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THE TAXONOMIC STATUS OF *MANDIBULOPHOXUS GILESI* BARNARD, 1957 (CRUSTACEA: AMPHIPODA)

By W. Scott Gray, Jr. and John C. McCain
University of the Pacific, Pacific Marine Station, Dillon Beach, California; Smithsonian Oceanographic Sorting Center, Washington, D. C.

Barnard (1957) erected the genus *Mandibulophoxus* to accommodate those species of phoxocephalids in which the mandibular palp was attached to a bulky process on the body of the mandible. At this time he described the new species, *Mandibulophoxus gilesi,* from a single specimen and named it as the type-species of the genus. In his excellent monograph on the eastern Pacific Phoxocephalidae (1960) he synonymized *M. gilesi* with *M. uncirostratus* (Giles, 1890) on the basis of Pillai's (1957) paper. Specimens that agree well with Barnard's description of *M. gilesi* have been collected in Tomales Bay, California and Yaquina Bay, Oregon and they are herein compared with the descriptions of *M. uncirostratus* by Giles and Pillai.

Mandibulophoxus gilesi Barnard, 1957, new synonymy

Mandibulophoxus gilesi Barnard, 1957, pp. 433–435, figs. 1–2.

Mandibulophoxus uncirostratus (not Giles, 1890).—Barnard, 1960, p. 359 [in part].

Material examined: California, Tomales Bay, offshore from Pacific Marine Station, 2.1 meters in fine sand, 2 ♀♀ (3.5–4.7 mm).

Oregon, Yaquina Bay, near oceanic end of south jetty. 5.5–7.3 meters in coarse sand, 5 ♀♀ (3.7–5.2 mm).

Discussion: A comparison of the eastern North Pacific specimens with the description and figures of Pillai (1957) has revealed the following differences:

1. Pillai's figures of *M. uncirostratus* show fewer spines on the rami of uropods 1 and 2 than on the eastern North Pacific specimens. His figure V-12 of uropod 1 show 4 spines on both rami whereas our specimens

FIGURE 1. *Mandibulophoxus gilesi* from Yaquina Bay. *a,* telson; *b,* lateral view; *c,* gnathopod 2; *d,* gnathopod 1; *e,* uropod 1; *f,* mandible; *g,* pereopod 1; *h,* uropod 2; *i,* uropod 3; *j,* pereopod 2; *k,* pereopod 3; *l,* pereopod 5; *m,* maxilla 1; *n,* maxilla 2.

have 5 on the inner ramus and 6 on the outer. Pillai's fig. V-13 shows 3 spines on the inner ramus of uropod 2 and 4 on the outer. Our specimens have 5 spines on the inner ramus of uropod 2 and 7 on the outer.

2. Pillai's figure V-11 shows 3 or 4 teeth on article 2 of pereopod 5 while our eastern North Pacific specimens have over 6 teeth. In addition article 4 is figured as much longer than article 5 but they are almost equal in our specimens.

3. Giles (1890) and Pillai both state and figure the rostrum of *M. uncirostratus* as deflexed or hook-shaped; in our specimens the rostrum is only slightly bent downward.

4. Pillai states that *M. uncirostratus* has a tooth in addition to a strong spine on the palm of gnathopods 1 and 2. In fig. V-6 he shows a well defined sharp cusp on the distal posterior margin of the palm of the propodus, presumably the tooth to which he was referring. Our specimens bear no tooth on the palm of the gnathopods but do have what might be considered a strong spine and a well defined but rounded cusp. The proportions of the articles of gnathopod 2 are unusual in Pillai's figures but this is undoubtedly due to the omission of the joint between articles 4 and 5.

5. Pillai states and his figures show that the inner ramus of uropod 3 is small, less than ½ the length of the first segment of the outer ramus. In our specimens the inner ramus is almost equal in length to the first segment of the outer ramus.

6. Pillai's figures of pereopod 3 of *M. uncirostratus* show that article 4 is shorter than article 5; in our specimens these articles are approximately equal in length.

7. The process on the body of the mandible to which the mandibular palp is attached was figured by Pillai as being much shorter and less distinct in *M. uncirostratus* than in our specimens.

8. In Pillai's figures of *M. uncirostratus* article 5 of pereopod 4 is approximately ½ to ⅔ the lengths of articles 4, 6, and 7; in our specimens articles 4, 5, and 6 are approximately equal in length and article 7 is approximately ½ the lengths of articles 4, 5, and 6.

Other differences between Pillai's figures and our specimens, particularly in the proportions and degree of setation of various appendages could be merely artifacts of illustration and we do not believe their value to be as great as the above-mentioned differences. Pillai's figures show a convex dorsal outline in lateral view, whereas all our specimens were concave. Whether this curvature varies with the type of preservation or is a true difference between the species requires examination of living specimens.

In view of the differences listed above, we are reinstating Barnard's species, *M. gilesi*. *M. gilesi* thereby has a known distribution from Oregon to Southern California and *M. uncirostratus* is limited to the Madras and Ceylon coasts.

Species of *Paraphoxus* show sexual dimorphism in the inner ramus of uropod 3 which is relatively longer in the male. As far as we know, males of *M. gilesi* and *M. uncirostratus* have not been described. Giles does not state the sex of his specimen.

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