

No. 3.—*Reports on the Results of Dredging, under the Supervision of ALEXANDER AGASSIZ, in the Gulf of Mexico and the Caribbean Sea, and on the East Coast of the United States, 1877 to 1880, by the U. S. Coast Survey Steamer "Blake," Lieut.-Commander C. D. SIGSBEE, U. S. N., and Commander J. R. BARTLETT, U. S. N., Commanding.*

[Published by Permission of CARLILE P. PATTERSON and W. W. DUFFIELD, Superintendents U. S. Coast and Geodetic Survey.]

XXXVII.

Supplementary Notes on the Crustacea. By WALTER FAXON.

THE following notes were made while identifying some of the "Blake" Crustacea that were retained as "duplicates" when the bulk of the collection was sent to A. Milne Edwards in Paris, and some (Macrura) that were returned by Milne Edwards undetermined. The notes chiefly consist of hitherto unpublished locality records, which add something to our knowledge of the distribution of many species. They also include descriptions of six new species (five Macrura and one Schizopod). Detailed lists of the dredging stations occupied by the "Blake" will be found in the Bulletin of the Museum of Comparative Zoölogy, Vol. VI. No. 1, and Vol. VIII. No. 4.

DECAPODA.

Anamathia hystrix (STIMPS.).

Station 300. 82 fathoms. 1 ♂.

Anomalothir furcillatus (STIMPS.).

Station 159. 196 fathoms. 1 ♀.

Off Port Royal, Jamaica. 100 fathoms. 1 ♀.

Pericera cornuta cælata (A. M. EDW.).

Station XX. 50 fathoms. 2 specimens.

Picroceroides tubularis MIERS.

Station XXI. 33 fathoms. 1 ♂.

The rostral horns and preocular spines are longer than in the male specimen figured by Miers.

Lambrous pourtalesii STIMPS.

Station XXX. 51 fathoms. 2 ♂.

" 133. 42 " 1 ♂.

Neptunus (Hellenus) spinicarpus (STIMPS.).

Station 149. 60 to 150 fathoms. 1 ♀.

Achelous spinimanus (LATR.).

Station 144. 21 fathoms. 2 ♀.

Calappa flammea (HERBST).

Station 144. 21 fathoms. 1 ♂, 1 ♀.

Acanthocarpus alexandri STIMPS.

Station 148. 208 fathoms. 1 ♂, 1 ♀.

" 149. 60 to 150 fathoms. 1 ♂.

Myropsis quinquespinosa STIMPS.

Off Port Royal, Jamaica. 100 fathoms. 1 ♂.

Iliacantha subglobosa STIMPS.

Station X. 103 fathoms 1 ♀.

Cyclodorippe antennaria A. M. EDW.

Station 238. 127 fathoms. 1 ♀.

" 246. 154 " 2 ♀.

" 274. 209 " 1 ♂, 1 ♀.

Iconaxius caribbæus, sp. nov.

Plate I. Figs. 1-4.

Similar to *Iconaxius acutifrons* Bate, but different in the form of the rostrum, which is much broader than in *I. acutifrons*, less triangular in its outline, and broadly rounded at the anterior end; the upper border of the propodite of the larger cheliped, moreover, is entire, not denticulate as in *I. acutifrons*. The eyes are larger, and more heavily pigmented.

The margins of the rostrum are minutely denticulate, as in *I. acutifrons*, the median keel entire.

Length, 17 mm.

Station 166. 150 fathoms. 1 specimen.

" 232. 88 " 1 "

" 241. 163 " 3 "

" 283. 237 " 1 (type).

Lives as a commensal in Sponges of the genus *Farrea*.

The genus *Iconaxius*, of which four species have been previously described, has a wide distribution in the warm and temperate seas. It has been recorded from such remote localities as the Arabian Gulf, Banda Sea, Japan, Kermadec Islands, and the Gulf of Panama. It is now for the first time recorded from the Atlantic.

Polycheles crucifer (W.-S.).

Station 29. 955 fathoms. 3 specimens.

" 135. 450 " 1 "

" 179. 824 " 1 (exuviae).

" 180. 982 " 1 specimen.

" 182. 1,131 " 1 "

" 188. 372 " 1 "

" 190. 542 " 1 "

Polycheles agassizii (A. M. EDW.).

Station 129. 314 fathoms. 3 specimens.

" 153. 303 " 1 "

" 238. 127 " 1 "

" 260. 291 " 1 "

" XXVI. 297 " 1 "

Polycheles sculptus SMITH.

Station 211. 357 fathoms. 3 specimens.

" 227. 573 " 1 "

" 230. 464 " 1 "

Station	245.	1,058 fathoms.	1 specimen. ¹
"	257.	553	" 2 "
"	265.	576	" 2 "
"	268.	955	" 1 "
"	VII.	610	" 1 "
"	XVIII.	600	" 2 "

Nephropsis agassizii A. M. EDW.

Nephropsis agassizii A. M. Edw., Ann. Sci. Nat., Zool., 6^e sér., Vol. IX. No. 2, 1880.

Station	195.	502½ fathoms.	1 ♀.
"	200.	472	" 1 ♂.
"	227.	573	" 1 ♂.

Nephropsis aculeata SMITH.

Nephropsis aculeata Smith, Proc. U. S. Nat. Mus., Vol. III. p. 431, 1881.

Nephropsis agassizii Smith, Bull. Mus. Comp. Zoöl., Vol. XV. p. 44, Fig. 240, 1888 (nec A. M. Edw.).

Nephropsis rosea (W.-Suhm MS.) Bate, Rep. "Challenger" Macrura, p. 178, Fig. 39, Pl. XXIII. Figs. 1, 2, Pl. XXIV. Fig. 1, 1888.

Station	185.	333 fathoms.	3 specimens.
"	188.	372	" 1 "
"	222.	422	" 3 "
"	226.	424	" 1 "
"	230.	464	" 1 "
"	?	?	" 1 "

There are two species of *Nephropsis* in the West Indian region, *N. agassizii* A. M. Edw., with two pairs of lateral spines on the rostrum, and *N. aculeata* Smith, with only one pair of rostral spines. *N. agassizii* was very inadequately described by A. Milne Edwards, and the type specimen, from the Strait of Florida, 1,500 metres, has never been returned to Cambridge. Soon after, the other species, *N. aculeata*, was described by Smith from specimens obtained off the south coast of New England, in 100 to 126 fathoms. Subsequently Smith and other authors supposed that *N. aculeata* was identical with *N. agassizii*. The chief differences between the two species are the following. In *N. agassizii* the rostrum is armed with two or two and a half pairs² of lateral teeth; in *N. aculeata* there is only one pair of lateral rostral spines;

¹ Identified as *P. agassizii* by A. Milne Edwards, and so recorded by him in Bull. Mus. Comp. Zoöl., Vol. VIII. p. 66, 1880.

² The third lateral spine may occur on either the right or the left side of the rostrum.

the shell is less coarsely granulated, but more spiny in the former species than in the latter; the two lines on the proximal half of the rostrum in both species, widely diverging as they pass backward over the gastric area, are marked by small tubercles in *N. aculeata*, by distinct acute spines in *N. agassizii*; the top of the small median tubercle on the gastric area is truncated in *N. aculeata*, while in *N. agassizii* it is bluntly triangular, passing into a slight median longitudinal carina both in front and behind; the abdominal pleuræ are produced into longer spines in *N. agassizii* than in *N. aculeata*, and the spines moreover trend more distinctly backward, forming a stronger angle with the vertical axis of the pleura; the outer surfaces of these pleuræ are quite smooth in *N. agassizii*, while in *N. aculeata* they are conspicuously granulated both on their margins and on the distinctly raised central field; the lateral borders of the abdominal terga, which form a festoon on each side of the abdomen, are more strongly convex in the former species; another distinction is apparent in the sixth abdominal somite, viz. in *N. aculeata* the antero-lateral margin of the pleura is shorter than the postero-lateral border, whereas in the other species the antero-lateral border is longer than the postero-lateral; the tergum of this somite in *N. aculeata* sends off a granulated ridge from near its posterior lateral angles, — a ridge which runs forward into the upper, depressed portion of the pleura; this ridge is not found in *N. agassizii*.

Nephropsis rosea Bate is without much doubt a young individual of *N. aculeata*. *N. atlantica* Norman¹ is very similar to *N. agassizii*, but has a sharp spine on the anterior margin of the second abdominal pleura.

Stenopus hispidus (OLIV.).

Station	11.	37 fathoms.	1 specimen.
"	12.	36 "	1 "
"	36.	84 "	1 "
"	132.	115 "	2 "

Pontophilus gracilis SMITH.

Station	43.	339 fathoms.	1 specimen.
"	47.	321 "	24 "
"	48.	533 "	1 "
"	221.	423 "	1 "

Prionocrangon pectinata, sp. nov.

Plate II. Figs. 4-7.

Rostrum spiniform, inclined at an angle of 45° to the axis of the body. Median dorsal line of the carapace armed with a row of eight spiniform teeth,

¹ Proc Roy. Soc. Edinburgh for 1881-82, p. 684; Wood-Mason and Alcock, Ann. Mag. Nat. Hist., 6th Series, Vol. VII. p. 197, Fig. 4, 1891.

which extends backward nearly to the posterior border of the carapace. Antero-lateral margins of the carapace angulated below the orbit. Telson much shorter than the appendages of the sixth abdominal somite, broad, with a pair of dorsal longitudinal ribs, abruptly contracted a short way beyond the middle; tip truncate, setiferous.

The eyes are absent; their peduncles are transformed into a pair of closely apposed trihedral processes, with acute and somewhat divergent tips. The first segment of the antennule is very long, reaching nearly to the end of the antennal scale; the second and third segments are, on the other hand, very short, the third bearing two flagella, the outer of which is very much shorter than the inner. The antennal scale is long and narrow, its outer margin lightly concave.

Length, 28 mm.

Station 201. Off Martinique. 565 fathoms. 1 ♀.

The rostrum is proportionally smaller than in *P. ommatosteres* Wood-Mason,¹ while the dorsal teeth of the carapace are larger, more numerous, and extend farther back on the cephalothorax; the telson is shorter; the antennal scale is longer than the proximal segment of the antennule. According to Wood-Mason, there is no trace of eyes or eye-stalks in *P. ommatosteres*. In *P. pectinata* there are distinct rudiments of the eye-stalks, as above described. *P. ommatosteres* comes from the Andaman Sea, 405 fathoms, and the Bay of Bengal, 200-350 fathoms.

Glyphocrangon aculeata A. M. EDW.

Station	29.	955 fathoms.	1 specimen.
"	163.	769	" 2 "
"	174.	878	" 1 "
"	190.	542	" 4 "
"	195.	502½	" 1 "
"	265.	576	" 2 "
"	VIII.	610	" 1 "

Glyphocrangon spinicauda A. M. EDW.

Station	148.	208 fathoms.	2 specimens.
"	274.	209	" 12 "
"	275.	218	" 6 "
"	281.	288	" 7 "

¹ Ann. Mag. Nat. Hist., 6th ser., Vol. VIII. p. 362, 1891; Journ. Asiatic Soc. Bengal, Vol. LXIII. p. 152, 1894; Ill. Zoöl. R. I. M. S. "Investigator," Crust., Pl. IX. Fig. 4, 1895.

Glyphocrangon nobilis A. M. EDW.¹

Station	41.	860 fathoms.	6 specimens.
"	130.	451	" 2 "
"	162.	734	" 2 "
"	174.	878	" 4 "
"	176.	391	" 1 young.
"	179.	824	" 1 specimen.
"	185.	333	" 7 "
"	211.	357	" 1 young.
"	222.	422	" 2 "
"	227.	573	" 1 specimen.

Glyphocrangon neglecta, sp. nov.

Plate I. Figs. 5, 6.

Rostrum longer than the rest of the carapace, trending a little downward for the anterior half of its length, then curving gently upward to the tip, which is slender and acute; the anterior half of the rostrum is distinctly carinated in the median line, but the carina fades away before attaining the base of the rostrum;

¹ The *Glyphocrangon* doubtfully referred to *G. nobilis* in my Report on the Stalk-eyed Crustacea of the "Albatross" Expedition of 1891 (Mem. Mus. Comp. Zoöl., Vol. XVIII. p. 142, 1895) is distinct from *G. nobilis*, as appears from an examination of a larger number of specimens of the latter species. In the "Albatross" species, which may be called *Glyphocrangon vicaria*, the upper surface of the rostrum is corrugated on each side of the median carina, in front of the anterior pair of lateral spines; in *G. nobilis* this corrugation does not exist. In *G. vicaria* the anterior moiety of the fourth or lateral crest of the carapace is broken into two parts by a deep notch; the part in front of the notch is produced anteriorly to form a strong spine, while the part behind the notch merely forms a projecting angle or shoulder; in *G. nobilis* the anterior moiety of the fourth crest is continuous from the posterior end to the anterior spine. The tubercles of the first and second crests are more prominent and spiniform in *G. vicaria* than in *G. nobilis*. The dorsal carinae of the telson are dentate anteriorly in *G. vicaria*, simple in *G. nobilis*. *G. vicaria* is even more closely related to *G. longirostris* Smith, which it represents on the Pacific side of the American continent. These are the chief differences between the two species: the rostrum, corrugated above in both species, is narrower in front of the anterior lateral spines in *G. vicaria* than in *G. longirostris*. The anterior moiety of the fourth lateral carina is broken into two distinct parts by a notch in the former, while it is merely sinuate in its outline in the latter. The tubercles on the first and second crests of the carapace are more prominent and spiniform in the former than in the latter. The median dorsal crest of the abdomen, moreover, is more prominent. These differences, though very small, appear to be constant, and afford another instance of a slight divergence between two representative forms on the Atlantic and Pacific sides of the American continent. The type specimens of *G. vicaria* were dredged in 1189 fathoms, Lat. 0° 54' N., Long. 91° 9' W., "Albatross" Station 3411.

there are two pairs of lateral rostral spines, one of which lies in advance of the eyes, the other just behind the posterior wall of the orbit; on the lower face of the rostrum there appears just the slightest trace of a median longitudinal carina. The upper surface of the first or dorsal pair of carinæ is eroded; behind the cervical groove this pair of carinæ converge towards one another. Just in front of this pair of carinæ, lying in the median line at the base of the rostrum, is a small tubercle or papilla. In the interval between the first and second carinæ on each side are about four faint tubercles on the cardiac region, and on each side of the gastric region are four larger low tubercles, the hindmost of which is the largest of all. The anterior moiety of the third carina (adopting Wood-Mason's terminology) is well developed as a backward prolongation of the external orbital spine, which is long, acute, and inclined outward and upward. The fourth carina is also developed both anteriorly and posteriorly to the cervical groove, its anterior moiety being continuous with the antero-inferior, or branchiostegian, spine of the carapace. Barring the external orbital and branchiostegian spines, the anterior moieties of both the third and fourth carinæ are entire, without a trace of spine or tooth. The trend of the branchiostegian spine is nearly straight forward, its downward and outward deflection being very slight. With the exceptions noted above, the spaces between the carinæ of the carapace are pretty smooth.

The abdomen is lightly sculptured for the genus to which this species belongs. Only the first and sixth segments are conspicuously carinated above. The pleuræ of the second abdominal segment are one-toothed. The telson exceeds the last pair of abdominal appendages, and is rather abruptly bent upward at the tip.

Length, 75 mm.; cephalothorax including rostrum, 35 mm.; rostrum, 19 mm.; telson, 13 mm.

Station 261, off Grenada. 340 fathoms. 1 ♀ with eggs. Type.

" 153, off Montserrat. 303 " 1 ♂.

" 260, off Grenada. 291 " 1 young.

This species is peculiar in having the anterior moiety of the third and fourth carinæ of the carapace well developed and continuous with the external orbital and branchiostegian spines respectively. In *G. gilesii* Wood-Mason, which also has the anterior portion of both the third and fourth crests developed, these crests are produced anteriorly into small spines independent of the external orbital and branchiostegian spines.

Stylodactylus serratus A. M. EDW.

Station 205. 334 fathoms. 3 specimens.

" 151. 356 " 1 "

Pantomus parvulus A. M. EDW.

Station 134 248 fathoms. 2 specimens.

Pandalus longipes A. M. EDW.

Station 274.	209 fathoms.	12+	specimens.
" 291.	200	" 12+	"
" 295.	180	" 2	"
" 300.	82	" 12+	"

Pandalus ensis A. M. EDW.

Station 208.	213 fathoms.	1	specimen.
" 258.	159	" 2	"

Pandalus leptocerus SMITH.

Station 345.	71 fathoms.	1	specimen.
--------------	-------------	---	-----------

Heterocarpus lævis A. M. EDW.

Station XXVI.	297 fathoms.	1	specimen.
---------------	--------------	---	-----------

Heterocarpus alexandri A. M. EDW.

Station 196.	1030 fathoms.	1	specimen.
--------------	---------------	---	-----------

Heterocarpus ensifer A. M. EDW.

Station 146.	245 fathoms.	1	specimen.
" 153.	303	" 1	"
" 258.	159	" 2	"

Nematocarcinus cursor A. M. EDW.

Station 151.	356 fathoms.	12+	specimens.
" 160.	393	" 2	"
" 161.	583	" 1	"
" 205.	334	" 2	"
" 227.	573	" 2	"
" 274.	209	" 1	"

Hoplophorus gracilirostris A. M. EDW.

Station 100.	250-400 fathoms.	1	specimen.
" 191.	108-250	" 1	"
" 226.	424	" 1	"
" 230.	464	" 1	"
" 258.	159	" 1	"
" 271.	458	" 1	"

Acanthephyra affinis, sp. nov.

Plate II. Fig. 1-3.

Similar to *Acanthephyra* (*Systellaspis*) *lanceocaudata* Bate, but different in the following regards: the apical tooth of the antennal scale projects forward far beyond the membranous part of the organ; the telson is shorter than even the inner branches of the posterior pair of abdominal appendages, and its dorsal surface is flattened, but not grooved.

The seven teeth that surmount the gastric crest are closely approximated, and increase in size successively from the first to the fifth. The sixth is about equal to the fifth, the seventh a little smaller. The egg of this species measures 3×2 mm.

Length, 100 mm.

Station 258. 159 fathoms. 1 ♀.

This species belongs to the subgenus *Systellaspis*, in which the orbit is continuous to the first antennal tooth (the orbital tooth being absent), the dorsal carina of the sixth abdominal somite is wanting, and a prominent angle or tooth projects from each side of the anterior border of the first abdominal somite, overlapping the posterior margin of the carapace. The eggs, moreover, are of large size, indicating a protracted period of intra-oval development.

Acanthephyra debilis A. M. EDW.

Station 107. 428 fathoms. 1 specimen.

Acanthephyra armata A. M. EDW.

Station 135. 450 fathoms. 1 specimen.

“ 151. 356 “ 2 “

Sicyonia edwardsii MIERS

Station 142. 27 fathoms. 1 specimen.

Sicyonia brevirostris STIMPS.

Station 38. 20 fathoms. 1 specimen.

Peneus brasiliensis LATR.

Station 37. 35 fathoms. 2 specimens.

“ 29. 955 “ 3 young.

Parapeneus megalops SMITH.

Station 147.	250 fathoms.	4 specimens.
" 148.	208 "	4 "
" 258.	159 "	6 "
" 275.	218 "	4 "
" 281.	288 "	10 "
" 283.	237 "	1 "

Parapeneus politus SMITH.

Station 36.	84 fathoms.	27 specimens.
-------------	-------------	---------------

Haliporus debilis (SMITH).

Station 47.	321 fathoms.	1 specimen.
-------------	--------------	-------------

Plesiopeneus armatus (BATE).

Station 31.	1,920 fathoms.	2 specimens.
" 187.	411 "	1 "

Hemipeneus triton FAX.

Station 227.	573 fathoms.	1 specimen.
--------------	--------------	-------------

Benthesicymus bartletti SMITH.

Station 29.	955 fathoms.	1 specimen.
" 33.	1400-1568 "	1 "
" 163.	769-878 "	2 "
" 179.	824 "	1 "
" 190.	542 "	1 "
" 227.	573 "	2 "
" 245.	1058 "	1 "
" 265.	576 "	1 "
" 288.	399 "	2 "

Sergestes robustus SMITH.

Station 205.	334 fathoms.	1 specimen.
" 211.	357 "	1 "
" 260.	291 "	1 "
" 264.	416 "	1 "
" 265.	576 "	2 "
" 267.	626 "	1 "

Sergestes mollis SMITH.

Station 30. 968 fathoms. 2 specimens.

SCHIZOPODA.

Lophogaster longirostris, sp. nov.

Plate. II. Figs. 8-10.

Similar to *L. typicus* Sars, but different in the great length of the median spine of the rostrum, which far surpasses the antennular peduncle, and almost attains to the tips of the antennal scales. There are six teeth along the outer edge of the antennal scale. Length, 27 mm.

Station 50. 119 fathoms. 20 specimens.

Gnathophausia zoëa W.-SUHM.

Station 185.	333 fathoms.	2 specimens.
" 201.	565	" 1 "
" 221.	423	" 1 "
" 227.	573	" 1 "
" 228.	785	" 1 "
" 230.	464	" 1 "
" 284.	347	" 2 "
" 288.	399	" 3 "

Eucopia sculpticauda FAX.

Station 30. 968 fathoms. 1 specimen.

Petalophthalmus armiger W.-SUHM.

Station 29. 955 fathoms. 1 ♀

This is the specimen figured in my Report on the Stalk-eyed Crustacea of the "Albatross" Expedition of 1891, Pl. LIII. Fig. 2 (Mem. Mus. Comp. Zoöl., Vol. XVIII.).

STOMATOPODA.

Squilla empusa SAY.

Station 36. 84 fathoms. 1 specimen (young).

Pseudosquilla ciliata (FABR.).

Martinique. 1 specimen.

ISOPODA.

Bathynomus giganteus A. M. EDW.

Station 179. 824 fathoms. 1 specimen, 157 × 80 mm.

" VII. 610 " 1 " 107 × 49 "

According to Wood-Mason and Alcock (Ann. Mag. Nat. Hist., 6th Series, Vol. VII. p. 270, 1891), this remarkable Isopod was captured in the Bay of Bengal at a depth of 740 fathoms. Dr. Arnold Ortmann¹ has described a second species of *Bathynomus* (*B. doederleini*), taken on the coast of Japan, near Enoshima, Sagami Bay. The depth is not recorded.

¹ Proc. Acad. Nat. Sci. Phila., 1894, p. 191.

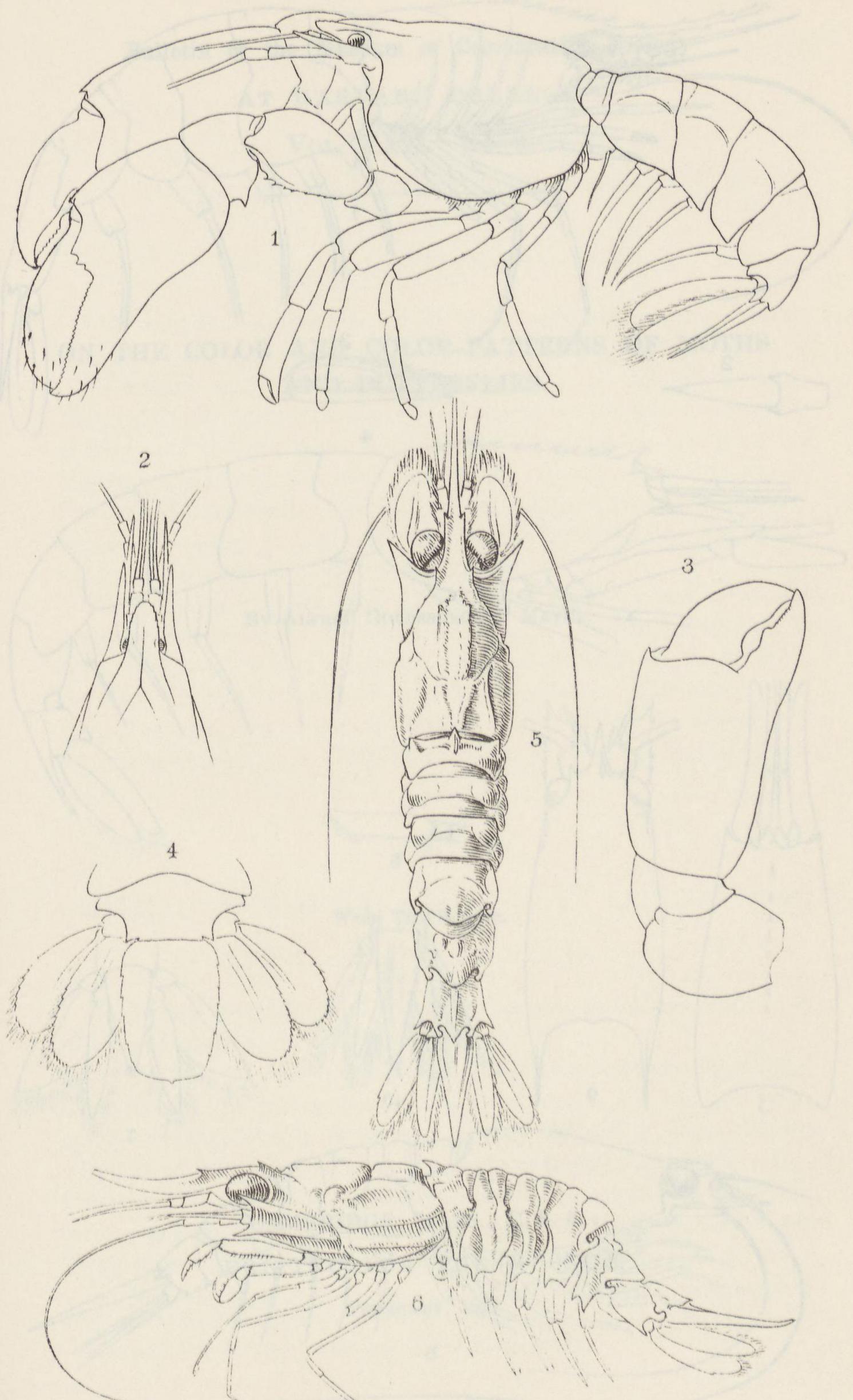
EXPLANATION OF THE PLATES.

PLATE I.

- Fig. 1. *Iconaxius caribbæus* Fax. M. C. Z., No. 4195. Blake Sta. 283. $\times 5\frac{1}{3}$.
 Fig. 2. The same. Head, from above. $\times 5\frac{1}{3}$.
 Fig. 3. The same. Right chela, from the outside. $\times 5\frac{1}{3}$.
 Fig. 4. *Iconaxius caribbæus* Fax. Telson and posterior pair of appendages.
 M. C. Z., No. 4147. Blake Sta. 241. Much enlarged.
 Fig. 5. *Glyphocrangon neglecta* Fax. Female, dorsal view. M. C. Z., No. 4434.
 Blake Sta. 261. $\times 1\frac{1}{3}$.
 Fig. 6. The same. Lateral view. $\times 1\frac{1}{3}$.

PLATE II.

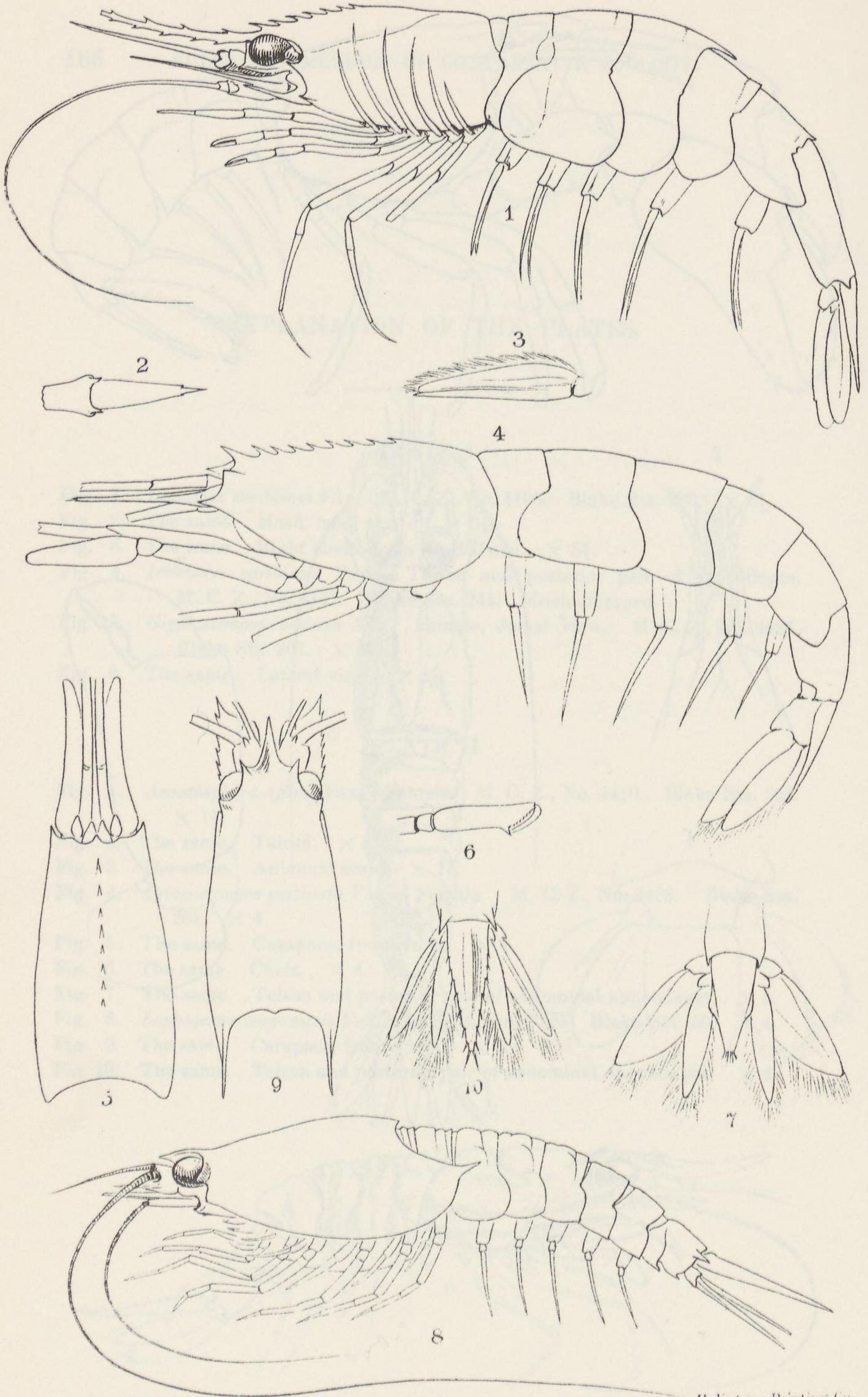
- Fig. 1. *Acanthephyra affinis* Fax. Female. M. C. Z., No. 4410. Blake Sta. 258.
 $\times 1\frac{1}{3}$.
 Fig. 2. The same. Telson. $\times 1\frac{1}{3}$.
 Fig. 3. The same. Antennal scale. $\times 1\frac{1}{3}$.
 Fig. 4. *Prionocrangon pectinata* Fax. Female. M. C. Z., No. 4436. Blake Sta.
 201. $\times 4$.
 Fig. 5. The same. Carapace, from above. $\times 4$.
 Fig. 6. The same. Chela. $\times 4$.
 Fig. 7. The same. Telson and posterior pair of abdominal appendages. $\times 4$.
 Fig. 8. *Lophogaster longirostris* Fax. M. C. Z., No. 4380. Blake Sta. 50. $\times 4$.
 Fig. 9. The same. Carapace, from above. $\times 4$.
 Fig. 10. The same. Telson and posterior pair of abdominal appendages. $\times 4$.



J.H. Emerton del.

Holotype Printing Co.

1-4 *Iconaxius caribbaeus* Fax.
5-6 *Glyphocrangon neglecta* Fax.



J.H. Emerton del.

Helotype Printing Co.

1-3 *AcanthePHYRA affinis* Fax.
4-7 *Prionocrangon pectinata* Fax.
8-10 *Lophogaster longirostris* Fax.