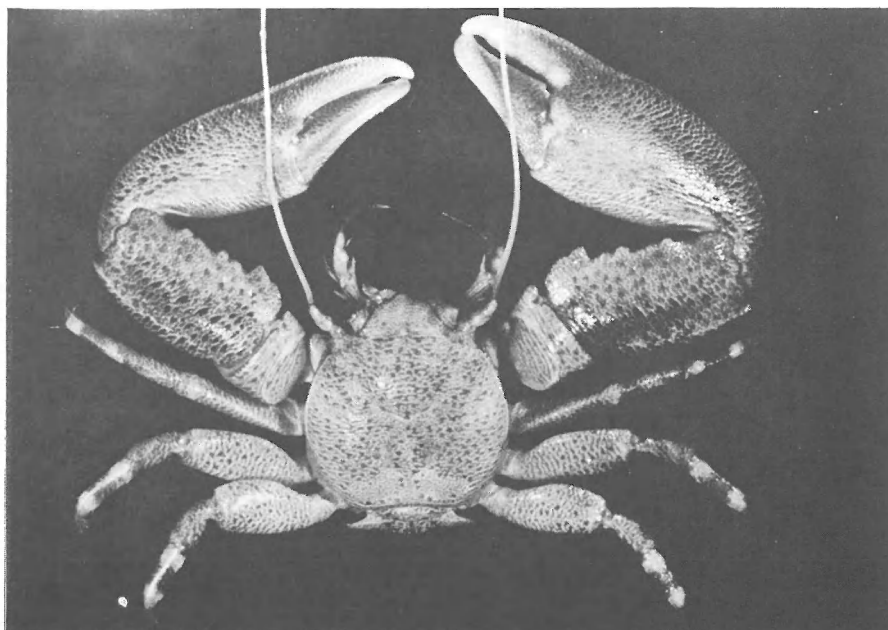
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EXPLANATION OF PLATE I

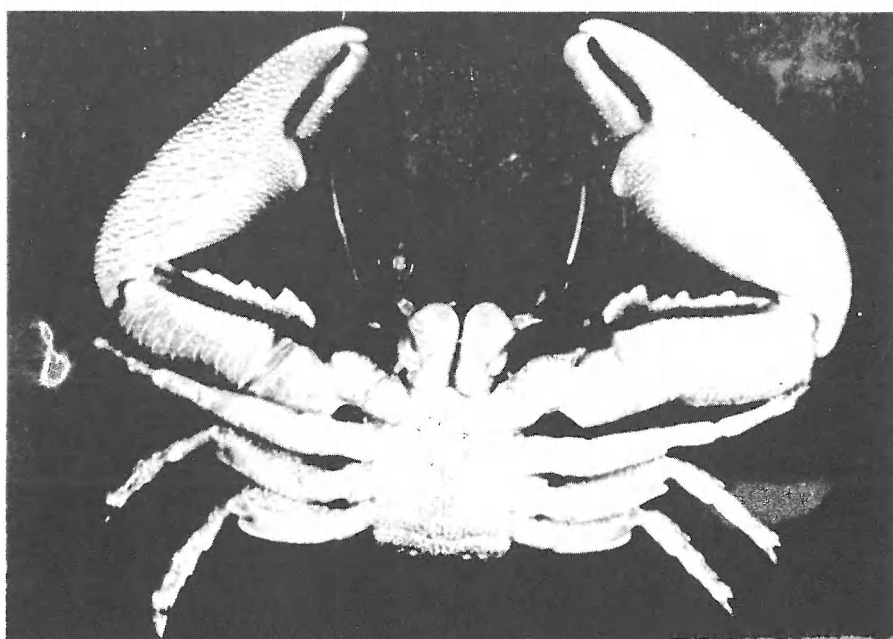
Fig. 1. *Petrolisthes lamarckii* (LEACH); dorsal view (Female, x 1.3)

Fig. 2. *Petrolisthes lamarckii* (LEACH); ventral view (Female, x 1.3)

PLATE I



1



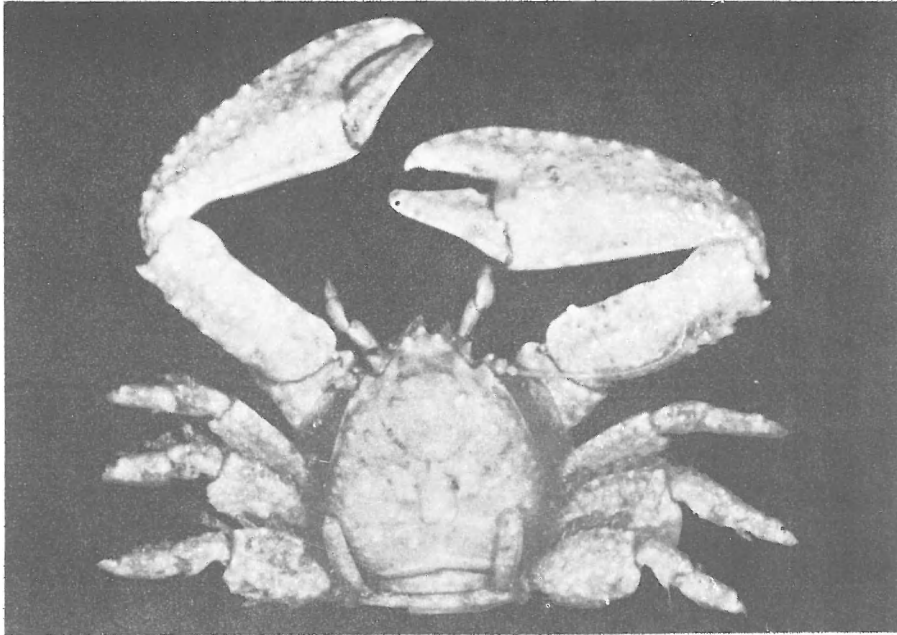
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EXPLANATION OF PLATE II

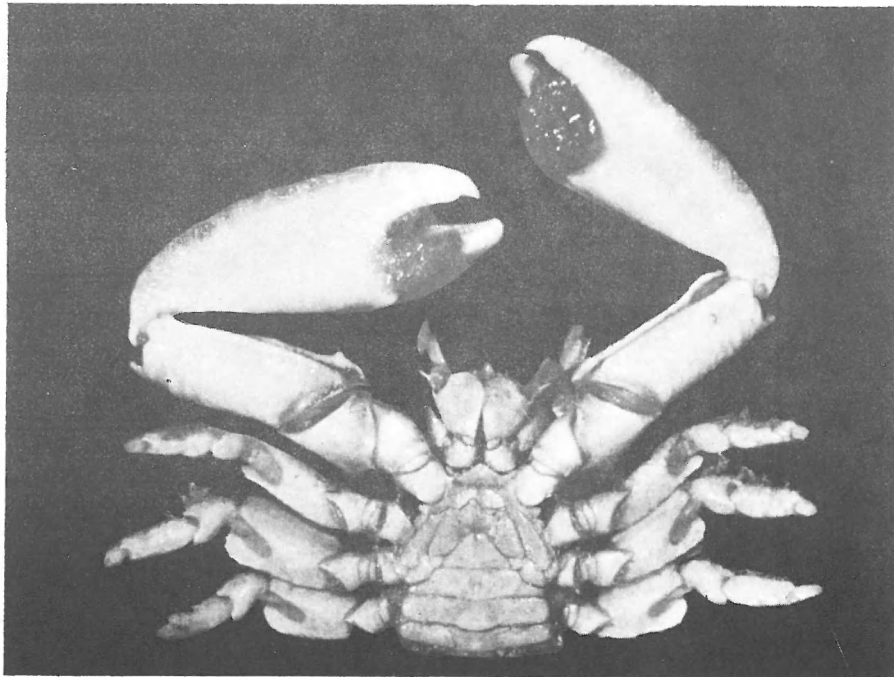
Fig. 1. *Petrolisthes indicus* DE MAN; dorsal view (Female, x 3.1)

Fig. 2. *Petrolisthes indicus* DE MAN; ventral view (Female, x 3.1)

PLATE II



1



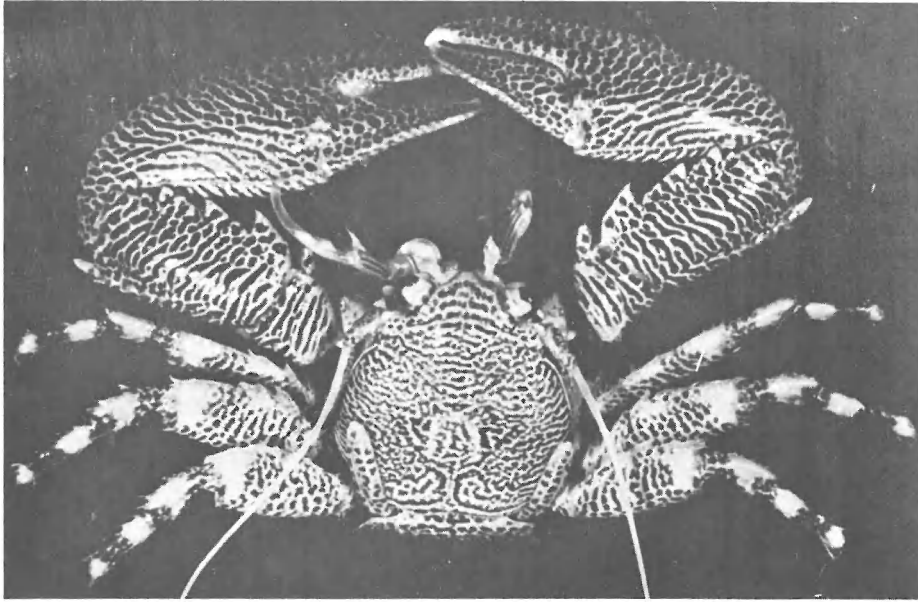
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EXPLANATION OF PLATE III

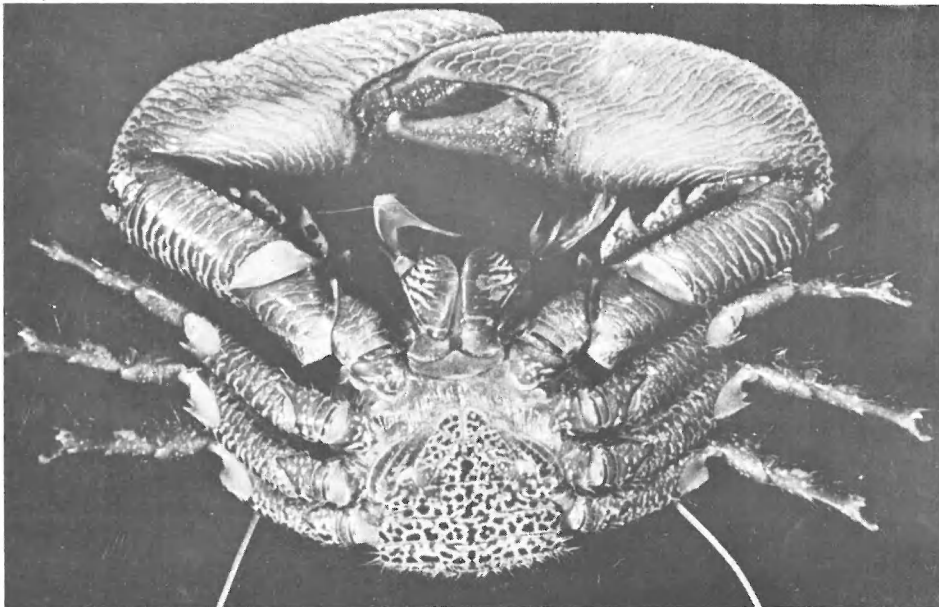
Fig. 1. *Petrolisthes boscii* (AUDOUIN); dorsal view (Female, x 2.3)

Fig. 2. *Petrolisthes boscii* (AUDOUIN); ventral view (Female, x 2.3)

PLATE III



1



2

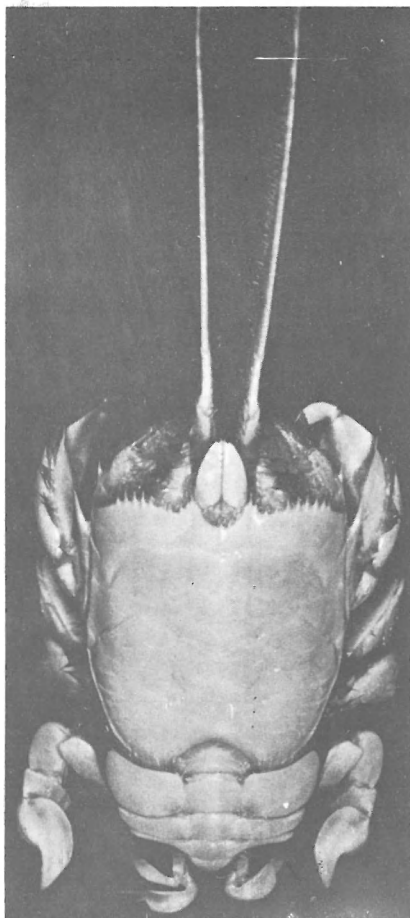
EXPLANATION OF PLATE IV

Fig. 1. *Albunea symmysta* (LINNAEUS); dorsal view (Ovig. female, x 1.6)

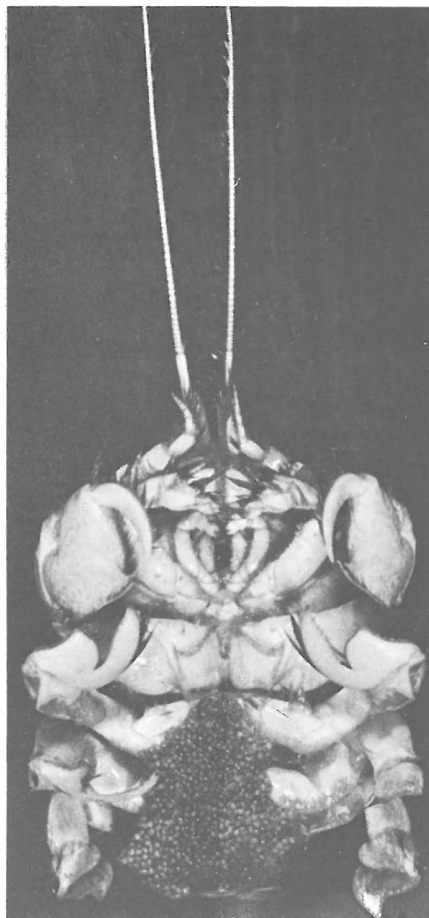
Fig. 2. *Albunea symmysta* (LINNAEUS); ventral view (Ovig. female, x 1.6)

Fig. 3. *Diogenes custos* (FABRICIUS); dorsal view (Female, x 3.2)

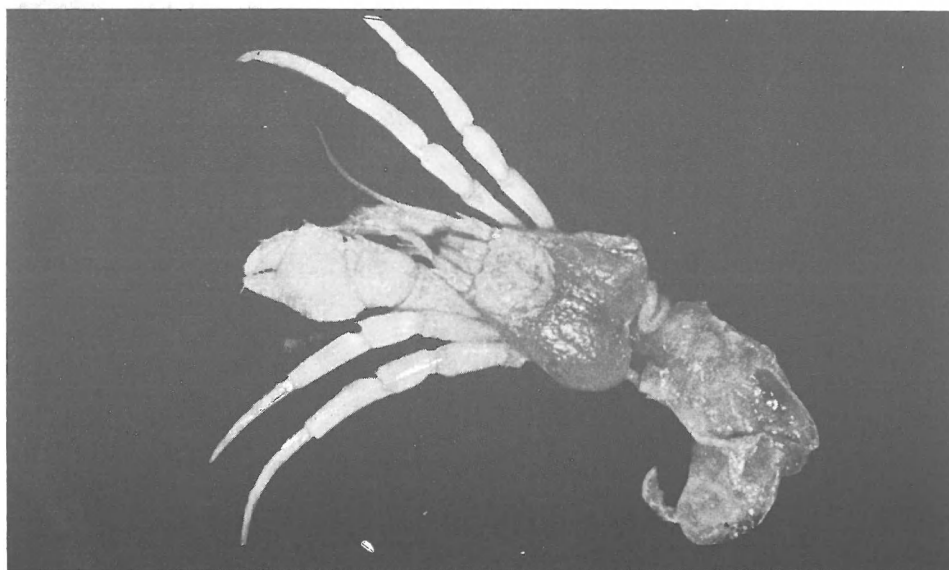
PLATE IV



1



2



3

