

*PANOPEUS MARGENTUS*, A NEW CRAB FROM THE  
ARGENTINE WARM TEMPERATE SUBREGION  
(DECAPODA: XANTHIDAE)

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*Abstract.*—*Panopeus margentus* new species, a xanthid crab from warm, temperate, marine Argentine waters is described, illustrated, and compared with the recently described *Panopeus mirafloresensis* from the Pacific side of the Panama Canal. The first male pleopods and carapace of these species are similar and resemble these features in *P. bermudensis*. Notes on associated xanthids are given.

An unidentified Argentine species of crab belonging to the brachyuran family Xanthidae (family Panopeidae Ortmann, 1893, sensu Guinot 1978, and subfamily Panopeinae Ortmann, 1893, sensu Martin & Abele 1986) has been known to the junior author for a number of years. Boschi (1964) described and illustrated brachyurans from Argentine marine waters, including xanthid species belonging to the genera *Platyxanthus*, *Pilumnoides*, and *Pilumnus*, and he (1979) added *Panopeus* sp. from the warm temperate region of Buenos Aires and northern Patagonia to this array in an annotated checklist of decapods from the region. Williams (1984) treated species of the *Panopeus* "herbstii complex," which has representatives in Brazil and Uruguay, but at that time were not known from Argentina. Description of the species listed by Boschi (1979) as *Panopeus* sp. is the central subject of this paper.

Type materials are deposited in the crustacean collection of the United States National Museum of Natural History, Smithsonian Institution (USNM), Washington, D.C.

*Panopeus margentus*, new species

Fig. 1a-e

*Material.*—Argentina: USNM 239191. Holotype ♂ (damaged carapace and right

chela), Escollera Norte, Mar del Plata, Province of Buenos Aires, E. Boschi, 18 Jan. 1964.—239192, Paratypes, 7 ♂, 15 ♀ ovig., same.—239193, Paratypes, 1 ♂, 1 ♀ ovig., Escollera Norte, Mar del Plata Puerto, Risso, Jan. 1964.—239194, Allotype ♀ ovig., Mar del Plata, E. Boschi, 18 Jan. 1964.—239195, Paratypes, 3 ♂, 4 ♀ ovig., same. Specimens in all of these collections are very brittle, and legs are detached from most of them.

*Description.*—Carapace (Fig. 1a) wider than long, surface smooth, regions faintly indicated, margins finely granular; few lightly granular transverse lines, sinuous epibranchial line more or less evident, less evident arcuate line leading toward but not continued on 4th anterolateral tooth, faint oblique lines on mesogastric lobes still less evident. Faint shallow and sinuously transverse depression near posterior  $\frac{1}{3}$  passing between meso- and metabranchial, mesogastric and cardiac regions, another faint depression curving posteromesially from juncture of 3rd and 4th anterolateral teeth, and still another similar groove coursing from between 4th and 5th anterolateral teeth to join transverse groove; slight submarginal swelling on metabranchial region near coxa of 5th leg. Front with V-shaped median notch, each transverse half shallowly concave; orbital regions broad, moderately

raised and cut by 2 nearly equal fissures; coalesced 1st and 2nd anterolateral teeth separated by well defined but variable notch (progressively developed with increasing age); 1st tooth narrower than 2nd and exceeding it, posterior slope straight to slightly concave; 2nd tooth bluntly triangular, posterior margin arcuate; 3rd and 4th teeth broader, each with anterior margin shorter than posterior, tip rounded, rectilinear, or occasionally subacuminate; 5th tooth much smaller, acute or rounded (sometimes on either side of same specimen) and directed laterally; posterodorsal margin slightly and unevenly granular.

Abdomen of mature  $\delta$  with segments 3 to 5 fused and narrowing distally, segment 6 free; telson narrowly subtriangular. Abdomen of mature  $\text{♀}$  ovate in outline, 6 segments free, 4th broadest, 6th longest in midline; telson broadly subtriangular.

Chelipeds (Fig. 1a–c) not markedly asymmetrical; microscopically granular except for smooth fingers, carpus unevenly granular and sometimes faintly rugose, with mesial lobelike tooth stout and rounded; hand with outer surface variably marked by broad shallow groove between dorsal crest and swollen palm, lower margin sinuous; curved dactyl of each chela longer and more slender than stout wedge shaped fixed finger, occlusive edge of each rather sharp; major dactyl with strong blunt basal tooth and 1 or more less prominent triangular teeth distal to it; triangular tooth on fixed finger, sometimes compound, closing against distal edge of basal tooth on dactyl, other smaller teeth variable; fingers of minor chela each with tooth row somewhat uneven, not strongly developed.

Male first pleopod (Fig. 1d–e) obscurely trilobed at tip; accessory process much reduced, not exceeding membranous collar nearly surrounding it, being perhaps a modification of median process, subterminal lateral tooth present; terminal tract of short spinules on lateral rim of collar, subterminal row of about 8 spinules on folded edge of

shaft just proximal to collar, grading proximad from long to short, and scattered shorter spinules on shaft proximal to these.

*Measurements in mm.*—Holotype  $\delta$ , carapace length 7.7, width 10.6; Allotype  $\text{♀}$ , same, 6.7, 9.5; Paratypes (239192), same,  $\delta$  7.7, 10.9,  $\text{♀}$  8.2, 11.7.

*Color.*—Color of fingers extending onto distal part of palm, color boundary sharply defined but both fingers and palm faded in specimens available for study.

*Known range.*—Limited to the type locality.

*Remarks.*—The holotype and allotype, although damaged, are the most complete specimens in the material examined. The carapace of the holotype  $\delta$  has been punctured in two places, the carpus of the major chela has been broken, and the minor chela has been detached from the body, but no essential features are lost through these damages. The allotype  $\text{♀}$  lacks the left fifth leg. The first pleopod of the holotype has the accessory process blunted at the tip, and spines on the membranous collar surrounding it are swollen, presumably because of poor preservation. Pleopods on  $\delta$  paratypes show both the accessory process and features of the collar in a better state of preservation.

The first pleopods of *Panopeus margentus* bear some resemblance to those of *Panopeus mirafloresensis* Abele & Kim, 1989 from the Pacific side of the Panama Canal (see also Martin & Abele 1986: fig. 2A), as do features of the carapace. Otherwise, the species is comparable in these regards with *Panopeus bermudensis* Benedict & Rathbun, 1891 (see Martin & Abele 1986).

Associated with the material studied are three other xanthid species. *Panopeus meridionalis* Williams, 1984, is represented by 1  $\text{♀}$ , cl 9.7, cw 13.2 mm, a specimen with characters less definitely expressed than those of larger individuals of the species known previously only from the Montevideo region of Uruguay. *Pilumnoides hassleri* A. Milne Edwards, 1880 (see Guinot &

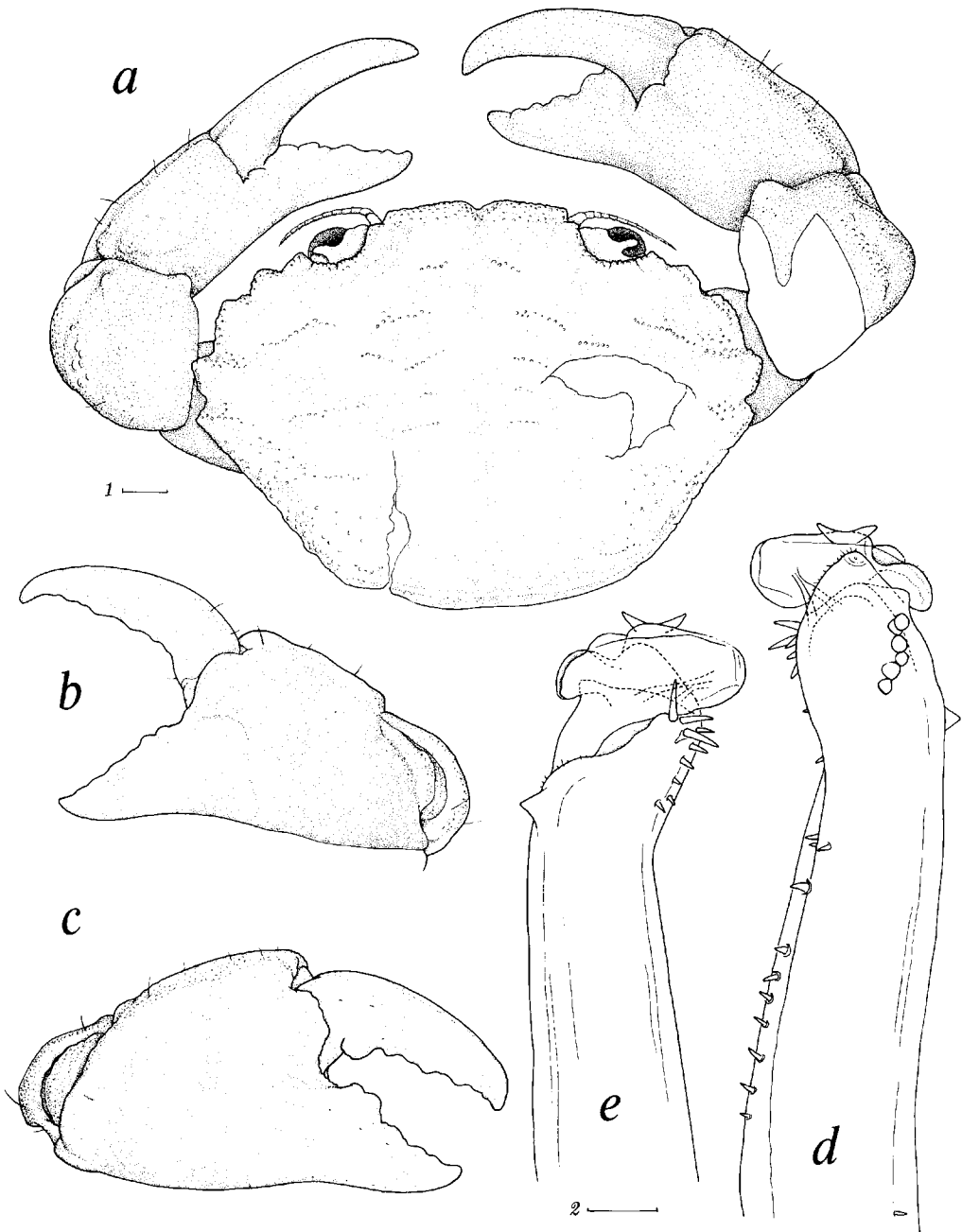


Fig. 1. *Panopeus margentus* new species, holotype ♂: *a*, dorsal view showing carapace and chelipeds, broken exoskeleton indicated; *b*, minor; and *c*, major chelae in frontal view; first pleopod, *d*, abdominal; and *e*, sternal views. Scales: 1 = 1 mm, 2 = 0.1 mm.

Macpherson 1987) is represented by 1 ♂, cl 9.7, cw 13.2 mm. *Pilumnus reticulatus* Stimpson, 1860 is represented by 1 fragmentary ♂, cl 5.9, cw 7.9 mm, which is seemingly closest to the variant *forma tessellata* discussed by Rathbun (1930) and Boschi (1964).

*Etymology.*—The specific name is a construct from the Latin equivalent of Mar del Plata, “mare,” sea, and “argentum,” silver, treated as a masculine noun.

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