Trapezia cymodoce (Herbst).

The variations shown in the collection from the South Pacific Islands make it necessary to unite under one specific name the many forms of the *cymodoce ferruginea* group. (*Cf.* Alcock, **67**, pp. 219–222.)

Trapezia cymodoce dentata (MacLeay).

Trapezia ferruginea dentata Ortmann, Zool. Jahrb., Syst., 1897, **10**, 204.

Rangiroa, Paumotus; beach; Sept. 21, 1899; 1 ♂.

Fakarava, Paumotus; outer reef; Oct. 12, 1899; 1 ♂.

Makemo, Paumotus; reef; Oct. 21, 1899; 4 ♂, 6 ♀ (5 ovig.).

Borabora, Society Group; fringing reef; Nov. 17, 1899; 1 ♀ ovig.

Funafuti, shore; Dec. 25, 1899; 1 ♀, ovig.

These are but slightly removed from *T. cymodoce*; they lack the acute upper border on the palm, and the hairy coating on the outer face of the palm.

Funafuti; reef; Dec. 24, 1899; 5 ♂, 8 ♀ (4 ovig.), 3 juv.; varying toward *T. cymodoce*. The outer face of the chelipeds is densely covered with downy hair, but the upper edge of the palms is obtuse, and the teeth of the front are not deeply separated.

Trapezia cymodoce ferruginea Latreille.

Trapezia ferruginea Alcock, 1898, **67**, 220.

Rangiroa, Paumotus; beach; Sept. 21, 1899; 2 ♀ ovig.

Fakarava, Paumotus; outer reef; Oct. 12, 1899; 1 ♀ ovig.

Makemo, Paumotus; reef; Oct. 21, 1899; 2 ♂, 1 ♀ ovig.

Funafuti, Ellice Id.; reef; Dec. 24, 1899; 1 ♂.

Funafuti; shore; Dec. 25, 1889; 2 ♀ (1 ovig.). Variety with palms hairy outside, but not acute above.

Rangiroa Id.; Mohican reef; Sept. 23, 1899; 1 ♂; and

Easter Island; shore; Dec, 20, 1904; 1 ♂, 1 ♀ ovig. Variety with chelipeds covered with fine spots.

Rangiroa Id.; Mohican reef; Sept. 23, 1899; 1 ♂, 1 ♀ ovig., holding in the right claw a young anemone. Variety with dark band across the front, palms reticulated and legs spotted. This is the *guttata* form of Alcock, **67**, p. 220.

The following specimens are similar to the last, but the spots on the legs are absent, perhaps obliterated from long preservation:

Fakarava, Paumotus; shoal in lagoon; Oct. 11, 1899; 1 ♂, 1 ♀ ovigerous.

Borabora Id., Society Group; fringing reef; Nov. 17, 1899; 1 ♂.

Trapezia cymodoce areolata Dana.

Trapezia ferruginea var. **areolata** Alcock, 1898, **67**, 221.

Vavau; reef; Dec. 5, 1899; 1 ♂, 1 ♀ ovig.

Funafuti; reef; Dec. 24, 1899; 3 ♂, 2 ♀ (1 ovig.).

Trapezia cymodoce maculata (MacLeay).

Trapezia maculata Alcock, 1898, **67**, 221.

Makemo, Paumotus; reef; Oct. 21, 1899; 1 ♀ immature; spots few.

Variety: — At the same locality, an immature ♀ agreeing entirely in form with the above, but with quite different markings; the carapace and chelipeds are covered with reticulating brown (in alcohol) lines, legs dotted with minute spots of brown.

Of the form *maculata*, it may be said that it usually has the prominent front, the sharp side-tooth, the carpal spine, and the brilliant spots on carapace, chelipeds, and legs; but these characters run into those of the *intermedia* form, which has a less prominent front, blunt side-tooth, blunt-angled wrist, reticulated palms, while carapace and legs are spotted.

Trapezia digitalis speciosa Dana.

Trapezia speciosa Dana, Crust. U. S. Expl. Exped., 1852, **1**, 253; atlas, 1855, pl. 15, fig. 1.

Papeete, Tahiti; reef; Sept. 28, 1899; 1 ♂, 1 ♀ ovig.

Fakarava, Paumotus; outer reef; 10 ♂, 10 ♀ (9 ovig.).

Makemo, Paumotus; reef; Oct. 21, 1899; 1 ♂, 1 ♀.

Trapezia digitalis bella Dana.

Trapezia bella Dana, Crust. U. S. Expl. Exped., 1852, **1**, 254; atlas, 1855. pl. 15, fig 2.

Papeete, Tahiti; reef; Sept. 28, 1899; 1 ♂.

Tetralia glaberrima (Herbst).

Tetralia glaberrima Alcock, 1898, **67**, 223.

Papeete, Tahiti; reef; Sept. 28, 1899; 1 ♂, 2 ♀ ovig.
Fakarava, Paumotus; outer reef; Oct. 12, 1899; 4 ♂, 7 ♀ (3 ovig.).
Makemo, Paumotus; reef; Oct. 21, 1899; 1 ♂, 6 ♀ ovig.

Domecia hispida Eydoux and Souleyet.

Domecia hispida Alcock, 1898, **67**, 230.

Makemo, Paumotus; reef; Oct. 21, 1899; 1 ♂, 3 ♀ (1 ovig.).
Funafuti, Ellice Is.; reef; Dec. 24, 1899; 1 ♂, 2 ♀ (1 ovig.).

Lybia caestifera (Alcock).

Melia caestifer Alcock, 1898, **67**, 231. Illus. Zool. Investigator, Crust., 1899, part 7, pl. 38, fig. 4.

Papeete, Tahiti; reef; Sept. 28, 1899; 1 ♂.

PORTUNIDAE.

Caphyra rotundifrons (A. Milne Edwards).

Pl. 1, Fig. *4*.

Camptonyx rotundifrons A. Milne Edwards, Nouv. Arch. Mus. Hist. Nat. Paris, 1869, **5**, 156, pl. 7, figs. 11, 12.

Papeete, Tahiti; reef; Sept. 28, 1899; 1 ♀ ovig.

Catoptrus nitidus A. Milne Edwards.

Catoptrus nitidus Alcock, 1900, **69**, 387.

Makemo, Paumotus; reef; Oct. 21, 1899; 1 ♀.
Funafuti, Ellice Ids.; reef; Dec. 24, 1899; 1 ♂.

Portunus (Achelous) granulatus (Milne Edwards).

Neptunus (Achelous) granulatus Alcock, 1899, **68**, 45.

Fakarava Id.; Paumotus; outer reef; Oct. 12, 1899; 1 ♂.
Borabora, Society Ids.; shore and fringing reef; Nov. 17, 1899; 1 ♂, 1 ♀.
Funafuti, Ellice Ids.; shore, seine; Dec. 24, 1899; 2 ♂, 1 ♀.
Butaritari, Gilbert Group; lagoon, surface; Jan. 6, 1900; 1 juv.
Mela, Carolines; shore, seine; Feb. 16, 1900, 3 ♀ (1 ovig.).

Callinectes alexandri, sp. nov.

Pl. 2, Fig. *1*; Pl. 9, Figs. *3*, *3 a*, *3 b*.

Young male. Extreme width of carapace about $2\frac{2}{5}$ × the median length. Regions well marked, as well as the two areolae at the inner angle of the branchial region. Granules of dorsal surface squamiform and conspicuous; most scattered on the anterior third, finest and most crowded on the posterior third. The granules of the customary ridges (two gastric and one branchial) are more beadlike. The median length of the intramedial region, or that part of the gastric region situated behind the second ridge, is nearly $\frac{1}{2}$ its anterior width.

Frontal teeth four, besides the orbital pair. Median pair tuberculiform, not more than $\frac{1}{3}$ the area of the triangular, obtuse, outer pair. Inner orbital tooth lobiform and a little less advanced than the median teeth. Superior fissures of orbit well marked, but closed; inner suborbital lobe subacute, not very prominent.

The outer orbital tooth, or the first tooth of the lateral series, is equilateral or subacute. Teeth 2 to 7 inclusive are saw-teeth, that is, shorter on the anterior than on the posterior margin; the second, third, and fourth are acute, the fourth, fifth, and sixth are acuminate and slightly concave on the posterior margin. Eighth tooth curved forward, acuminate. The midrib of the ninth projection, or the lateral spine, is quite transverse; its length is about $\frac{1}{5}$ of the carapace, exclusive of the lateral spines.

The shape of the abdomen of the young male is probably not that of the adult; the sixth segment tapers gradually to the distal end, the seventh is equilateral.

Chelipeds very finely rugose, the costae of wrist and hand prominent and more closely granulate; three strong curved spines on the anterior margin of the merus; posterior margin unarmed. The outer spine of the carpus is well developed, though much smaller than the inner. Of the two spines of the palm, the proximal is curved, the distal is very slender.

Dimensions: — Length of ♂, type, 14.8 mm.; entire width, 35.7 mm.; length of lateral spine, 5 mm.

Distribution: —

Papeete, Tahiti; shore; Nov. 9, 1899; 1 ♂, juv., type (Cat. No. 32,854, U. S. N. M.).

Suva, Fijis; shore; Dec. 13, 1899; 1 ♀, juv.

Thalamonyx parvidens, sp. nov.

Pl. 5, Fig. *9*.

Carapace not $\frac{2}{3}$ as long as broad; surface minutely granulate and covered with fine hairs easily rubbed off. Besides the three gastric ridges, the last of which is continued to the posterior lateral tooth, there is a short ridge on each branchial region.

Front prominent, convex, a well-marked median V.

Antero-lateral borders little oblique; of the five teeth, the last two are smaller than the others, the fourth being the shortest, the fifth spiniform.

Diameter of orbit about $\frac{1}{3}$ the inter-orbital space.

Chelipeds granulate, especially the arm and wrist. Arm rugose-denticulate above; inner border with three graduated teeth and numerous denticles. Wrist costate, three of the costae terminating in low, blunt projections; a strong spine at inner angle. Chelae very unequal; two costae on upper surface, the inner one with a spine at its middle, outer one ending in a tubercle not far from the middle in the ♂; in a sharp spine in the ♀, and occasionally in the ♂; spine near wrist usually blunt in the ♂, sharp in the ♀.

Merus of last pair of legs $2\frac{1}{2}\times$ as long as broad.

Sixth segment of ♂ abdomen $\frac{2}{3}$ as long as broad.

Dimensions: — Length of type ♂, 15.2 mm.; width, 18.7 mm.

Distribution: —

Truk, Carolines; shore, in seine; Feb. 16, 1900; 12 ♂, 8 ♀ (1 ovig.). 1 ♂ is type (Cat. No. 32,855, U. S. N. M.).

Mela, Carolines; shore, in seine; Feb. 16, 1900; 9 ♂, 8 ♀ (3 ovig.). One of the latter is only 10.3 mm. in width.

This species differs from *T. danae* (A. Milne Edwards)[1] and *T. gracilipes* A. Milne Edwards[2] in the wider carapace, unequal side-teeth, and smoother chelipeds, and from *T. gracilipes* in the smaller orbit.

Thalamita crenata Rüppell.

Thalamita crenata, Alcock, 1899, **68**, 76.

Borabora, Society Ids.; shore and fringing reef; Nov. 17, 1899; 2 ♂, 5 ♀ (2 ovig.).

[1] Nouv. Arch. Mus. Hist. Nat. Paris, 1869, **5**, 153, pl. 7, figs. 6, 7.
[2] Nouv. Arch. Mus. Hist. Nat. Paris, 1873, **9**, 169, pl. 4, fig. 3.

Thalamita coeruleipes Jacquinot.

Thalamita coeruleipes Jacquinot, in Jacquinot & Lucas, Voyage au Pole Sud, Zool., **3**, Crust., 1853, 53; atlas, 1852 (?), pl. 5, fig. 6.

Fakarava Id., Paumotus; reef; Oct. 12, 1899; 1 ♂; also Society Ids., A. Garrett coll. (U. S. N. M.).

This species is very near *T. prymna* (Herbst), but the fourth lateral tooth is not much smaller than the other teeth.

Thalamita admete Herbst.

Cancer admete Herbst, Natur. d. Krabben u. Krebse, 1803, **3**, part 3, 40, pl. 57, fig. 1.
Thalamita admeta Alcock, 1899, **68**, 82 (part). Borradaile, Fauna, Maldive Arch., 1902, **1**, 202 (var. A.).
Thalamita admete Rathbun, Bull. U. S. Fish Comm. for 1903 (1906), part 3, 874.

Fakarava Island, Paumotus; outer reef; Oct. 12, 1899; 10♂, 13 ♀, 8 of which are ovigerous.

Makemo, Paumotus; reef; Oct. 21, 1899; 1 ♂, 1 ♀, 2 juv.

Tongatabu; reef and shore; Nov. 30, 1899; 1 ♂, 1 ♀.

Funafuti, Ellice Ids.; reef; Dec. 24, 1899; 1♀ ovig., 1 juv.

Mela, Carolines; shore, in seine; Feb. 16, 1900; 1 ♀ shedding its shell.

The fourth side tooth is smaller, more rudimentary, than in specimens recorded in 1906 (*loc. cit.*), but otherwise there are no differences, so that there is perhaps no dividing line between the form with the 4th tooth almost undiscernible and the typical form with a well-developed tooth.

Thalamita gardineri Borradaile, variety.

Thalamita gardineri Borradaile, Fauna Maldive Arch., 1902, **1**, 205, text fig. 36.

Fakarava Id., Paumotus; outer reef; Oct. 12, 1899; 1 ♂, 1 ♀ (ovig.).

Length of ♂ 12.1, width 19.5, fronto-orbital width 14.2 mm.

Differs from typical *gardineri* as follows: —

Carapace wider; length .62 of width instead of .76 of width. This additional width of carapace, although without an increase in fronto-orbital distance, gives the crab less of a *Charybdis*-like aspect.

The inner surface of the palm is almost smooth; very fine squamiform markings are visible with a lens; the longitudinal ridge through the middle is smooth in the larger cheliped, obscurely granulate in the smaller. (Chelipeds of ♂ wanting).

Thalamitoides quadridens A. Milne Edwards.

Thalamita (Thalamitoïdes) quadridens A. Milne Edwards, Nouv. Arch. Mus. Hist. Nat., 1869, **5**, 147, pl. 6, figs. 8–15.

Thalamitoides quadridens de Man, Arch. f. Naturg., 1887, **53**, 1, p. 332.

Jaluit; lagoon; Jan. 1, 1900; 1 ♀ ovigerous, 14.5 mm. in width.

Carupa laeviuscula Heller.

Carupa laeviuscula Heller, Verh. zool. bot. Ges. Wien, 1862, **12**, 520; Reise Novara, Crust., 1865, **27**, pl. 3, fig. 2; Alcock, 1899, **68**, 26.

Makemo, Paumotus; reef; Oct. 21, 1899; 1 ♂.

INACHIDAE.

Menaethius monoceros (Latreille).

Menaethius monoceros Alcock, 1895, **64**, 197.

Fakarava Id., Paumotus; outer reef; Oct. 12, 1899; 2 ♀.
Funafuti, Ellice Id.; reef; Dec. 24, 1899; 1 ♀.
Tari-Tari Id.; shore, reef; Jan. 6, 1900; 1 ♂.
Truk, Carolines; shore, seine; Feb. 16, 1900; 2 ♂, 1 ♀.
Mela, Carolines; shore, seine; Feb. 16, 1900; 2 ♂.

Halimus borradailei, nom. nov.

Hyastenus elegans var. **tenuicornis** Borradaile, Proc. Zool. Soc. London, 1900, 574, pl. 40, fig. 2. Not **Hyastenus (Chorilia) tenuicornis** Pocock, Ann. Mag. Nat. Hist., 1890, (6) **5**, 76.

The form described by Borradaile as a variety of *H. elegans* Miers,[1] it seems to me should be regarded as a distinct species, because of the different build of the postocular lobes, the great width between the horns at their base, as well as the different ornamentation of the dorsum.

On the reef at Funafuti, Dec. 24, 1899, was taken an immature ♀ about $\frac{1}{3}$ the size of Borradaile's examples from Rotuma. Of the six gastric tubercles in his figure, only the outer pair are evident in our individual. In other respects it agrees well enough with the figure, allowing for the difference in size.

[1] "Challenger" Rept., 1886, **17**, 58, pl. 6, fig. 3.

Perinea tumida Dana.

Perinea tumida Dana, Crust. U. S. Expl. Exped., 1852, **1**, 114; atlas, 1855, pl. 4, fig. 1 *a–f*.

Fakarava Id., Paumotus; outer reef; Oct. 12, 1899; 2 ♀ gravid.

Schizophrys aspera (Milne Edwards).

Schizophrys aspera Alcock, 1895, **64**, 243.

Funafuti, Ellice Ids.; shore; Dec. 25, 1899; 1 ♀ juv.

Lophomicippa, gen. nov.

(λόφος, crest, in allusion to the legs; **Micippa**, a generic name.)

Carapace suboblong, high, rounded behind; front broad, almost vertically deflexed. Eye-stalks long, corneae large, oval, chiefly ventral in position; eyes filling the orbits, the margins of which are for the most part entire, the broad basal joint of the antenna bidentate. Antennae exposed, 2nd and 3rd joints small.

Buccal cavity widened anteriorly. Merus of outer maxillipeds broader than the ischium, its external angle expanded, and its internal angle notched for the insertion of the palpus.

Chelipeds of adult ♀ slender, feeble, shorter than the carapace. Legs diminishing rapidly in length, the merus joints broadly expanded, forming together a deep, continuous border around and below the sides of the carapace and concealing the chelipeds.

This genus unites the most striking characters of Micippa Leach[1] of the Indo-Pacific, and Hemus A. Milne Edwards[2] of tropical America.

It has the carapace of the former and the legs of the latter. The orbits of Micippa are more tubular, while the carapace of Hemus is strongly narrowed in front and the second and third joints of the antennae are very large.

Type, and only species,

Lophomicippa limbata, sp. nov.

Pl. 5, Fig. *3*; Pl. 6, Figs. *1–1g*.

Surface pubescent.

Carapace as wide as its superior length, narrowing a little anteriorly,

[1] Zool. Misc., 1817, **3**, 15.

[2] Miss. Sci. Mexique, Crust., 1875, 88.

surface uneven, highest along the median line, hepatic region depressed, its margin crenulate. A small spine at the postero-lateral angle, behind it a spinule or granule; posterior margin bearing three lobes, the middle one with four granules on its border, the lateral lobes smooth, naked, and rounded, projecting downward between the bases of the last two legs.

Front steeply inclined, its lower margin convex in front view, concave in ventral view, and fringed with long hair; at either end of this margin there is a small sharp forward-pointing spine; side margins spinulous or granulous.

Basal joint of antenna large, smooth, with the exception of a crenulated crest near and parallel to its union with the carapace; this crest ends outwardly in a small tooth followed by a second tooth on the margin of the orbit. Peduncle of antenna not reaching lower margin of front, fringed with long hair, second joint expanded, third joint short, cylindrical.

Chelipeds smooth, shining; in the ♀ the chelae taper distally. In the legs of the first pair the merus is longer than the sum of the next three joints, its outer surface is concave, and it bears a small spine at the lower distal angle. Carpus short, broad, propodus elongate, dactylus half as long and strongly curved. Size of the merus diminishing from the first to the fourth leg, that of the fourth being about half as long and $\frac{2}{3}$ as wide as that of the first leg, and a little shorter than the sum of the next three joints.

Abdomen of ♀ thin, flat, 7-jointed.

Dimensions: — ♀, length, from lower edge of front, 9.2 mm.; greatest width, 8 mm.; width at postorbital angles, 5.5 mm.

Type locality: — Makemo, Paumotus; reef; Oct. 21, 1899; 1 ♀ ovigerous (Cat. No. 32,856, U. S. N. M.).

PARTHENOPIDAE.

Parthenope (Parthenope) melana, sp. nov.

Pl. 5, Fig. *6;* Pl. 6, Fig. *2.*

Carapace ovate-pentagonal, little broader than long. A continuous longitudinal elevation on the gastric and cardiac regions; an oblique elevation on the branchial region. A deep hollow at the inner angle of the branchial region; a furrow either side of the hepatic region. The more elevated portions are covered with berried tubercles; depressions for the most part smooth.

Front inclined at an angle of about 45°; edge quinquedentate; either side of the blunt median tooth, there is a small tooth, and behind it a broad shallow tooth. Constriction behind the orbits not sufficient, I think, to place the species in the subgenus Rhinolambrus.

Hepatic region well marked.

Antero-lateral margin of branchial region armed with six tubercles, this line being partially extended backward and upward on the postero-lateral margin by three tubercles, the last of which is the largest tubercle of the carapace. Posterior margin with two lines of tubercles, the terminal tubercle of the submarginal row being the largest.

Chelipeds about $2\frac{1}{3}$ times as long as the carapace. Arm and hand margined with irregular teeth and tubercles which are granulated or berried. Upper surface of arm with a row of tubercles; upper and inner surfaces of hand almost smooth. Outer surface of arm, wrist, and hand and inner surface of arm tuberculous.

The slender ambulatory legs have the dactyli longer than the propodi.

Dimensions: — Length of ♀ 20 mm., width 21.3 mm.

Type locality: — Mela, Carolines; shore, seine; Feb. 16, 1900; 1 ♀ (Cat. No. 32,857, U. S. N. M.).

This species is very near *P. lippa* (Lanchester)[1] from the Malay Peninsula, but differs in the shorter propodal joints of the ambulatory legs, the shorter front, the small size of the postero-lateral protuberance, the presence of an oblique line of branchial tubercles.

CALAPPIDAE.

Calappa hepatica (Linnaeus).

Calappa hepatica Alcock, 1896, **65**, 142.

Borabora, Society Islands; shore and fringing reef; Nov. 17, 1899; 1 ♂, 1 ♀.

Lifu; shore; Dec. 13, 1899; 3 ♂.

Tari-Tari Island; shore; Jan. 6, 1900; 1 ♂.

[1] Proc. Zool. Soc. London, 1901, part 2, 537, Pl. 33, fig. 1.

Matuta banksii Leach.

Matuta banksii Alcock, 1896, **65**, 158, description, not **M. picta** Hess.

Nukuhiva, Marquesas Ids.; shore and seine; Sept. 15, 17, 1899; 2 ♂, 5 ♀, 2 juv.

LEUCOSIIDAE.

Nucia gelida, sp. nov.

Pl. 5, Fig, *4;* Pl. 9, Figs. *2–2 c.*

Entire surface frosted with granules.

Carapace broader than long, roughly hexagonal with the pterygostomian regions protuberant; covered with tubercles, which toward the front and sides become gradually elongated, forming blunt conical spines. Longest spines at lateral angle, and at pterygostomian angle.

Front formed by two teeth separated by a furrow, and bearing each a tubercle on the margin.

Orbit not concealing the eye, armed with a supraorbital and a sharp post-orbital spine. A spine at the angle of the buccal cavity, and four below the orbit. Two tubercles on the exognath of the outer maxilliped.

Chelipeds of ♀ equal, merus having a few conical spines disposed in a row along the outer margin and in a transverse series on the distal half of the upper surface. Wrist and hand with a few tubercles above; fingers with longitudinal lines of granulations.

The merus and carpus joints of the legs have each two protuberances on the upper margin; dactyli elongate, regularly tapering, horny tips transparent.

♀, Length 2.5 mm., width 3.5 mm.

Type locality:— Fakarava Id., Paumotus; outer reef; Oct. 12, 1899; 1 ♀ ovigerous. (Cat. No. 32,858, U. S. N. M.)

Leucosides whitmeei (Miers).

Leucosia whitmeei Alcock, 1896, **65**, 224.

Mela, Carolines; shore, seine; Feb. 16, 1900; 1 ♂.

PANAMIC REGION.

OCYPODIDAE.

Ocypode gaudichaudii Milne Edwards and Lucas.

Ocypode gaudichaudii Milne Edwards and Lucas, D'Orbigny's Voy. l'Amér. Mérid., 1843, **6**, part 1, 26; 1857, **9**, pl. 11, fig. 4.

Chatham Id., Galapagos; shore; Jan. 8, 1905; 2 ♀.

GRAPSIDAE.

Grapsus grapsus (Linnaeus).

Grapsus grapsus Rathbun, Bull. U. S. Fish Comm. for 1900 (1901), **2**, 16, and synonymy.

Chatham Island, Galapagos Ids.; shore; Jan. 4, 1905; 1 ♂, 3 ♀.

Planes minutus (Linnaeus).

Nautilograpsus minutus Kingsley, Proc. Acad. Nat. Sci. Phil., 1880, 202.

South of Gulf of California; station 4587, surface; Oct. 12, 1904; 1 ♀.
Off Guatemala; station 4605, surface; Oct. 17, 1904; 1 ♂.
Off Peru; station 4649, surface; Nov. 10, 1904; 2 ♀.

PILUMNIDAE.

Micropanope taboguillensis, sp. nov.

Pl. 1, Fig. *8;* Pl. 7, Figs. *3,3a.*

Carapace subhexagonal, of moderate width, about $1\frac{1}{3}\times$ as broad as long; anterior half inclined downward; posterior half flat; in front of cardiac region the regions are distinct, the protogastric areas anteriorly subdivided longitudinally. Surface rough with granulated rugae on anterior two thirds, posteriorly nearly smooth. Front narrow, less than $\frac{1}{3}$ the width of the carapace, prominent, divided by a large V-shaped notch into 2 lobes with oblique and slightly concave margins. Edge of front, orbits, and anterolateral margins finely granulate. Outer angle of orbit not prominent nor dentiform. Tooth E of Dana small and distant from the orbit, the intervening space straight. Teeth N, T, & S of good size, subequal, acute, N somewhat curved. A small subhepatic clump of granules.

Outer sinus of orbit V-shaped; tooth at inner angle thickened.

Chelipeds strong, unequal, rough with sharp granules which are very large on the wrist and hand.

Inner angle of wrist blunt, not produced; below it a sharp tooth; a deep sulcus parallel to distal margin. On the upper surface of the hand are two deep sulci; on the lower surface the granules are smaller and more depressed; inner surface with a coarsely granulated area, reaching from the middle to the upper margin. Fingers deeply sulcate, dactylus granulate on basal portion in large cheliped, and on basal half in small cheliped. Fingers not gaping in small cheliped, slightly gaping in large one; large dactyl with a strong basal tooth.

Legs spinulous. The merus has a single row of spinules on anterior margin, the carpus and propodus each three rows, but on these joints the spinules are obscured by hairs; upper surface of merus almost smooth, of next two joints more or less rough with sharp granules.

Dimensions: — ♂ type, length 7 mm., width 10 mm.; fronto-orbital width 5.7 mm., frontal width 3 mm.

Type locality: — This species inhabits Taboguilla Id., Panama. The type, a ♂, was taken at low tide at a depth of one fathom, from coral, Oct. 31, 1904 (Cat. No. 32,859, U. S. N. M.). A much smaller ♂ was taken between tide marks, Oct. 31, 1899.

The nearest species is *M. truncatifrons* Rathbun[1] from deep water in the Caribbean region, which has a horizontal front, the carapace with fewer horizontal markings and rougher behind, the inner prominences of the wrist spiniform, the legs much more slender.

Xanthodius sternberghii Stimpson.

Xanthodius sternberghii Stimpson, Ann. Lyc. Nat. Hist. N. Y., 1859, **7**, 52.

Taboguilla Id.; between tide marks; Oct. 31, 1899; 5 ♂, 7 ♀.
Perico Id., Panama; Oct. 26, 1904; 1 ♂.

Cycloxanthops vittatus (Stimpson).

Xantho vittata Stimpson, Ann. Lyc. Nat. Hist. N. Y., 1860, **7**, 206.

Cycloxanthus vittatus A. Milne Edwards, Miss. Sci. au Mexique, Zool., 1879, pt. 5, **1**, 259, pl. 46, fig. 5.

Perico Id., Panama, Oct. 26, 1904; 1 ♂.

[1] Bull. Lab. Nat. Hist. State Univ. Iowa, 1898, **4**, 274.

Actaea dovii Stimpson.

Actea dovii Stimpson, Ann. Lyc. Nat. Hist. N. Y., 1871, **10**, 104.

Perico Id., Panama; Oct. 26, 1904; 2 ♀.

Ozius verreauxii Saussure.

Ozius verreauxii Saussure, Rev. Mag. Zool., 1853, (2), **5**, 359, pl. 12, fig. **1**. A. Milne Edwards, Miss. Sci. au Mexique, Zool., 1880, part 5, **1**, 277, pl. 55, fig. 4.

Taboguilla Id.; between tide marks; Oct. 31, 1904; 1 ♀.

Ozius agassizii A. Milne Edwards.

Ozius agassizii A. Milne Edwards, Miss. Sci. au Mexique, Zool., 1880, part 5, **1**, p 279, pl. 55, fig. 1.

Taboguilla Island; between tide marks; Oct 31, 1899; 4 ♂, 6 ♀, 10 juv.
Perico Id., Panama; Oct. 26, 1904; 1 ♂, 1 juv.

Heteractaea lunata (Milne Edwards and Lucas).

Heteractaea lunata A. Milne Edwards, Miss. Sci. au Mexique, Zool., 1880, part 5, **1**, 301, pl. 52, fig. 2.

Taboguilla Id.; between tide-marks; Oct. 31, 1899; 1 ♂, 1 ♀.
Taboguilla Id.; from coral, 1 fath., low tide; Oct. 31, 1904; 4 ♂, 2 ♀, 1 juv.

Eriphia squamata Stimpson.

Eriphia squamata Stimpson, Ann. Lyc. Nat. Hist. N. Y., 1859, **7**, 56; 1860, **7**, 217.

Taboguilla Id.; between tide-marks; Oct. 31, 1899; 2 ♀.

PORTUNIDAE.

Portunus (Achelous) affinis (Faxon).

Achelous affinis Faxon, Bull. Mus. Comp. Zoöl., 1893, **24**, 155; Mem. Mus. Comp. Zoöl., 1895, **18**, 23, pl. 4, figs. 1, 1 *a*, 1 *b*.

Off Acapulco, lat. 17° 20′ N., long. 101° 32′ W., surface, from turtle, station 4594, Oct. 14, 1904; 11 specimens apparently half digested.

Euphylax dovii Stimpson.

Euphylax dovii Stimpson, Ann. Lyc. Nat. Hist. N. Y., 1860, **7**, 226, pl. 5, fig. 5.
Euphylax dovii A. Milne Edwards, Miss. Sci. au Mexique, 1879, 204, pl. 38, fig. 2.

Off Gulf of Panama, lat. 7° 15′ N., long. 82° 8′ W., surface, station 4619, Oct. 20. 1904; 1 ♀.

INACHIDAE.

Acanthonyx petiverii Milne Edwards.

Acanthonyx petiverii Milne Edwards, Hist. Nat. Crust., 1834, **1**, 343.
Acanthonyx Petiveri A. Milne Edwards, Miss. Sci. au Mexique, Zool., 1878, part 5, **1**, 143, pl. 27, fig. 7, and synonymy.

Perico Id., Panama; Oct. 26, 1904; 1 ♂.

Pelia pacifica A. Milne Edwards.

Pelia pacifica A. Milne Edwards, Miss. Sci. au Mexique, Zool., 1875, **1**, part 5, 73, pl. 16, fig. 3. Not **Pelia pacifica** Rathbun, Proc. U. S. Nat. Mus., 1893, **16**, 90.

Perico Id., Panama; Oct. 26, 1904; 1 ♂, 2 ♀.

An examination of the specimens from the same locality as the type (Bay of Panama) leads me to believe that the specimens that I have hitherto assigned to *P. pacifica* are a distinct species. The specimens from Perico Island are very short and broad (♂, length 8.5, width 6.4 mm.) and have very short horns, and in the ♂ the palms much enlarged and fingers gaping at base.

The other form, which extends from Santa Catalina Id., Cal., probably to Magdalena Bay, L. Cal., is longer and narrower (♂, Southern Calif. length 13.4 mm., width 8.5 mm.), the horns longer, and the palms of the ♂ only slightly enlarged, tapering distally, fingers not gaping. I venture to give a new name to this form — *P. clausa* — the type being a ♂ from a lot collected in Southern California by Dr. W. H. Dall (Cat. No. 16203, U. S. N. M.)

One specimen, a ♂, from off Magdalena Bay, L. C., station 2939, "Albatross," which in 1893 (*loc. cit.*) I called *Pelia*, sp., is very puzzling. It has the claws of typical *pacifica*, but the carapace is not so wide; but this may be due to its greater size (8.6 mm. wide by 12.6 mm. long). On the whole I think that it may be referred to the true *pacifica*, but more material is necessary to determine this point.

Scyramathia cornuta (Rathbun).

Anamathia cornuta Rathbun, Proc. U. S. Nat. Mus., 1898, **21**, 571, pl. 41, fig. 2.

Ten miles from Hood Id., Galapagos; 633 fath., station 4641; Nov. 7, 1904; 1 ♂.

Scyramathia vesicularis, sp. nov.

Pl. 5, Fig. 7; Pl. 8, Figs. 1, 1*a*.

Body and legs everywhere covered with a pubescence formed of spherical vesicles; a few long, slender hairs on the gastric region, the lateral margins, and the rostrum. Carapace armed with eighteen short, stout, and pointed spines, of which four are on the gastric region, one is on the cardiac, one on the intestinal region, four on each branchial region, one on each hepatic region, and one above each eye; in addition, the post-ocular lobe is narrow, curved, and acute.

Rostrum composed of two slender divergent horns $\frac{2}{5}$ the length of the rest of the carapace.

Eyes visible even when retracted against the post-ocular lobe.

The narrow basal antennal joint has an antero-external spine, and two spines further back on the outer margin; flagella situated outside the rostrum.

Ischium and merus of outer maxillipeds with a concave surface.

Chelipeds (of ♂) just as long as the carapace and rostrum and little stouter than the other legs; arm with four short spines above, which increase distally; wrist with three or four similar spines; palm with sides parallel, $1\frac{1}{2}$ × as long as the fingers, which meet when closed.

Merus of all the ambulatory legs with a spine or tooth at the distal end. 1st pair $1\frac{1}{2}$ × as long as carapace and rostrum.

In the ♀ the rostrum is shorter, $\frac{1}{3}$ length of remainder of carapace; the cheliped = length of carapace and half the rostrum; the fingers are relatively longer than in the ♂; 1st pair of ambulatories $1\frac{1}{5}$ × as long as carapace and rostrum.

Dimensions. — ♂ type, length 20.7 mm., width 11.5 mm., rostrum 6 mm.

Type locality. — S. E. of Hood Id., Galapagos, 300 fath., station 4642; Nov. 7, 1904; 1 ♂ (type) 3 ♀ (2 gravid) Cat. No. 32,860, U. S. N. M.

This species in its numerous spines resembles *S. pulchra* (Miers),[1] from the Philippines and Andaman Sea, 130 to 561 fathoms, but differs from it in the arrangement of the spines and the shorter legs.

[1] "Challenger" Brachyura, 1886, **17**, 26, pl. 4, fig. 1.

Mithrax bellii Gerstaecker.

Mithrax ursus Bell, Proc. Zool. Soc. London, 1835, **3**, 171, pub. Feb. 24, 1836; Trans. Zool. Soc. London, 1836, **2**, 52, pl. 10, figs. 2 and 3. A. Milne Edwards, Miss. Sci. au Mexique, 1875, part 5, **1**, 103. Not **Cancer ursus** Herbst.
Mithrax bellii Gerstaecker, Arch. f. Natur., 1856, **22**, part 1, 112.
Mithrax bellii Rathbun, Proc. Wash. Acad. Sci., 1902, **4**, 284.

Chatham Id., Galapagos; shore; Jan. 8, 1905; 1 ♀ juv.

The young of this species, as Bell has shown, presents such a different aspect from the adult that it might easily be mistaken for another species. Length of young ♀, Chatham Id., 21.7, width 20.7 mm. The body and legs, except the chelae, are everywhere covered with a furry hair. The protuberances are all sharp-pointed. The rostral horns curve toward each other; the pair of spines at the base of the horns are nearly as long as the horns and diverge from each other; the next pair is very small. In the adult (♂ from Black Bight) the carapace is wider than long (63.6 mm. long × 65.4 mm. wide), the surface is almost wholly naked, and the protuberances are very stout, blunt tubercles.

Mithrax denticulatus Bell.

Mithrax denticulatus Bell, Trans. Zool. Soc. London, 1836, **2**, 54, pl. 11, fig. 2.

Perico Id., Panama; Oct. 26, 1904; 1 ♂, 2 ♀.

Thoe erosa Bell.

Thoe erosa Bell, Proc. Zool. Soc. London, 1835, **3**, 171, pub. Feb. 24, 1836; Trans. Zool. Soc. London, 1836, **2**, 48, pl. 9, fig. 4. A. Milne Edwards, Miss. Sci. au Mexique, 1875, part 5, **1**, pl. 19, fig. 4; 1878, p. 121.

Taboguilla Id.; between tide-marks; Oct, 31, 1899; 1 ♂.
Perico Id., Panama; Oct. 26, 1904; 1 ♂.

CALAPPIDAE.

Calappa convexa Saussure.

Calappa convexa Saussure, Rev. Mag. Zool., 1853, (2), **5**, 362, pl. 13, fig. 3.

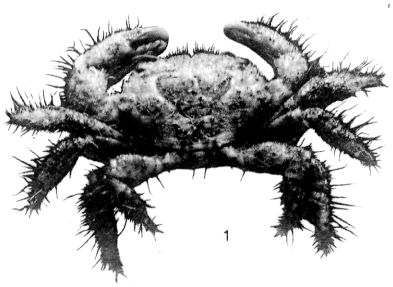
Taboguilla Id.; shore; Oct. 28, 1904; 1 ♂.

EXPLANATION OF PLATES.

PLATE 1.

Plate 1.

Fig. 1. *Pilodius paumotensis*, ♂, type, × 2½.
Fig. 2. *Actaea cavipes*, ♂, Borabora, × 2½.
Fig. 3. *Chlorodopsis scabricula*, ♀, Papeete, × 4.
Fig. 4. *Caphyra rotundifrons*, ♀, Papeete, × 2½.
Fig. 5. *Chlorodopsis venusta*, ♂, type, × 2½.
Fig. 6. *Platypodia digitalis*, ♀, type, × 2½.
Fig. 7. *Cymo quadrilobatus*, ♀, Funafuti, × 1½.
Fig. 8. *Micropanope taboguillensis*, ♂, type, × 2½.
Fig. 9. *Actaea remota*, ♂, type, × 4.
Fig. 10. *Cyclodius gracilis*, ♀, Funafuti, × 4.
Fig. 11. *Leptodius efferens*, ♂, type, × 4.
Fig. 12. *Actumnus integerrimus*, ♀, Fakarava, × 4.



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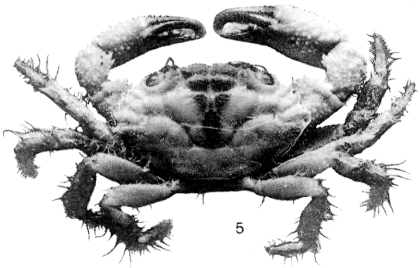

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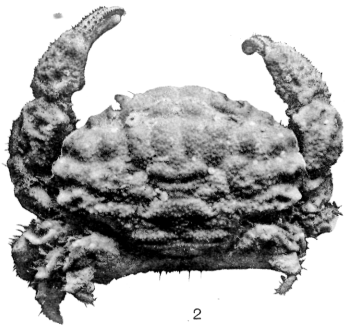

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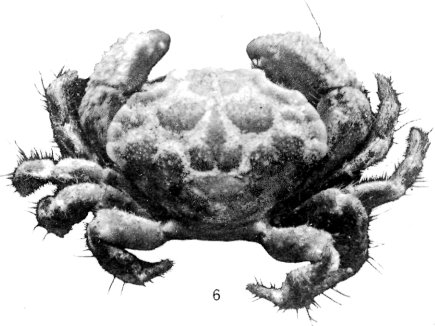

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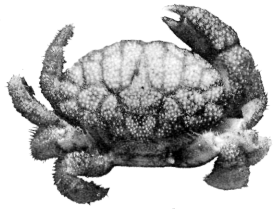

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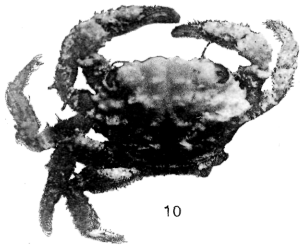

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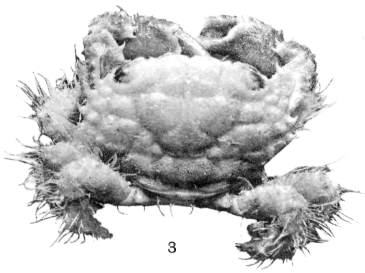

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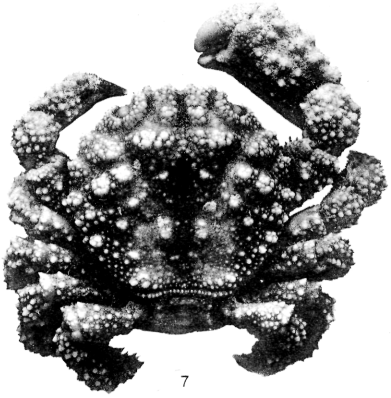

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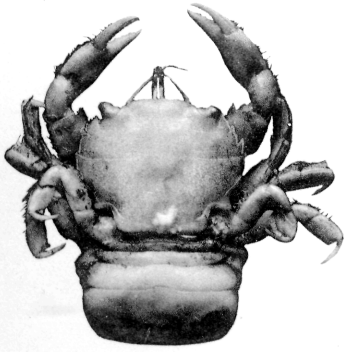

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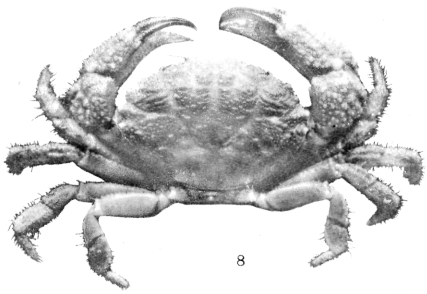

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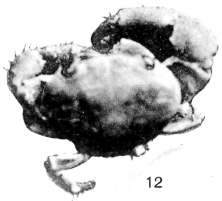

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HELIOTYPE CO., BOSTON.

PLATE **2.**