

ico, to Málaga Bay, Colombia, 4-9 meters. (Garth, 1948).

Material Examined.—31 specimens from 6 stations:

Nicaragua

Meanguera Island, Gulf of Fonseca, December 23, 1937, Station 199, D-1, 16 fathoms, 2 males.

Corinto, Station 200, December 29, 1937, D-1, D-3, D-8, 2-6.6 fathoms, 1 male, 1 female; January 7, 1938, D-26, 2.5 fathoms, 1 ovigerous female; D-27 to D-30, 3 fathoms, 1 male.

Costa Rica

Port Parker, January 22, 1938, Station 203, D-5, 3 fathoms, 1 male; D-13, 7-9 fathoms, 1 ovigerous female.

Cedro Island, Gulf of Nicoya, February 13, 1938, Station 213, D-1 to D-10, 4-10 fathoms, 7 males, 6 females (2 ovigerous).

Golfito, Gulf of Dulce, March 9, 1938, Station 218, D-4 to D-7, 4-6 fathoms, 3 males, 3 females (2 ovigerous); D-8, 6 fathoms, 2 males, 2 young.

Panama

Bahia Honda, March 18, 1938, Station 222, D-3, 8 fathoms, 1 male.

Measurements.—Males from 3.2×4.4 to 5.7×8.7 mm., females from 3.0×4.0 to 4.2×5.9 mm., ovigerous females same; young from 2.9×3.8 mm.

Habitat.—Mangrove leaves; shells and dead coral or algae; mud, sand, and crushed shell.

Color in Life.—Not noted.

Breeding.—Nicaragua in early January; Costa Rica from late January to early March.

Remarks.—Previously recorded from Taboga Island, Panama, as *Hexapanopeus setipalpus* Finnegan. The records for Nicaragua and Costa Rica are new.

Hexapanopeus beebei, new species

(Plate I)

Type.—Male holotype, A.H.F. No. 377, and male and female, paratypes, N.Y.Z.S. No. 37,718, from Corinto, Nicaragua, December 29, 1937, "Zaca" Station 200, D-1, 3, 8, 2-6.6 fathoms. For additional paratypes see *Supplementary Material* below.

Measurements.—Male holotype, length 5.4 mm., width 7.2 mm., of fronto-orbit 5.4 mm., of front 2.6 mm., length of cheliped 8.3 mm., of chela (lower margin) 6.1 mm., of dactyl 3.5 mm., height of palm 3.5 mm. Female paratype, length 5.2 mm., width 7.1 mm.

Diagnosis.—Fifth lateral tooth minute. Supra-orbital lobe advanced to level of outer orbital tooth. Fingers white, the whitened portion not continuing backward and upward on palm. Major dactyl strongly curved in male, a denticle but no large tooth at base. Male first pleopod with a reflected medial spine, an opposing lanceolate lobe, and a truncated or collared hood with three terminal setae.

Description.—Carapace nearly flat, almost devoid of pubescence, smooth anteriorly but granulate posteriorly, clearly divided by furrows into regions each surmounted by one or more rows of granules, disposed as follows: two protogastric, of which the posterior is the more oblique, one epibranchial, in line with the last tooth, one metagastric, interrupted at the middle, one cardiac, also medially divided, and one metabranchial; in addition to these an hepatic, in line with the anterior protogastric, and a post-frontal, in advance of the anterior protogastric. Front not exceptionally narrow, a little less than one-third carapace width, produced, thin-edged, lateral margins oblique, anterior margins somewhat oblique, straight or slightly sinuous, frontal lobes separated by a shallow but distinct median V, a suggestion of an outer lobe. Inner supra-orbital border elevated, swollen, orbital emarginations V-shaped, the included lobe equally advanced inwardly with the outer orbital tooth. Second anterolateral tooth low, rounded, and separated from the first or exorbital by a shallow sinus, their combined width greater than that of the third tooth; third tooth with a short, straight, oblique anterior margin and a long, arcuate posterior margin, tip rectangular; fourth tooth spiniform, narrower at base than third and more projecting, directed obliquely forward, anterior margin transverse or slightly concave, posterior margin straight or nearly so; fifth tooth minute, separated from fourth by a closed fissure, and appearing as a notch on the posterior margin of the fourth.

Merus of outer maxilliped subrectangular, broader than long, anterolateral angle slightly produced and rounded, anterointernal angle shallowly notched at insertion of palpus.

Chelipeds markedly unequal in the male; merus with a superior distal tubercle; carpus with a marginal carina incompletely outlining a rhomb enclosing a rectangular sulcus in its outer portion, a scattering of tubercles above; manus of major chela smooth, inflated, two parallel ridges above. Fingers white, the white "color" not continued appreciably on palm, major dactylus strongly curved, almost forming a quarter-circle, a granulate ridge above, a small denticle basally in place of the customary larger tooth;

this with a small denticle distally defining a gape into which a somewhat larger tooth of the pollex fits incompletely; pollex not deflexed. Minor manus slenderer than major, fingers elongate, ridged and compressed, meeting without a gape but with crossed tips; pollex deflexed.

Male abdomen with sides of third segment rounded, sides of fused segments 3-5 concave, narrowest at base of segment 6, segment 7 triangular with a blunt tip. Male first pleopod with a long, backward-pointing medial spine, an equally long and oppositely directed lanceolate lobe, and a rimmed hood bearing three terminal setae.

Female noticeably more convex than male, ridges more prominent, interspaces more felted. Chelipeds less robust, carpus and minor manus more nodose, palms more granulate. Fingers compressed, those of major manus meeting without a gape but possessing larger teeth than those of minor manus.

Supplementary Material.—In addition to specimens mentioned under *Type* above, the following specimens, also from "Zaca" Station 200: D-7, 2 fathoms, 1 female, paratype; D-27 to 30, 3 fathoms, mangrove leaves, 1 male, 1 ovigerous female, paratypes. The male has two minor chelipeds, the result of regeneration of a major cheliped.

Remarks.—The proposed new species is most closely allied to *Hexapanopeus caribbaeus* (Stimpson), from which it differs in having the fingers white, the whitened portion not running backward and upward on the palm, the front not especially narrowed, and the fingers of the major chela of the male conspicuously gaping.

I take pleasure in naming this diminutive panopeid for Dr. William Beebe, director emeritus of the Department of Tropical Research, New York Zoological Society, whose "Book of Bays" (1942) so delightfully describes the expedition on which it was collected.

Panopeus purpureus Lockington

Panopeus purpureus Lockington, 1877b, p. 101. Rathbun, 1930, p. 344, pl. 158, fig. 1, pl. 159. Crane, 1947, p. 79.

Range.—From Magdalena Bay, Lower California, and Guaymas, Sonora, Mexico, to mouth of Rio Tumbes, Peru. (Rathbun).

Material Examined.—Puntarenas, Costa Rica, February 22, 1938, 1 male.

Measurements.—Male specimen length 11.5 mm., width 16.5 mm.

Habitat.—In stony mud on edges of mangrove swamps and open mudflats. (Crane).

Remarks.—It was undoubtedly due to an over-

sight that the above specimen was not reported by Crane (1947), who listed the species from Culebra, Ballenas, and Golfito, Costa Rica, and Puerto Bolivar, Ecuador.

Panopeus bermudensis Benedict & Rathbun

Panopeus bermudensis Benedict & Rathbun, 1891, p. 376, pl. 20, fig. 2; pl. 24, figs. 14, 15. Rathbun, 1930, p. 360, pl. 165, text-fig. 56.

Range.—Eastern Pacific from Magdalena Bay, Lower California, Mexico, to Matapalo (near Capon), Peru. Western Atlantic from Florida and the Bahamas to Brazil. Bermuda. (Rathbun).

Material Examined.—Chamela Bay, Mexico, November 17, 1937, Station 182, D-1, 8 fathoms, 17 males, 6 ovigerous females.

Measurements.—Males from 4.3×5.7 to 6.3×8.5 mm., ovigerous females from 3.9×5.3 to 4.9×6.6 mm.

Habitat.—Sand and algae. Fine bits of seaweed were entwined among specimens.

Remarks.—When considered independently, the Chamela Bay specimens could scarcely be reconciled with specimens from Bermuda to which the name *bermudensis* was originally applied. It is when considered in the context of a larger representation of this geographically variable complex from many west coast localities that their relationship to a similar array from numerous Caribbean localities is appreciated. While as a result of studies now in progress it may be decided to segregate the Pacific material from the Atlantic as a distinct species, to do so now on the basis of a single lot of specimens from an isolated locality would be premature. The Chamela Bay specimens serve to link the present representation from Lower California and the Gulf of California with that from Central and northern South America. The small size of the females, all of which are ovigerous, is noteworthy.

Eurytium tristani Rathbun

Eurytium tristani minor (Bott), n. comb.

Eurytium tristani Rathbun, 1906, p. 100; 1910, pp. 543, 585, pl. 47, fig. 1; 1930, p. 425, pl. 176, fig. 3; pl. 177, fig. 3. Crane, 1947, p. 80.

Panopeus convexus minor Bott, 1955, p. 57, pl. 6, figs. 9a, 9b. (Not *P. convexus* A. Milne Edwards, 1880).

Range.—From El Triunfo, El Salvador, to Salto (near Capon), Peru.

Material Examined.—Puntarenas, Costa Rica, February 22, 1938, 26 males, 29 females (1 ovigerous), 1 young.

Measurements.—Males from 3.5×4.5 to 12.0×17.8 mm., females from 3.7×5.1 to $9.9 \times$

15.1 mm., ovigerous female 6.1×8.7 mm., young 3.2×4.3 mm.

Habitat.—Not stated, but most certainly from mud flats exposed at low tide.

Color in Life.—Not noted.

Remarks.—Of the two pairs of specimens from Puntarenas sent to Frankfurt, Germany, for comparison with the types of *Panopeus convexus minor* Bott, Dr. Richard Bott writes as follows: "They agree with the type in all characteristics mentioned by me; the first pleopods are completely identical." It was noted that, while in the published figure of the male holotype the left cheliped is larger than the right, among "Zaca" specimens the right cheliped is larger than the left in most instances. Dr. Bott affirms that this is also true of the remaining male from the type series of *P. convexus minor*.

The decision to transfer Bott's subspecies to Rathbun's species of another genus was the result of examining a male specimen from El Triunfo reported as *Panopeus convexus convexus* (Bott, 1955, p. 57) and loaned the writer by Dr. Bott for use in connection with studies on the family Xanthidae. This proved to be none other than *Eurytium tristiani* Rathbun. It therefore follows that the somewhat smaller specimens reported by him as *Panopeus convexus minor* should be called *Eurytium tristiani minor* (Bott) instead. The small size of the "Zaca" specimens, and in particular, of the ovigerous female, support their continued distinction.

Micropanope polita Rathbun

Micropanope polita Rathbun, 1893, p. 238; 1930, p. 440, text-fig. 40, pl. 180, figs. 3, 4, synonymy. Crane, 1937, p. 71. Garth, 1946, p. 459, pl. 77, fig. 4.

Range.—From Magdalena Bay, Lower California, and Santa Inez Bay, Gulf of California, Mexico, to Cocos Island, Costa Rica. Galapagos Islands. 3-150 fathoms. (Garth).

Material Examined.—35 specimens from 3 stations:

Mexico

SE of Cedros Island, Lower California, November 10, 1937, Station 126, D-19, 25 fathoms, 1 male, 1 female. From holes in rocks.

3 mi. off Pyramid Rock, Clarion Island, May 12, 1936, Station 163, D-2, 55 fathoms, 30 specimens.

Panama

Hannibal Bank, March 20, 1938, Station 224, D-1 to D-3, 35-40 fathoms, 1 male, 2 females.

Measurements.—Males from 4.0×6.0 to 5.4×8.6 mm., females from 2.9×4.2 to $4.8 \times$

7.2 mm. The larger specimens are from the more northerly localities.

Habitat.—Rocks, mud, dead coral; sand, shells, algae.

Color in Life.—Of Cedros Island, Mexico, specimens: Male tan and cream mottled. Front and manus rosy red. Dactyls dark brown tipped with white. Ambulatories banded tan and cream tinged with pink. Female carapace entirely crimson, but brightest on front. Chelipeds coral red. Chelae dark brown, tipped with white. Underparts pinkish. (J. Crane, field notes).

Remarks.—Food preferences and breeding in the southern part of the Gulf of California are discussed by Crane (1937). The records from the Revilla Gigedo Islands, of which Clarion is the most remote, and from the mainland of Panama are new.

Micropanope xantusii (Stimpson)

Xanthodes xantusii Stimpson, 1871, p. 105.

Micropanope xantusii, Rathbun, 1930, p. 438, pl. 179, figs. 1-4. Crane, 1937, p. 72; 1947, p. 80.

Garth, 1946, p. 457, pl. 77, fig. 6; 1948, p. 42.

Xanthias serrulata Finnegan, 1931, p. 634, text-fig. 6.

Range.—From Arena Bank, Gulf of California, Mexico, to Santa Elena Bay, Ecuador. Galapagos Islands. (Garth, 1948). Occasionally to 40 fathoms.

Material Examined.—20 specimens from 3 collections made at 2 localities:

Mexico

Sulphur Bay, Clarion Island, May 15, 1936, coral, 1 young male.

Port Guatulco, December 4, 1937, in dead pearl oyster, 1 male; December 6, 1937, Station 195, D-15, 1.5 fathoms, 8 males, 10 females (4 ovigerous).

Measurements.—Males from 3.0×4.2 to 7.0×9.8 mm., females from 4.0×5.6 to 7.25×11.0 mm., ovigerous females from 4.5×6.4 to 6.3×9.2 mm.

Habitat.—Coral obtained by diving.

Color in Life.—Variable, but majority dark red mottled with lighter and darker. Sulci on major cheliped of adult males may be almost lacking. (Crane, 1947).

Breeding.—Mexico in early December.

Remarks.—According to Crane (1947), who reported the species from the intertidal of Mexico (Clarion Island, Sihuatenejo, Acapulco) and Costa Rica (Port Parker, Culebra, Jasper Island), "always found in *Pocillopora* coral except for 3 young found at Port Parker among algae-covered stones."

***Micropanope* (?) *maculatus* (Rathbun)**

Lophopanopeus maculatus Rathbun, 1898, p. 588, pl. 40, figs. 10, 11; 1930, p. 330, text-fig. 51. Garth, 1946, p. 453, pl. 78, figs. 3, 4.

Micropanope (?) *maculatus*, Menzies, 1948, p. 24.

Range.—From Magdalena Bay, Lower California, and southern part, Gulf of California, Mexico. Galapagos Islands. 2-70 fathoms. (Garth).

Material Examined.—Port Parker, Costa Rica, January 22, 1938, Station 203, D-9, 1.5-4 fathoms, 1 male, 1 female.

Measurements.—Male specimen 4.7×6.5 mm., female specimen 4.1×5.7 mm.

Habitat.—Coral bottom.

Color in Life.—Not noted.

Remarks.—The Port Parker specimens are in good condition and show the distinctive characters well. *Micropanope* (?) *maculatus* is now recorded from the Central American mainland.

The exclusion of the species from *Lophopanopeus* is the result of Menzies' revision of that genus. Its referral to *Micropanope* in this instance is tentative and without prejudice to systematic studies by the writer now in progress.

***Paraxanthias taylori* (Stimpson)**

Xanthodes taylori Stimpson, 1860, p. 208, pl. 3, fig. 5.

Paraxanthias taylori, Odhner, 1925, p. 85. Rathbun, 1930, p. 466, pl. 188, pl. 189, fig. 1, synonymy.

Range.—From Monterey Bay, California, to Magdalena Bay, Lower California, Mexico. Shore to 55 fathoms. (Rathbun, 1930).

Material Examined.—SE of Cedros Island, Lower California, Mexico, November 10, 1937, Station 126, D-19, 25 fathoms, 1 male.

Measurements.—Male specimen, length 6.8 mm., width 9.8 mm.

Habitat.—Rocks, algae. From hole in rocks. (J. Crane, field notes).

Color in Life.—Pinkish tan; chelae brown tipped with white. (J. Crane, field notes).

Remarks.—A southern California—west coast of Lower California warm-temperate species.

***Menippe obtusa* Stimpson**

Menippe obtusa Stimpson, 1859, p. 53. Rathbun, 1930, p. 478, pl. 197, pl. 198, figs. 1, 2. Sivertsen, 1933, p. 16. Garth, 1946, p. 470, pl. 82, figs. 3, 4; 1948, p. 45. Crane, 1947, p. 80.

Range.—From Corinto, Nicaragua, to La Plata Island, Ecuador. Galapagos Islands. Shore to 6.5 meters. (Garth, 1948).

Material Examined.—Passavera Island, Chamela Bay, Mexico, November 19, 1937, 1 female.

Measurements.—Female specimen, length 12.8 mm., width 18.3 mm.

Habitat.—Not given.

Color in Life.—Brown to apricot orange. (J. Crane, of Corinto, Nicaragua, specimens).

Remarks.—For a discussion of the interesting habits of this and the related *Menippe frontalis* A. Milne Edwards, including use of the stridulating ridges of the inner surface of the manus, the reader is referred to Crane (1947, p. 80). Chamela Bay, Mexico, represents a northward extension of range from Corinto, Nicaragua, an earlier reported "Zaca" record.

***Pilumnus pygmaeus* Boone**

Pilumnus pygmaeus Boone, 1927, p. 221, text-fig. 81. Rathbun, 1930, p. 515, pl. 207, figs. 4, 5. Garth, 1946, p. 472, pl. 80, fig. 4; 1948, p. 48. Crane, 1947, p. 81.

Range.—From Port Parker, Costa Rica, to Utria Bay, Colombia. Galapagos Islands. Shore to 13 fathoms.

Material Examined.—2 specimens from 2 stations:

Mexico

Port Guatulco, December 4, 1937, in dead pearl oyster, 1 female.

Costa Rica

Port Parker, [date?], 1 male.

Measurements.—Male specimen 2.5×3.3 mm., female specimen 2.7×3.6 mm.

Habitat.—From weed in tidepools and on undersides of overgrown rocks close to low tide. (Crane, 1947, of Costa Rican specimens).

Breeding.—Eggs in January. (Crane, 1947).

Remarks.—The known range of the species is extended northward from Port Parker, Costa Rica, to Port Guatulco, Mexico.

***Pilumnus limosus* Smith**

Pilumnus limosus Smith, 1869, p. 285. Rathbun, 1930, p. 518, pl. 208, pl. 209, figs. 1-3.

Range.—From Panama to Paita, Peru. Shore. (Rathbun, 1930).

Material Examined.—2 specimens from 2 stations:

Mexico

4 mi. SSW of Maldonado Point, November 30, 1937, Station 192, D-1, 26 fathoms, 1 female.

Tangola-Tangola Bay, December 13, 1937, Station 196, D-18, 30 fathoms, 1 male.

Measurements.—Male specimen 5.0×6.8 mm., female specimen 7.4×9.9 mm.

Habitat.—Mud.

Color in Life.—Brownish. (J. Crane, field notes).

Remarks.—A distinctive species, with a characteristic pattern of pubescence that obscures the scattered granules of the carapace. *Pilumnus limosus* is now recorded from Mexico, a northward extension from Panama, and to a depth of 30 fathoms.

Pilumnus stimpsonii Miers

Pilumnus marginatus Stimpson, 1871, p. 109. Not *P. marginatus* Stimpson, 1858.

Pilumnus stimpsonii Miers, 1886, p. 147 (name substituted for *P. marginatus*, preoccupied). Rathbun, 1930, p. 524, pl. 205, figs. 5, 6.

Range.—Cape San Lucas, Lower California, and Manzanillo, Colima, Mexico. (Rathbun, 1930).

Material Examined.—Port Parker, Costa Rica, January 22, 1938, Station 203, D-10, 2.5-6 fathoms, 1 male, 6 females (3 ovigerous).

Measurements.—Male 2.9×3.4 mm., females from 3.2×4.0 to 4.0×4.9 mm., ovigerous females from 3.2×4.0 to 3.8×4.5 mm.

Habitat.—Rocks.

Color in Life.—Not recorded.

Breeding.—Costa Rica in late January. Mexico in mid-July. (Rathbun, 1930).

Remarks.—Since Stimpson's type is non-extant and the material reported by Rathbun (1930) consists in its entirety of 3 specimens collected by Orcutt in Mexico, the "Zaca" series from Port Parker represents more than double the number of specimens existing in collections and reported upon to date. Orcutt's material also included an ovigerous female. The range of *Pilumnus stimpsonii* is extended southward to Costa Rica, the depth to 6 fathoms.

Heteractaea peterseni Garth

Heteractaea peterseni Garth, 1940, p. 81, pl. 22, figs. 1-5.

Range.—From San Francisco Island, Gulf of California, Mexico, to Octavia Bay, Colombia. 35-44 fathoms. (Garth).

Material Examined.—Hannibal Bank, Panama, March 20, 1938, Station 224, D-1 to D-3, 40-35 fathoms, 1 female, 2 young.

Measurements.—Female specimen 5.5×8.0 mm., young 3.9×5.7 and 4.4×6.3 mm.

Habitat.—Rocks, dead coral, mud; sand, shells, algae. The fact that the holotype, from Octavia Bay, Colombia, was cracked from rock makes the former habitat the more likely. The channeled meri of the walking legs are believed to represent an adaptation for breathing from a rock-bound enclosure. Unfortunately, materials

from two dissimilar bottom types at Station 224 were combined.

Color in Life.—See Garth (1940, p. 83).

Remarks.—The findings by the "Zaca" of *Heteractaea peterseni* off Panama bridges the gap between the two "Velero III" stations in Colombia and the Gulf of California. The uniformity of depth for the three stations is perhaps more than coincidental: Octavia Bay, Colombia, 35-40 fathoms; San Francisco Island, Gulf of California, 43-44 fathoms; and Hannibal Bank, Panama, 35-40 fathoms.

Quadrella nitida Smith

(Text-fig. 2)

Quadrella nitida Smith, 1869, p. 288. Rathbun, 1930, p. 561, pl. 229, synonymy. Crane, 1937, p. 74. Garth, 1946, p. 494, pl. 80, fig. 6.

Range.—From off Cape San Lucas, Lower California, and Arena Bank, Gulf of California, Mexico, to Pacheca Island, Panama. Galapagos Islands. 6-75 fathoms.

Material Examined.—15 specimens from a single station: Mazanillo, Mexico, November 22, 1937, Station 184, D-1, 25 fathoms, 1 male, 3 females, 2 young, 1 megalops; D-2, 30 fathoms, 3 males, 3 females, 2 young.

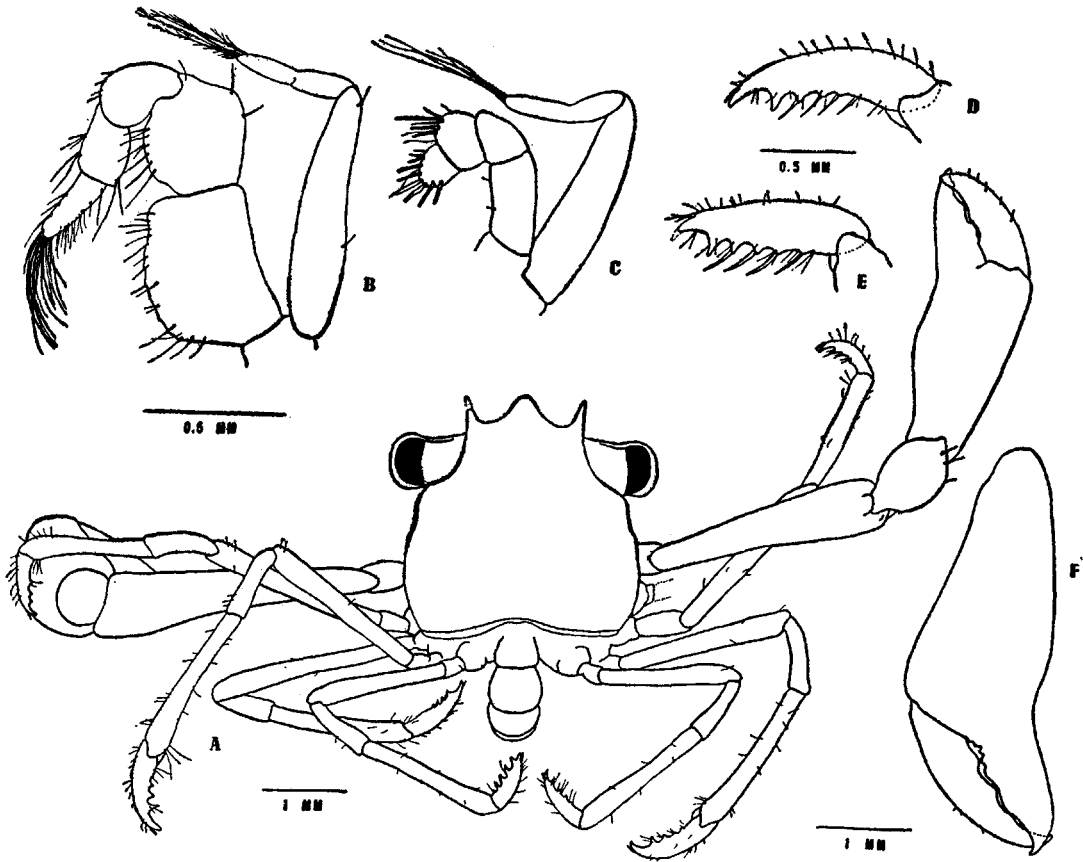
Measurements.—Males from 5.0×5.5 to 6.9×8.0 mm., females from 4.9×5.4 to 7.5×8.6 mm., young from 3.3×3.4 mm.

Habitat.—Gravelly sand.

Color in Life.—Two middle-sized specimens not pure white or with bold orange chelipeds like a northern form [cf. Crane, 1937, p. 74]. Two larger specimens all carapace mouse gray with posterolateral margins curdled white. Chelipeds light brown with a band of dark gray polka-dotted with white at distal end of each segment. Rest of segment dotted with fine darker brown. Ambulatories banded gray and white. Smaller specimen white with chestnut front and chestnut chelipeds. Largest specimen curdled white; chelipeds translucent violet gray or pale rosy. Definitely matching lavender shade of some of the gorgonids. (J. Crane, field notes).

Remarks.—Although the only reference to the presence of gorgonian corals at this station is to be found in the color description above, it is a safe presumption that the specimens were taken on *Muricea miser* Verrill or a related species. The symbiotic relationship between these crabs and the corals is discussed by Crane (1937). The megalops of the species has not previously been described.

Description of the Megalops.—Carapace smooth and bare, slightly broader than long, sides convex, hepatic margins also slightly con-



TEXT-FIG. 2. *Quadrella nitida* Smith, megalops. A, dorsal view; B, third maxilliped; C, second maxilliped; D, left third walking leg; E, left fourth walking leg; F, left chela. J. W. Knudsen, del. (B and C, same scale; D and E, same scale).

vex, posterior margin concave. Front wide, rostrum deflexed, bluntly triangular, straight-sided, broadly separated from lateral frontal spines; these spines pointing upward and not extending as far forward as rostrum. Transorbital breadth greater than breadth of carapace.

Second maxilliped with a two-segmented exopodite bearing 5 terminal setae; endopodite with four segments bearing 2, 0, 8, and 10 or more setae from merus to dactylus. Third maxilliped with a two-segmented exopodite bearing 5 or 6 plumose setae terminally; endopodite with ischium and merus broadened; ischium subrectangular, with 16 or more setae on inner margin; merus subquadrate, with 8 or more setae on inner margin and 2 at anteroexternal angle; carpus rounded distally, a few setae on outer margin; propodus with 6 or more setae arranged in tufts, one on inner, 2 on outer margin; dactylus with 12 or more setae on inner, 4 on outer margin, with a terminal brush of a dozen or more longer hairs.

Cheliped without an ischial spine; merus elongate, cylindrical, broadening distally; carpus ovate, three setae on outer distal margin; manus elongate, compressed, broadening distally, lower margin sinuous; dactylus with a row of 5 setae, closing against propodus without a gape, their tips crossing.

Walking legs slender, cylindrical; meri long and of a length equal to their respective propodi; carpi only half as long as meri and of a length equal to their dactyli; legs finely and sparingly setose. Dactyli adapted to clinging to gorgoniaceous corals, having a curved nail and superior bristle terminally, followed by a succession of teeth diminishing regularly in size from tip to base along lower margin, accompanied by stout bristles.

Abdomen with six segments and a telson; sixth segment and telson smaller than preceding segments; telson arcuate.

Family GONEPLACIDAE

Pseudorhombila xanthiformis Garth

Pseudorhombila xanthiformis Garth, 1940, p. 86, pl. 24, figs. 1-5.

Range.—Known only from the type locality, Gorgona Island, Colombia, 40-60 fathoms.

Material Examined.—14 mi. S × E of Judas Point, Costa Rica, March 1, 1938, Station 214, D-1, D-3, 42-50 fathoms, 3 males, 1 female. Off Ballenas Bay, Gulf of Nicoya, Costa Rica, February 25, 1938, Station 213, D-12, 35 fathoms, right and left chelae, of large size; D-16, 45 fathoms, carapace fragment.

Measurements.—Males 12.6×17.3 and 15.6×22.9 mm., female 8.9×12.7 mm., young male 6.4×8.9 mm.

Habitat.—Mud and shell.

Color in Life.—Not recorded.

Remarks.—Known only from the type female, a 15×22 mm. specimen, *Pseudorhombila xanthiformis* is now represented by males of good size, and from a locality midway between the type locality, Gorgona Island, Colombia, and the type locality of *Oedioplax granulata* Rathbun. When males of the latter species become available, it should be possible to elucidate the relationship between the two species, and to tell whether they should belong in the same or in different genera. (See discussion, Garth, 1940, p. 88).

Description of the Male Abdomen.—Segments 3-5 fused, suture lines clearly visible. Abdomen widest at base of segment 3, narrowest at middle of segment 6, sides of segments 4-6 concave. Segment 7 broader than long, sides straight and convergent, tip rounded.

Euryplax polita Smith

Euryplax politus Smith, 1870, p. 163.

Euryplax polita, Rathbun, 1918, p. 36.

Range.—Apart from a listing by Glassell (1934) as occurring in the Gulf of California, but without specific locality, the species is known only from Panama.

Material Examined.—Tangola-Tangola Bay, Mexico, Station 196, December 9, 1937, D-6, D-8, 9-7 fathoms, 2 females, 2 young; December 12, 1937, D-13, 10 fathoms, 1 male, 1 young; December 13, 1937, D-16, 16 fathoms, 1 young female; D-17, 23 fathoms, 1 female.

Measurements.—Male 8.7×14.8 mm., females from 4.4×5.9 to 5.8×8.8 mm., young from 3.2×4.4 mm.

Habitat.—Sand, gravelly sand, crushed shell, and mud.

Color in Life.—Not noted.

Remarks.—The male above is larger than the male holotype, a 6.9×11.2 mm. specimen. *Euryplax polita* is now known from a definite west Mexican locality. Included with the adult specimens enumerated above are a total of 11 megalopa possibly referable to this species.

Chasmophora macrophthalma (Rathbun)

Eucratopsis macrophthalma Rathbun, 1898, p. 601, pl. 43, figs. 3, 4.

Chasmophora macrophthalma, Rathbun, 1914, p. 119, text-fig. 2; 1918, p. 37, text-fig. 12.

Range.—Known only from the type locality, Bay of Panama, 51.5 fathoms. (Rathbun, 1898).

Material Examined.—32 specimens from 3 stations:

Mexico

4 mi. SSW of Maldonado Point, November 30, 1937, Station 192, D-1, 26 fathoms, 4 males, 4 females (3 ovigerous).

Santa Cruz Bay, December 7, 1937, Station 195, D-21, 18 fathoms, 2 females.

Tangola-Tangola Bay, December 13, 1937, Station 196, D-17, 23 fathoms, 12 males, 10 females (1 ovigerous).

Measurements.—Males from 2.1×3.1 to 4.5×8.8 mm., females from 2.7×4.6 to 4.4×8.3 mm., ovigerous females from 3.2×5.9 to 4.4×8.3 mm.

Habitat.—Mud.

Color in Life.—Not noted.

Remarks.—The larger males have the chelipeds tremendously developed for their rather small size. The smaller females (3.0×5.1 and 3.0×5.3) show spinulose anterolateral teeth. *Chasmophora macrophthalma* may now be reported from west Mexico, a northward range extension from Panama.

Speocarcinus granulimanus Rathbun

Speocarcinus granulimanus Rathbun, 1893, p. 242; 1918, p. 40, text-fig. 15, pl. 9.

Range.—Off Cedros Island, Lower California, and from off Consag Rock to off Point Fermin, Gulf of California, Mexico. 23-33 fathoms. (Rathbun, 1893).

Material Examined.—6 specimens from 4 stations:

El Salvador

La Libertad, December 16, 1937, Station 198, D-1 or D-2, 13-14 fathoms, 1 female.

Meanguera Island, Gulf of Fonseca, Station 199, December 23, 1937, D-1, 16 fathoms, 2 young; December 27, 1937, D-11, D-12, 5 fathoms, 1 male.

Costa Rica

Cedro Island, Gulf of Nicoya, February 13, 1938, Station 213, D-1 to D-10, 4-10 fathoms, 1 young male.

Golfito, Gulf of Dulce, March 9, 1938, Station 218, D-8, 6 fathoms, 1 female.

Measurements.—Male 11.3×14.3 mm., females from 6.0×7.9 to 7.3×9.6 mm., young male 3.6×4.3 , young female 4.6×6.0 mm.

Habitat.—Mud; sand, mud, and crushed shell; mangrove leaves, mud, and shells.

Color in Life.—Not noted.

Remarks.—As characteristic of mud bottoms as the following *Speocarcinus californiensis*, and occurring in the same dredge haul with it at Golfito, *S. granulimanus* may now be recorded from El Salvador and Costa Rica, a southward range extension from the Gulf of California.

Speocarcinus californiensis (Lockington)

Eucrate? californiensis Lockington, 1877a, p. 33.

Speocarcinus californiensis, Rathbun, 1904a, p. 190, pl. 9, fig. 1; 1918, p. 42, text-fig. 16, pl. 10, figs. 2, 3. Schmitt, 1921, p. 249, text-fig. 148.

Range.—San Pedro to San Diego, California. (Rathbun, 1918). Also Gulf of California, without specific locality. (Glassell, 1934).

Material Examined.—12 specimens from 3 stations:

Costa Rica

Port Parker, January 20, 1938, Station 203, D-1 to D-3, 10-15 fathoms, 1 male.

Port Culebra, January 30, 1938, Station 206, D-2, D-3, 14 fathoms, 1 male, 4 females (1 ovigerous).

Golfito, Gulf of Dulce, March 9, 1938, Station 218, D-8, 6 fathoms, 4 males, 1 female, 1 young.

Measurements.—Males from 3.9×5.1 to 5.8×7.6 mm., females from 4.1×5.3 to 5.6×7.2 mm., the latter ovigerous, young from 2.3×2.8 mm.

Habitat.—Sandy mud, crushed shell; mangrove leaves, mud, and shell.

Color in Life.—Not noted.

Breeding.—Costa Rica in late January.

Remarks.—Like the preceding *Speocarcinus granulimanus*, *S. californiensis* may now be recorded from Costa Rica, although not from El Salvador, a range extension southward from the Gulf of California, locality uncertain.

Speocarcinus ostreaticola Rathbun

Speocarcinus ostreaticola Rathbun, 1910, p. 545, pl. 48, fig. 2; 1918, p. 41, pl. 10, fig. 1.

Range.—Known only from the type locality, Matapalo (near Capon), Peru, where it occurs in oyster beds. (Rathbun, 1910).

Material Examined.—95 specimens from four localities:

Nicaragua

Monypenny Point, Gulf of Fonseca, December 24, 1937, Station 199, D-2, D-6, 4-5 fathoms, 2 males.

El Salvador

La Unión, Gulf of Fonseca, December 27, 1937, Station 199, D-14, 5 fathoms, 1 male, 1 female.

Panama

Bahia Honda, March 16, 1938, no station number, depth not given, 14 males.

Bella Vista, Panama City, date not given, 75 males, 4 females.

Measurements.—Males from 7.3×10.0 to 16.0×24.6 mm., females from 6.8×9.3 to 9.2×13.0 mm.

Habitat.—Mud.

Color in Life.—Not noted.

Remarks.—In view of the exceeding abundance of this species, both at Bahia Honda and Bella Vista, Panama (where males predominated over females, however), it is difficult to see how it has remained a rarity in collections. Known only from Peru, and from the unique type specimen, at least insofar as recorded in the literature, *Speocarcinus ostreaticola* may now be said to occur off Central America as far north as Nicaragua. Specimens show great difference as to the amount of pubescence on the carapace, some being entirely bare, others almost "furry." The interspace between the first and second anterolateral teeth is more U-shaped than V-shaped.

Chasmocarcinus latipes Rathbun

Chasmocarcinus latipes Rathbun, 1898, p. 602, pl. 43, fig. 5; 1918, p. 57, text-figs. 25, 26. Crane, 1937, p. 75. Garth, 1948, p. 52.

Chasmocarcinus ferrugineus Glassell, 1936, p. 216. Crane, 1937, p. 75, pl. 7, fig. 24.

Range.—From Cedros Island, Lower California, and Arena Bank, Gulf of California, Mexico, to off Esmeraldas, Ecuador. 20-51 fathoms. (Garth, 1948).

Material Examined.—22 specimens from 5 stations:

El Salvador

La Libertad, December 16, 1937, Station 198, D-1 or D-2, 13-14 fathoms, 1 male, 1 female.

Meanguera Island, Gulf of Fonseca, December 23, 1937, Station 199, D-1, 16 fathoms, 3 males, 5 females.

Costa Rica

Off Ballenas Bay, February 25, 1938, Station 213, D-12, D-16, 35-45 fathoms, 1 male, 1 female.

14 mi. S × E of Judas Point, March 1, 1938, Station 214, D-2, D-3, 43-50 fathoms, 5 males, 4 females.

Panama

Gulf of Chiriqui, March 13, 1938, Station 221, D-4, 38 fathoms, 1 female.

Measurements.—Males from 4.0×5.6 to 9.1×12.2 mm., females from 4.2×5.8 to 8.6×12.0 mm. A larger female, crushed, could not be measured.

Habitat.—Mud, sand, mud and crushed shell; sandy mud.

Color in Life.—Carapace and chelipeds grayish-white; center of carapace pink; basal segments of all specimens brown. Pubescence brown. (Crane, 1937, of Gulf of California specimens).

Remarks.—Specimens of the reddish-brown color associated with *Chasmocarcinus ferrugineus* Glassell occur with normally colored individuals at Judas Point, thus supporting the synonymy given above. The ruddy color is due to a reddish mud. It is noteworthy that all *Chasmocarcinus* collected by the "Zaca" were *C. latipes*, and that none were *C. longipes* Garth (1940), which has as its range the Panama Bight, from Secas Islands, Panama, to La Plata Island, Ecuador. The equal and similar chelae of the large male from Judas Point serve to distinguish *C. latipes* from *C. longipes*, the chelae of which are unequal and dissimilar.

Hexapus williamsi Glassell

Hexapus williamsi Glassell, 1938, p. 445, pl. 35, figs. 1-4.

Range.—Known only from the type locality, San José, Guatemala.

Material Examined.—7 mi. W of Champerico, Guatemala, December 15, 1937, Station 197, D-2, 14 fathoms, 1 ovigerous female.

Measurements.—Female specimen, length 9.7 mm., width 15.5 mm.

Habitat.—Mud.

Color in Life.—Not noted.

Breeding.—Guatemala in mid-December.

Remarks.—Named for M. Woodbridge Williams and described under the title "New and obscure Decapod Crustacea from the west American coasts," the species has not been taken again since its discovery in April, 1937, by the "Stranger" of Capt. Fred E. Lewis. The "Zaca" specimen is therefore the first since the type,

and the only female, the holotype being a male. A slight extension of range can be reported, since Champerico is about 75 miles north and west of San José, Guatemala.

Family CYMOPOLIIDAE

Cymopolia lucasii (Rathbun)

Palicus lucasii Rathbun, 1898, p. 600, pl. 43, fig. 2. *Cymopolia lucasii*, Rathbun, 1918, p. 193, text-fig. 119, pl. 44, figs. 1, 2; Crane, 1937, p. 76. Garth, 1946, p. 500, pl. 87, fig. 1.

Range.—From Arena Bank, Gulf of California, to Cape San Lucas, Lower California, Mexico. Galapagos Islands. 5-60 fathoms. (Garth, 1946).

Material Examined.—2 specimens from 1 station:

Mexico

Sulphur Bay, Clarion Island, May 11, 1936, Station 163, D-1, 20 fathoms, 1 male, crushed. 3 mi. off Pyramid Rock, Clarion Island, May 12, 1936, Station 163, D-2, 55 fathoms, 1 male.

Measurements.—Males 5.2×6.0 and 11.9×13.4 mm.

Habitat.—At Arena and Gorda Banks on muddy and sandy bottoms. (Crane, 1937).

Remarks.—*Cymopolia lucasii* is now recorded from Clarion Island, an intermediate locality between Cape San Lucas and the Galapagos Islands.

LITERATURE CITED

BEEBE, W.

1942. Book of Bays. Pp. (xviii) 302. Harcourt, Brace and Co., New York.

BENEDICT, J. E., & MARY J. RATHBUN

1891. The genus *Panopeus*. Proc. U. S. Nat. Mus., vol. 14, pp. 355-385, pls. 19-24.

BOONE, LEE

1927. The littoral crustacean fauna of the Galapagos Islands. Part I: Brachyura. Zoologica, vol. 8, no. 4, pp. 127-288, text-figs. 34-102.

1930. Scientific results of the cruises of the yachts "Eagle" and "Ara," 1921-1928, William K. Vanderbilt, commanding. Crustacea: Stomatopoda and Brachyura. Bull. Vanderbilt Mar. Mus., vol. 2, pp. 1-228, pls. 1-74.

BOTT, R.

1955. Dekapoden (Crustacea) aus El Salvador. 2. Litorale Dekapoden, ausser *Uca*. Senckenbergiana, Biologica, vol. 36, pp. 45-70, pls. 3-8, text-figs. 1-7.

BUIJTENDIJK, ALIDA M.

1950. Note on a collection of Decapoda Brachyura from the coasts of Mexico, including the description of a new genus and species. *Zool. Mededel. Rijksmus. Natuur. Hist. Leiden*, vol. 30, no. 17, pp. 269-282, pl. 10, text-fig. 1.

COVENTRY, G. A.

1944. Results of the Fifth George Vanderbilt Expedition (1941). (Bahamas, Caribbean Sea, Panama, Galapagos Archipelago and Mexican Pacific Islands). *The Crustacea. Monog. 6, Acad. Nat. Sci. Philadelphia*, pp. 531-544.

CRANE, JOCELYN

1937. The Templeton Crocker Expedition. III. Brachygnathous crabs from the Gulf of California and the west coast of Lower California. *Zoologica*, vol. 22, pp. 47-78, pls. 1-8.
1947. Intertidal brachygnathous crabs from the west coast of tropical America with special reference to ecology. *Zoologica*, vol. 32, pp. 69-95, text-figs. 1-3.

FAXON, W.

1893. Reports on the dredging operations off the west coast of Central America to the Galapagos, to the west coast of Mexico, and in the Gulf of California . . . by the U. S. Fish Commission steamer "Albatross," during 1891 . . . VI. Preliminary descriptions of new species of Crustacea. *Bull. Mus. Compar. Zool. Harvard*, vol. 24, pp. 149-220.
1895. Reports on an exploration off the west coasts of Mexico, Central and South America, and off the Galapagos Islands . . . by the U. S. Fish Commission steamer "Albatross," during 1891 . . . XV. The stalk-eyed Crustacea. *Mem. Mus. Compar. Zool. Harvard*, vol. 18, pp. 1-292, pls. A-K, 1-56.

FINNEGAN, SUSAN

1931. Report on the Brachyura collected in Central America, the Gorgona and Galapagos Islands, by Dr. Crossland on the "St. George" Expedition to the Pacific, 1924-25. *Jour. Linn. Soc. London, Zool.*, vol. 37, pp. 607-673, text-figs. 1-6.

GARTH, J. S.

1940. Some new species of brachyuran crabs from Mexico and the Central and South American mainland. *Allan Hancock Pacific Exped.*, vol. 5, no. 3, pp. 53-127, pls. 11-26.
1946. Littoral brachyuran fauna of the Galapagos Archipelago. *Allan Hancock Pacific Exped.*, vol. 5, no. 10, pp. (iv) 341-601, pls. 49-87, text-fig. 1.

1948. The Brachyura of the "Askoy" Expedition with remarks on carcinological collecting in the Panama Bight. *Bull. Amer. Mus. Nat. Hist.*, vol. 92, art. 1, pp. 1-66, pls. 1-8, text-figs. 1-5.

1957. Reports of the Lund University Chile Expedition 1948-1949. No. 29. *The Crustacea Decapoda Brachyura of Chile. Lunds Univ. Årsskr.*, n.s., Avd. 2, vol. 53, no. 7, pp. 1-127, pls. 1-4, text-figs. 1-11.

1958. Brachyura of the Pacific coast of America. *Oxyrhyncha. Allan Hancock Pacific Exped.*, vol. 21, pp. (vi) 859, pls. A-Z, Z₁-Z₄, 1-55, text-figs. 1-10. In 2 parts.

1959. Eastern Pacific Expeditions of the New York Zoological Society. XLIV. Non-intertidal brachygnathous crabs from the west coast of tropical America. Part 1: *Brachygnatha Oxyrhyncha. Zoologica*, vol. 44, pt. 3, pp. 105-126, pl. 1, text-figs. 1, 2.

GERSTAECKER, C. E. A.

1857. *Carcinologische Beiträge. Arch. f. Naturgesch.*, vol. 22, pt. 1, pp. 101-162, pls. 4-6.

GLASSELL, S. A.

1934. Some corrections needed in recent carcinological literature. *Trans. San Diego Soc. Nat. Hist.*, vol. 7, pp. 453-454.

1935. New or little known crabs from the Pacific coast of northern Mexico. *Trans. San Diego Soc. Nat. Hist.*, vol. 8, pp. 91-106, pls. 9-16.

1936. The Templeton Crocker Expedition. I. Six new brachyuran crabs from the Gulf of California. *Zoologica*, vol. 21, pp. 213-218.

1938. New and obscure decapod Crustacea from the west American coasts. *Trans. San Diego Soc. Nat. Hist.*, vol. 8, pp. 411-453, pls. 27-36.

HOLTHUIS, L. B.

1954. On a collection of decapod Crustacea from the republic of El Salvador (Central America). *Zool. Verhand. Rijksmus. Natuur. Hist. Leiden*, no. 23, pp. 1-43, pls. 1-2, text-figs. 1-15.

LAMARCK, J. B. P. A. DE M. DE

1818. *Histoire naturelle des animaux sans vertèbres. 1st ed.*, vol. 5, pp. 612. Paris.

LOCKINGTON, W. N.

- 1877a. Remarks on the Crustacea of the Pacific coast, with descriptions of some new species. *Proc. Calif. Acad. Sci.*, vol. 7, pp. 28-36.

- 1877b. Remarks on the Crustacea of the west coast of North America, with a catalogue of the species in the museum of the California Academy of Sciences. *Proc. Calif. Acad. Sci.*, vol. 7, pp. 94-108.

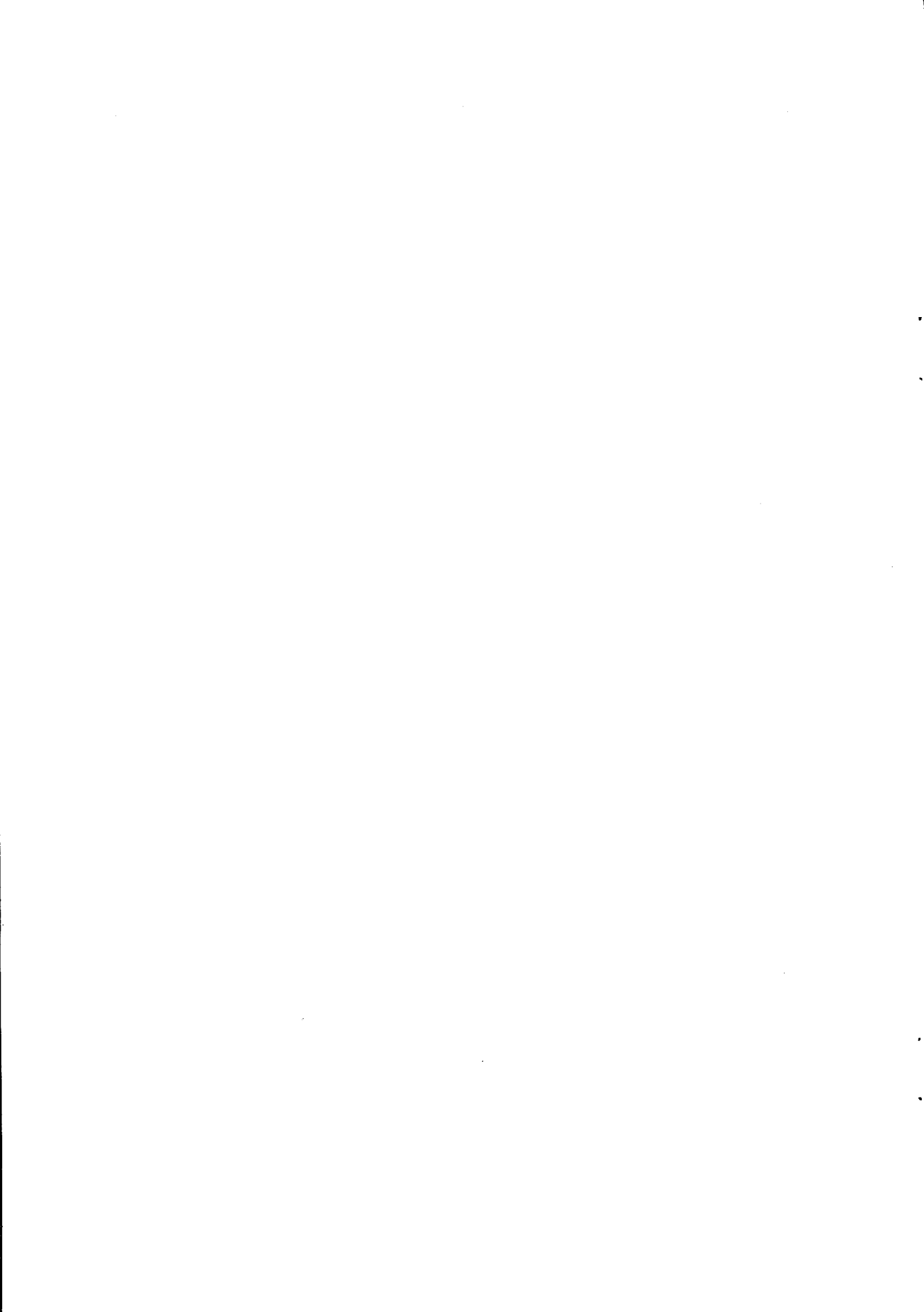
- MENZIES, R. J.
1948. A revision of the brachyuran genus *Lophopanopeus*. Allan Hancock Found. Pubs., Occas. Paper No. 4, pp. 1-45, pls. 1-6.
- MIERS, E. J.
1886. Report on the Brachyura collected by H. M. S. Challenger during the years 1873-1876. Rpt. Zool. Challenger Exped., vol. 17, pp. (1) 362, pls. 1-29. London, Edinburgh & Dublin.
- MILNE EDWARDS, A.
1861. Études zoologiques sur les crustacés récents de la famille des portuniens. Arch. Mus. Hist. Nat. Paris, vol. 10, pp. 309-428, pls. 28-38.
1874. [No title.] In Fisher, P., L. de Folin, and L. Périer, Les fonds de la mer. Paris, vol. 2.
1873-1880. Études sur les xiphosures et les crustacés de la région mexicaine. Mission Scientifique au Mexique et dans l'Amérique centrale, pt. 5, pp. 368, pls. 1-61. Paris.
- ODHNER, T.
1925. Monographierte Gattungen der Krabbenfamilie Xanthidae. Goteborg's K. Vet. Handl., Fjärde Följden, vol. 29, no. 1, pp. 1-92, pls. 1-5, text-figs. 1-7.
- ORDWAY, A.
1863. Monograph of the genus *Callinectes*. Boston Jour. Nat. Hist., vol. 7, no. 4, pp. 567-583.
- RATHBUN, MARY J.
1893. Scientific results of explorations by the U. S. Fish Commission steamer Albatross. XXIV. Descriptions of new genera and species of crabs from the west coast of North America and the Sandwich Islands. Proc. U. S. Natl. Mus., vol. 16, pp. 223-260.
1898. The Brachyura collected by the U. S. Fish Commission steamer Albatross on the voyage from Norfolk, Virginia, to San Francisco, California, 1887-1888. Proc. U. S. Natl. Mus., vol. 21, pp. 567-616, pls. 41-44.
1902. Papers from the Hopkins-Stanford Expedition, 1898-1899. VIII. Brachyura and Macrura. Proc. Washington Acad. Sci., vol. 4, pp. 275-292, pl. 12.
1904a. Decapod crustaceans of the northwest coast of North America. Harriman Alaska Expedition, vol. 10, Crustaceans, pp. 210, pls. 1-10, text-figs. 1-95. Washington.
1904b. Descriptions of three new species of American crabs. Proc. Biol. Soc. Washington, vol. 17, pp. 161-162.
1906. Descriptions of three new mangrove crabs from Costa Rica. Proc. Biol. Soc. Washington, vol. 19, pp. 99-100.
1910. The stalk-eyed Crustacea of Peru and the adjacent coast. Proc. U. S. Natl. Mus., vol. 38, pp. 531-620, pls. 36-56.
1914. New genera and species of American brachyrynchous crabs. Proc. U. S. Natl. Mus., vol. 47, pp. 117-129, pls. 1-10.
1918. The grapsoid crabs of America. Bull. U. S. Natl. Mus., no. 97, pp. 1-461, pls. 1-161, text-figs. 1-172.
1923. Scientific results of the expedition to the Gulf of California . . . by the U. S. Fisheries steamship "Albatross," in 1911 . . . XIII. The brachyuran crabs collected by the U. S. Fisheries steamer "Albatross" in 1911, chiefly on the west coast of Mexico. Bull. Amer. Mus. Nat. Hist., vol. 48, pp. 619-637, pls. 26-36, text-figs. 1-7.
1930. The Cancroid crabs of America of the families Eurypidae, Portunidae, Atelecyclidae, Cancridae, and Xanthidae. Bull. U. S. Natl. Mus., no. 152, pp. 1-609, pls. 1-230, text-figs. 1-85.
1935. Preliminary descriptions of six new species of crabs from the Pacific coast of America. Proc. Biol. Soc. Washington, vol. 48, pp. 49-52.
- SCHMITT, W. L.
1921. The marine decapod Crustacea of California. Univ. California Pubs. Zool., vol. 23, pp. 470, pls. 1-50, text-figs. 1-164.
- SIVERTSEN, E.
1933. The Norwegian Zoological Expedition to the Galapagos Islands 1925, conducted by Alf Wollebaek. VII. Littoral Crustacea Decapoda from the Galapagos Islands. Oslo Zool. Meddel. no. 38, pp. 1-23, pls. 1-4.
- SMITH, S. I.
1869. Notes on new or little-known species of American Cancroid Crustacea. Proc. Boston Soc. Nat. Hist., vol. 12, pp. 274-289.
1870. Notes on American Crustacea. No. 1. Ocyropoidea. Trans. Connecticut Acad. Arts Sci., vol. 2, pp. 113-176.
- STIMPSON, W.
1858. Prodrômus descriptionis animalium evertebratorum quae in Expeditione ad Oceanum Pacificum Septentrionalem, a Republica Federata missa, Cadwaladaro Ringgold et Johanne Rodgers ducibus, observavit et descripsit. Pars. IV. Crustacea Cancroidea et Crystoidea. Proc. Acad. Nat. Sci. Philadelphia, vol. 10, pp. 31-40.
1859. Notes on North American Crustacea, No. 1. Ann. Lyceum Nat. Hist. New York, vol. 7, pp. 49-93, pl. 1.
1860. Notes on North American Crustacea, in the Museum of the Smithsonian Institution. No. II. Ann. Lyceum Nat. Hist. New York, vol. 7, pp. 176-246, pls. 2, 5.
1871. Notes on North American Crustacea, in the Museum of the Smithsonian Institution. No. III. Ann. Lyceum Nat. Hist. New York, vol. 10, pp. 92-136.

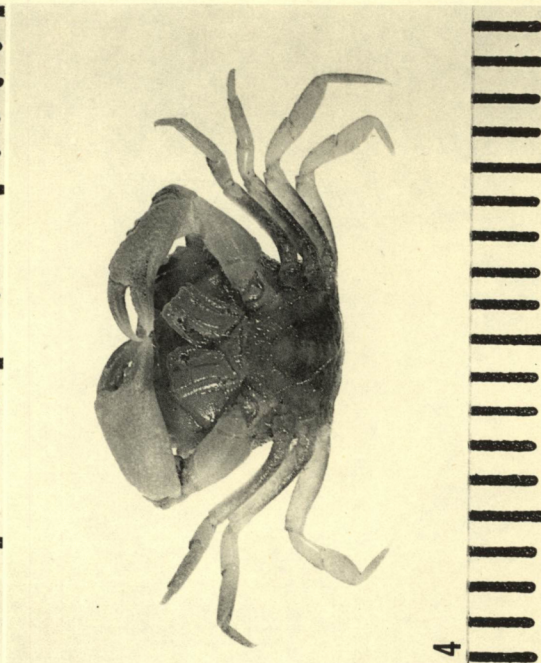
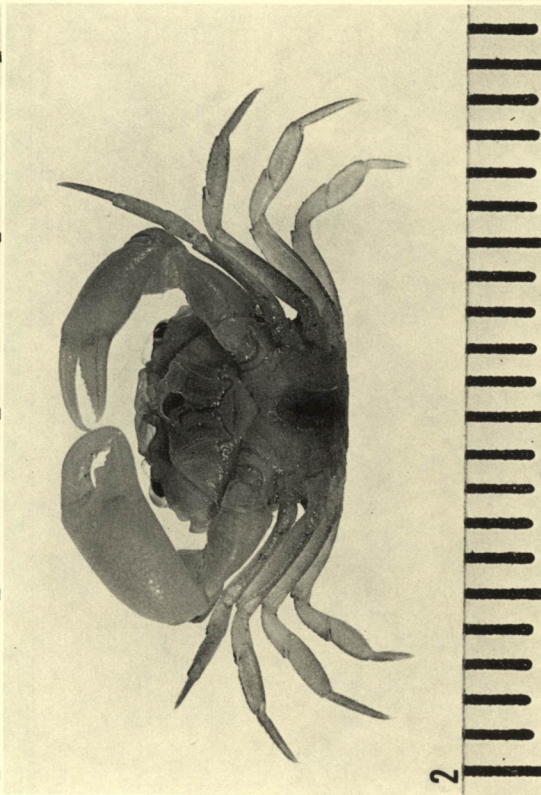
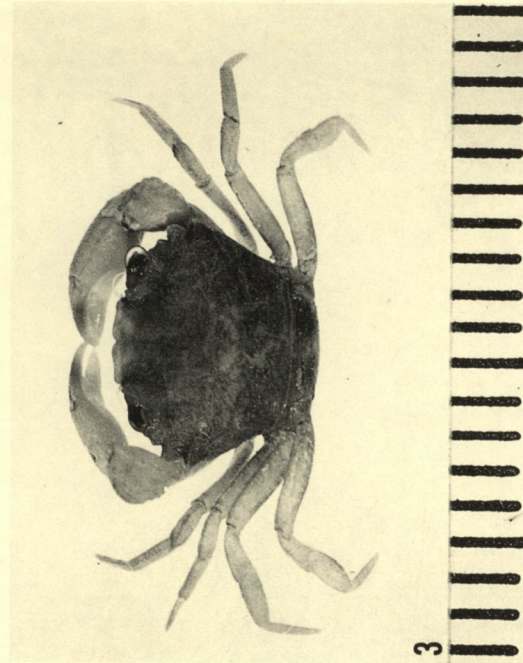
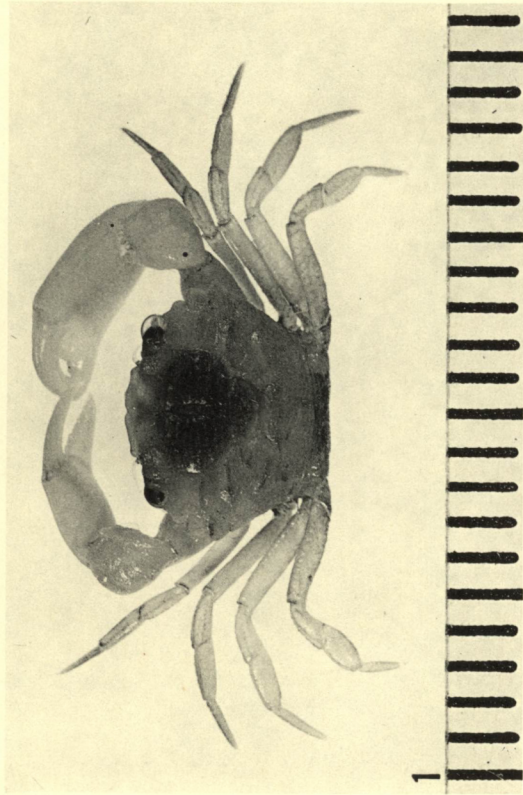
EXPLANATION OF THE PLATE

PLATE I

Hexapanopeus beebei, new species

- FIG. 1. Male holotype, dorsal view.
FIG. 2. Male holotype, ventral view.
FIG. 3. Female paratype, dorsal view.
FIG. 4. Female paratype, ventral view. (Right third walking leg of female paratype missing)





NON-INTERTIDAL BRACHYGNATHOUS CRABS FROM THE WEST COAST OF TROPICAL AMERICA

