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A NEW PSEUDOTHELPHUSID CRAB FROM THE STATE OF JALISCO, MEXICO

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Abstract.—*Pseudothelphusa* (*Pseudothelphusa*) *seiferti* is described and illustrated from the Río Tuxpán basin in Jalisco, Mexico. Its affinities with *P. (P.) dugesi belliani* are discussed.

The only known specimen of the new species described herein was collected from the Río Tuxpán basin in Jalisco, Mexico, by Wayne Seifert of the Dallas Museum of Natural History. It appears to have its closest affinities with *Pseudothelphusa (P.) dugesi belliani* Rathbun (1898:515) which has been reported (Rodríguez and Smalley, 1969:82) from several localities in drainage basins to the south in the states of Guerrero, México, and Michoacán. Only two other members of the genus have been recorded from Jalisco (Rathbun, 1898:537): *Pseudothelphusa (P.) jouyi* Rathbun (1893:649) and *P. (P.) terrestris* Rathbun (1893:651).

My thanks are extended to Dr. Seifert, in whose honor the species is named, for donating the specimen to the Smithsonian Institution. I am also grateful to Raymond B. Manning and Austin B. Williams, colleagues in the Smithsonian, for their criticisms of the manuscript, and to Michael R. Carpenter for the photographs in Figure 1.

Pseudothelphusa (Pseudothelphusa) seiferti, new species
Figs. 1-2

Description.—The front of the carapace rises rather precipitously from the smooth inferior border, but no clearly defined superior border is evident (Fig. 1a, b). The inferior border is biconvex in dorsal aspect with the convexities slightly arched in frontal view. The carapace is weakly convex, and the several regions moderately well defined. The paired postfrontal lobules are rather distinctly delimited by a prominent median groove but are not clearly set off from the orbital areas. The limits of the epigastric regions are rather obscure, but the remaining usually recognized areas of the carapace can be readily discerned; the broadly V-shaped cervical groove is prominent as are the anterior arms of the branchiocardiac grooves. The anterolateral margin of the carapace is rather evenly rounded, but very weak emarginations are present immediately lateral to the orbit and at the anterior extremities of the cervical groove. The margin of the carapace posterior to the cervical groove is also rounded and devoid of denticles, and the dorsal

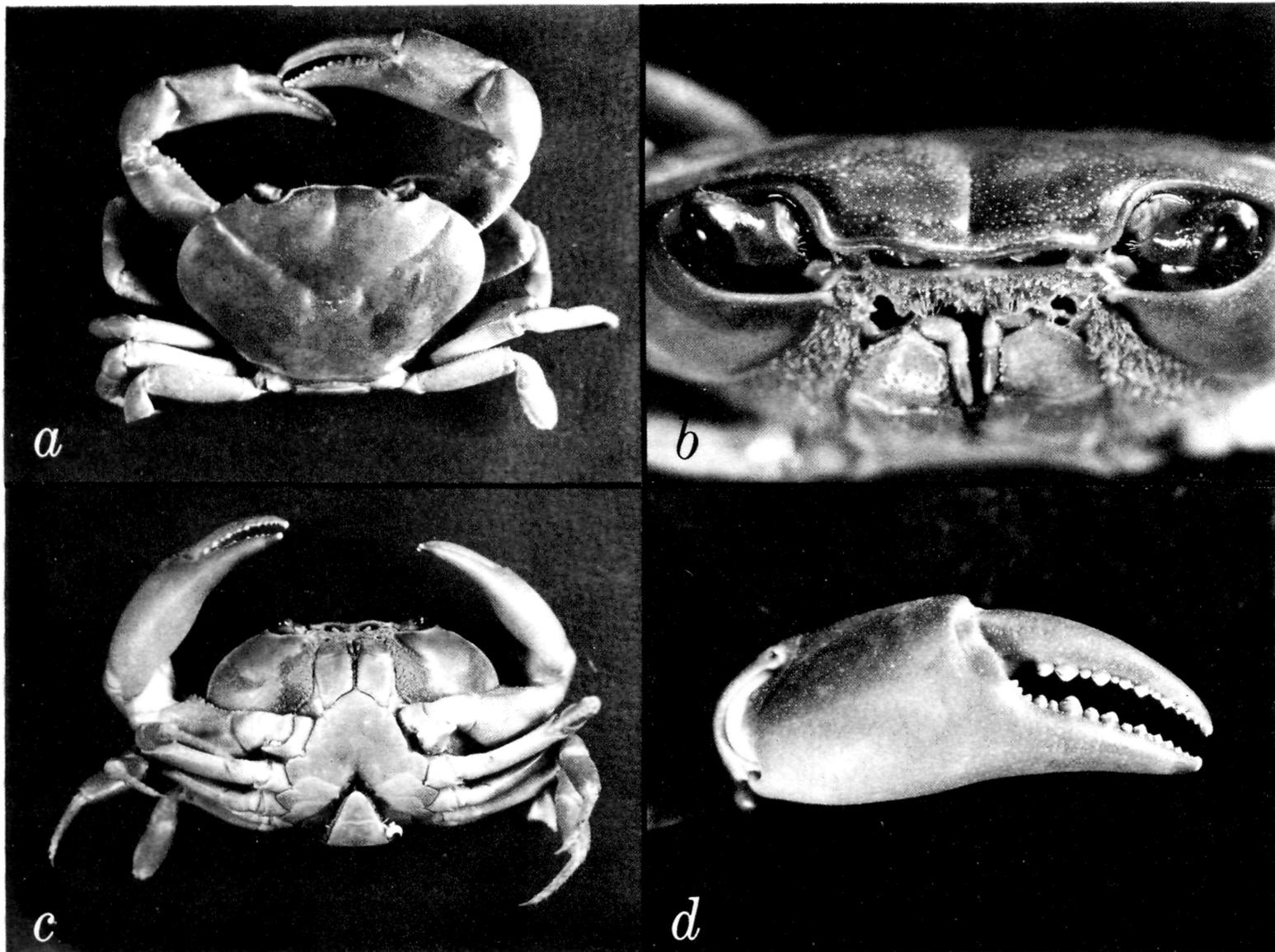


Fig. 1.—*Pseudothelphusa (P.) seiferti* (holotype): a, Dorsal view; b, Frontal view of ocular region; c, Ventral view; d, Abductor surface of right chela.

surface is regularly punctate; whereas most of the punctations are small, a few larger ones are located in the frontal and hepatic regions, and an occasional one is present elsewhere.

The exopod of the third maxilliped (Fig. 1c), half the length of the ischium, reaches the base of the distal fourth of the latter. The right chela (Fig. 1d) is more robust than the left, its ventral margin is sinuous, and the surface of the palm and fingers is covered with fine punctations; two linear series of punctations are present on the fixed finger, one situated laterally and the other mesially, and both series are slightly depressed. Paired, less well defined series of fewer and somewhat larger punctations are present on the proximal extensor surface of the dactyl. The teeth on the opposable surfaces of the finger are of moderate size.

The gonopod of the male exhibits the following features: viewed mesially (Fig. 2b), the cephalodistal lobe of the appendage is produced in two rounded preapical lobules, the larger, more proximal one is directed proximally and the smaller one, cephalically; the difference in the size of the two is no greater than that in *Pseudothelphusa (P.) sulcifrons* Rathbun, 1898:522 (cf. Fig. 2b herein and Fig. 15c in Rodríguez and Smalley, 1969); in caudal

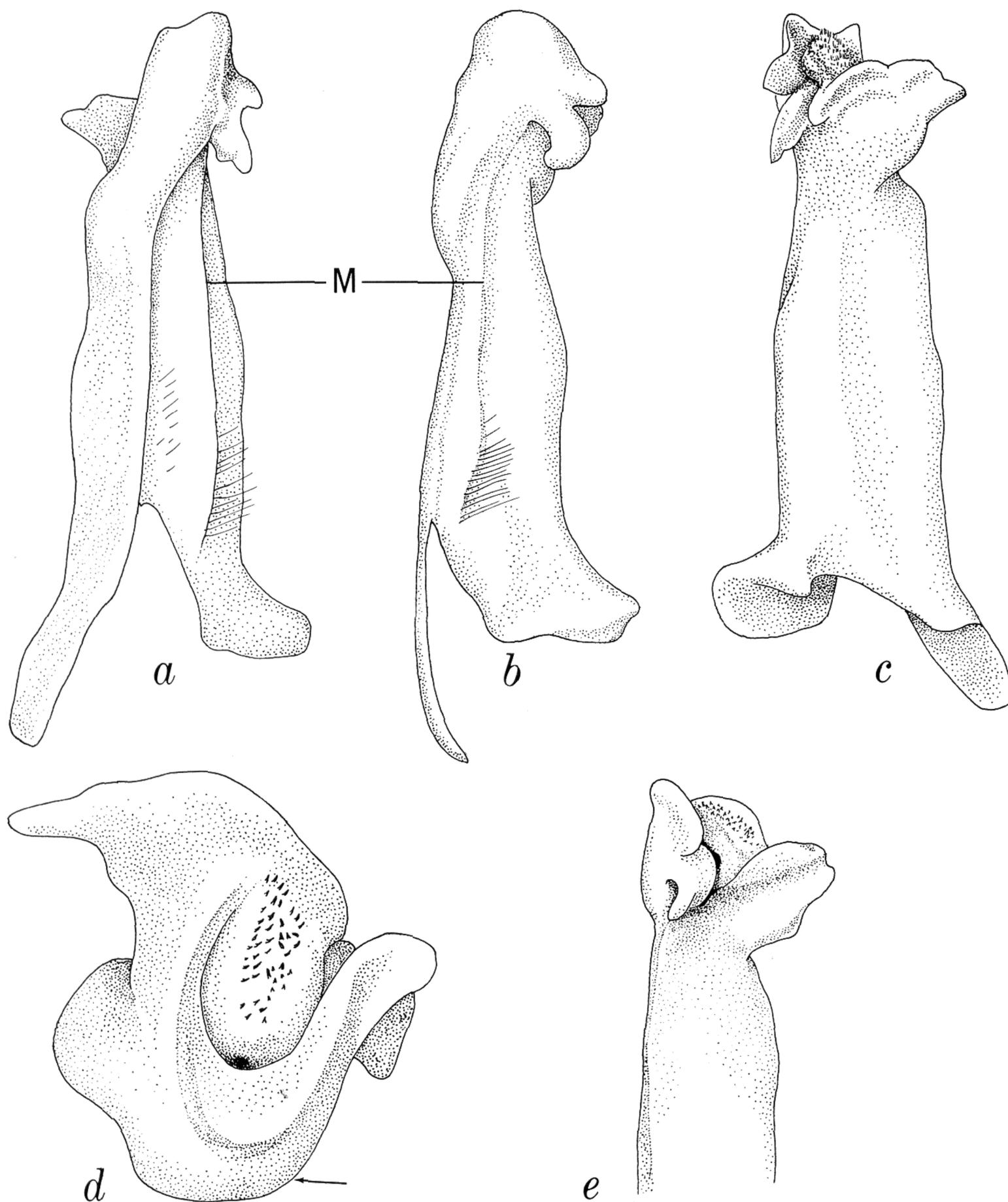


Fig. 2.—Right gonopod of *Pseudothelphusa (P.) seiferti*: **a**, Caudal view (M = “margin”, see Smalley, 1964); **b**, Mesial view; **c**, Cephalolateral view; **d**, Apical view (arrow indicates approximate position of the “margin” proximally); **e**, Cephalomesial view.

aspect (Fig. 2a) the proximal larger lobule appears bilobed. A large and conspicuous lobe arising cephalolaterally is best viewed from the cephalolateral side of the appendage (Fig. 2c); it is not visible in mesial aspect, but in caudal aspect it appears as a broad triangular projection extending cau-

dolaterally from the shaft of the appendage. The margin toward the distal end of the gonopod is undulating, and the subacute apex of the lobe is directed caudolaterally. In Figure 2c, the four apparent projections in the background are, from left to right, as follows: the larger and smaller (respectively) lobules on the mesial surface, the next is the crest of the mesial extremity of the gonopod, and the one on the right, the lateral elevated rim flanking the terminal setal field. The latter, best seen in apical view of the pleopod (Fig. 2d), is suboval and flanked by a horseshoe-shaped rim with the open end directed cephalolaterally; this exposed end of the field slopes proximally (Fig. 2e), and the sperm groove opens at the opposite end in a distinct subcircular pit. The setae are pale brown to tan.

Measurements (in mm).—Width of carapace 46.5; length of carapace 29.7; width of fronto-orbital region 12.8; length of the cardiac-intestinal region 13.2. The limits employed in these measurements are those used by Rodríguez and Smalley (1969:70).

Type.—The holotypic male is deposited in the United States National Museum of Natural History (Smithsonian Institution), no. 173884.

Type-locality.—A steep slope flanking a stream flowing along Highway 110, 38 kilometers south of Mazamitla, Jalisco, Mexico. On 24 July 1978, when the specimen was collected, there was a pumping station at the locality, and the crab was found in a damp area surrounding a drip from a leaking pipe. This collecting site is situated in the Río Tuxpán (a tributary to Río Coahuayana) watershed.

Relationships.—This crab appears to be more closely allied to *Pseudothelphusa (P.) dugesi belliana* than to the other two subspecies or their relatives (see Rodríguez and Smalley, 1969). The similarities are conspicuously evident in the structure of the distal part of the gonopod of the male. Basically the mesial (internal) and cephalolateral (external) lobes are much alike, but the smaller, more distal lobule of the mesial lobe is comparatively larger and more distinctly delimited basally in *P. (P.) seiferti* than it is in *P. (P.) d. belliana*; the more proximal lobule is comparatively smaller than it is in the latter. The cephalolateral lobe is more evenly rounded, and its mesial expanse is distinctly less than that in *P. (P.) d. belliana*. Perhaps more obvious is the difference in the front of the carapace in the two: in *P. (P.) seiferti* the superior border is lacking, and tubercles are absent; furthermore the anterolateral margins of the carapace are also devoid of tubercles that are sometimes present in members of *P. (P.) dugesi belliana*.

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