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NICOYA TUBERCULATA, A NEW GENUS AND SPECIES OF SPIDER CRAB FROM PACIFIC COSTA RICA (MAJIDAE: PISINAE)

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Abstract.—A new genus and species of spider crab (Majidae: Pisinae) has been collected in the Gulf of Nicoya, Costa Rica. The small crab resembles species of the genus *Pelia,* but differs in having a highly tuberculate carapace, broad meri of the walking legs, and a third maxilliped without a deep notch at the anteroexternal angle of the merus.

While sorting collections of crabs taken off El Salvador and Costa Rica, Dennis Moran of the Unviersity of Costa Rica found a specimen of an unidentified majid spider crab. The specimen was sent to me for identification. The crab, which does not quite match the description of any known genus or species, is described herein.

Nicoya, new genus

Description.—Carapace pyriform, convex, with pronounced tubercles. Rostrum well developed, with 2 rostral horns, united at their base, more or less parallel. Basal antennal article with tuberculate external margin, forming incomplete flooring to orbit, protruding beyond orbital margin and appearing at sides of rostrum. Movable flagellum long. Eye retractile into hollow fossette at base of tubercle limiting hepatic region in front. Merus of external maxilliped barely indented at anterointernal angle to receive palp.

Chelipeds feeble in female, fingers closing tightly, arm without crest. First pair of ambulatory legs slightly longer than following legs, fifth short; second–fourth walking legs robust and with broad meri.

Abdomen of female of 7 well-defined segments.

Remarks.—The new genus differs from species of *Pelia* in having a highly tuberculate carapace, lacking a notch in the external maxilliped in the region of the insertion of the palp, and having broad meri of the posterior walking legs. Unlike many common species of *Pelia,* the new species of crab lacked a coating of encrusting sponge. Having eyes with commencing orbits, short eyestalks, a broad basal antennal article and external maxillipeds with broad meri, the new genus readily fits into the subfamily Pisinae as defined by Garth (1958).

Etymology.—The name of the genus refers to the Gulf of Nicoya, Costa Rica, where the sole specimen was collected. Gender feminine.

Nicoya tuberculata, new species
Fig. 1

Description.—Carapace pyriform, convex, regions separated by shallow depressions; with pronounced tubercules: series running along anterior midline from rostrum to gastric region, patches on gastric, cardiac and intestinal regions, and extensive series on branchial regions and lateral margins. Rostrum about 0.1 × carapace length, horizontal with sides slightly sinuous, teeth denticulate and bearing hooked setae, intervening sinus sharply V-shaped. No preorbital tooth. Postorbital tooth broad, set off from orbital margin by narrow fissure, anterior margin slightly convex and

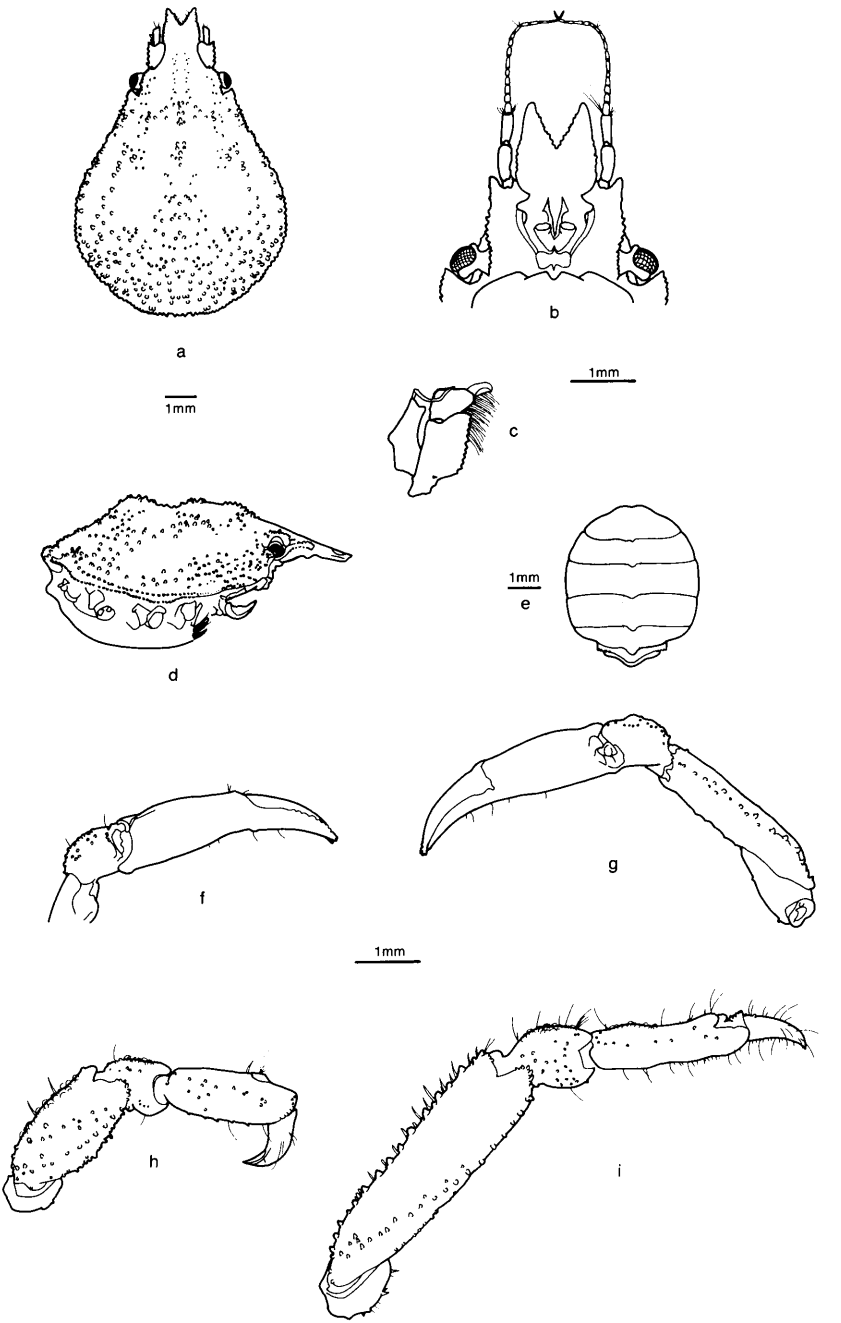

Fig. 1. *Nicoya tuberculata*: a, Carapace in dorsal view; b, Frontal region; c, External maxilliped; d, Body in lateral view; e, Abdomen; f, Chela; g, Cheliped; h, Fifth walking leg; i, First walking leg.

smooth, lateral margin denticulate. Patches of tubercles on gastric, cardiac, hepatic, intestinal, and branchial regions as well as on posterior margin, becoming most dense posteriorly. No posterolateral marginal ridge.

Basal antennal article smooth, mesial margin concave, with terminal knob; exter-

nal margin tuberculate and ending in tooth, entire article just reaching beyond base of rostrum. Antennal flagellum long, greatly exceeding end of rostrum.

Eyes with commencing orbits. Small tubercles on eyestalk near cornea.

Ischium of third maxilliped somewhat rectangular, notched at anterior end, mesial margin serrate. Merus somewhat triangular, mesial margin serrate. Setose palp present. Pterygostomian regions with rows of tubercles.

Cheliped slender, fingers of chela closing tightly, with teeth. Carpus and merus tuberculate. Ischium with few spinules. Walking legs with strongly hooked dactyls; propodi, carpi, and meri tuberculate, carinate, with pile and scattered coarse setae and hooked setae. First walking leg longest, with merus 4× long as broad. Posterior walking legs shorter, with meri 2× long as wide.

Female abdomen with raised mesial ridge, without spines or tubercles, with 7 well-defined segments.

Holotype.—Female, ovigerous. Carapace length 7.4 mm, width 5.8 mm, chela 3.2 mm. Gulf of Nicoya (about 10°N, 85°W), 48 m, 23 Apr 1981, University of Costa Rica catalogue number 1043.

Remarks.—Species of the closely related genus *Pelia* are common on hard bottoms, ranging from California to Peru in the eastern Pacific and Massachusetts to Patagonia in the Atlantic (Garth 1958). *Nicoya tuberculata* seems to be closely related to *Pelia,* perhaps diverging from a common pisinine ancestor. The specific epithet refers to the tubercles of the carapace, which distinguish the new species from species of *Pelia.*

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