



Order Isopoda
Suborder Cymothoidea
Family Bopyridae
Subfamily Bopyrinae

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Prepared by: T. D. Stebbins

***Probopyria* sp. A**

SPECIMENS

1 female, 1 male

HOST

Automate sp. A SCAMIT, 1995 [Decapoda, Caridea, Alpheidae]

COLLECTION INFO

16 July 1991, RV 0791-1D4, 30 m
LACSD, Southern California

DIAGNOSTIC CHARACTERS (FEMALE)

- Cephalon (head) fused with 1st pereonite, but distinctly extended and produced into anterolateral "horns"
- Posteroventral border of head (barbula) with 2 pairs of lateral projections, both longer than wide
- Maxilliped without palp but with setose anteromedial corner
- Brood pouch fairly gaping, not enclosed by oostegites
- Oostegite 1 with posterolateral extensions; oostegite 5 long and slender
- Pleon with 6 distinct pleomeres separated by deep lateral notches
- 4 pairs of biramous pleopods (5th pair absent)
- No uropods

RELATED SPECIES

Probopyria alpei (Richardson 1900)

Probopyria elliptica Markham, 1992

NOTES

The two specimens of *Probopyria* sp. A (1 female, 1 male) were collected in 1991 by the Los Angeles County Sanitation Districts. The isopods were found infesting the branchial cavity of an undescribed species of alpheid shrimp, *Automate* sp. A (see SCAMIT, 2011; p. 111), and were tentatively thought to be a possible species of *Probopyrus* Giard & Bonnier, 1888 (Don Cadien [DBC], pers. comm.). I (TDS) received the isopods from DBC in 1999 and spent some time examining the female, although I limited my examination to easily visible external characters in order to not damage the specimen. Based upon this examination, I concluded that the isopods were more likely a species of *Parabopyrella* Markham, 1985. The specimens were subsequently sent to John Markham (JCM; Arch Cape Marine Laboratory, Arch Cape, Oregon) for further examination and possible description. Upon receipt, JCM agreed that the specimens were likely a new species, but one which was similar in general appearance to *Parabopyrella mortenseni* (Nierstrasz & Brender à Brandis, 1929) of the western Atlantic. JCM subsequently

communicated to TDS that the resemblance to *Parabopyrella* was only superficial, and that the species may instead be a member *Probopyriscus* Markham, 1982, a monotypic genus (i.e., *P. novempalensis*) known to parasitize alpheid shrimp in Hong Kong (JCM, pers. comm., 9/22/2003). However, JCM eventually determined that the isopods actually represent an undescribed species of *Probopyria* Markham, 1985, a genus that he originally erected to include the species previously known as *Probopyrus alpei* (Richardson, 1900) that infests several species of *Alpheus* along the Atlantic coast of the U.S. (JCM, pers. comm., 8/1/2008), and which also ranges to at least Antigua and Brazil. In addition to *Probopyria alpei*, the only other known species of the genus is *P. elliptica* Markham, 1992 from Hong Kong.

Probopyria sp. A thus represents the third species of the genus, as well as the first record of *Probopyria* in the eastern Pacific. It also represents the first record of any bopyrid known to be a parasite of the alpheid shrimp genus *Automate* (JCM, pers. comm.). Of the two described species of the genus, *Probopyria* sp. A most closely resembles *P. alpei* (see Fig. 1 below).

The host shrimp *Automate* sp. A is presently being described by S. De Grave and D. Cadien (DBC, pers. comm.).

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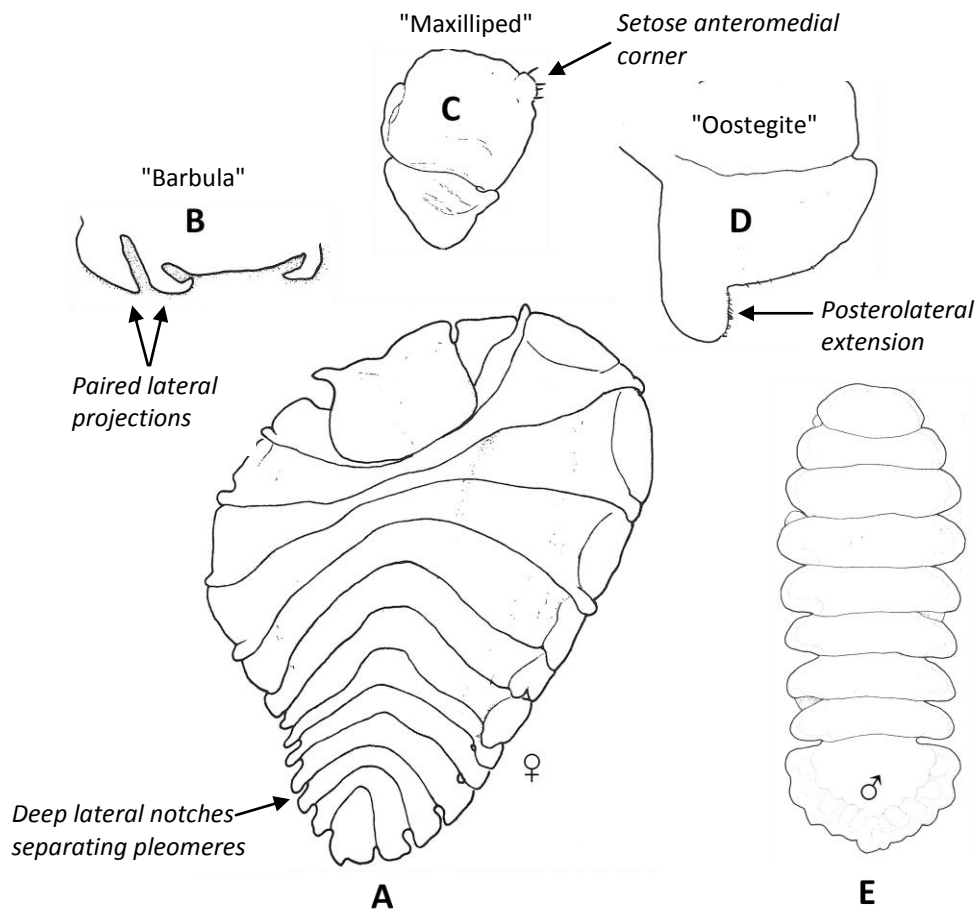


FIGURE 1. *Probopyria alpei* (Richardson, 1900). A-D, holotype ♀; E, allotype ♂: (A) Female, dorsal view, (B) Posteroventral portion of head (Barbula), (C) Right maxilliped, (D) Right oostegite 1; (E) Male, dorsal view. [Modified after figs. 15-16 in Markham, 1985]