

FIG. 9. *Platymaia fimbriata* Rathbun, female, 54.3 mm, dorsal view, USNM 47176, Gulf of Boni.

However, it is clear that there is considerable variation in the tuberculation and spinulation of the carapace in this species. Most particularly this concerns the orbit and the posterior and posterolateral portions of the carapace. Mostly there are a number of tubercles and low spines on the branchial regions, especially laterally and there is sometimes a small tubercle or spine on the supraorbital border. Sometimes the carapace is relatively smooth and the supraorbital border is smooth. There is variation also in the spinulation of the abdomen in both sexes.

There is general agreement between all the specimens, including those collected by the *Albatross* and all identified as *P. remifera* by Rathbun in the following features:

- 1 mesogastric region with two medial spines or tubercles;
- 2 cardiac region with a transverse pair of spines or tubercles;
- 3 lateral branchial margin with five or more short spines or tubercles;
- 4 basal antennal article with a small spinule towards the distal end;
- 5 first abdominal segment with three spines in a transverse row;
- 6 chelae in the male robust, dorsal and ventral surfaces convex and spinous, outer surface with a longitudinal row or group of spines;
- 7 male pleopod slender and weakly curved outwards distally, the opening oval and subdistal, the tip blunt and curved.

Distribution: Throughout Philippine Islands; West Pacific from South Australia through Indonesia to Japan.

***Pleistacantha moseleyi* (Miers)**

Echinoplax moseleyi Miers, 1886 : 32-33, pl. 4, figs. 2, 2 (a)-(c).

Pleistacantha moseleyi.—Doflein, 1904 : 76-78, pl. 24, figs. 5, 6, pls. 15, 16; Grindley, 1961 : 127-128, fig. 1; Griffin, 1974 : 27-28.

Material examined: 8 ♂♂, 8 ♀♀ (1 ovig.), 20-97 mm, ovig. ♀ 97 mm (USNM 47125, 47127-30, 47132, 47134-36, 47141-42).

Localities: N. Luzon: off N. Luzon, St. 5325, 3 specimens. S.W. Luzon-Mindanao: between Marinduque and Luzon, St. 5221, 1 specimen; vicinity of S. Luzon, St. 5279, 1 specimen; St. 5280, 1 specimen; between Burias and Luzon, St. 5388, 1 specimen. Leyte: between Leyte and Cebu, St. 5403, 2 specimens; Dupon Bay (Leyte) and vicinity, St. 5406, 2 specimens; St. 5407, 1 specimen. N. Mindanao: vicinity of N. Mindanao, St. 5519, 2 specimens; St. 5541, 1 specimen. Sulu Archipelago: vicinity of Jolo, St. 5172, 1 specimen.

Habitat: 50-350 fms, mud, fine sand and shells.

Remarks: This moderately large series possesses the features typical of this large deepwater species. In only four specimens is the interantennular spine single beyond the distal half; in the rest it is bifid for at least the distal two-thirds. Only a few spines on the mesogastric region are larger than the others.

This species was originally taken in the Philippine Islands by the *Challenger* (Miers, 1886).

Distribution: Throughout the Philippine Islands; South Africa, east Africa, Andaman Sea, Japan.

Pleistacantha oryx Ortmann

Pleistacantha oryx Ortmann, 1893 : 39; Sakai, 1965 a : 69-70, text figs. 10 (a), (b), (d), pl. 30, fig. 2; Griffin, 1974: 28.

Material examined: 6 ♂♂, 2 ♀♀, 18.5-40 mm (USNM 47124, 47126, 47133, 47137, 47139-40).

Localities: S.W. Luzon-Mindoro: Balayan Bay-Verde I. Passage, St. 5118, 1 specimen. S.E. Luzon-Samar: E. coast of Luzon, St. 5453, 1 specimen. Cebu-Bohol: vicinity of W. Bohol, St. 5198, 2 specimens; between Cebu and Bohol, St. 5418, 1 specimen; St. 5419, 1 specimen. Leyte: between Samar and Masbate, St. 5395, 1 specimen. N. Mindanao: vicinity of N. Mindanao, St. 5506, 1 specimen.

Habitat: 118-262 fms, mud or sometimes sand.

Remarks: This species is now considered to be distinct from *P. moseleyi*. The differences between the two are dealt with by Sakai (1965 a) and by Griffin (1974). All of the *Albatross* series have the carapace ornamented with a few large spines as well as many small spines and the interantennular spine is bifid apically only. The rostral spines in all are straight and contiguous in their proximal half and outwardly curved and upturned distally.

This species has not been recorded previously from the Philippine Islands.

Distribution: Central Philippine Islands from S.W. Luzon to N. Mindanao; off N.E. Africa, Andaman Sea, East China Sea, Japan.

Pleistacantha sanctijohannis Miers

Pleistacantha sancti-johannis Miers, 1879 : 24-25, pl. 1, fig. 1; Sakai, 1965 a : 70-71, pl. 30, fig. 3.

Material examined: 2 ♂♂, 2 ♀♀ (1 ovig.), 2 juveniles, 19-23 mm, ovig. ♀ 21.5 mm (USNM 47131, 47168).

Localities: S.W. Luzon-Mindoro: Vicinity of Marinduque I., St. 5369, 4 specimens; St. 5371, 2 specimens.

Habitat: 83-106 fms, black sand, green mud.

Remarks: This species is readily distinguished from its congeners by the rostral spines which are contiguous until near the tips which diverge. In the present series the rostral spines diverge 1/2 to 1/3 of their length from the tip and are generally upcurved apically. The arrangement of spines on the carapace and around the orbit is as previously described and illustrated. The spines on the ambulatory meri are longer than those on the propodi.

This species has not previously been recorded from the Philippine Islands.

Distribution: Philippine Islands: Mindoro region; Japan.

Prosporachaeus suluensis (Rathbun)

Achaeopsis suluensis Rathbun, 1916 : 535.

Prosporachaeus suluensis.—Takeda & Miyake, 1969 : 490-491, fig. 8.

Material examined: 1 ♀ (holotype), 4.5 mm (USNM 48203).

Localities: Sulu Archipelago: Tawi Tawi Group, St. 5159, 1 specimen.

Habitat: 10 fms, coral sand.

Remarks: Takeda & Miyake removed this species from *Achaeus* where it had been placed by Sakai (1938, 1965 a) because of the very unusual form of the first pleopod of the male.

Distribution: Philippine Islands: Sulu Archipelago; Japan.

***Pugettia leytensis* Rathbun**

Pugettia leytensis Rathbun, 1916 : 539.

Material examined: None.

Remarks: This species is known only from the holotype (ovig. ♀, 24 mm, USNM 48209) taken between Leyte and Cebu, St. 5403, in 182 fms on green mud.

Distribution: Known only from Leyte, central Philippine Islands.

***Pugettia mindanaoensis* Rathbun**

Pugettia mindanaoensis Rathbun, 1916 : 538-539.

Material examined: 1 ♀, 9 mm (USNM 48244).

Localities: Sulu Archipelago: Vicinity of Jolo, St. 5172, 1 specimen.

Habitat: 318 fms, sand.

Remarks: The small female from Jolo I. differs little from the holotype (♀, 15 mm, off N. Mindanao, St. 5543, 162 fms, sand, USNM 48208).

Distribution: Southern Philippine Islands.

***Rochinia pulchra* (Miers)**

Anamathia pulchra Miers, 1886 : 26-27, pl. 4, figs. 1 (a)-(c).

Scyramathia pulchra.—Alcock, 1895 : 202-203; Rathbun, 1911 : 250.

Rochinia pulchra.—Sakai, 1938 : 278-279, text fig. 35, pl. 37, fig. 4.

Material examined: 7 ♂♂, 4 ♀♀ (2 ovig.), 13-39 mm, smaller ovig. ♀ 28.5 mm (USNM 49492-49500).

Localities: S.W. Luzon-Mindoro: E. coast of Mindoro, St. 5123, 2 specimens; S.E. Mindoro, St. 5260, 1 specimen; vicinity of S. Luzon, St. 5282, 1 specimen; St. 5283, 1 specimen; Marinduque I. and vicinity, St. 5378, 1 specimen. S.E. Luzon-Samar: N. Samar, St. 5444, 1 specimen. Siquijor: N. Mindanao and vicinity, St. 5527, 2 specimens; St. 5528, 1 specimen. N. Mindanao: N. Mindanao and vicinity, St. 5513, 1 specimen.

Habitat: 234-505 fms, soft muds or occasionally ooze or sand.

Remarks: This species typically possesses 18 spines on the carapace including two mesogastrics, two pairs of protogastrics, one cardiac, one on the posterior intestinal margin, one on the hepatic margin, two on each branchial region anteriorly and one on each branchial margin at the widest part of the carapace.

In Japanese specimens the dorsal and subdorsal spines are extremely long (see Sakai, 1938 : text fig. 35) and erect and give the animal a thorny appearance. In many of the specimens in the *Albatross* series, however, these spines are quite short.

This species was originally taken in the Philippine Islands by the *Challenger* Expedition (Miers, 1886).

Distribution: Central Philippine Islands: Mindoro and southern Luzon to northern Mindanao; East Africa, Andaman Sea, Japan.

***Rochinia riversandersoni* (Alcock)**

Scyramathia rivers-andersoni Alcock, 1895 : 203-204; Alcock & Anderson, 1896 : pl. 22, figs. 2, 4, 4 (a).

Scyramathia Rivers-Andersoni.—Doflein, 1904 : 84-85, pl. 27, figs. 8-11.

Material examined: 1 ♂, 2 ♀♀, 17.5-36.5 mm (USNM 49501-03).

Localities: Palawan: Palawan Passage, St. 5348, 1 specimen. Cebu-Bohol: Jolo Sea, St. 5423, 1 specimen. Leyte: Sogod Bay, S. Leyte I., St. 5201, 1 specimen.

Habitat: 375-554 fms, coral, sand and mud.

Remarks: The very long slender rostral and epibranchial spines immediately distinguish this species from its congeners. Unlike *R. pulchra* the other spines on the carapace are short.

The present series have been compared with four syntypes (2 ♀♀, 15, 17 mm, BMNH Reg. No. 96.5.14.13-14; 2 ♂♂, 1 ♀, 17.5-21.5 mm, ZSC 9901-3/9) and agree closely with them.

Distribution: Philippine Islands: Palawan and Leyte; previously known from off East Africa and southern Indian coasts.

***Sargassocarcinus sublimis* (Rathbun)**

Peltinia sublimis Rathbun, 1916 : 536.

Sargassocarcinus sublimis.—Sakai, 1965 a : 76, text fig. 11 (c).

Material examined: 1 ♂ (holotype), 12 mm (USNM 48247).

Locality: Sulu Archipelago: Tawi Tawi Group, St. 5136, 1 specimen.

Habitat: 22 fms, sand and shells.

Remarks: This species is known only from the holotype which was figured by Sakai (1965 a). The other species of the genus, *S. cristatus* (Balss), occurs in Japan and according to Sakai, also in Australia (recorded as *S. foliatus* by Ward in 1933). The two differ in the acuteness of the hepatic and branchial expansions. The presence of a species in both Australia and Japan distinct from a congeneric species in the Philippine Islands is extremely unusual.

Distribution: Known only from the Sulu Archipelago, Philippine Islands.

***Sphenocarcinus auritus* Rathbun**

(Fig. 10 (b))

Sphenocarcinus auritus Rathbun, 1916 : 540-541.

Material examined: 1 ovig. ♀ (holotype), 17.1 mm (USNM 48211).

Locality: S.E. Luzon-Samar: E. coast of Luzon, St. 5444, 1 specimen.

Habitat: 308 fms, green mud.

Remarks: This species is distinguished by the short flattened, apically rounded rostrum, the two lobes being separated by a narrow slit; the cardiac plate is in the shape of an upside down anchor.

Distribution: Known only from the Philippine Islands.

***Sphenocarcinus luzonicus* Rathbun**

(Fig. 11 (a))

Sphenocarcinus luzonicus Rathbun, 1916 : 539-540.

Material examined: 2 ♂♂, 27.5, 30 mm (USNM 48210 (holotype), 49520).

Localities: S.E. Luzon-Samar: E. coast of Luzon, St. 5475, 1 specimen (holotype). Sulu Archipelago: Jolo I. and vicinity, St. 5561, 1 specimen.

(a)



(b)

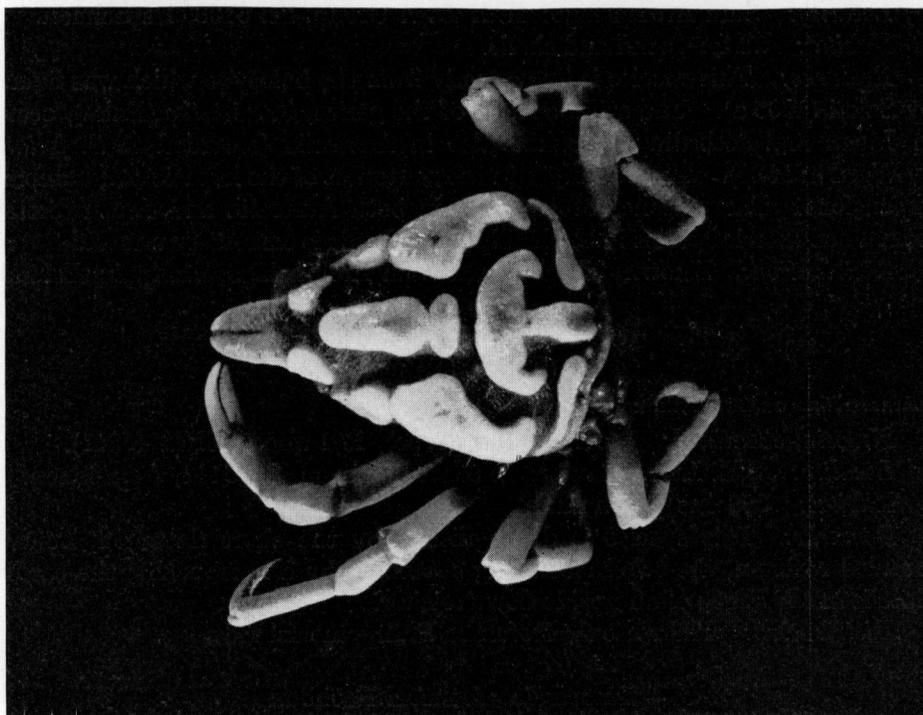


FIG. 10. (a) *Sphenocarcinus nodosus* Rathbun, male, 18.9 mm, dorsal view, USNM 49509, Northern Mindanao and vicinity. (b) *Sphenocarcinus auritus* Rathbun, holotype, ovigerous female, 17.1 mm, dorsal view.

Habitat: 195 fms, shells.

Remarks: In this species the rostral spines are long and straight and the plates on the carapace are large, the epibranchial ones being subtriangular and extending outwards beyond the margin of the carapace.

Distribution: Confined to the Philippine Islands.

***Sphenocarcinus nodosus* Rathbun**

(Fig. 10 (a))

Sphenocarcinus nodosus Rathbun, 1916 : 541-542.

Material examined: 5 ♂♂, 4 ♀♀ (2 ovig.), 18.5-26 mm, smaller ovig. ♀, 20 mm (USNM 48212 (holotype), 49508-12, 49514).

Localities: Negros: Between Negros and Siquijor, St. 5536, 1 specimen (holotype). Leyte: Sogod Bay, S. Leyte I., St. 5202, 1 specimen. N. Mindanao: N. Mindanao and vicinity, St. 5504, 1 specimen; St. 5516, 2 specimens; St. 5518, 2 specimens; St. 5519, 1 specimen; St. 5542, 1 specimen.

Habitat: 175-502 fms, mud, sometimes with globigerina ooze, infrequently sand and broken shells.

Remarks: In all specimens in the series the hepatic and two marginal branchial plates are very large. The dorsal tubercles are generally small and situated on prominent elevations covered by hair.

Four specimens (USNM 120726) from W. Ashizuri Peninsula, Japan taken in 300 m in March 1966 extend the known range of this species.

Distribution: Central Philippine Islands: northern Mindanao; Japan.

***Sphenocarcinus sphenocarinoides* (Rathbun), comb. nov.**

(Fig. 11 (b))

Chorilia sphenocarinoides Rathbun, 1916 : 548-549.

Material examined: 2 ♂♂, 1 ♀, 15.5-20.5 mm (USNM 48202 (holotype), 49826, 49861).

Localities: Negros: between Negros and Siquijor, St. 5536, 1 specimen (holotype). N. Mindanao: N. Mindanao and vicinity, St. 5517, 1 specimen; St. 5518, 1 specimen.

Habitat: 169-279 fms, grey to green mud, Globigerina.

Remarks: This species possesses flattened plates on the posterior part of the carapace as is typical of species of *Sphenocarcinus* but not of species of *Chorilia*. Further, the first pleopod of the male is of the 'pisoidiform' type with a truncate tip and simple terminal aperture as opposed to the 'scyriform' kind found in *Chorilia longipes* Dana (see Garth, 1958 : 263, pl. P, figs. 4, 5). Other known species of *Sphenocarcinus* have a pisoidiform pleopod and I therefore have no hesitation in transferring Rathbun's species to *Sphenocarcinus*. *S. sphenocarinoides* is most similar to *S. velutinus* Miers, also known from the Philippine Islands.

Distribution: Known only from the central part of the Philippine Islands.