Some deep-water Parthenopidae (Crustacea, Brachyura) from French Polynesia and nearby eastern Pacific Ridges and Seamounts

by John S. GARTH

Abstract. — Two new species of Parthenopidae from the eastern Central Pacific Ocean belonging to the genus *Parthenope* Weber, 1798, subgenus *Platylambrus* Stimpson, 1871, are described and illustrated. They are *P*. (*P*.) *poupini* n. sp., from Tuamotu, French Polynesia, collected by the Service Mixte de Contrôle Biologique des Armées (SMCB) trawler "Marara" in 1989-91, together with a third species referable to *P*. (*P*.) *stellata* Rathbun, 1906, and *P*. (*P*.) *allisoni* n. sp., from a Seamount, Easter Island Fracture Zone, collected by the Scripps Institution of Oceanography (SIO) Carrousel Expedition of 1964. A fourth species, described from Nazca and Sala-y-Gomez ridges as *Asterolambrus mironovi* Zarenkov, 1990, is transferred to *Parthenope (Platylambrus)*, and additional material from Shoal Guyot, collected by the SIO Downwind Expedition of 1958, is described and illustrated. Two forms of *P*. (*P*.) *stellata*, form *complanata* Rathbun, 1906, and form *lacunosa* Rathbun, 1906, are advanced to full species rank, rejecting for the latter the synonymy of SAKAI (1938).

Résumé. — Deux nouvelles espèces de Parthenopidae du Pacifique Est et Central, appartenant au genre *Parthenope* Weber, 1798, sous-genre *Platylambrus* Stimpson, 1871, sont décrites et illustrées. Il s'agit de *P*. (*P*.) poupini n. sp., de l'archipel des Tuamotu en Polynésie Française, récoltée par le Service Mixte de Contrôle Biologique des Armées (SMCB), avec le chalutier "Marara", en 1989-91, et de *P*. (*P*.) allisoni n. sp., récoltée sur un haut-fond de la zone de fracture proche de l'île de Pâques, par la Scripps Institution of Oceanography (SIO), lors de l'expédition Carrousel en 1964. Une autre espèce identifiée à *P*. (*P*.) stellata Rathbun, 1906, a également été récoltée en Polynésie française par le SMCB. Une quatrième espèce, Asterolambrus mironovi Zarenkov, 1990, décrite des rides de Nazca et Sala-y-Gomez, est transférée dans le genre Parthenope (Platylambrus); du matériel supplémentaire provenant de "Shoal Guyot", récolté par la SIO Downwind Expedition de 1958, est décrit et illustré. Deux formes de *P*. (*P*.) stellata, complanata Rathbun, 1906, et lacunosa Rathbun, 1906, sont élevées au rang d'espèces, en rejetant pour la dernière la synonymie établie par SAKAI (1938).

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INTRODUCTION

Specimens of Parthenopidae, genus *Parthenope*, trapped in deeper waters of Polynesia by the 43-meter trawler "Marara," since 1985 under the scientific command of M. Joseph Poupin, including one new species, are described and illustrated. They are part of a larger study

undertaken by the Service Mixte de Contrôle Biologique des Armées (SMCB) for the purpose of cataloguing the flora and fauna of the archipelagoes comprising French Polynesia.

Combined with the above, because of similarity of taxon and provenience, are some of the first specimens ever to have been dredged from submerged seamounts in the eastern Pacific. They were collected by the Scripps Institution of Oceanography (SIO) Downwind Expedition of 1958 at Shoal Guyot, near San Felix and San Ambrosio Islands, in 228 meters, and by the SIO Carrousel II Expedition of 1964 from an unnamed seamount near the juncture of the Easter Island Fracture Zone and Nazca Ridge, in 591 meters, all by the "Spencer Baird." One new and one previously reported species are included among them.

Abbreviations : AHF, Allan Hancock Foundation, Los Angeles ; LACM, Los Angeles County Natural History Museum, Los Angeles ; MP, Muséum national d'Histoire naturelle, Paris ; SIO, Scripps Institution of Oceanography ; USNM, The National Museum, Smithsonian Institution, Washington.

1. Parthenope (Platylambrus) poupini n. sp.

(Figs. 1, 2)

TYPE. — Male holotype, MP-B 22424, Fangataufa, Tuamotu, French Polynesia, 520/570 m, 22°11'1S, 138°45'1W, 22 June 1988, SMCB (Service Mixte de Contrôle Biologique des Armées) Station 84, J. POUPIN, collector. Female paratype, MP-B 21363, Mururoa, Tuamotu, French Polynesia, 530/630 m, 21°51'S, 138°47'W, 29 November 1988, SMCB Station 125, J. POUPIN, collector. Male paratype, MP-B 21364, Fangataufa, Tuamotu, French Polynesia, 720 m, 22°15'2S, 138°46'3W, 25 February 1989, SMCB Station 135, J. POUPIN, collector. Male paratype, MP-B 22425, Maria, Tuamotu/Actéons, French Polynesia, 670 m, 22°00'0S, 136°12'0W, 30 May 1990, SMCB Station 242, J. POUPIN, collector.

MEASUREMENTS. — Male holotype : length 28.0 mm, width 35.5 mm, length of major (right) cheliped 79.0 mm, of chela 39.6 mm, of dactyl 14.5 mm, height of palm 15.5 mm; length of minor (left) cheliped 79.0 mm, of chela 39.2 mm, of dactyl 11.7 mm, height of palm 9.9 mm. Male paratype, length 27.0 mm, width 35.3 mm; male paratype, length 29.0 mm, width 38.0 mm. Female paratype : length 19.1 mm; width 25.6 mm, length of left cheliped 45.3 mm, of chela 22.3 mm, of dactyl 7.0 mm, height of palm 5.7 mm.

ADDITIONAL MATERIAL. — Entered on verification by A. CROSNIER, letter of 22 June 1991. Female, $11.0 \times 14.1 \text{ mm}$, MP-B 22421, **Bora Bora**, Society Islands, 562 m, 16°28'37S, 151°47'52W, 23 June 1990, SMCB Station D-32, J. POUPIN, collector. Female, $19.1 \times 24.7 \text{ mm}$, USNM Cat. no. 256944, Maria, **Tubai Islands**, 710 m, 21°47'8S, 154°43'6W, 8 December 1990, SMCB Station 354, J. POUPIN, collector. Male, 22.0 \times 29.1 mm, USNM Cat. no. 256943, Mururoa, Tuamotu, 590 m, 21°51'0S, 138°47'0W, 11 March 1991, SMCB Station 386, J. POUPIN, collector. Male, 30.0 \times 40.1 mm, MP-B 22420, Fangataufa, Tuamotu, 660 m, 22°15'5S, 138°42'9W, 15 March 1991, SMCB Station 395, J. POUPIN, collector.

DIAGNOSIS. — Carapace triangular, l l/4 times broad as long, granulate, ridged, and furrowed. Front trilobate, median lobe spatulate, hepatic lobe triangular, lateral margins arcuate, tuberculate. Chelipeds massive, granulate, 3 times length of carapace, major propodus broadening distally, fingers enclosing a large gape.

DESCRIPTION

Carapace subtriangular, 1.26 times broad as long, densely granulate, thickened, and ridged, ridges separated by broad and deep furrows. Principal ridges of carapace disposed as

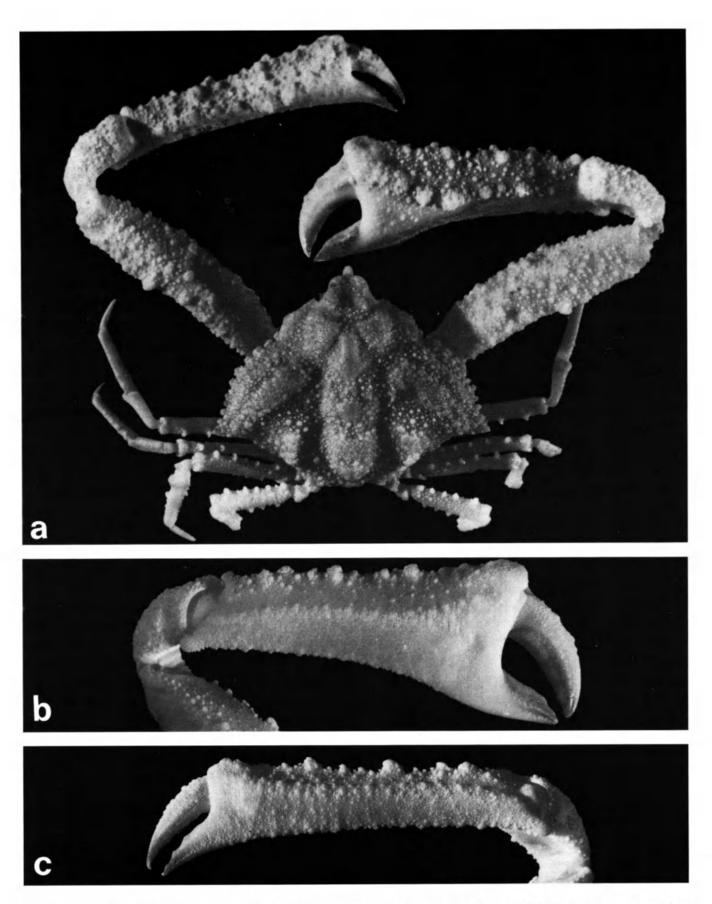


FIG. 1. — Parthenope (Platylambrus) poupini n. sp., male holotype, Fangataufa, Tuamotu (MP B-22424) : a, dorsal view ; b, right cheliped ; c, left cheliped. (Jacques REBIÈRE photographs.)

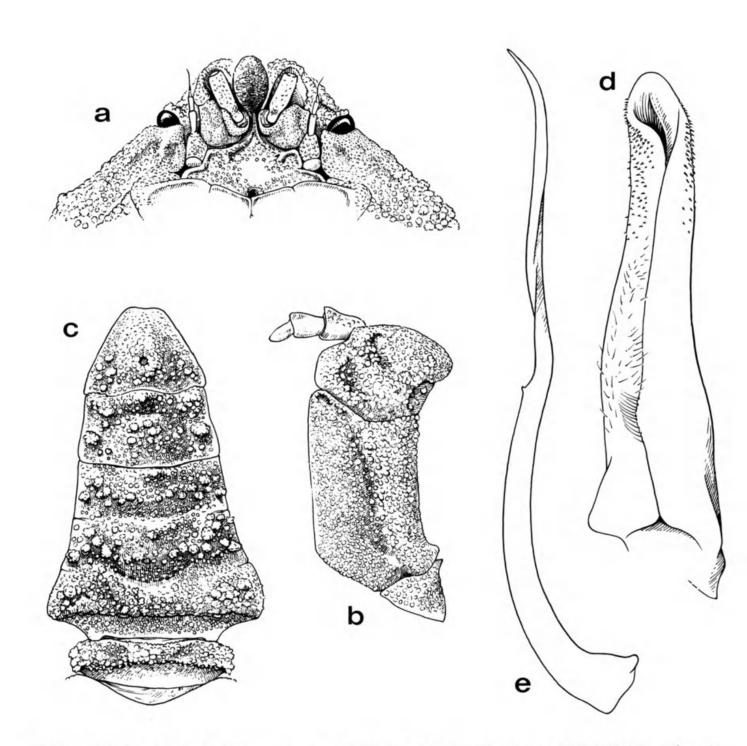


FIG. 2. — Parthenope (Platylambrus) poupini n. sp., male holotype, Fangataufa, Tuamotu (MP B-22424) : a, frontal region; b, left outer maxilliped; c, abdomen; d, first pleopod; e, second pleopod. (Maurice GAILLARD, del.)

follows : one mesogastric, one metagastric, one cardiac, one intestinal, paired protogastric, paired mesobranchial, paired metabranchial; of these the paired mesobranchial are most extensive : combined with the paired protogastric and single mesogastric giving the entire carapace a turgid appearance. Front trilobate, median lobe slender, spatulate, deflexed, lateral lobes thickened, continuous with swollen supraorbital margins. Orbits with a single V above. Hepatic region obtusely triangular, separated from anterolateral margin by a narrow V; in advance of this a mushroom tubercle. Anterolateral margins arcuate, tuberculate, tubercles 11 in number, the anterior 3 imbricate, the posterior 8 tridentate or denticulate. Carapace widest at last lateral tooth, this tooth triangular, projecting only slightly more than others. Posterolateral margin concave, slightly angled. Entire carapace densely covered with granules and granulate tubercles, those on the ridges densely packed, those in the furrows less so.

Third maxilliped granulate and tuberculate; ischium with longitudinal groove, merus with outer distal margin produced, inner margin notched to receive palpus, two depressions separated by a diagonal ridge with a tubercle at each end.

Chelipeds of equal length but unequal width, right cheliped robust, left slender in male holotype. (Right cheliped missing in the female paratype.) Chelipeds almost three times length of carapace and, like carapace, covered with granules and granulated tubercles. Merus trigonal in cross-section, arching slightly forward, a somewhat larger tubercle on outer margin of each at midpoint. Propodus of major cheliped greatly broadened distally, with several larger tubercles on upper, inner margin; palm high, fingers widely gaping; dactylus strongly downcurving, granulate basally; inner margins of dactylus and pollex coloured brown. Propodus of minor cheliped slightly broadened distally, fingers slender, pointed, inner margins sinuous, meeting without gape, tips brown.

Walking legs slender, all meri bluntly spinate above, a rounded tubercle near base of each below, meri of first two pairs otherwise smooth below, those of last two pairs tuberculate; carpi of first two pairs smooth, of last two pairs tuberculate; propodi tuberculate; dactyli smooth, nails amber. Last two segments of right legs 2-4 and of left leg 4 of male holotype lacking.

Male abdomen six-segmented, segments 2-4 fused, widest at segment 2, this segment strongly bent, narrowing gradually to segment 6, then strongly to narrowly rounded tip. All segments granulate, paired tubercles at sides of segments 2-5, a single larger tubercle on distal margin of segment 5, a tubercle-enclosed depression in middle of segment 6.

Male first pleopod stout, cylindrical, tapering gradually toward rounded tip, opening subterminal, microscopically covered with short setae and setose granules, a cluster of longer setae on basal fold enclosing second pleopod. Pleopod II longer than pleopod I, reaching middle of coxa of leg 1, slender, flagellum long, half-twisted at mid-point, corneous, tapering to acute tip.

ETYMOLOGY. — Species dedicated to Joseph POUPIN.

2. Parthenope (Platylambrus) stellata Rathbun

(Figs. 3, 4)

Parthenope (Platylambrus) stellata Rathbun, 1906 : 884 (part), pl. xv, figs. 1, 2 [not fig. 7 = P.(P.) lacunosa Rathbun, cf. infra].

MATERIAL EXAMINED. — Mururoa, Tuamotu, French Polynesia (MP B-22426), 319 m, 21°05'55S, 139°02'50W, 24 May 1990, SMCB Station D-14, J. POUPIN, collector, 2 males.

MEASUREMENTS. — Larger male, length 42.7 mm, width 62.9 mm, length of cheliped (right) 115.5 mm, (left) 115.6 mm, of chela (right) 57.7 mm, (left) 58.5 mm, of dactyl (right) 21.8 mm, (left) 16.7 mm, height of palm (right) 24.6 mm, (left) 19.7 mm. Smaller male, length 32.8 mm, width 48.7 mm. It should be noted that, while the right cheliped (major) is the more massive, the left cheliped (minor) equals or slightly exceeds it in length.

DESCRIPTION

"Carapace subtriangular, one and a half times as broad as long, a shallow post-hepatic constriction. Front narrow, tip tuberculiform. Outer angle of antennulary fossette a projecting tooth. A shallow post-hepatic constriction. Surface of carapace and chelipeds covered everywhere with flattened stellar granules, varying in size and densely placed. Branchio-cardiac and branchio-hepatic depressions not very deep. Protuberances surmounted by a tubercle disposed as follows : three gastric in a triangle base forward, two median cardiac, anterior much more prominent, two branchial, posterior on postero-lateral margin and both in line with one at end of posterior margin. A small, blunt spine near posterior end of hepatic margin. Thirteen or fourteen similar spines on antero-lateral margin of branchial region, last forming lateral angle ; near it, on transverse portion of postero-lateral margin, two or three spines".

"Chelipeds massive, in male three times as long as carapace; surface nodular, arm obscurely prismatic, margins armed with short, granulated spines, those of posterior margin larger, row continued proximally on upper surface. One chela slightly stouter than other, marginal protuberances very nodular and irregular, largest near middle of inner margin. Pollex of smaller claw entirely lacking in type..."

"Legs very rough, borders spinulous, surface sharply granulate; lower surface of all legs and upper surface of merus of first to third pairs relatively smooth. Distal two-thirds of propodus and basal half of dactylus clothed with long, coarse hair." (RATHBUN, 1906, reduced to telegraphic style.)

Male first pleopod moderately robust, slightly sinuous, tapering gradually to triangular tip, opening subterminally, sparsely setose, short setae more numerous, longer setae in patches on either side of aperture and a few at tip. Second pleopod slender, exceeding first in length, notched at mid-point; basal portion strongly curved; flagellum filiform.

DISTRIBUTION. — Known previously from the south coast of Oahu Island, 238 to 52 fathoms (435.3 to 95.1 m), and from the west coast of Hawaii Island, 198 to 147 fathoms (362.1 to 268.8 m), where it was collected by the U.S. Fish Commission Steamer "Albatross" in 1902 (RATHBUN, 1906). The range of *Parthenope (Platylambrus) stellata* has been extended from the

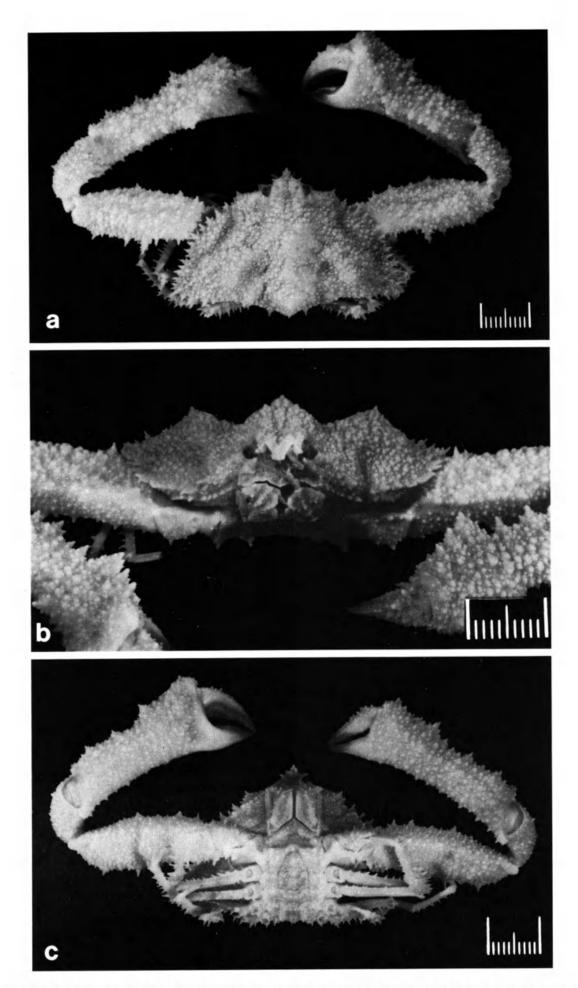


FIG. 3. — Parthenope (Platylambrus) stellata Rathbun, male, Mururoa, French Polynesia (MP B-22426) : a, dorsal view ; b, frontal view ; c, ventral view (LACM photographs).

Hawaiian Islands to Mururoa, in the Tuamotu Islands, French Polynesia, a distance of 2760 nautical miles.

RESTRICTION. — As indicated in the synonymy above, *Parthenope (Platylambrus) stellata* Rathbun (1906) is restricted to the holotype from "Albatross" Station 3811 (USNM Cat. no. 29839) and its sharp-spined variety from "Albatross" Station 4045 (USNM Cat. no. 29840), with which the Mururoa specimens more strictly agree. The balance of the series, described by RATHBUN as varietal forms of *stellata*, are here advanced to full species.

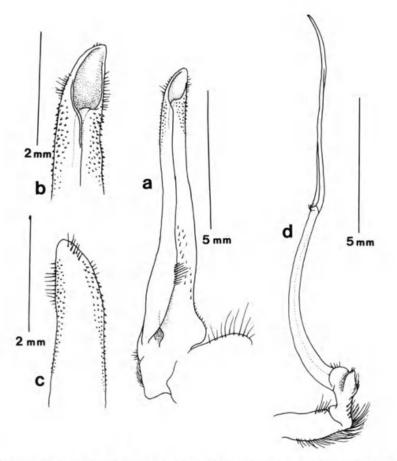


FIG. 4. — Parthenope (Platylambrus) stellata Rathbun, male, Mururoa, French Polynesia (MP B-22426) : a, b, c, first pleopod; d, second pleopod. (Joel W. MARTIN, del.)

3. Parthenope (Platylambrus) lacunosa Rathbun, n. rank

Parthenope (Platylambrus) stellata lacunosa Rathbun, 1906 : 884, pl. xv, fig. 7. Not Tutankhamen pteromerus ; SAKAI, 1938 : 339, 340 ; 1976 : 281.

MATERIAL EXAMINED. — West coast of Hawaii Island, 198 to 147 fathoms (362.1 to 268.8 m), "Albatross" Station 4045, 1 male, holotype (USNM Cat. No. 29842).

DESCRIPTION

"Branchio-cardiac depression deep, another depression running along outer side of branchial region, adjacent to marginal teeth. Elevated part of [branchial] region with a row of large pits through its middle, similar lines of pits dividing gastric region in three and roughening chelipeds. Granules largely confluent and thus obliterated, especially on higher parts of carapace and chelipeds. Legs with smooth surfaces [and] thin, cristate margins, somewhat crenate or dentate in merus and destitute of long hair." (RATHBUN, 1906 : 884, for "five of the other six specimens [that were] so different from the type [of *P. (P.) stellata*] as almost to be declared an independent species".) [The sixth was *P. (P.) complanata*.]

The synonymy of SAKAI (1938) is rejected because the holotype of P. (P.) lacunosa fails to show the deep afferent branchial channels that characterize the genus Tutankhamen Rathbun, 1925.

4. Parthenope (Platylambrus) complanata Rathbun, n. rank

Parthenope (Platylambrus) stellata complanata Rathbun, 1906 : 884.

MATERIAL EXAMINED. — Vicinity of Kauai Island, 257 to 312 fathoms (470.0 to 570.6 m), "Albatross" Station 4132, 2 male syntypes (USNM Cat. no. 29845).

DESCRIPTION

"Surface of carapace and chelipeds smooth to the naked eye; [microscopically] finely punctate and roughened; elevations low and smoothly rounded; tubercle or spine at inner third of postlateral margin represented by a triangular nodule; tubercle at each end of posterior margin large and round; anterolateral teeth broad and dentiform; no teeth or spines at outer end of postlateral margin, but a nodule on dorsal surface at this point; marginal spines of cheliped sharp; legs roughened; margins prominently spinate, without long hair". [RATHBUN (1906), modified to eliminate comparative features.]

DISTRIBUTION. — Known only from the vicinity of the Hawaiian Islands, in depths of from 257 to 312 fathoms (470.0 to 570.6 m).

REMARKS. — As noted by RATHBUN (1906), "Still a third form seems worthy of a distinguishing name, P. (P.) stellata complanata." The criteria by which she distinguished it as a subspecies of stellata are sufficiently compelling to advance complanata to species rank. Regrettably, no illustration was provided.

5. Parthenope (Platylambrus) allisoni n. sp.

(Fig. 5)

TYPE. — Male holotype, AHF no. 645, from Seamount, Easter Island Fracture Zone, 25°03'S, 97°29'W, Carrousel Expedition Dredge 5, Station 19, 591 m, SIO (Scripps Institution of Oceanography) 64-527, August 1, 1964.

MEASUREMENTS. — Holotype male : length 17.8 mm, width 23.5 mm, length of cheliped (basis-ischium-merus 22.3 mm, carpus-propodus 25.1 mm) 47.4 mm, of chela 21.3 mm, of dactyl 8.5 mm, height of palm 9.0 mm.

DIAGNOSIS. — Stellate granules of carapace fusing into smooth areas on ridges of carapace. Front simple. Arcuate lateral margins with from 7 to 9 serrated teeth.

DESCRIPTION

Carapace triangular, one and one-third times broad as long, a shallow post-hepatic constriction. Carapace covered with stellate granules fusing into solid masses on ridges and prominences. Branchiocardiac and branchiohepatic depressions not deep. Major protuberances disposed as follows : three on gastric region forming a triangle with base forward, two median cardiac, the posterior the larger, one intestinal, two on each branchial region, the anterior the longer and narrower, in line with lateral angle, the posterior in line with a smaller one on posterolateral margin, a similar protuberance at angular concavity of posterolateral margin. Front narrowly rounded, confluent with thickened and backward-sloping inner orbital arches, postorbital lobes similarly thickened, sloping outward. Hepatic margin with three triangular teeth, separated by a notch and depression from the arcuate lateral margin with from 7 to 9 triangular teeth, each tooth minutely serrated; carapace widest at last lateral tooth, posterolateral margin obtusely angled, edged with stellate tubercles; posterior margin straight.

Ischium of outer maxilliped flattened, paved with coalesced granules; merus with anteroexternal angle produced, anterointernal angle scarcely notched to receive palpus.

Chelipeds massive, length two and two-thirds times carapace length, surface row of granules not continued proximally on upper surface; right cheliped slightly the larger, weakly prismatic, irregularly granulate and tuberculate, largest tubercle at distal third of inner margin. Fingers of major manus broadly gaping, dactylus granulate and tuberculate above.

Abdomen of male with segments 3-5 coalesced, surface granulate, tip triangular.

Male first pleopod short, stout, cylindrical, flattened, slightly sinuous and tapering, tip blunt, rounded, studded with short setae, some longer setae on lip and along margin of groove, opening large. Male second pleopod longer than first, slender, basal portion cylindrical, flagellar portion longer than basal, flattened, spiraled, tip elongate, pointed.

ETYMOLOGY. — Species dedicated to the late Edwin C. Allison.

REMARKS. — The proposed new species from the Easter Island Fracture Zone Seamount has been compared with specimens of *Parthenope (Platylambrus) nummifera* Rathbun, 1906, from the Hawaiian Islands in the collections of the U. S. National Museum, specifically with

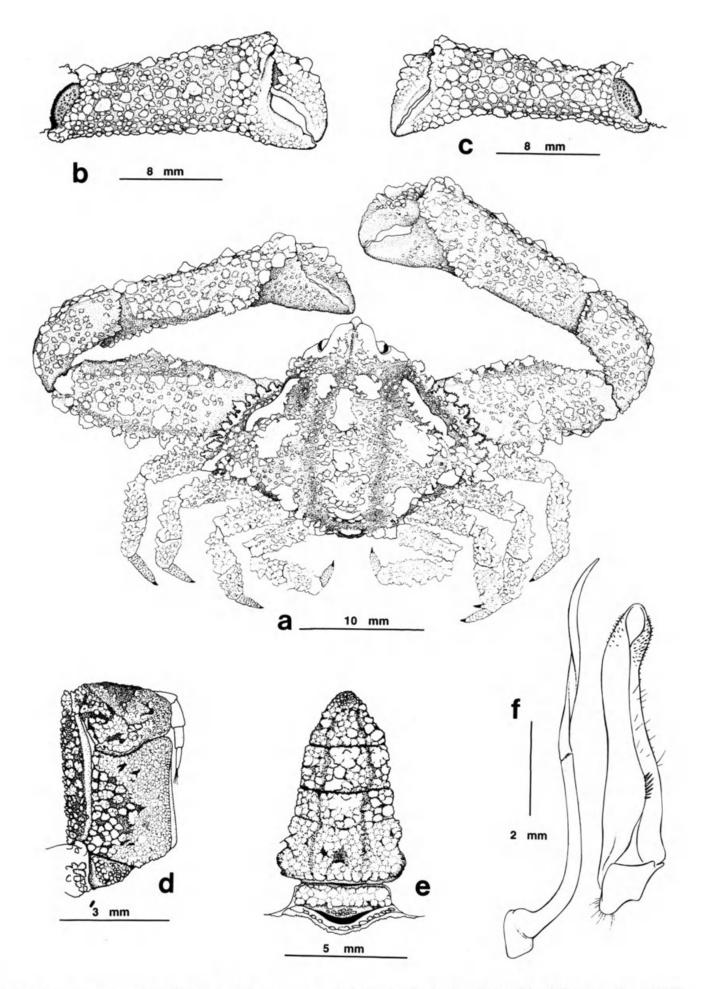


FIG. 5. — Parthenope (Platylambrus) allisoni n. sp., male holotype, Seamount, Easter Island Fracture Zone (AHF no. 654) : a, dorsal view; b, right cheliped; c, left cheliped; d, right outer maxilliped; e, abdomen; f, first and second pleopods. (Rafael LEMAITRE, del.)

a male from Modu Manu, 71-160 fathoms (129.8-292.6 m), "Albatross" Station 4150, and 2 males from the northeast coast of Hawaii Island, 63-ll3 fathoms (115.2-206.6 m), "Albatross" Station 4064, the type locality. The new species differs from these in having stellate tubercles, rather than wartlike mushroom tubercles, a simple rather than a trifid front, shallower branchiocardiac and branchiohepatic depressions, and a shorter space and lesser elevation between the anterolateral angle and the spine at the end of the branchial ridge. The new species shows fusion of tubercles along branchial, cardiac, and gastric ridges not shown by P. (P.) nummifera, as well as a more rounded inner orbital tooth. It was concluded that the new species was more nearly like P. (P.) stellata.

6. Parthenope (Platylambrus) mironovi (Zarenkov), n. comb. (Fig. 6)

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Asterolambrus mironovi Zarenkov, 1990 : 233, fig. 11.

MATERIAL EXAMINED. — Male, AHF no. 5821, from Shoal Guyot, 25°44'S, 85°25'W, 228 m, rock dredge, SIO Downwind Expedition Station HD-73, 26 January 1958. Male, paratype, from Ichthyologists' Seamount, 240-400 m, otter trawl, 25° 03.1'S, 97° 29.1'W, R/V "Professor Shtokman" Station 1992, 4 May 1987.

MEASUREMENTS. — Male : length 26.8 mm, width 42.5 mm, length of cheliped (basis-ischium-merus 34.6 mm, carpus-propodus 39.4 mm) 74.0 mm, of chela 33.8 mm, of dactyl ll.3 mm, height of palm 10.9 mm. Male paratype : length 22.3 mm, width 32.0 mm.

DIAGNOSIS. — Two lateral marginal constrictions, one hepatic, one branchial, the latter giving the carapace an alate appearance.

DESCRIPTION

Carapace subtriangular, nearly 1.6 times as broad as long, covered everywhere with stellate granules of varying size. Branchiocardiac and branchiohepatic depressions moderately deep. Major protuberances surmounted by stout spines as follows : three gastric, forming a backward-pointing triangle; one mesogastric and two cardiac, the anterior cardiac the largest; two inner and one outer branchial. Smaller paired spines located behind front, in advance of anterior gastric spines, posterior to anterior and posterior cardiac spines, and two in line on mesobranchial region. Front narrow, tip trifid, separated from inner orbital spine by antennular notch. Superior orbital margin with two or three small spines; a single upper orbital notch. Hepatic region protuberant, confluent with orbit, set off from branchial region by a notch and a depression, bearing two stout spines, the external the larger. Arcuate anterior portion of lateral margin of branchial region with about nine spines of which two or three are larger and incline at a steeper angle. Posterior portion of lateral margin of branchial region with about six spines including lateral spine, set off from anterior portion by a notch, clearly visible beneath, providing an alate lateral extension of the carapace. Posterolateral margins almost horizontal, spinate externally, curving gradually downward and inward to spinous posterior border.

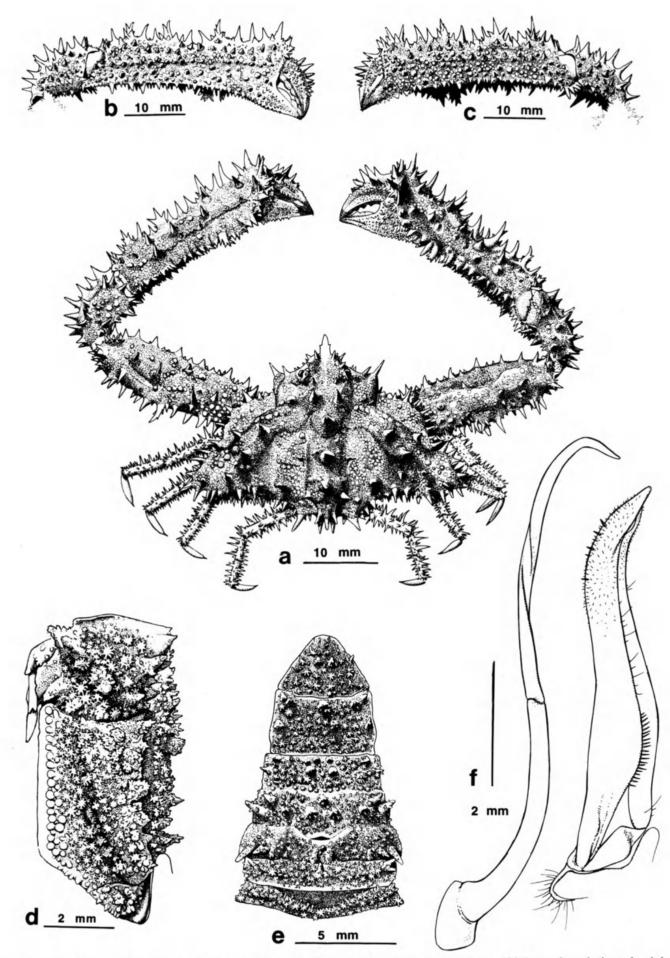


FIG. 6. — Parthenope (Platylambrus) mironovi (Zarenkov), male, Shoal Guyot (AHF no. 5821) : a, dorsal view; b, right chela; c, left chela; d, left outer maxilliped; e, abdomen; f, first and second pleopods. (Carl PETTERSON, del.)

Merus of external maxilliped flaring distally, anterior margin cristate. Sternum with a prominent smooth tubercle at base of cheliped.

Chelipeds massive, in male two and three-fourths times carapace length, densely covered with stellate granules and longer spines; merus weakly prismatic, lower row of spines extending inward proximally; right chela a little stouter than left, bearing an inner and an outer row of spines, some bifid, with irregularly placed spines between, outer surface of manus tuberculate; fingers of major manus toothed, gaping, dactylus spinulate above.

Walking legs densely spinulous above and below, larger spines of merus lanceolate, carpus and propodus spinate, dactylus felted, tip corneous.

Male abdomen broad, surface granulate and tuberculate, second somite with three spines, one median, third to fifth somites fused, each with two spines, both lateral, sixth somite with convex margins, seventh somite triangular.

Male first pleopod robust, cylindrical, gradually tapering to hood-shaped tip covering aperture, margins of internal groove and entire terminal portion setose. Male second pleopod slender, cylindrical, exceeding first pleopod in length, tip pointed, incurving.

REMARKS. — Parthenope (Platylambrus) mironovi (Zarenkov) is most closely related to P. (P.) stellata Rathbun, 1906, with which it shares the stellate granules that caused ZARENKOV (1990) to place it in the genus Asterolambrus Sakai, 1938, a genus later synonymized by SAKAI (1965) with Dairoides Stebbing, 1920. Of the two species, P. (P.) mironovi is much broader, the lateral branchial margin, continuous in stellata with 13 or 14 spines, clearly divided by a deep cleft in mironovi into an anterior and posterior portion with nine and five spines, respectively, giving the carapace a winged, or alate appearance. The specific identity of the Shoal Guyot specimen with the Nazca and Sala-y-Gomez Ridge species described by ZARENKOV has been confirmed by examination of a male paratype of "Asterolambrus" mironovi, provided through the kindness of V. A. SPIRIDONOV, Zoological Museum of Moscow University.

Acknowledgments

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