

A NEW GENUS AND SPECIES OF GONEPLACID CRAB  
(DECAPODA: BRACHYURA) FROM THE WEST COAST OF  
SOUTH AND CENTRAL AMERICA

John S. Garth

ABSTRACT

*Odontoplax*, new genus, is proposed for *O. chacei*, new species (Goneplacidae, Prionoplacinae), from Caleta La Cruz, Peru, from Cape San Francisco, Ecuador, and from La Unión, El Salvador. The new genus is distinguished from allied genera by its male sternal-abdominal-coxal configuration.

*Odontoplax*, new genus

*Diagnosis.*—Carapace transversely hexagonal, strongly convex. Anterolateral margins dentate. Front about one-third width of carapace. Orbits narrow, eyestalks short, recessed. Antennal flagellum elongate, lodged in orbital sinus. Antennules folding transversely. Merus of outer maxilliped broader than long, truncate-triangular. Chelipeds subequal, fingers flattened, tips pointed. First segment of male abdomen nearly covering space between coxae of last pair of legs, third to fifth segments fused. Male first pleopod with "spur" remote from tip, "hood" incompletely developed.

*Type-species.*—*Odontoplax chacei*, new species, by original designation.

*Gender.*—Feminine.

*Etymology.*—*Odonto*, a combining form from Greek *odon*, *odontos*, tooth; *plax*, flat, patently inappropriate here, but used to relate the new genus to other genera of the family Goneplacidae, subfamily Prionoplacinae, of which the type genera are *Goneplax* Leach and *Prionoplax* H. Milne Edwards, respectively.

*Relationship.*—While the new genus can be placed with certainty among the Prionoplacinae, its relationship with other genera within the subfamily is problematical. Its sternal-abdominal-coxal configuration (Fig. 1C) removes it from close association with *Prionoplax* H. Milne Edwards, in which the lateral sternal piece elongates transversely, widely separating the abdomen from the coxa of pereopod 5. It resembles *Glyptoplax* Smith and *Eucratopsis* Smith, in which the lateral sternal piece separates the second abdominal segment completely and the first abdominal segment partially from the coxa of pereopod 5. However, the part of sternite 7 that touches sternite 8 is narrow, as in *Tetraplax* Rathbun or in *Cyrtoplax* Rathbun (*spinidentata* Benedict), so that the groove through which the penis passes is only minimally closed. In these two genera, however, the first abdominal segment is relatively narrow and does not nearly reach the coxa of pereopod 5 (for illustrations and terminology see Guinot, 1969).

*Odontoplax chacei*, new species

Fig. 1A-F

*Type Material.*—Male, holotype, National Museum of Natural History (USNM No. 228431), from Caleta La Cruz, Peru (lat. 03°38'S), 50 m, January 1969, Enrique M. del Solar, collector (Orig. No. B-29). Female and young male, paratypes, Allan Hancock Foundation (AHF No. 3421), from Cape San Francisco, Ecuador, 2 fathoms (2.2 m), mud and debris, 11 February 1934, *Velero III* Station

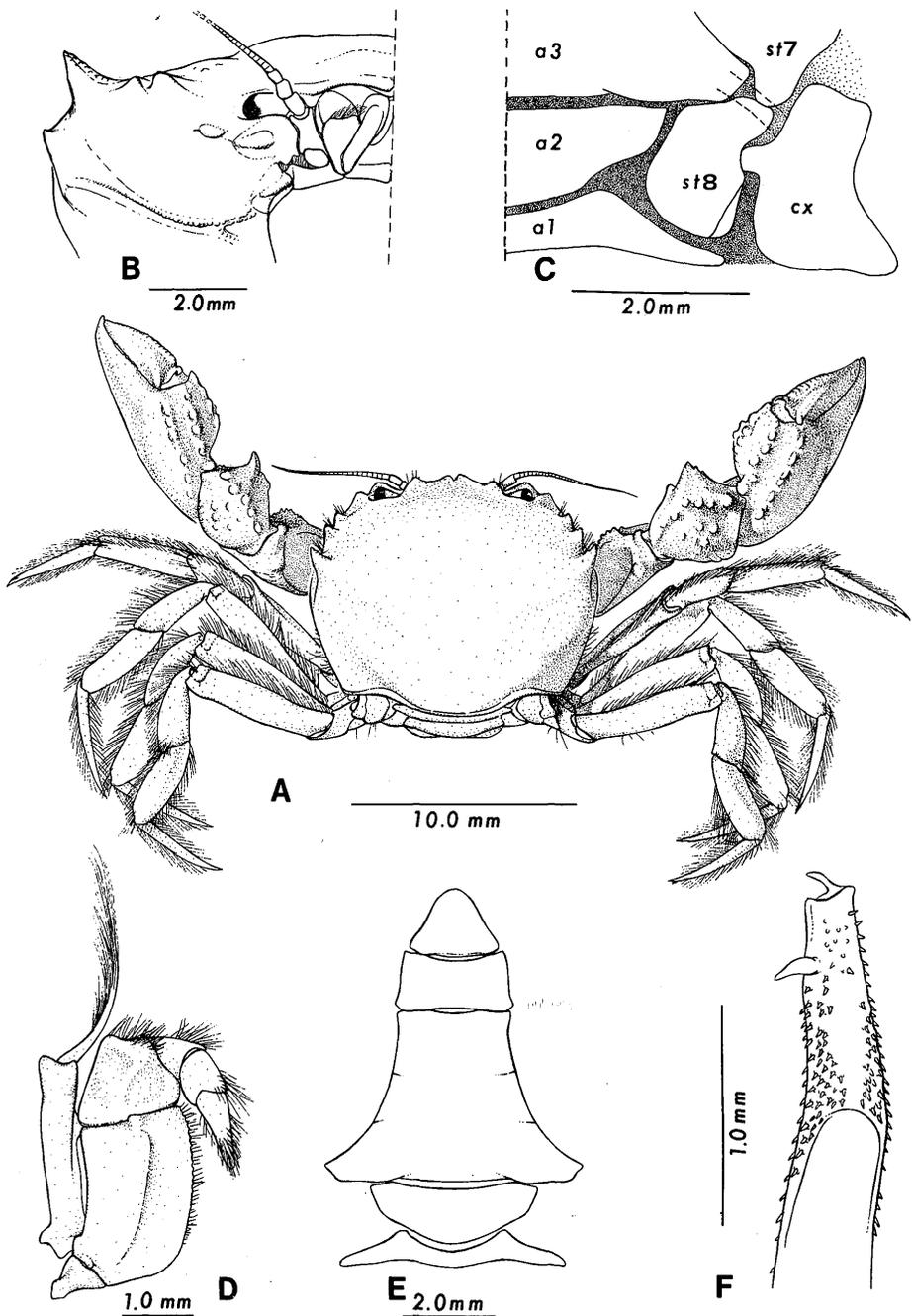


Fig. 1. *Odontoplax chacei*, new genus, new species, male holotype. A, dorsal view; B, right frontal view; C, left sternal-abdominal view at level of fifth pereiopod; a1, a2, a3, first, second, and third abdominal segments; st7, st8, seventh and eighth sternites; cx, coxa of fifth pereiopod; D, right third maxilliped; E, abdomen; F, right first pleopod (gonopod).

215-34. Male, paratype, Universidad de Costa Rica, from Departamento La Unión, El Salvador, sublittoral, in oyster catch, rocky, 23 July 1978, M. Wolterding, collector.

*Measurements.*—Holotype male (USNM): length of carapace 11.0 mm, width of carapace 13.1 mm, length of cheliped 22.0 mm, of chela 12.4 mm, of dactyl 7.5 mm, height of palm 6.6 mm. Paratype female (AHF): length of carapace 6.8 mm, width of carapace 7.8 mm. Paratype male (AHF): length of carapace 5.2 mm, width of carapace 6.0 mm. Paratype male (UCR): length of carapace 11.0 mm, width of carapace 13.2 mm.

*Diagnosis.*—Carapace subhexagonal, highly convex. Three anterolateral marginal teeth, third tooth largest. Chelipeds massive, fingers broad, compressed. Male abdomen with segment 1 broad, nearly reaching coxa of pereopod 5. Male pleopod 1 with spur remote from tip, hood reduced or wanting.

*Description.*—Carapace subhexagonal, broader than long, highly convex, almost semicylindrical anteroposteriorly, less so from side to side, surface superficially smooth, microscopically granulate, and sparsely hairy. Front medially advanced, frontal lobes separated from one another by a narrow V, and from the less advanced but similarly contoured preorbital lobes by broad, shallow concavity. Orbits narrow, transversely oblique; eyestalks short, immovable, corneas faintly pigmented. Postorbital lobe lacking above, but infraorbital lobe at level of inner suborbital lobe; this lobe equally advanced with median frontal lobes. Anterolateral margins arcuate, armed with 3 teeth, first tooth remote from orbit, second close to first; these 2 rounded in manner of frontal and suborbital lobes; third tooth acute, forward curving, upward inclined, separated from second tooth by distance greater than that separating second tooth from first; all teeth with finely denticulate margins, that of third tooth continued posteriorly as crest. Carapace constricted at base of third tooth, then flaring to widest portion. Posterior margin sinuous, rimmed.

Merus of external maxillipeds truncate-triangular; palp coarse.

Chelipeds massive, right slightly larger; merus with superior subterminal tubercle and inferior dentate crest; carpus and manus coarsely tuberculate, tubercles of inner row of carpus angled toward blunt inner spine with lesser tubercle below it; those of manus in 3 rows of from 4–6 tubercles each. Fingers broad, compressed, triangular, inwardly concave, outwardly ribbed, meeting without gape, edges denticulate, tips crossing.

Pereopods moderately long, slender, unarmed, hairy-margined, dactyls as long as their propodi, straight or slightly incurving, dactyl of last pereopod also upcurving.

Male abdomen with first and third segments broad, second segment narrow; first segment nearly reaching coxa of fifth pereopod, separated from third by eighth sternite; low tubercle on either side of third segment basally; third to fifth segments fused, sides concave; sixth segment broadly rectangular; seventh segment triangular, tip rounded.

Male first pleopod robust, cylindrical, slightly tapering toward tip, densely short-setose. Three elements of "spur," "spine," and "hood" associated with Priono-placinae (as also with Panopeinae of family Xanthidae) present, spur more remote from tip, spine less upstanding, hood less developed than usual.

*Remarks.*—The frontal view (Fig. 1B) makes clear the relationship of the three anterolateral spines, on a level with the upper orbital margin, with the two infraorbital lobes, on a distinctly lower level. The apparent lateral spine is a backward

continuation of the granular ridge from the third anterolateral spine to the widest part of the carapace.

With the aid of the Peruvian specimen, an adult male, it has been possible to identify from among early Hancock Expedition collections from Ecuador a female without chelipeds and a young male showing incipient tuberculation of the chelipeds as belonging to the new species. And with the addition of the specimen from El Salvador, a male of like size as the Peruvian holotype, the known range of the new genus and species now extends from northern South to Central America.

*Dedication.*—This distinctive new species of brachyuran crustacean is dedicated to Dr. Fenner A. Chace, Jr., dean of American carcinologists, whose personal integrity, professional competence, and generous help with systematic problems have long been an inspiration.

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#### LITERATURE CITED

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Address: Allan Hancock Foundation, University of Southern California, Los Angeles, California 90089.