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DESCRIPTIONS OF FIVE NEW SPECIES OF BRACHYURA COLLECTED ON THE WEST COAST OF MEXICO

BY

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INTRODUCTION

In the winter of 1931-32 it was my privilege to be a member of a party of scientists aboard the motor schooner "Petrel" during a cruise along the west coast of the peninsula of Lower California and into the Gulf of California, Mexico. As but relatively few collectors of Decapod Crustacea have had the opportunity of making large collections in this region I enjoyed rather exceptional advantages which have resulted in obtaining a large number of specimens from many different localities. One of the purposes of the cruise was to visit all of the islands in the Gulf and many of the harbors with the hope that new information on the geographic distribution of species might be obtained thereby. Although but a small amount of dredging was done, mostly in shallow water, it proved richly productive, and the results of the cruise as a whole included a large number of new locality records, some of which extended the hitherto known distribution of tropical species several hundreds of miles northward. In all, eight new species of Brachyura were discovered, of which the following five are the first ones to be published.

I am indebted to Dr. Mary J. Rathbun of the United States National Museum, for her unfailing cooperation and valued council, and for her diagnoses of several troublesome species. I am also indebted to Mr. Anker Petersen for his artistic drawings of Plates 22-26, which portray the proportions and detail with a fidelity seldom excelled.

DESCRIPTIONS OF NEW SPECIES

LEUCOSIIDAE

Ebalia magdalenensis Rathbun, n. sp.

Plate 22

Type.—Female, holotype; Cat. No. 67429, U. S. National Museum; Magdalena Bay, Marcey Channel, Lower California, Mexico, 18 fathoms; December 3, 1931; collected by Steve A. Glassell. One paratype, female, from Magdalena Bay, No. 353, collection of San Diego Society of Natural History; one paratype, female juvenile, from Magdalena Bay, in collection of Steve A. Glassell, Beverly Hills, California.

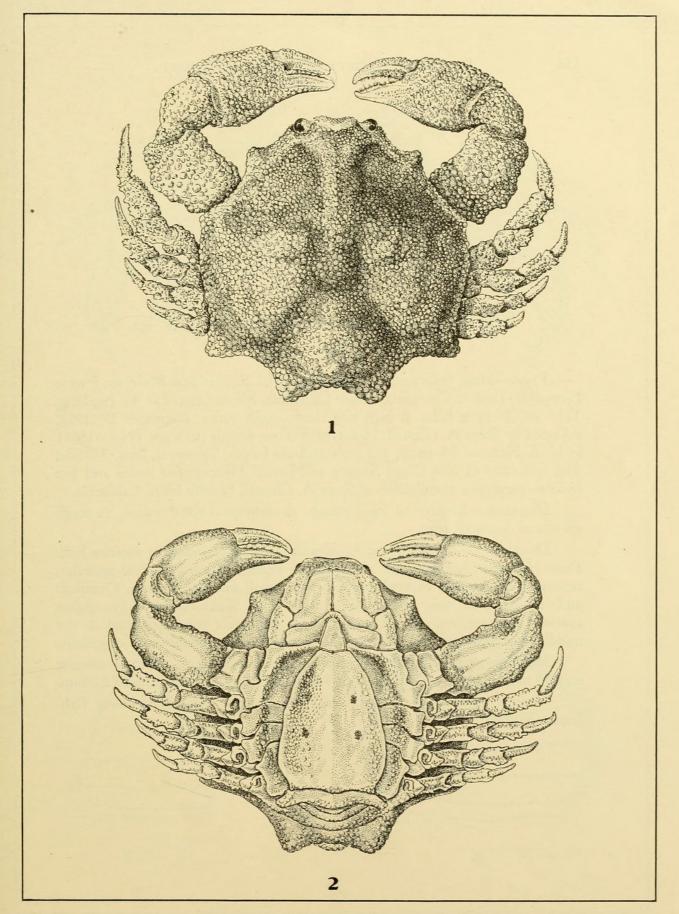
Diagnosis.—Length and breadth subequal; highest elevations of carapace in front of middle. Superior hepatic projection slight.

Description.—Carapace covered with crowded granules except on the anterior part of the median ridge. Front with 2 shallow, obtuse-angled lobes; orbits oblique, behind the front. Median carina broad and blunt, concave in profile, narrowing toward middle of carapace, indicating the mesogastric region. Hepatic prominence very slightly produced; antero-lateral cavity suboblong, granules largest in the deepest part. The highest point of the branchial region is at its inner anterior angle, from which a concave line trends toward the lateral angle of the carapace. Behind this, the surface is convex and uneven, showing 2 low elevations. A rightangled tooth at postero-lateral angle. A deep furrow either side of the cardiac region which is surmounted by a blunt lobe. Intestinal lobes broad, rectangular, blunt. Subhepatic prominence prominent, projecting downward and forward, tip lobitorm. Chelipeds granulate, coarser on merus, becoming finer toward fingers; a few lobes on posterior margin of merus, manus coarsely granulate above, fingers slender, hairy on prehensile edge. Ambulatory legs tuberculate, one row of tubercles on merus, 2 rows above on carpus and propodus, 1 row below on propodus.

Color.—Preserved specimens show 4 red dots in a square on the female abdomen, and red color on distal half of fingers.

Measurements.—Holotype: Length of carapace on median line 11 mm., length to tip of intestinal lobe 11.7 mm., width 11.3 mm.

Material examined.—3 specimens from Magdalena Bay, Lower California, Mexico; 1 specimen, female juvenile, from Concepción Bay, Gulf of California, Lower California, Mexico, 15 fathoms, January 19, 1932.



Ebalia magdalenensis Rathbun, n. sp. (x5) Fig. 1. Female holotype, dorsal view.

Fig. 2. Same specimen, ventral view.

GRAPSIDAE

Cyclograpsus escondidensis Rathbun, n. sp.

Plate 23

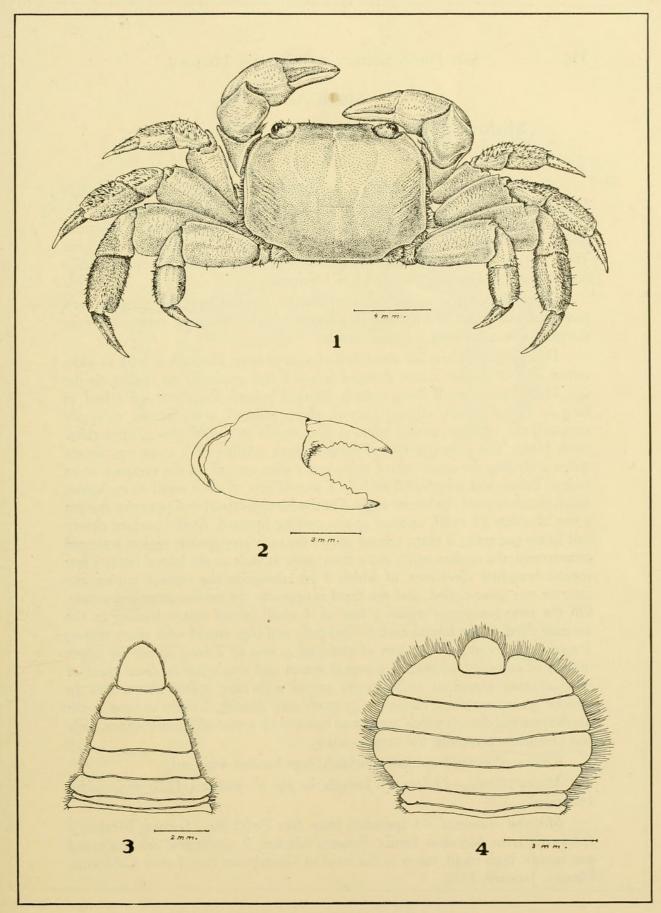
Type.—Male, holotype; Cat. No. 65863, U. S. National Museum; Puerto Escondido, Gulf of California, Lower California, Mexico (lat. 25° 48' N., long. 111° 18' W.), in holes at high tide mark, under rocks; December 19, 1931; collected by Steve A. Glassell. Holotype and one female paratype (No. 65864) in U. S. National Museum; one male and one female, paratypes, Nos. 348 and 349, collection of San Diego Society of Natural History; five males and five females, paratypes, in collection of Steve A. Glassell, Beverly Hills, California.

Diagnosis.—Surface of front rough. A deep postorbital sulcus. A tooth on merus joints of legs.

Description.—Length about $\frac{3}{4}$ of width. Carapace widest in anterior half. Front deflexed. Anterior and antero-lateral regions rough with fine granules; remainder of carapace covered unevenly with small unequal punctae. Chelipeds and legs hairy at base, distal half of legs hairy. Wrists rough above, palms coarsely punctate, each finger with a large prehensile tooth proximal to the middle. Merus of legs widening distally, granulate, subterminal tooth very short.

Measurements.—Holotype: Length of carapace 7.8 mm., width of anterior half 10 mm. Largest paratype, length 9.8 mm., width on anterior half 12.2 mm.

Material examined.—14 specimens from Puerto Escondido, Lower California, Mexico. GLASSELL-FIVE NEW BRACHYURA



Cyclograpsus escondidensis Rathbun, n. sp.

- Fig. 1. Male holotype, dorsal view.Fig. 2. Male holotype, right chela.Fig. 3. Male holotype, abdomen.Fig. 4. Female paratype, abdomen.

MAJIDAE

Mithrax (Mithrax) sonorensis Rathbun, n. sp.

Plate 24

Type.—Female, holotype; Cat. No. 65865, U. S. National Museum; San Pedro Bay, Sonora, Mexico, among rocks and weed at low tide; December 25, 1931; collected by Steve A. Glassell. Two males (1 juv.) collected at Miramar Beach, near Guaymas, Sonora, Mexico, December 23, 1931, paratypes, one (No. 350) in collection of San Diego Society of Natural History, one in collection of Steve A. Glassell, Beverly Hills, California.

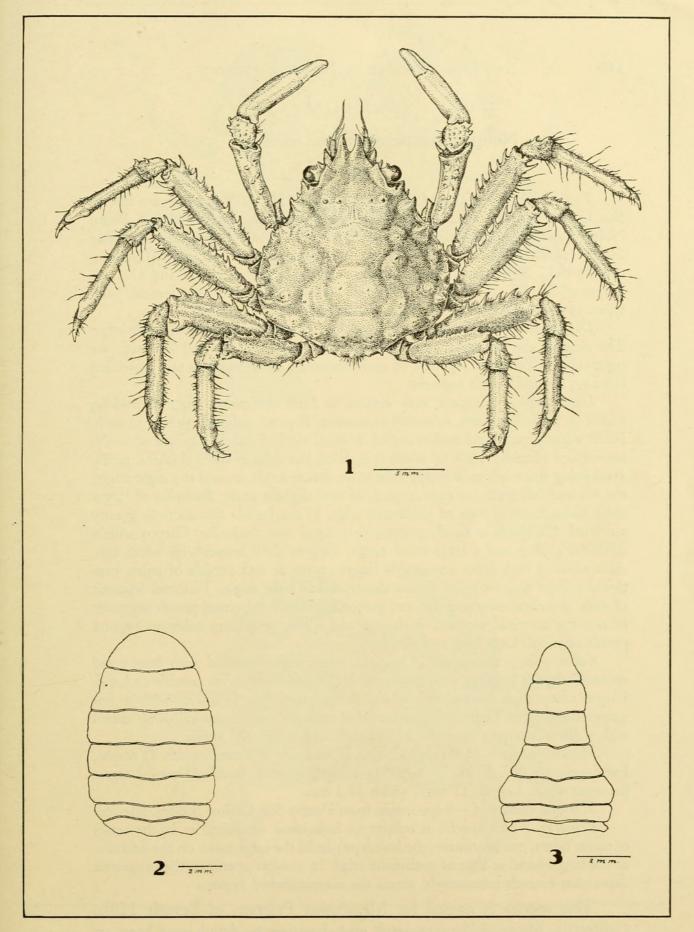
Diagnosis.—Carapace without lateral angle. One supraorbital spine between preorbital and postorbital spines. Two lateral rows of spines on carapace. Three marginal spines on basal antennal article.

Description.-Carapace about 5/6 as wide as long. Rostrum as long as wide, armed with 2 slender spines directed forward and gradually narrowing to the tips which have a small sharp spinule directed inward. Preorbital spine half as long as rostral spines, slightly curved, sharp pointed, and directed obliquely outward; the adjacent orbital spine is also visible in dorsal view. Supraorbital tooth blunt. The principal row of lateral spines consists of 5 stout equidistant spines including the outer orbital spine and curves inward on the carapace at its widest. Below and subparallel to it is a second row of very small sharp spines which trends toward the buccal angle. On the postero-lateral and posterior margin a row of about 14 small, unequal spines curving forward. Dorsal surface closely and finely punctate; 2 blunt conical spines on each protogastric region arranged transversely, the median space more than twice as wide as the lateral ones; 3 low conical branchial elevations, of which 2 are alongside the cervical suture, the anterior one spine-tipped, and the third is opposite the cardiac-intestinal suture. On the pterygostomian region a row of 4 small, sharp spines leading to the anterior third of the buccal cavity. Chelipeds and legs armed with sharp spines; 1 spine at extremity of ischium of cheliped, a row of 7 long spines on upper margin of merus, 2 additional terminal spines and one spine at distal third of lower margin; merus of ambulatories armed with long spines above, and an inferior spine near distal extremity; propodi very slender, 3 times as long as the slender, curved dactyli which are armed below with a row of minute spines. Legs and chelipeds, excepting the manus, hairy.

Color.-Preserved specimen reddish, legs banded with red.

Measurements.-Holotype: Length to tip of rostrum 17.6 mm., width 14.4 mm.

Material examined.—1 specimen from San Pedro Bay, Sonora, Mexico; 2 specimens from Miramar Beach, Sonora, Mexico; 2 specimens, one male and one female, both small, taken at the head of Concepción Bay, Lower California, Mexico, January, 1932.



Mithrax (Mithrax) sonorensis Rathbun, n. sp.

- Fig. 1. Female holotype, dorsal view.
- Fig. 2. Female holotype, abdomen.
- Fig. 3. Male paratype, abdomen.

XANTHIDAE

Neopanope peterseni Glassell, n. sp.

Plate 25

Type.—Male, holotype; Cat. No. 67478, U. S. National Museum; Puerto San Carlos, Sonora, Mexico (a small bay opposite the Island of San Pedro Nolasco, in the Gulf of California), on beach under stones at low tide; December 24, 1931; collected by Steve A. Glassell. Holotype and one paratype (Cat. No. 67479) in U. S. National Museum; two male paratypes, Nos. 351 and 352, collection of San Diego Society of Natural History; four males, one female, paratypes, in collection of Steve A. Glassell, Beverly Hills, California.

Diagnosis.—Dactylus of larger hand has a tooth at base of prehensile edge. The sides of the 3rd tooth meet at an obtuse angle; the 4th and 5th teeth are right-angled. Terminal segment of male abdomen subtriangular, not projecting sideways beyond penult segment.

Description.—Carapace very convex in both directions, high in middle, widest at posterior tooth, minutely pubescent. Regions defined, almost smooth. Front slightly produced and rounded, a small median notch. Compared to N. texana sayi (Smith) 1869, to which it is allied, the sides of the 3rd lateral tooth, (reckoning five teeth on a side), meet at an obtuse angle, in sayi at a right angle; the 4th and 5th teeth are right-angled, of sayi slightly acute. Dactylus of larger chela has a tooth at base of prehensile edge, in the female this tooth is greatly modified. Chelipeds minutely pubescent unequal and dissimilar. Carpus with a subdistal groove and a large inner tooth. Fingers dark brown with white tips, color running back from immovable finger on inside and outside of palm, continues a short way on palm, thence downward at right angle. Terminal segment of male abdomen subtriangular, not projecting sideways beyond penult segment; in sayi the terminal segment is shorter and wider, projecting sideways beyond penult segment. Legs long and slender.

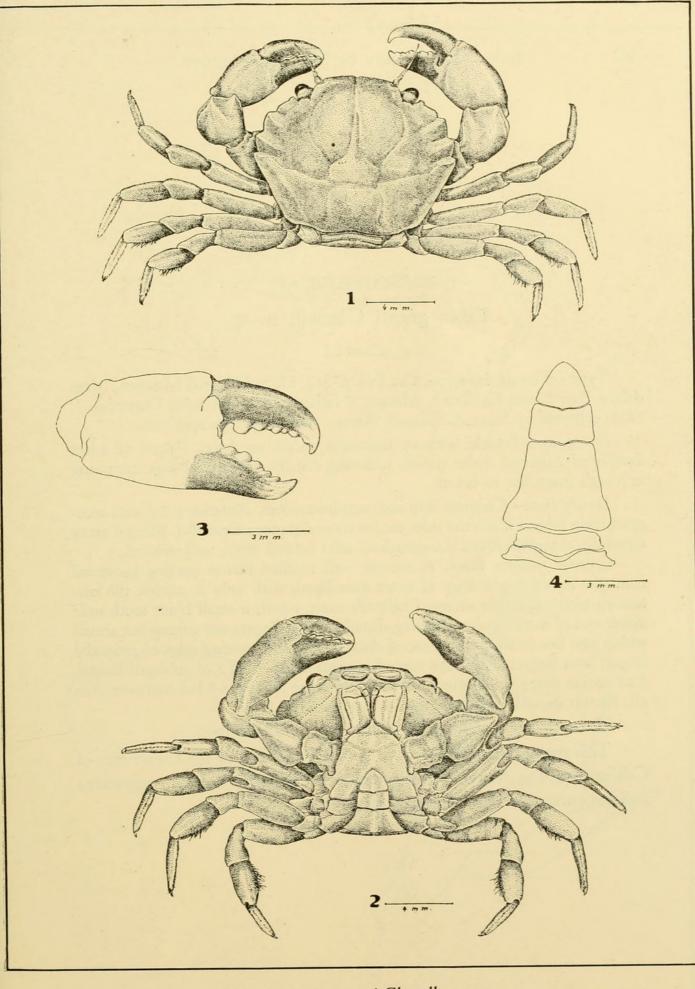
Color.—In preservatives: Carapace cream color mottled with bright red spots. Chelipeds brighter with numerous bright red blotches on outside of hand. Fingers deep dark brown, tips white. Ambulatory legs yellowish with a few scattered red spots. General appearance dull orange. Ventral side yellowish cream with a few scattered red spots. Maxillipeds with small red spots.

Measurements.—Holotype: Length of carapace 9.2 mm., width 11.8 mm. Paratype male (U. S. N. M. 67479): Length 10 mm., width 13 mm. Largest paratype male: Length 11 mm., width 15.2 mm.

Material examined .- 9 specimens from Puerto San Carlos, Sonora, Mexico.

Remarks.—This species is subject to individual variation, as in the series of males taken, one specimen (the holotype) lacks the large tooth on the dactylus of the larger hand at base of prehensile edge. In another specimen the urogastric depression extends transversely across the mesobranchial regions.

This species is named for Mr. Anker Petersen of Beverly Hills, California, whose skill as an artist and devotion to detail have been an inspiration to me.



Neopanope peterseni Glassell, n. sp.

- Fig. 1.
- Fig. 2.
- Male holotype, dorsal view. Male holotype, large chela. Male holotype, abdomen. Male holotype, ventral view. Fig. 3. Fig. 4.

PINNOTHERIDAE

Fabia granti Glassell, n. sp.

Plate 26

Type.—Female, holotype; Cat. No. 67512, U. S. National Museum; Magdalena Bay, Lower California, Mexico, 7 fathoms, in worm tube; December 1, 1931; collected by Steve A. Glassell. Known only from type specimen.

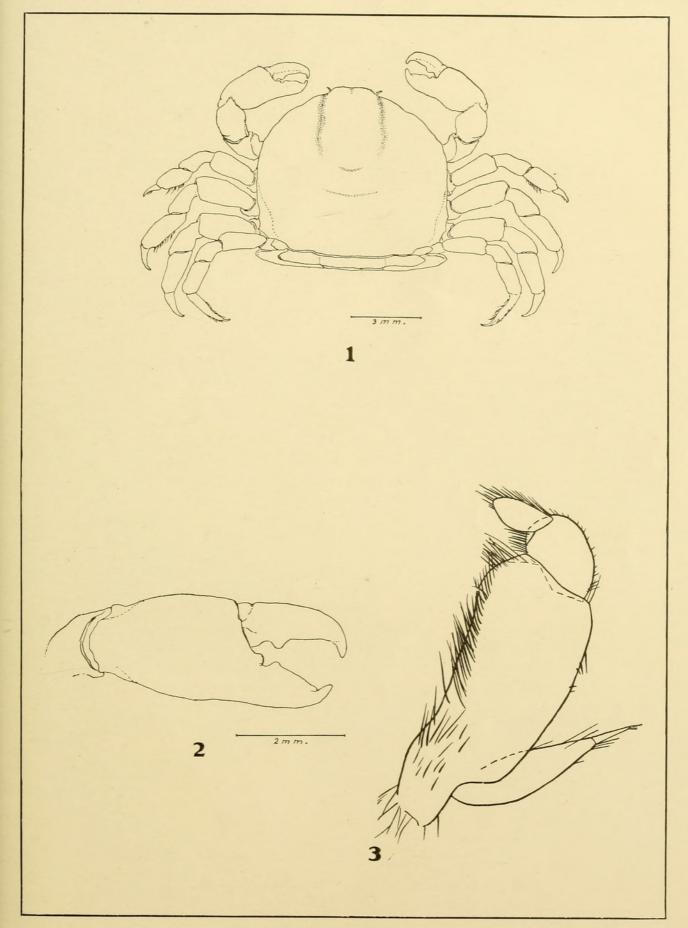
Diagnosis.—Female, without transverse sulcus on front. Palpus of outer maxilliped 2-jointed. Palm naked, widening distally. Dactyls of legs increasing in length from first to fourth.

Description.—Carapace thin and membranaceous. Anterior third with arcuate margin behind which the sides are for some distance subparallel. Margin acute especially along the front. Longitudinal sulci behind orbits well marked.

Corneae minute, black. A narrow, well marked furrow leading backward from the buccal angle. Palp of outer maxillipeds with only 2 articles, the customary terminal article absent. Chelipeds stout, equal; a small blunt tooth near upper end of merus; palm widening distally, thick; fingers not gaping but armed with a few low teeth, 2 near base of dactyl, 3 nearly covering edge of propodal finger; both fingers sharp, tips turned inward. Legs 2 and 3 of subequal length, 4 of similar shape but shorter, 1 is about the same length as 4 but narrower than all; dactyls curved, relative length 4 (longest), 3, 2, 1.

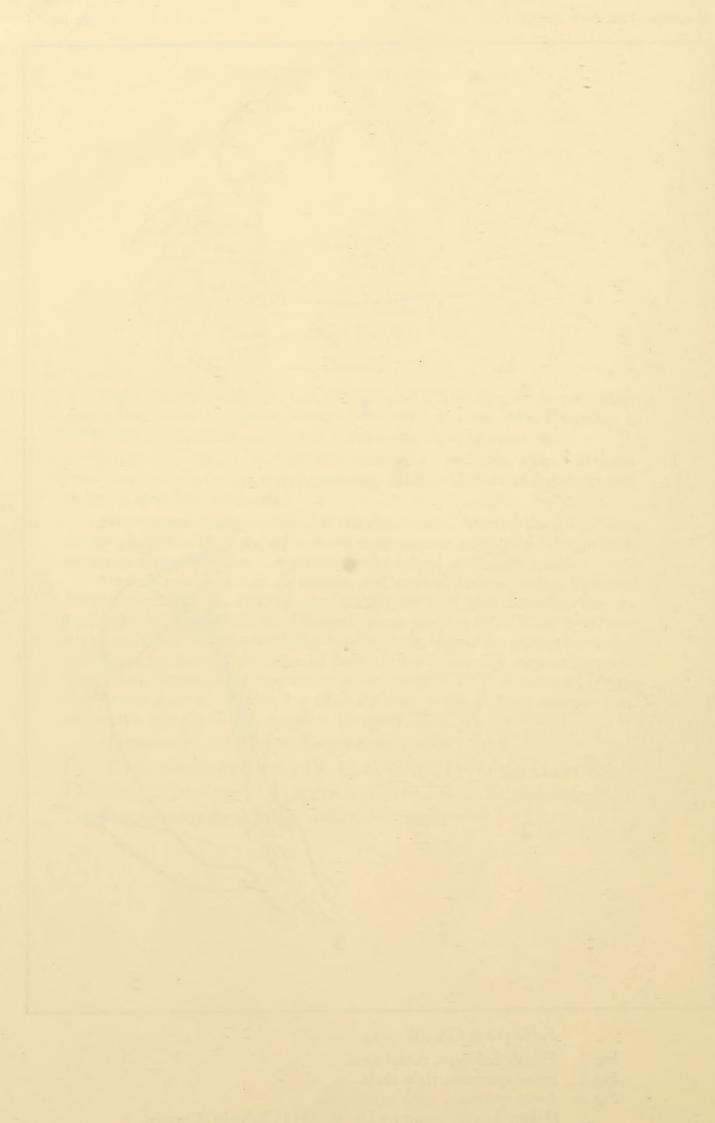
Measurements.—Holotype: Length 6 mm., width 7.5 mm.

This species is named for Dr. U. S. Grant, IV, of the University of California at Los Angeles, in appreciation of his many helpful suggestions and his encouragement to the author.



Fabia granti Glassell, n. sp.

- Fig. 1. Female holotype, dorsal view.
- Fig. 2. Same specimen, right chela.
- Fig. 3. Same specimen, outer maxilliped. (Figure 3, x19, drawn by Dr. Waldo L. Schmitt, Curator, Div. of Marine Invertebrates, U. S. Nat. Museum)





Glassell, Steve A. 1933. "Description of five new species of Brachyura collected on the west coast of Mexiico." *Transactions of the San Diego Society of Natural History* 7, 331–344.

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