SMITHSONIAN MISCELLANEOUS COLLECTIONS PART OF VOLUME XLIX

Report on the Crustacea (Brachyura and Anomura) Collected by the North Pacific Exploring Expedition, 1853-1856

BY

WILLIAM STIMPSON



No. 1717

CITY OF WASHINGTON
PUBLISHED BY THE SMITHSONIAN INSTITUTION
1907

Genus GALATHEA Fabricius

In the male of this genus the genital organs of the fifth coxe are not exserted. The segments of the abdomen are all provided with appendages; those of the first two pairs are copulative, and those of the next four pairs are of small size, simple and flattened.

This genus is found in all seas of the old world. It is remarkable that no species is found in the American waters except those of the frigid zones, although it is represented on the west coast by the genus *Pleuronchodes*. The following is a list of species known besides those herein described:

Galathea strigosa Fabr.
squamifera Leach.
nexa Embleton.
andrewsi Kinahan.
tridentata Esmark.
intermedia Liljeb.
serricornis Lovén.

Galathea latirostris Dana,
spinosirostris Dana,
vitiensis Dana,
longirostris Dana,
elegans White,
integrirostris Dana,

351. GALATHEA AUSTRALIENSIS Stimpson

Galathea australiensis Stimpson, Proc. Acad. Nat. Sci. Phila., x, p. 25t [89], 1858.

Carapax rather short and broad; broad posteriorly; surface strigose and pubescent; pubescence rather long; gastric region moderately well defined and two-spined in front; lateral or marginal spines sharp, eight in number on each side, including two at the insertion of the antenna, one above and one below. Rostrum broad, triangular, with four long, deeply cut spiniform teeth on each side; surface thickly pubescent. Chelipeds moderately robust, scabrous and setose above, and with a few spines on the margin; fingers depressed, not gaping, and together nearly as broad as the palm; their inner margins armed with one or two slight teeth. Color reddish, with some bluish on the carapax; fingers of the hands tipped with dark purplish-brown.

The above description was taken from a female specimen, the dimensions of which are: Length of the carapax (rostrum included), 0.29; breadth, 0.215; length of the rostrum, 0.09; of the chelipeds, 0.56 inch.

It was found among sponges dredged from a muddy bottom in six fathoms in Port Jackson, Australia.

352. GALATHEA LABIDOLEPTA Stimpson

Galathea labidolepta Stimpson, Proc. Acad. Nat. Sci. Phila., x, p. 251 [89], 1858.

Carapax rather short, narrowing anteriorly; surface strigose and much pubescent; gastric region not distinctly circumscribed, and armed with two little spines anteriorly; lateral margin armed with eight minute spines, including two at insertion of antenna. Rostrum long, triangular, acute, and armed on each side with four small, very slender teeth, including that situated above the eye. No other tooth on the supraorbital margin. Outer angle of orbit acute. Chelipeds rather stout; upper surface uniformly roughened with short spines and setæ; margins armed with a few spines, of which there are two short and one long one near the inner apex of the meros, and one long one at that of the carpus; hand with a thick palm, but very slender fingers, which together are much narrower than the palm, straight, and not toothed. Ambulatory feet spinulose and very sparsely hairy; meros-joint sufficiently broad, and provided on superior margin with about ten weak spines; lower margin of dactylus armed with four small teeth, each bearing one movable spinule. Colors: Carapax dark red, margined with white; abdomen variegated with reddish and vellowish, with a white median spot on each of the first two segments; feet punctate with blue. The dimensions of a male specimen are: Length of the carapax, 0.32; breadth, 0.21; length of rostrum, 0.11; of chelipeds, 0.58 inch. Females are generally larger, the carapax in one being 0.4 inch in length.

Dredged from a sandy bottom in twelve fathoms in Simons Bay, Cape of Good Hope.

353. GALATHEA ORIENTALIS Stimpson

Galathea orientalis STIMPSON, Proc. Acad. Nat. Sci. Phila., x, p. 252 [90], 1858.

The following description is that of a male. Carapax rather long and narrow, becoming narrower anteriorly; surface, as usual, strigose; pubescence on the strigæ very short; gastric region not distinctly defined and two-spined in front, spines minute; lateral margin armed with six teeth or spines, including that above the insertion of the antenna, but not the small inferior one. Rostrum large, subtriangular, and rather broad; surface naked; sides somewhat convex and each armed with three acute equal teeth and one much smaller one at the base. Eyes large. The tooth forming the external angle of the orbit is minute, sharp, and placed rather within than an-

teriorly to the prominent first lateral tooth. Chelipeds long, spinulose, and sparsely provided with long hairs; marginal spines longest; carpus with one strong spine on the inner side and a smaller one behind it; hand rather depressed, uniformly roughened above with asperities or short, broad spinules; fingers scarcely gaping; two low teeth on the inner margin of the dactylus and one on that of the immovable finger corresponding to the interspace between them. Meros-joint of the ambulatory feet rather narrow, with its superior margin armed with equal, closely arranged spinules; dactylus with a short supplementary unguiform tooth on the inner margin above the true unguiculus. Dimensions: Length of carapax, 0.26; breadth, 0.19; length of rostrum, 0.09; of chelipeds, 0.6 inch.

Females have more slender chelipeds, armed with longer spines, and with the fingers scarcely toothed within.

The species is of a bright red color, with a median white stripe on the back. Feet pale orange.

It differs from *G. vitiensis* in its larger rostrum, the non-circum-scribed gastric area, and the sharper external orbital angle; from *G. latirostris* in its rostrum, which is longer, not subovate, and more acutely toothed; from *G. spinosirostris* in its longer chelipeds, with fewer spines on the inner side of the carpus.

Dredged from a shelly bottom in twenty-five fathoms in Ly-i-moon Passage, near Hongkong, China.

Specimens probably of this species were obtained in the China Sea, also at Ousima and in Kagosima Bay, which differ somewhat from the above, the males having a somewhat longer and more tapering carapax, with the gastric region better circumscribed; the chelipeds longer and often with gaping fingers, bearing a sharply prominent tooth on the dactylus and none on the immovable finger. This form appears to be connected with the type by intermediate gradations, but if distinct might be named *G. longimana*.

354. GALATHEA ACANTHOMERA Stimpson

Galathea acanthomera Stimpson, Proc. Acad. Nat. Sci. Phila., x, p. 252 [90], 1858.

This species resembles G. orientalis in the shape and armature of the carapax and rostrum, except that the basal teeth of the rostrum are larger. The chelipeds in our only specimen are wanting. The ambulatory feet resemble those of G. spinasirostris. They are stout and fringed above with plumose hairs; the meros-joint is broad, with eleven stout spines on the superior edge, with the outer surface deeply marked with pubescent strigæ, and with a spine at the inferior extremity; the carpus is four-spined above, and the dactylus

is less than half as long as the penult joint, and armed below with a minute supplementary unguiculus. The upper surface of the abdomen is sparsely clothed with long hairs. Color grayish. Length of carapax, 0.22; breadth, 0.18; length of rostrum, 0.07 inch.

It differs from G. spinosirostris in its longer rostrum and in the plumose character of the setæ on the ambulatory feet.

Found among coral at the depth of one fathom in Port Lloyd, Bonin Islands.

355. GALATHEA PUBESCENS Stimpson

Galathea pubescens Stimpson, Proc. Acad. Nat. Sci. Phila., x, p. 252 [90], 1858.

Carapax regularly or evenly convex, not much narrowed before; surface deeply strigose and conspicuously pubescent, the hairs or ciliæ of each ridge being nearly long enough to reach the next ridge. Gastric region not well defined, and armed near the middle anteriorly with three small spines, the median one situated a little behind the other two. Lateral margins armed as in G. orientalis. Rostrum large, acutely triangular, densely pubescent above, and 4-toothed on each margin; teeth very sharp, and raking forward. There is sometimes a supplementary tooth between the basal tooth and the second. Chelipeds linear, very slender, sparsely setose and spinulose, but with spines smaller and less numerous than in G. orientalis. Sometimes there is, however, a strong spine on the carpus. Fingers of the hand flattened, parallel, not at all gaping, and not as long as the palm. Ambulatory feet of moderate length; superior edge of merosjoint armed with seven or eight very slender subdistant spinules; dactylus about half as long as the penult joint. Abdomen pubescent. Color reddish, sometimes with darker mottlings, and a median dorsal white stripe. In one specimen the length of the carapax was 0.22; breadth, 0.16 inch. In another, a female, length of carapax, 0.22; breadth, 0.13; length of rostrum, 0.08; length of chelipeds, c.4 inch.

It was dredged from a sandy bottom in thirty-three fathoms on the east coast of Ousima; also in twenty-five fathoms, coarse sand and shells, off the headland of Hakodadi, Island of Jesso, Japan.

356. GALATHEA SUBSQUAMATA Stimpson

Galathea subsquamata STIMPSON, Proc. Acad. Nat. Sci. Phila., x, p. 252 [90], 1858.

Carapax depressed, scarcely narrowed anteriorly. The transverse strigæ are few in number (only three on the cardiac region), the

secondary ones being obsolete; but they are very deeply cut, especially at the middle of the carapax. On the gastric region and at the sides these strigæ are undulated, and sometimes partially interrupted, so as to resemble broad scales. Their edges are scarcely pubescent, and there are only a few scattered setæ on the surface. The gastric and hepatic regions are not very distinctly circumscribed. On the front and sides of the gastric region there are eight or ten small spinules scattered. Lateral margin seven-toothed, excluding the angle of the orbit, which is situated far inward, as in G. orientalis. Rostrum exactly triangular in shape, of the usual breadth, and armed with four very sharp and deeply cut teeth on each side. Spines on the base of the antennulæ very long, reaching almost to the tip of the rostrum. Chelipeds of moderate size, armed with small subequal spines regularly distributed; carpus and meros with two or three longer spines within; hand more slender than carpus; fingers parallel, depressed, not gaping, and not toothed. ambulatory feet the meros is slender, and ten-spined above; dactylus with a short, stout tooth on the inner or lower margin. Length of carapax in a male, 0.26; breadth, 0.16; length of rostrum, 0.1; of chelipeds, 0.56 inch.

Found at Ousima.

357. GALATHEA GRANDIROSTRIS Stimpson

Galathea grandirostris Stimpson, Proc. Acad. Nat. Sci. Phila., x, p. 252 [90], 1858.

Carapax evenly convex; strigose; strigæ about twelve in number between the base of the rostrum and the posterior margin, and ciliated with short hairs, equaling in length one-third the distance between the ridges. Some of the strigæ are interrupted, and that which crosses the posterior part of the gastric region is undulated. Gastric region not circumscribed. Lateral margin nine-toothed. Rostrum greatly elongated; surface roughened and pubescent; margins each serrated with about six small distant teeth almost obsolete. Chelipeds stout, roughened with transverse scabrosities and short setose; two or three spines at the inner apex of the meros and of the carpus; no spines on the hand; fingers moderately pilose and not gaping. The surface of the ambulatory feet is ornamented with transverse ciliated striæ, about six in number on the meros-joint. Color purple-brown, very dark; carapax and abdomen above with two longitudinal yellowish-white vittæ; chelipeds with one median stripe; ambulatory feet transversely barred. Length of carapax in a male (rostrum included), 0.342; breadth, 0.10; length of rostrum,

o.16; breadth of rostrum at base, o.06; length of chelipeds, o.53 inch. With G. longirostris Dana and G. elegans White it forms a group which will perhaps be found to have a generic value, and be separated from Galathea proper. From these two species ours differs in its larger rostrum and in other characters.

It was dredged from a black sand bottom at five fathoms depth in Kagosima Bay, Japan.

Genus MUNIDA Leach

Differs from Galathea in the character of its front, which is armed with three spines, the median longest. The species of Munida are all very closely allied to each other. They are found in both temperate zones and in both oceans. Only three species are known, M. bamffia White, M. subrugosa Dana, and the following.

358. MUNIDA JAPONICA Stimpson

Munida japonica Stimpson, Proc. Acad. Nat. Sci. Phila., x, p. 252 [90], 1858.

The carapax is oblong. The lateral margin is armed near the middle with five spinules, and the spines above and behind the base of the antenna are no larger than these lateral spinules. There is a pencil of brilliant setæ on the margin beneath the sinus of the transverse suture, and a few such pencils on the sides of the abdomen. Frontal spines needle-shaped, the lateral ones nearly half as long as the middle one. There is a series of thirteen spinules extending across the front part of the gastric region, of which two, one on each side of the middle, are larger than the others. On each side of the gastric region there are three spines on the surface, about half way from the lateral margin to the median line. Chelipeds very long, straight, subcylindrical, scabrous, with a few scattered spinules; fingers long, very slender, and straight, those of the left hand gaping at the base. Antennæ a little longer than the chelipeds. Color a rather dark red, mottled with light red and white. The feet show a tendency to annulation. This description is drawn up from a male specimen, the dimensions of which are: Length of carapax, 0.48; breadth, 0.28; length of median frontal spine, or rostrum, 0.18; length of chelipeds, 1.3 inches.

Dredged from a shelly bottom in twenty fathoms in Kagosima Bay, Japan.