

A Check-list of Taiwan Crabs
with Descriptions of 19 New Records

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A list of Taiwan crabs, including 21 families, 108 genera, 222 species, was reported in "A Catalogue of Brachyurous Crustacea of Taiwan" by Professor C. C. Lin in 1949. The present paper is a check list of Taiwan crabs preserved in the Biology Department of Tunghai University. About one hundred species have been collected. Most of them were collected in the Pescadores in January 1961 by the author and Mr. Ming-jenn Yu, assistant in the Biology Department of Tunghai University. Several were collected in November 1960 by the author at Wu-chi, a coastal village near Taichung. Others were collected by professors and students of the Biology Department during the annual summer collecting trips to the Pescadores in August 1957 and to Little Liu-chiu Island in August 1959. A few were collected elsewhere in Taiwan by the author and classmates.

Only 78 species have been identified. They belong to 45 genera in 13 families. Among them 19 species marked with asterisks are new records for Taiwan. A brief description is given for each of these, following the list.

Order **Decapoda**

Suborder **Reptantia**

Tribe **Brachyura**

Subtribe I **Dromiacea**

Family 1 **DROMIIDAE**

- *1. *Conchoecets artificiosus* (FABRICIUS) Nos. BDr 0001~0003
Pescadores (Chang & Yu, Jan. 1961)
- *2. *Dromia dehaani* RATHEUN Nos. BDr 0008~0009
Pescadores (Chang & Yu, Jan. 1961)

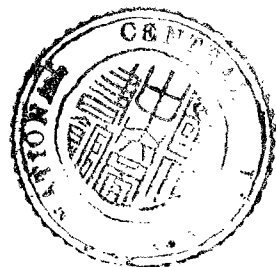
Subtribe II **Oxystemata**

Family 1 **DORIPPIDAE**

- 1. *Dorippe dorsipes* (LINNAEUS) Nos. BDo 0001~0006
Pescadores (Chang & Yu, Jan. 1961)
- 2. *Dorippe granulata* DE HAAN Nos. BDo 0007~0009
Pescadores (Chang & Yu, Jan. 1961)
- 3. *Dorippe japonica* VON SIEBOLD No. BDo 0010
Pescadores (Chang & Yu, Jan. 1961)

Family 2 **CALAPPIDAE**

- 1. *Calappa hepatica* LINNAEUS Nos. BC 0001~0002; 0015



- Pescadores (Annual Summer Collecting Trip, Aug. 1957);
 Little Liu-chiu Island (Annual Summer Collecting Trip, Aug. 1959)
2. *Calappa lophos* (HEREST) Nos. BC 0003~0007
 Pescadores (Chang & Yu, Jan. 1961)
 3. *Calappa philargius* (LINNAEUS) Nos. BC 0008~0013
 Pescadores (Chang & Yu, Jan. 1961)
 4. *Calappa gallus* (HEREST) No. BC 0014
 Little Liu-chiu Island (Annual Summer Collecting Trip, Aug. 1959)
 5. *Matuta lunaris* FORSKAL
 Tachia (Chang & Chi, Aug. 1961)
 6. *Matuta planipes* FABRICIUS No. BC 0026
 Anping (Yu, Sept. 1961)

Family 3 **LEUCOSIIDAE**

- *1. *Randallia eburnea* ALCOCK Nos. BL 0001~0004; 0024; 0027~0028
 Pescadores (Chang & Yu, Jan. 1961); Anping (Lin, Aug. 1959; Chang, Dec. 1961)
2. *Myra fugax* (FABRICIUS) Nos. BL 0005~0007
 Pescadores (Chang & Yu, Jan. 1961)
- *3. *Myra affinis* BELL No. BL 0022
 Anping (Lin, Aug. 1959)
4. *Arcania undecimspinoso* DE HAAN Nos. BL 0008~0015; 0029~0030
 Pescadores (Chang & Yu, Jan. 1961); Anping (Chang, Dec. 1961)
5. *Arcania heptacantha* (DE HAAN) No. BL 0026
 Anping (Chang, Dec. 1961)
- *6. *Leucosia longifrons* DE HAAN No. BL 0016
 Pescadores (Chang & Yu, Jan. 1961)
7. *Leucosia formosensis* SAKAI Nos. BL 0017~0019
 Pescadores (Chang & Yu, Jan. 1961)
- *8. *Leucosia unidentata* DE HAAN No. BL 0023
 Anping (Lin, Aug. 1959)
9. *Philyra pisum* DE HAAN Nos. BL 0020~0021
 Yuanli (Chang & Kuo, April 1961)
10. *Philyra tuberculosa* STIMPSON No. BL 0025
 Pescadores (Chang & Yu, Jan. 1961)

Family 4 **RANINIDAE**

- *1. *Lyreidus politus* PARISI No. BR 0001
 Pescadores (Chang & Yu, Jan. 1961)

Subtribe III **Brachygnatha**Superfamily A **Oxyrhyncha**Family 1 **MAJIDAE**

- *1. *Camposia retusa* LATREILLE No. BM 0001
Little Liu-chiu Island (Annual Summer Collecting Trip, Aug. 1959)
- 2. *Maja nipponensis* SAKAI No. BM 0002
Pescadores (Chang & Yu, Jan. 1961)
- *3. *Schizophroida manazuana* SAKAI No. BM 0003
Little Liu-chiu Island (Annual Summer Collecting Trip, Aug. 1959)
- 4. *Schizophrys aspera* (M. EDWARDS No. BM 0006
Little Liu-chiu Island (Annual Summer Collecting Trip, Aug. 1959)
- *5. *Tiarinia spinigera* STIMPSON No. BM 0004
Little Liu-chiu Island (Annual Summer Collecting Trip, Aug. 1959)
- 6. *Tiarinia depressa* STIMPSON No. BM 0005
Little Liu-chiu Island (Annual Summer Collecting Trip, Aug. 1959)

Family 2 **PATHENOPIIDAE**

- *1. *Lambrus (Platylambrus) valius* DE HAAN Nos. BP 0001; 0006~00013
Pescadores (Chang & Yu, Jan. 1961)
- 2. *Lambrus (Platylambrus) echinatus* (HEREST) Nos. BP 0002~0004
Pescadores (Chang & Yu, Jan. 1961)
- *3. *Zalasius dromiaeformis* (DE HAAN) No. BP 0014
Pescadores (Chang & Yu, Jan. 1961)

Superfamily B **Brachyrhyncha**Family 1 **EURYALIDAE**

- *1. *Jonas distincta* (DE HAAN) Nos. BE 0001~0006
Pescadores (Chang & Yu, Jan. 1961)

Family 2 **PORTUNIDAE**

- 1. *Lissocarcinus laevis* MIERS Nos. BPor 0085~0086
Pescadores (Chang & Yu, Jan. 1961)
- 2. *Scylla serrata* (FORSKÅL) Nos. BPor 0023; 0084
Wuchi (Chang, Nov. 1960 & Aug. 1961)
- 3. *Neptunus (Neptunus) sanguinolentus* HEREST No. BPor 0021
Taichung market (Chang, Aug. 1960)
- 4. *Neptunus (Neptunus) pelagicus* (LINNAEUS) Nos. BPor 0004~0008
Pescadores (Chang & Yu, Jan. 1961)
- 5. *Neptunus (Amphitrite) gladiator* (FABRICIUS) Nos. BPor 0009~0015
Pescadores (Chang & Yu, Jan. 1961)

6. *Neptunus (Amphitrite) argentatus* WHITE Ncs. BPor 0053~0065
Pescadores (Chang & Yu, Jan. 1961)
- *7. *Neptunus (Amphitrite) gracilimanus* STIMPSON Nos. BPor 0028~0051
Pescadores (Chang & Yu, Jan. 1961)
8. *Neptunus (Hellenus) hastatoides* (FABRICIUS) No. BPor 0076
Little Liu-chiu Island (Annual Summer Collecting Trip, Aug. 1959)
9. *Neptunus (Achelous) orbitospinis* RATHBUN No. BPor 0072
Little Liu-chiu Island (Annual Summer Collecting Trip, Aug. 1959)
10. *Neptunus (Achelous) granulatus* (H. M. EDWARDS) No. BPor 0052
Little Liu-chiu Island (Annual Summer Collecting Trip, Aug. 1959)
11. *Charybdis japonica* (A. M. EDWARDS) Nos. BPor 0017~0020; 0073
Little Liu-chiu Island (Annual Summer Collecting Trip, Aug. 1959)
Pescadores (Chang & Yu, Jan. 1961)
12. *Charybdis cruciata* (HERBST) Nos. BPor 0001~0002
Pescadores (Chang & Yu, Jan. 1961), Keelung (Chang, Feb. 1961; Yu, Aug. 1961)
- *13. *Charybdis miles* DE HAAN No. BPor 0088
Pescadores (Annual Summer Collecting Trip, Aug. 1957)
14. *Charybdis anisodon* DE HAAN No. BPor 0077
Keelung (Yu, Aug. 1961)
- *15. *Charybdis variegata* (FABRICIUS) Ncs. BPor 0003; 0071
Pescadores (Chang & Yu, Jan. 1961), Little Liu-chiu Island (Annual Summer Collecting Trip, Aug. 1959)
16. *Charybdis natator* HERBST Nos. BPor 0066; 0081~0082
Pescadores (Chang & Yu, Jan. 1961), Keelung (Yu, Aug. 1961)
17. *Charybdis truncata* (FABRICIUS) Nos. BPor 0074~0075
Little Liu-chiu Island (Annual Summer Collecting Trip, Aug. 1959)
18. *Thalamita crenata* LATREILLE Nos. BPor 0022; 0024~0027; 0078
Wuchi (Chang, Nov. 1960), Pescadores (Annual Summer Collecting Trip, Aug. 1957), Pescadores (Chang & Yu, Jan. 1961)
- *19. *Thalamita danae* STIMPSON Nos. BPor 0016; 0079~0080
Pescadores (Annual Summer Collecting Trip, Aug. 1959), Keelung (Yu, Aug. 1961)

Family 3 XANTHIDAE

1. *Carpilius convexus* (FORSKÅL) Nos. BX 0001~0005
Little Liu-chiu Island (Annual Summer Collecting Trip, Aug. 1959)
2. *Zoymus aeneus* (LINNAEUS) Nos. BX 0006~0007
Little Liu-chiu Island (Annual Summer Collecting Trip, Aug. 1959)
3. *Daira perlata* (HERBST) Nos. BX 0045~0049
Little Liu-chiu Island (Annual Summer Collecting Trip, Aug. 1959)
4. *Xantho (Leptodius) sanguineus* (M. EDWARDS) Nos. BX 0010~0011
Little Liu-chiu Island (Annual Summer Collecting Trip, Aug. 1959)

5. *Xantho (Leptodius) exaratus* (M. EDWARDS) Nos. BX 0008~0009; 0012~0030
Pescadores (Annual Summer Collecting Trip, Aug. 1958; Chang & Yu, Jan. 1961), Little Liu-chiu Island (Annual Summer Collecting Trip, Aug. 1959)
6. *Paraxanthias notatus* (DANA) Nos. BX 0033~0040
Little Liu-chiu Island (Annual Summer Collecting Trip, Aug. 1959)
7. *Neolimera insularis* (ADAMS & WHITE) No. BX 0041
Little Liu-chiu Island (Annual Summer Collecting Trip, Aug. 1959)
8. *Actaea tomentosa* (M. EDWARDS) No. BX 0044
Little Liu-chiu Island (Annual Summer Collecting Trip, Aug. 1959)
9. *Actea rufopunctata* N. EDWARDS No. BX 0043
Little Liu-chiu Island (Annual Summer Collecting Trip, Aug. 1959)
10. *Chlorodiella nigra* FORSKÅL No. BX 0066
Pescadores (Chang & Yu, Jan. 1961)
11. *Ozius regulosus* STIMPSON No. BX 0050
Pescadores (Chang & Yu, Jan. 1961)
12. *Eriphia scabricula* DANA No. BX 0065
Little Liu-chiu Island (Annual Summer Collecting Trip, Aug. 1959)
13. *Eriphia laevimana smithii* MCLEAY No. BX 0063
Pescadores (Annual Summer Collecting Trip, Aug. 1957)
- *14. *Pilumnus vespertilio* (FABRICIUS) Nos. BX 0051~0052; 0058~0062
Pescadores (Annual Summer Collecting Trip, Aug. 1957),
Little Liu-chiu Island (Annual Summer Collecting Trip, Aug. 1959)
- *15. *Pilumnus scabriusculus* ADAMS & WHITE No. BX 0053
Little Liu-chiu Island (Annual Summer Collecting Trip, Aug. 1959)
16. *Liagore rubromaculata* DE HAAN Nos. BX 0067~0070
Anping (Chang, Dec. 1961)

Family 4 **OCYPODIDAE**

1. *Ocyroda cordimana* DESMAREST No. BO 0003
Little Liu-chiu Island (Annual Summer Collecting Trip, Aug. 1959)
2. *Ocyroda stimpsoni* ORTMANN Nos. BO 0001~0002
Wuchi (Chang, Nov. 1960)
3. *Gelasimus lacteus* DE HAAN Nos. BO 0011~0013
Wuchi (Chang, Nov. 1960)
4. *Gelasimus arcuatus* DE HAAN Nos. BO 0004~0010
Wuchi (Chang, Nov. 1960)
5. *Macrophthalmus dilatatus* DE HAAN Nos. BO 0028~0029; 0031~0032
Wuchi (Chang, Nov. 1960)
6. *Macrophthalmus japonicus* DE HAAN Nos. BO 0014~0027
Wuchi (Chang, Nov. 1960)
7. *Scopimera globosa* DE HAAN Nos. BO 0033~0038
Yuanli (Chang & Kuo, April 1961)

Family 5 MICTYRIDAE

1. *Mictyris longicarpus* LATREILLE Nos. BMi 0002~0006
Wuchi (Chang, Nov. 1960; Kao, April 1961)

Family 6 GRAPISIDAE

1. *Metopograpsus messor* (FORSKÅL) Nos. BGr 0001~0002
Pescadores (Annual Summer Collecting Trip, Aug. 1957)
2. *Eriochair japonicus* DE HAAN Nos. BGr 0003~0004
Wuchi (Chang, Nov. 1960)
3. *Sesarma (Parasessarma) picta* (DE HAAN) Nos. BGr 0006~0011
Wuchi (Chang, Nov. 1960)
4. *Helice tridens tridens* (DE HAAN) No. BGr 0005
Wuchi (Chang, Nov. 1960)

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Conchoecetes artificiosus (FABRICIUS)

Plate 1, fig. 1

STIMPSON 1907, P. 180, Pl. 21, fig. 5; SAKAI 1936, P. 34, text-fig. 3; 1939, P. 42, Pl. VIII, fig. 2.

Carapace subpentagonal in shape, form depressed, surface with clearly divided regions covered closely with matted hairs. Carapace margin with blunt tooth immediately behind cervical groove followed by row of three tubercles crossing posterior border of subhepatic region to antero-external angle of buccal cavern. Tooth rather narrow, two lateral rostral spines widely separated, median ventral spine prominent though smaller. Orbit circumscribed by supraorbital spine, suborbital spine, and basal segment of antenna.

Cheliped moderate large; arm prismatic, its internal surface smooth, external surface tomentose, proximal end of inferior surface tuberculated; two distal tubercles on superior surface of wrist and also two on palm; both wrist and palm granulated on supra-external surface; fingers reddish in fresh specimen, serrated on inner margins. Fourth pair of feet shorter but rather robust and thicker than second and third pairs; fifth or last pair very slender, each extremity only minute, somewhat twisted dactylus.

In our collection a species of *Conchoecetes* (Plate 1, fig. 2) has close resemblance to *C. artificiosus*. The differences between this species and *C. artificiosus* are: Carapace slightly convex, not so depressed as *C. artificiosus*, surface smoother and almost naked, depressions obsolete, rostral spines and orbital spines blunter, antero-lateral margin rounded not forming a clear angle as in *C. artificiosus*, no tooth or row of tubercles on subhepatic region.

Locality: Pescadores.

Collectors: Chang & Yu.

Measurements:

| Species name | <i>C. artificiosus</i> | | | <i>C. species</i> | | |
|--------------------------|------------------------|------|------|-------------------|------|------|
| Sex | ♂ | ♂ | ♂ | ♂ | ♂ | ♀ |
| Length of carapace (mm) | 24.5 | 20.2 | 18.5 | 20.5 | 21.5 | 31.0 |
| Breadth of carapace (mm) | 27.0 | 21.8 | 21.0 | 22.0 | 23.5 | 32.0 |

Dromia dehaani RATHBUN

Plate 1, fig. 3

RATHBUN 1923, p. 68; SAKAI 1936, p. 31. pl.1 fig. 1; 1939, p. 8, pl. V, fig. 1.

Carapace more convex anteriorly than posteriorly covered with pubescence and scattered with tufts of long hairs. Front very narrow and cut into three spines at free margin, middle one placed on lower plane. Antero-lateral margin armed with five spines including suborbital spine. Postero-lateral margin slightly convex. Posterior border almost straight.

Chelipeds robust, hairy on upper surface and smooth on inner surface. Arm with six spinules on upper keel; wrist has two large nodules at distal end and two spinules on upper border, but spinules not present in young specimens; palm bears two or three sharp tubercles on upper border. Number of these tubercles seems increasing as animal grows. Ambulatory legs furnished with long hairs on anterior and posterior borders.

Localities: Pescadores, Anping.

Collectors: Chang & Yu.

Measurements:

| Sex | ♂ | ♀ | ♂ | ♂ |
|--------------------------|------|------|------|-------|
| Length of carapace (mm) | 47.8 | 41.5 | 59.0 | 85.0 |
| Breadth of carapace (mm) | 52.5 | 44.8 | 68.0 | 107.0 |

Randallia eburnea ALCOCK

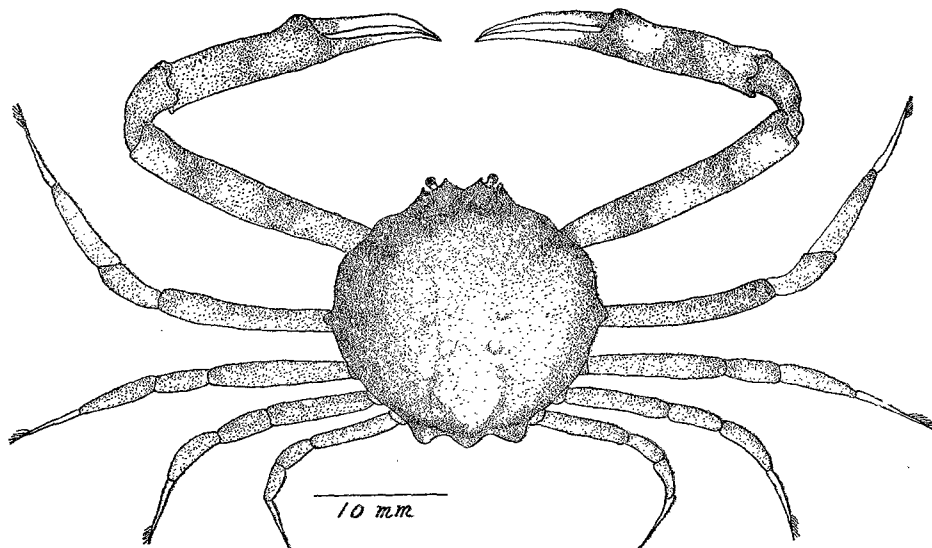
Fig. 1

ALCOCK 1896, p. 197, Illus. Zool. Invest., pl. 30, fig. 4; SAKAI 1939, p. 132, Text-fig. 22.

Carapace circular, as broad as long; surface smooth, regions not circumscribed; lateral margin with blunt round tooth at mid-point; Posterior margin with three serrated slender plates of which middle one much narrower. Third maxilliped as broad as long; endognath longitudinally divided into two portions, inner half depressed and slender, outer prominent and fringed with hairs at inner edge. Pterygostomial channels deep. Color in life with bright brick red above and white below.

Localities: Pescadores, Anping.

Collectors: Chang & Yu; Lin.

Fig. 1 *Randallia eburnea* ALCOCK, female

Measurements:

| Sex | ♀ | ♀ | ♀ | ♀ |
|--------------------------|------|------|------|------|
| Length of carapace (mm) | 20.0 | 15.5 | 15.5 | 15.0 |
| Breadth of carapace (mm) | 21.0 | 17.0 | 16.5 | 16.0 |

Myra affinis BELL

Plate 1, fig. 4

BELL, Lin. Trans. XXI, 296; STIMPSON 1907, P. 153.

A female specimen agrees with the description of Stimpson's "Report on the Crustacea Collected by the North Exploring Expedition" P. 153, 1907. "The teeth at the posterior extremity of the carapace are obtuse, and the middle one is short." In our specimen hand of chelipeds much shorter than that of *M. fugax*; inner margin of fingers armed with small sharp pointed teeth. This material requires further examination.

Locality: Anping.

Collector: Lin.

Measurements:

| | |
|--------------------------------|------|
| Sex | ♀ |
| Length of carapace proper (mm) | 30.0 |
| Length of posterior spine (mm) | 3.3 |
| Breadth of carapace (mm) | 25.5 |

Leucosia longifrons DE HAAN

Fig. 2, Plate 1, fig. 5

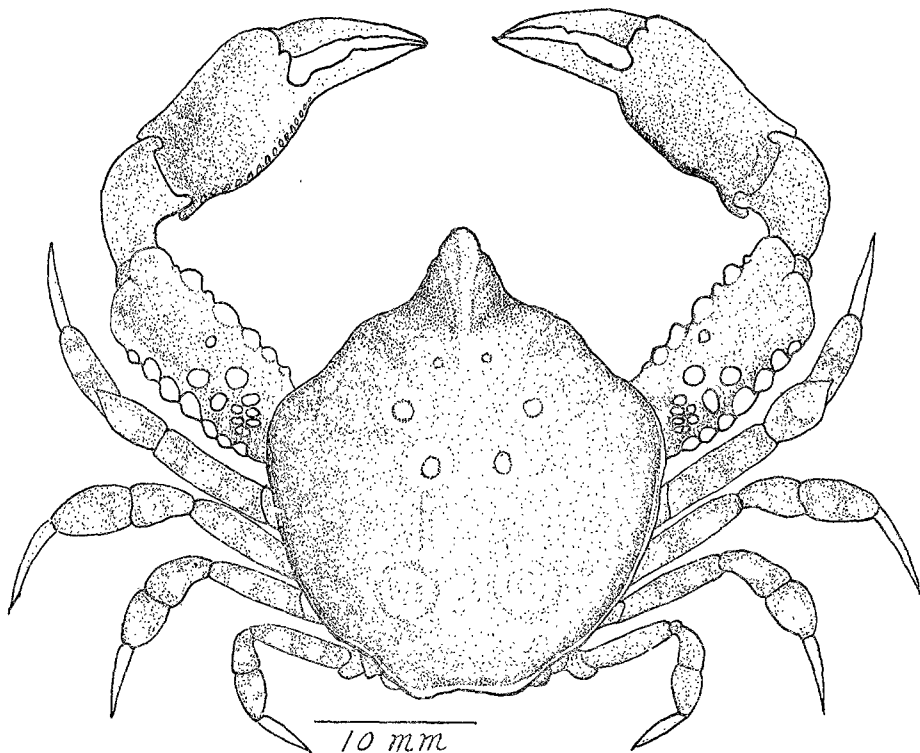
DE HAAN, F. J. C., P. 132, Pl. 33, fig. 4; SAKAI 1939, P. 142, Pl. XV, fig. 1.

Carapace rhomboidal, longer than broad, proportion being 1:1.15; very convex posteriorly; hepatic regions slightly concave. Antero-lateral margin moderately crenulated, not extending further back than first pair of ambulatory feet. Postero-lateral margin rounded and smooth. Posterior margin obtuse and regularly curved, minutely crenulated above, smooth and glossy beneath. Apex or anterior extremity compressed and very much elevated. Front projecting much beyond orbits, entire and blunt at tip. Thoracic sinus narrow and deep and ornamented with five or six tubercles which gradually decrease in size posteriorly.

Meros-joint of cheliped ornamented along margin with tubercles also distributed on the basal half. Hand small, smooth; fingers shorter than palm.

Abdomen of male moderately broad, antepenult joint, smooth, with median depression and convex on either side of it; penult joint armed with sharp tubercle near middle. Pleopods of male spiral, with one and half turn.

Carapace color bluish brown, becoming paler on margin where ornamented with pale orange. Pair of small white spots on pregastric region followed by two pairs of larger ones connected by white lines to third pair of white spots on cardiac region.

Fig. 2 *Leucosia longifrons* DE HAAN, male

Tubercles on merus of chelipeds white at summit and bright orange at margin.
Ambulatory legs white barred with orange.

Locality: Pescadores.

Collectors: Chang & Yu.

Measurements:

| | |
|--------------------------|------|
| Sex | ♂ |
| Length of carapace (mm) | 28.5 |
| Breadth of carapace (mm) | 24.8 |

Leucosia unidentata DE HAAN

Plate 1, fig. 6

DE HAAN F. J. C. P. 133, Pl. 33, fig. 3; SAKAI 1936, P. 60, text-fig. 22, pl. 11, fig. 3; 1939, P. 146, Pl XV, fig. 4.

Carapace strongly convex; smooth, glabrous; rhomboidal, slightly longer than broad, proportion of breadth to length being 1.10. Upper surface dark bluish gray, four circular spots with marginal purple and white at center on gastric region. Margins granulated. Posterior margin straight, granulated. Front proportionally broad with very obscure denticle in middle. Thoracic sinus shallow with two rows tubercles above base of arm.

Meros-joint of cheliped tuberculated on basal half of both upper and under surfaces, and also along its borders throughout segment. Hand short with two or three tubercles at inner border. Palm defined by two parallel rows of granules along inner border. Pleopod of male with three turns of spiral.

Locality: Anping.

Collector: Lin.

Measurements:

| | |
|--------------------------|------|
| Sex | ♂ |
| Length of carapace (mm) | 32.0 |
| Breadth of carapace (mm) | 29.0 |

Lyreidus potitus PARISI

Fig. 3

PARISI 1941, P. 311, Pl. 13, fig. 5; SAKAI 1936, P. 68, Pl. 13, fig. 4; 1939, P. 172.

Our specimen agrees with Sakai's description figures except two spines on wrist

of chelipeds instead of one which is regarded as a common characteristic of this species. A similar case is also found in Sakai's "Studies of the Crabs of Japan" 1939, P. 172. His material was from Tosa Bay.

Locality: Pescadores.

Collectors: Chang & Yu.

Measurements:

| | |
|--------------------------|------|
| Sex | ♂ |
| Length of carapace (mm) | 34.1 |
| Breadth of carapace (mm) | 19.0 |

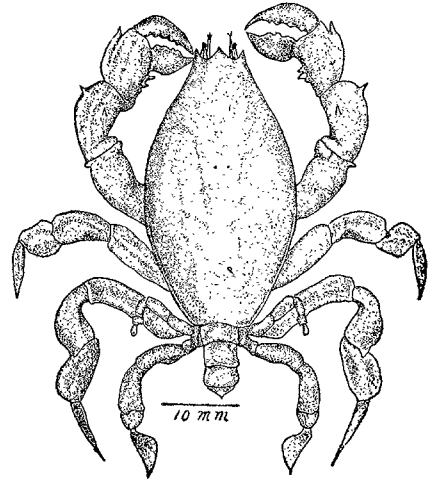


Fig. 3 *Lyreidus politus* PARISI, male

Camposia retusa LATREILIE

Plate 2, fig. 1

LATREILIE, Regne Anim., 2nd ed., iv. 60. STIMPSON, 1907, P. 19, SAKAI 1936, P. 80, Pl. 18, fig. 2; 1939, P. 228.

Whole body covered with sponge and algae. Freed of coverings carapace smooth and polished, regions clearly defined. Each region elevated but intestinal region less elevated. Rostrum very short, its extremity cut by median depression forming two small knobs, between them median spinule projecting ventrally. Eye stalk quite long and cornea elongate.

Locality: Little Liu-chiu Island.

Collectors: Annual Summer Collecting Trip.

Measurements:

| | |
|--------------------------|------|
| Sex | ♀ |
| Length of carapace (mm) | 28.0 |
| Breadth of carapace (mm) | 22.0 |

Schizophroïda manazuruana SAKAI

Fig. 4

SAKAI 1933, P. 140, text-fig. 1; 1936, P. 103, Pl. 27, fig. 2.

Carapace elongate pyriform; surface with small tubercle on center of intestinal region, other regions smooth. Five spines on antero-lateral margin after postorbital spine, anterior one on hepatic region most prominent, others on branchial region. On posterior border two spines, one on either side of mid-point. True rostral spine

moderate prominent and ventral pointed. Pseudorostral spines slender, divergent at base but parallel anteriorly, slightly curved ventrally. Supraorbital cave with tooth at posterior angle; intercalated spine moderately prominent, somewhat bigger than former; postorbital tooth very prominent, sharp pointed and hollow on upper surface near base. Antennary flagellum shut out from orbit. Basal segment of antenna armed with three spines; outer one smallest located near base of middle one; middle one slender and acuminate; inner one located more ventrally, stout and shorter. Chelipeds very slender and smooth, equal or shorter than ambulatory legs. Ambulatory legs covered with delicate hairs.

Locality: Little Liu-chiu Island.

Collectors: Annual Summer Collecting Trip.

Measurements:

| | |
|---|------|
| Sex | ♀ |
| Length of carapace with pseudorostral spines (mm) | 22.0 |
| Length of carapace without these spines (mm) | 17.8 |
| Breadth of carapace (mm) | 12.5 |

Tiarinia spinigera STIMPSON

Fig. 5

STIMPSON, Proc. Acad. Nat. Sci. Phila., IX, P. 217 (24), 1857; SAKAI 1939, P. 320, PI. XXXVIII, fig. 5.

Carapace pyriform; proportion of breadth to length, 1: 1.46. Regions distinctly defined by deep grooves. Surface above wholly covered with granules and tubercles of various sizes; gastric region covered with fourteen tubercles, five located at mid-line; cardiac region with three tubercles at summit most prominent; branchial region with three spines along lateral margin, mesobranchial region with two spines and metabranchial region with one located somewhat medially. Upper posterior border with seven small tubercles, three more prominent, middle one largest at summit of intestinal region; lower posterior border with three or four smaller tubercles. Rostral spines sharp and very slender, about two-thirds of interorbital width and contiguous throughout their length. Orbit tubular projection outward. Preorbital spine very prominent, sharp and curved upward; basal segment of antenna very dilated, its antero-

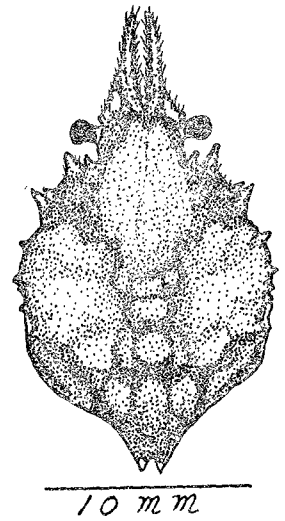


Fig. 4 *Schizophroidea manazuruana*, SAKAI, female

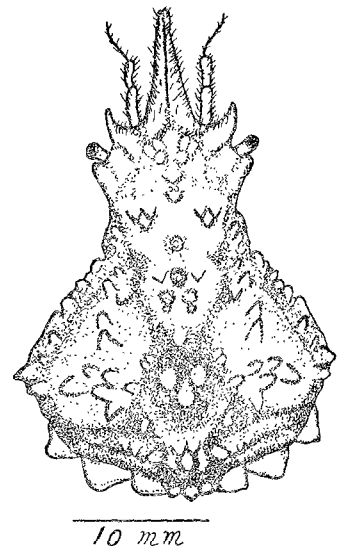


Fig. 5 *Tiarinia spinigera* STIMPSON, male

external spine together with preorbital, intercalated, and postorbital spine forming tubular orbit. Moveable peduncular segments of antenna flattened and fringed with long hair on both borders. Pterygostomial region tuberculated Epistome concave, with tubercles, palm smooth. Ambulatory legs tuberculated on merus with one row of five tubercles and three or four at both ends; carpus compressed with dorsal channel; dactylus sensibly curved at tip.

Locality: Little Liu-chiu Island.

Collector: Annual Summer Collecting Trip.

Measurements:

| | |
|---------------------------------|------|
| Sex | ♂ |
| Longest of carapace length (mm) | 32.3 |
| Length of carapace proper (mm) | 25.1 |
| Breadth of carapace (mm) | 22.1 |

Lambrus (Platylambrus) validus DE HAAN

Plate 2, figs. 2,3

Parthenope lambrus validus DE HAAN 1839, F. J. C., P. 90, Pl. 22, fig. 1; Pl. 21, fig. 2.

Lambrus (Platylambrus) validus SAKAI 1936, P. 107, Pl. 29, fig. 2; 1939, P. 330, Pl. XXXIII, fig. 4, Pl. XXXIX, fig. 2.

Description of a mature male:

Proportion of length to breadth of carapace, 1: 1.32. Branchial regions clearly separated from median elevation by two profound depressions, thus divided into three elevated lobes: a median one formed by gastric and cardiac regions and two branchial regions on either side. Surface above everywhere covered with tubercles of various sizes, about five along median line of gastro-cardiac region and three on either branchial region larger and more prominent. Hepatic region separated from branchial region by wide interval. Antero-lateral margin of carapace with nine teeth gradually increasing in size posteriorly, first two at hepatic region, and posterior ones, lacinated and fringed with hairs at branchial region; postero-lateral margin with two prominent teeth and three small ones continuous with granules at posterior edge. Front deeply concave above. Rostrum triangular and pointed, curved ventrally. Orbits circular, upper orbital fissure distinct; orbital stalk short, within socket. Epistome smooth and hollowed, its tip reaching base of rostrum. Pterygostomial region tuberculated forming ridge parallel to antero-lateral margin of carapace and extending to midportion of subbranchial region. Buccal frame quadrate. Basal segment of antenna short, not reaching inner canthus of orbit.

Chelipeds monstrous, with strong acute teeth along keels; merus prismatic, upper surface with row of four conical spines, outer and inner keels with teeth varying in size, infero-interior surface roughly tuberculated; wrist short, covered with tubercles

of various sizes; palm triangular, outer and inner keels armed with eleven or twelve teeth unequal in size, inferior surface with fine granules arranged in five longitudinal rows. Fingers smooth or covered only with very fine granules; when fixed, outer edge of mobile finger forming right angle to longitudinal axis of palm. Ambulatory legs slender and cylindrical; merus with blunt spines on upper edge; dactylus thickly covered with layer of matted hairs, except horny tip.

Immature form:

Young specimens different in form from adults: Carapace surface much smoother and more even, with few small tubercles; chelipeds teeth on margins of carapace; Chelipeds small, projecting little and scarcely denticulated.

Locality: Pescadores.

Collectors: Chang & Yu.

Measurements:

Mature form:

| | |
|--|-------|
| Sex | ♂ |
| Length of carapace (mm) | 43.0 |
| Breadth between tips of lateral teeth (mm) | 57.0 |
| Breadth excluding these teeth (mm) | 47.0 |
| Length of cheliped (mm) | 144.5 |

Immature specimens:

| | | |
|--------------------------|-------|-------|
| Sex | ♂ | ♂ |
| Length of carapace (mm) | 29.0 | 26.0 |
| Breadth of carapace (mm) | 33.0 | 28.5 |
| Length of cheliped (mm) | 131.5 | 106.0 |

Zalasia dromiaeformis (DE HAAN)

Plate 2, fig. 4

Trichia dromiaeformis DE HAAN, F.J.C., 1841, P. 110, Pl. 29, fig. 4.

Zalasia dromiaeformis SAKAI 1939, P. 343, Pl. XL, figs. 1, 2.

Surface of body entirely covered with dense, soft woolly gray hairs. After denudation, fairly well defined regions visible. Carapace convex and uniformly dispersed with reddish tubercles. Rostrum protruding beyond general outline of carapace, its dorsal surface with median groove, bilobate at free margin, each lobe also subdivided and ventrally excavated continuous with antennular fossa. Orbits circular, postocular lobes bilobate. Antero-lateral margin obtusely produced into lobe at posterior angle. Postero-lateral border concave. Basal segment of antenna long and broad, entirely enclosing inner orbital gap. Epistome short and hollowed; pterygostomial region evenly convex, merus and ischium of third maxillipeds not completely closing buccal cavern.

Chelipeds strong, merus short and trigonal, covered with two tubercles at distal end of dorsal surface; carpus with four tubercles at its dorsal surface; palm with three tubercles and four or five longitudinal rows of granules. Ambulatory legs stout and unarmed, and decreasing in length from first to fourth pair.

Locality: Pescadores.

Collectors: Chang & Yu.

Measurements:

| | |
|--------------------------|------|
| Sex | ♂ |
| Length of carapace (mm) | 41.0 |
| Breadth of carapace (mm) | 44.5 |

Jonas distincta (DE HAAN)

Fig. 6

Corystes distincta DE HAAN F. J. C., p. 45, pl. 13, fig. 2.

Gomezia distincta BLASS 1922, p. 114; SAKAI 1936, p.115, pl. 31, fig. 3; 1939. pl. XLII, fig. 2.

Jonas distincta MELBOURNE WARD 1933, p. 379.

Carapace longitudinally elliptical and anteriorly broadened, very marked convex from side to side as well as from anterior to posterior. Regions clearly divided, upper surface everywhere covered with short soft hairs and sharp granules, some forming clusters especially on median line. Lateral margin armed with ten acuminate spines which gradually decrease in size posteriorly but last one somewhat larger and projecting backward, others pointing anteriorly. Rostrum bifid and its tips directed forward ahead of tip of preorbital spines. Abdomen and ambulatory legs densely fringed with long hairs; dactylus of last ambulatory legs compressed.

Locality: Pescadores.

Collectors: Chang & Yu.

Measurements:

| | | |
|--------------------------|------|------|
| Sex | ♂ | ♀ |
| Length of carapace (mm) | 38.8 | 40.0 |
| Breadth of carapace (mm) | 26.5 | 28.0 |

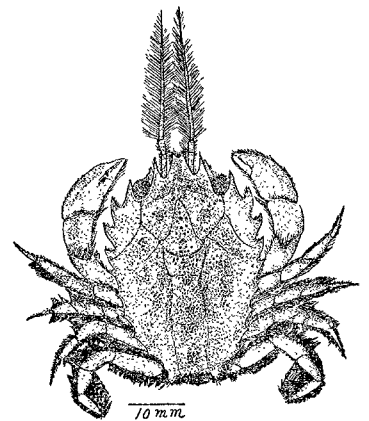


Fig. 6 *Jonas distincta* DE HAAN, female

Neptunus (Amphitrite) gracilimanus STIMPSON

Fig. 7

Amphitrite gracilimanus STIMPSON Proc. Acad. Nat. Sci. Phila., X, P. 38 [36], 1858; 1907, P. 77, Pl. X. fig. 3.

Carapace relatively convex, upper surface tomentose and marked with several transverse, narrow, granulated ridges. Of three ridges crossing gastric region, foremost interrupted at middle, second transversing entire region, posterior one shortest. Of three ridges on branchial region, foremost lobated at same level as posterior ridge of gastric region, second and posterior ones short. Cardiac region with interrupted ridge placed in line with second ridge of branchial region. Antero-lateral borders cut into nine acuminate teeth including orbital spine, last one about twice as long as anterior one. Orbits very large, eye peduncle short, cornea large, globular. Front with median fissure and composed of four teeth of equal size, outer pair slightly slants inward.

Chelipeds pubescent, elongate in male; arm with four spines along anterior border and two on posterior border; wrist with two spines; palm with granulated ridges and three sharp spines. Ambulatory legs slender. Abdomen of male triangular in form but rather slender.

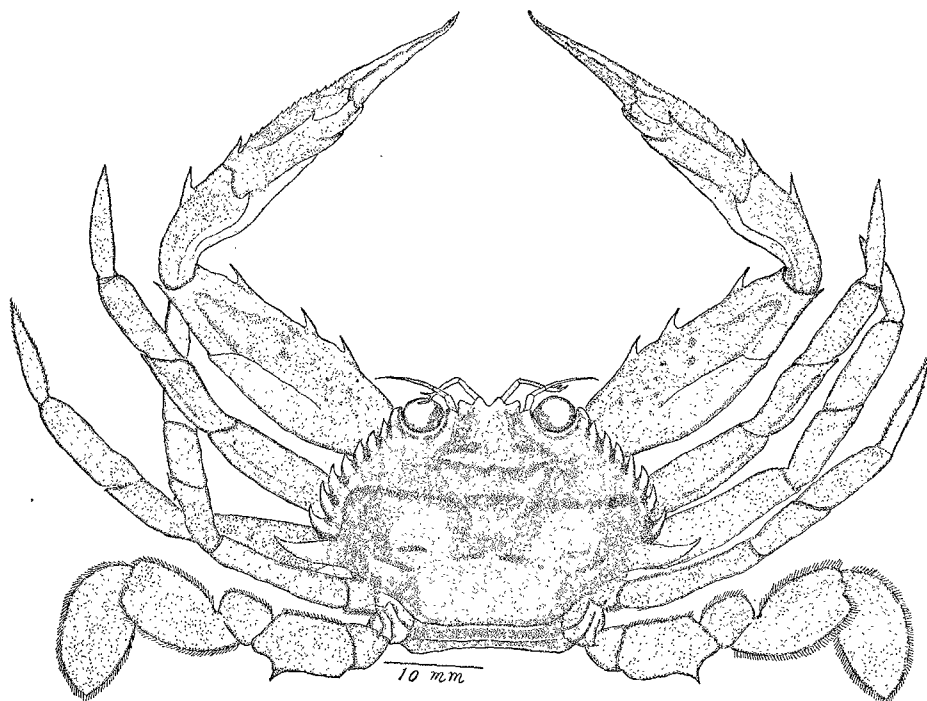


Fig. 7 *Neptunus (Amphitrite) gracilimanus* STIMPSON, male

Locality: Pescadores.

Collectors: Chang & Yu.

Measurements:

| Sex | ♂ | ♀ |
|--------------------------|------|------|
| Length of carapace (mm) | 22.0 | 21.8 |
| Breadth of carapace (mm) | 38.2 | 36.8 |
| Length of chelipeds (mm) | 70.1 | 57.5 |

Charybdis miles DE HAAN

Fig. 8

Portunus (Charybdis) miles DE HAAN F.J.C., P. 41, Pl. 11, fig. 1.

Charybdis miles STIMPSON 1907, P. 82; SAKAI 1936, P. 123, Pl. 33, fig. 2; 1939, P. 405, Pl. XLVI, fig. 2.

Proportion of carapace, length to breadth, 1:1.43. Upper carapace tomentose. Two transverse ridges on gastric region, anterior one interrupted at middle, posterior one connecting last antero-lateral spines. Front cut into six teeth, two median triangular, next pair slanting inward and outermost pair separated from second pair only by angular gap. Two fissures on upper margin of orbit very distinct. Inferior fissure of orbit moderately wide. Eye large, globular. Eye stalk quite course, strong.

. Chelipeds very strong, surface scabrous; arm with four stout acuminate spines on anterior border; wrist with very large spine on inner border and three small ones on outer border; palm with four spines, two on upper, inner border, one on upper, outer border, one on upper, outer border near midpoint, and fourth at proximal end.



Fig. 8 *Charybdis miles* DE HAAN, male

Locality: Pescadores.

Collectors: Annual Summer Collecting Trip.

Measurements:

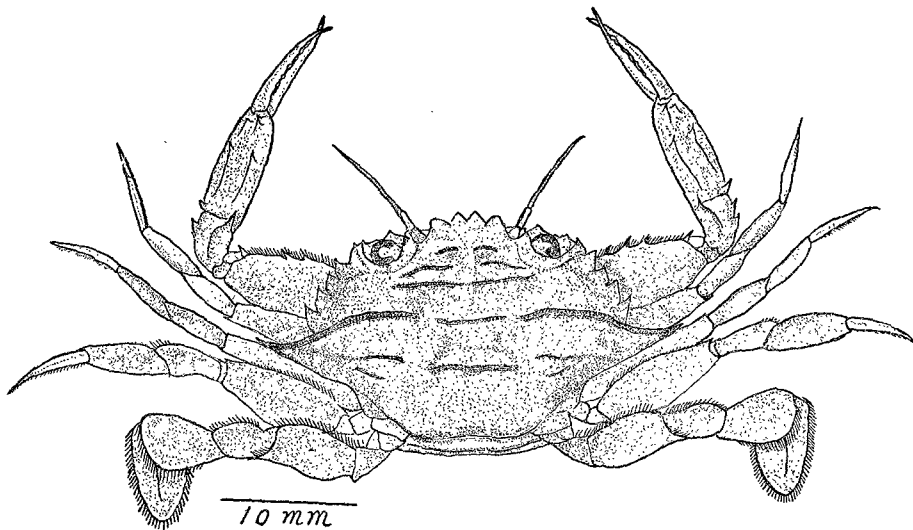
| | |
|--------------------------|------|
| Sex | ♂ |
| Length of carapace (mm) | 48.0 |
| Breadth of carapace (mm) | 68.6 |

Charybdis variegata (FABRICIUS)

Fig. 9

Portunus variegata FABRICIUS Ent. Syst. Suppl., P. 364*Charybdis variegata* STIMPSON 1907, P. 81, Pl. 9, fig. 7; SAKAI, 1936, P. 126, Pl. 36, fig. 4; 1939, P. 406, Pl. XLVII, fig. 4.

Carapace covered with soft tomentum. In addition to usual gastric and branchial ridge, one interrupted ridge on cardiac region and two short ones in sequence on posterior half of either branchial region. Six frontal teeth well-separated, middle pair most prominent, extending markedly ahead of other pairs; outermost pair much smaller. Antero-lateral border with usual six spines, last one twice as long as next and somewhat directed laterally. Arm has three spines on anterior border; wrist with strong inner spine on anterior border and two small ones on posterior border; palm with four spines as in *C. miles*. Small species.

Fig. 9 *Charybdis variegata*. FABRICIUS

Localities: Little Liu-chiu Island.

Collectors: Annual Summer Collecting Trip.

Measurements:

| Sex | ♀ | ♂ |
|--------------------------|------|------|
| Length of carapace (mm) | 17.2 | 16.5 |
| Breadth of carapace (mm) | 31.0 | 28.6 |

Thalamita danae STIMPSON

Fig. 10

STIMPSON 1858, P. 39; 1907, P. 85, Pl. XI, fig. 1; SAKAI 1939, P. 415, Pl. LXXXV, fig. 3.

Carapace coated with furry tomentum. In addition to usual gastric and branchial ridges, cardiac ridge with postbranchial ridge on each side. Six frontal teeth broad, middle two very slightly slanting outward and on lower level; next pair slanting inwards and placed on higher plane; outermost pair rounded. Of five antero-lateral teeth, fourth smallest. Crest of basal segment of antenna beyond frontal margin. Arm of chelipeds with three stout spines on inner border; wrist with strong inner spine and three small outer spines; palm with five spines on puper surface and with two or three granulated ridges on outer surface.

Locality: Pescadores.

Collectors: Annual Summer Collecting Trip.

Measurements:

| Sex | ♂ | ♂ | ♂ |
|--------------------------|------|------|------|
| Length of carapace (mm) | 28.0 | 37.0 | 33.0 |
| Breadth of carapace (mm) | 46.5 | 58.5 | 49.5 |

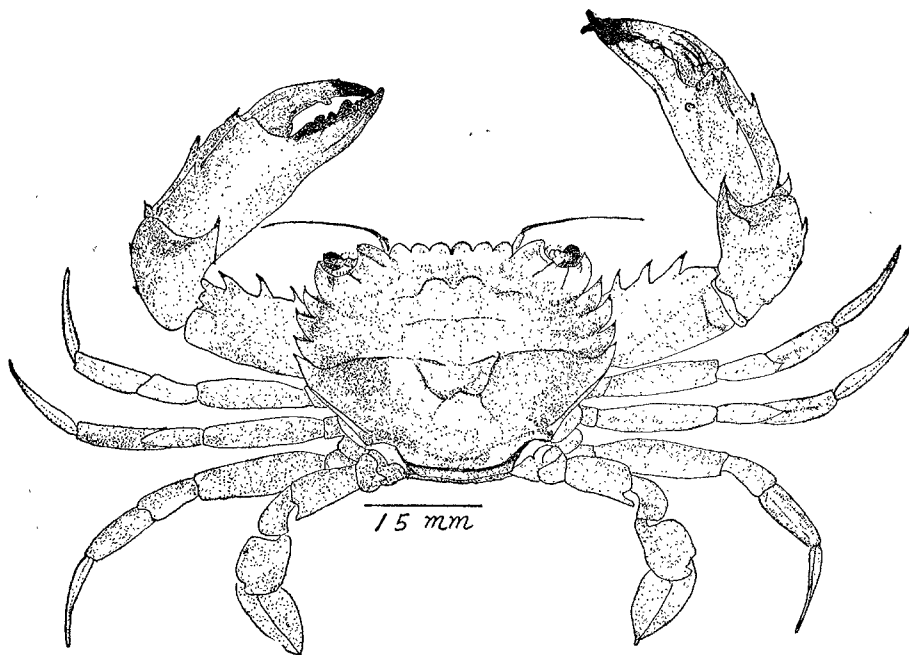


Fig. 10 *Thalamita danae* STIMPSON, male

Pilumnus vespertilio FABRICIUS

Plate 2, fig. 5

Cancer vespertilio FABRICIUS Ent. Syst. II. P. 469.

Pilumnus vespertilio SAKAI 1936, P. 169 text-fig. 87; 1939, P. 532, Pl. C, figs. 1, 2.

Upper carapace and legs covered with dense long hairs but those on abdomen rather short and only on border or sutures. Regions on carapace distinct and disper-

sed with tubercles when hairs removed. Antero-lateral margin armed with four spines, last one most acuminate.

Chelipeds unequal in size; arm with distal tooth on upper surface and smooth on inner surface; wrist and palm tuberculated on upper, outer surface; dactylus black in color. Ambulatory legs granulated on anterior border.

Localities: Pescadores; Little Liu-chiu Island.

Collectors: Annual Summer Collecting Trip.

Measurements:

| | | |
|--------------------------|------|------|
| Sex | ♂ | ♂ |
| Length of carapace (mm) | 21.5 | 23.5 |
| Breadth of carapace (mm) | 28.5 | 32.0 |

Pilumnus scabriusculus ADAM & WHITE

Plate 2, fig. 6

ADAM & WHITE 1843, P.44, Pl. g, fig. 5; SAKAI 1939, P. 533, Pl. c, fig. 5.

Upper carapace distributed with granules or pits and covered with long, yellow tufted hairs around granules or pits. Antero-lateral margin armed with four weak spines including orbital spine. Front wide and truncated at middle. Orbital socket elongate transversely, cornea globular, eye stalk fringed with hair near cornea.

Cheliped unsymmetrical, granulated and hairy on upper, outer surface. Merus of ambulatory legs very broad.

Locality: Little Liu-chiu Island.

Collectors: Annual Summer Collecting Trip.

Measurements:

| | |
|--------------------------|------|
| Sex | ♂ |
| Length of carapace (mm) | 10.0 |
| Breadth of carapace (mm) | 15.5 |

Summary

A list of 78 species of Taiwan crabs preserved in the Biology Department of Tung-hai University is presented with descriptions of 19 newly recorded species.

Acknowledgements

The author gratefully thanks Professor Johnson T. F. Chen for guidance throughout this study and Professor Yun-shang Liang of the Zoology Department of National Taiwan University for offering necessary references in preparing this paper. He also is grateful to Mr. Ming-jenn Yu for helping in the collection of specimens; to Dr. Paul S. Alexander for critical reading of the entire paper; and to Miss T. L. Chang, Mr. T. C. Weng and Mr. J. P. Yang for their help in drawing figures.

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Localities:

Anping 臺南安平
 Keelung 基隆市
 Kaohsiung 高雄市
 Little Liu-chiu Island 屏東縣小琉球
 Pescadores 澎湖
 Taichung 臺中市
 Wuchi 臺中縣梧棲
 Yunli 苗栗縣苑裡

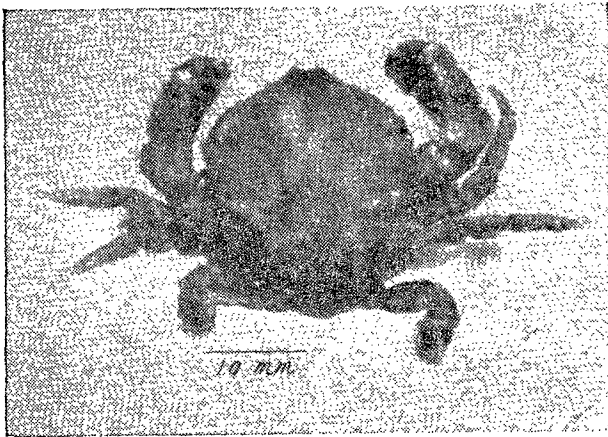
Collectors:

Annual Summer Collecting Trip. 東海大學生物系暑期標本採集隊
 Chang 張正明
 Chi 紀初香
 Kao 高清顯
 Kuo 郭美員
 Lin 林秀峰
 Yu 于名振

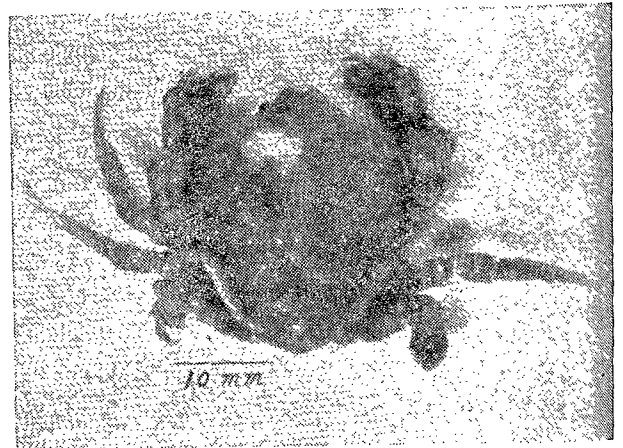
臺灣蟹類標本目錄及 19 種新記載種之敘述

東海大學生物系自民國四十六年至民國五十一年陸續在本省西海岸，澎湖，小琉球採集蟹類標本，共得百種左右其中 78 種業經鑑定，分爲 13 科，45 屬。19 種爲臺灣新記載種。

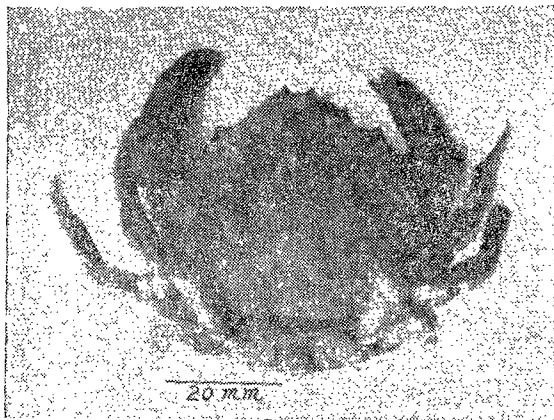
Plate 1



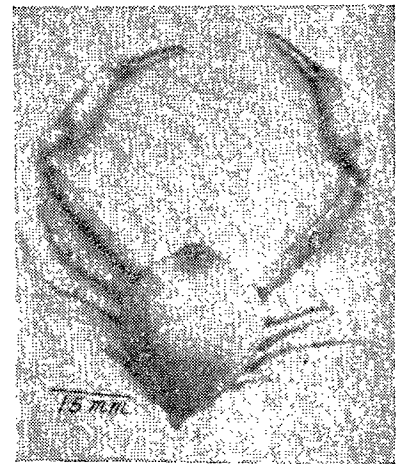
1. *Conchoecetes artificiosus* (FABRICIUS), male.



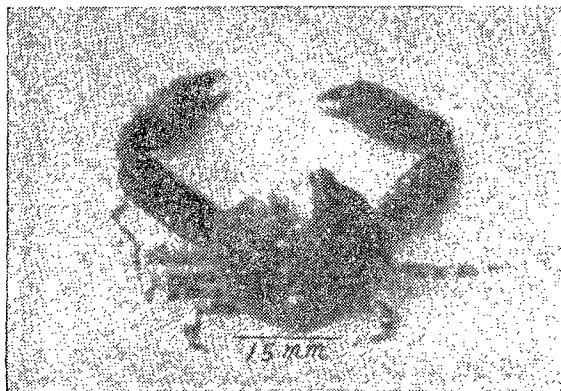
2. *Conchoecetes* species, male.



3. *Dromia dehaani* RATHBUN, female.



4. *Myra affinis* BELL, female.

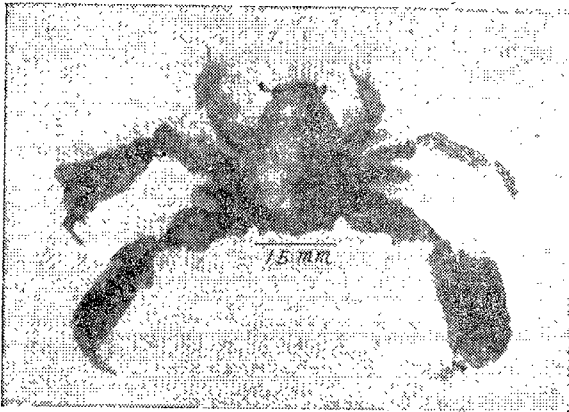


5. *Leucosia longifrons* DE HAAN, male.

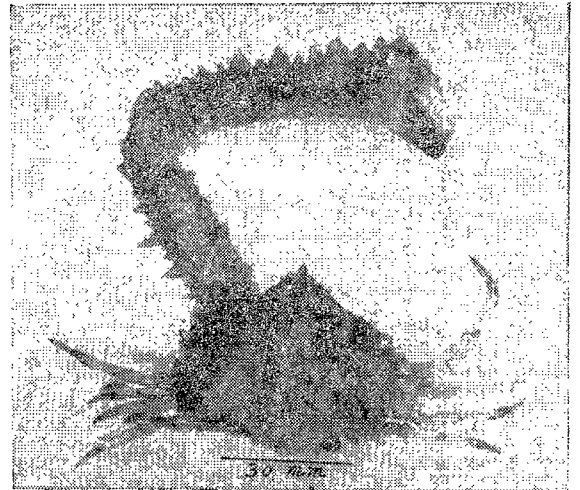


6. *Leucosia unidenata* DE HAAN, male.

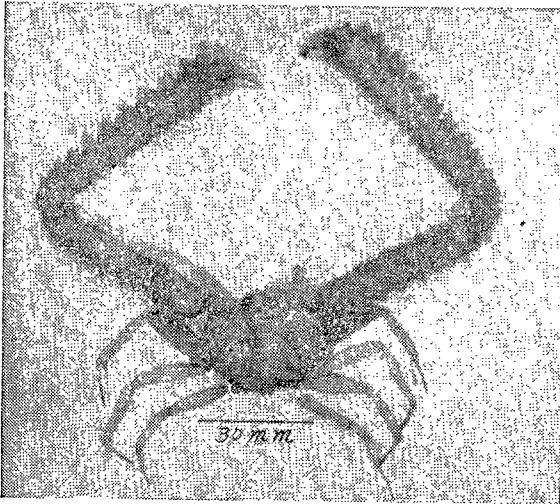
Plate 2



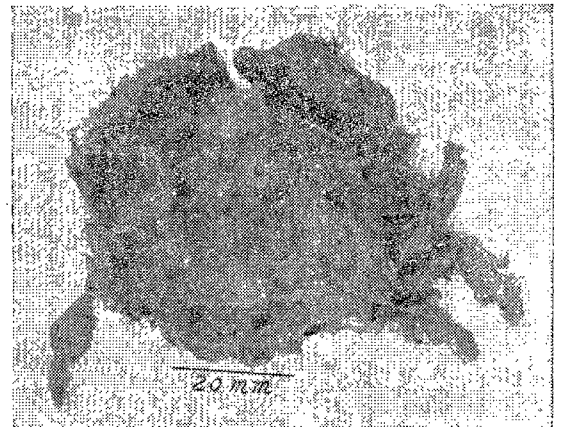
1. *Composita retusa* LATREILLE, female.
Coverings of left half Carapace removed.



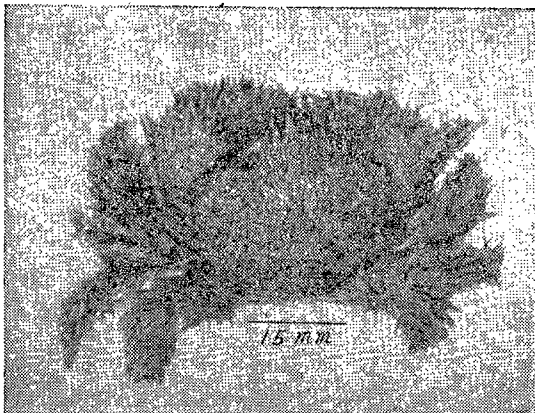
2. *Lambrus (Platylamrus) validus* DE HAAN, mature.



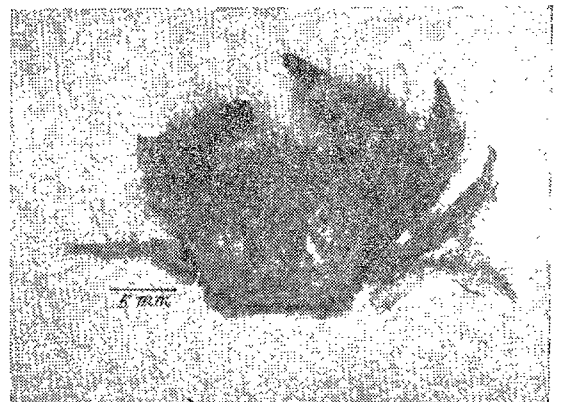
3. *Lambrus (Platylamrus) validus*. DE HAAN, male immature.



4. *Zalasius dromieformis* DE HAAN, male.



5. *Pilumnus Vesperilio*, FABRICIUS, male.



6. *Pilumnus scabriusculus* ADAM & WHITE, male.

