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PSEUDOTHELPHUSA GALLOI, A NEW
SPECIES OF FRESHWATER CRAB
(CRUSTACEA: BRACHYURA: PSEUDOTHELPHUSIDAE)
FROM SOUTHWESTERN MEXICO

Fernando Alvarez and Jose Luis Villalobos

Abstract. — A new pseudothelphusid crab from the State of Guerrero, Mexico, is described. Its affinities with four other species present in the Mexican Pacific slope are discussed.

Since the publication of Rodríguez' (1982) monograph on the Pseudothelphusidae, two new species belonging to the genus *Pseudothelphusa* have been described (Alvarez 1987, 1989). The third species, described in this paper, comes from the State of Guerrero in southern Mexico. *Pseudothelphusa galloi*, new species, lacks a defined marginal process on the gonopod like some of its congeners from the Pacific slope of Mexico. This new species was collected by J. P. Gallo while studying the feeding habits of the river otter *Lutra longicaudis annedectens*, which feeds on this and other freshwater crustaceans. Types are deposited in the Carcinological Collection, Instituto de Biología, Universidad Nacional Autónoma de México (IBUNAM).

Pseudothelphusa galloi, new species

Fig. 1

Description. — Superior frontal border of carapace formed by small tubercles, divided medially by deep notch posteriorly forming the median groove. In frontal view, front inclined towards central portion. Inferior frontal border well defined, formed by small blunt tubercles, sinuous in frontal view. Dorsal surface of carapace with deep median groove, narrow anteriorly, broader posteriorly. Cervical grooves slightly arched, not reaching anterolateral margin. Carapace regions ill defined, gastric and branchial re-

gions elevated; epigastric lobes well marked. Area between epigastric lobes and superior frontal border inclined anteriorly. Anterolateral margin with 9 denticles between orbit and cervical groove, with 22 to 27 between cervical groove and epibranchial region. Pterygostomian region bearing setae around third maxillipeds. Ratio ischium/exopod of third maxilliped 0.4 to 0.57. Chelipeds unequal, fingers of major chelae gaping, granulated and curved. Palm of cheliped with fine granulation, becoming more dense dorsally and ventrally.

Gonopod with well developed lateral lobe, covering frontal portion of apical cavity; in cephalic view is roughly triangular, ending in two tips. Superior margin of mesial process (mesial crest) curving proximally, forming a rounded, axe-shaped lobe. Marginal process reduced to two small bumps, located anteriorly on mesial crest. Apex cavity elongated along a caudo-cephalic axis, bearing 27 setae with terminal pore restricted to lateral part of cavity. Caudal border thick, decreasing in thickness laterally.

Material examined. — Mexico. Rio La Parota, small tributary of Pinela River (16°46'N, 99°13'W) Municipio Ayutla de los Libres, Estado de Guerrero; 15 Apr 1985; J. P. Gallo; 1 male holotype, c.b. 65.9 mm, c.l. 39.8 mm; 1 male paratype, c.b. 67.8 mm, c.l. 40.4 mm (IBUNAM-EM-3479). Rio Pinela, Municipio Ayutla de los Libres, Estado de Guerrero, 28 Dec 1983; J. P. Gal-

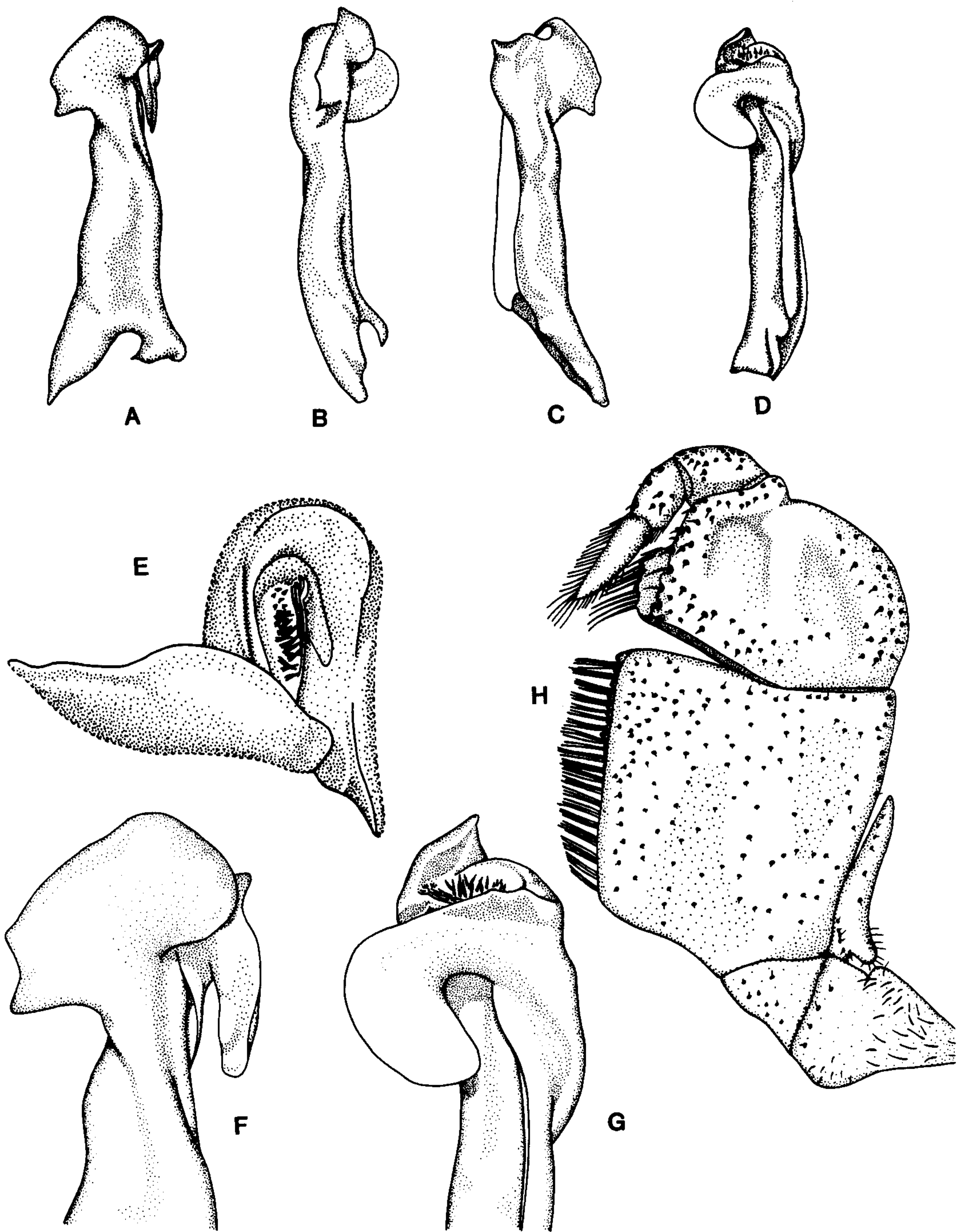


Fig. 1. *Pseudothelphusa galloi*, holotypic male, A-G, left gonopod: A, cephalic view; B, lateral view; C, caudal view; D, mesial view; E, apical view; F, detail of cephalic view; G, detail of mesial view; H, left third maxilliped.

lo; 1 male, c.b. 57.0 mm, c.l. 35.8 mm, 2 females, c.b. 28.0 and 37.3 mm, c.l. 18.2 and 23.6 mm (IBUNAM-EM-3478).

Etymology.—This species is named in honor of Juan Pablo Gallo.

Remarks.—The species shares with *Pseudothelphusa jouyi*, *P. lophophallus* and *P. sonorae* the vestigial character of the marginal process of the gonopod. However, in *P. jouyi* and *P. lophophallus* these vestiges appear on the mesial crest as a series of acute denticles (Rodríguez 1982, figs. 94a and 96a) and in *P. sonorae* there is only a small protuberance with no denticles (Rodríguez 1982, fig. 97c). In general, the gonopod morphology of *P. galloi* is closer to that of *P. jouyi*.

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