Anarthron sp SD1
Ostracoda: Myodocopida: Philomedidae

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SCAMIT CODE: None

Date Examined: January 2001

SYNONYMY: Ostracoda sp SD2 CSDMWWD

Vouchered by: D. Pasko & Ron Velarde

Voucher sheet prepared by: Dean Pasko

LITERATURE:

Kornicker, L.S. 1967. The Myodocopid Ostracoda families Philomedidae and Pseudophilomedidae (New Family). Proc. U. S. Nat. Mus. 121 (3580): 1-35.
Kornicker, L.S. 1975. Antarctic Ostracoda (Myodocopina). Smith. Contr. Zool. 163 [in 2 parts]: 720 pp..
Lucas, V.Z. 1931. Some Ostracoda of the Vancouver island Region. Contr. Can. Bio. Fish. 6(17): 397-416.

DIAGNOSTIC CHARACTERS: From females (n=2): 1.8 mm -2.1 mm CL; males (n=9): 2.3 mm - 2.8 mm CL.

Carapace elongate, a caudal extension present. Surface ornamentation includes horizontal ribs and scattered broad shallow fossae. **Female** (Fig. A) with three laminar horizontal primary ribs, one running through the adductor muscle and one above and below. A fourth very weak and short ridge extends obliquely back from the dorsal extremity of the rostrum, terminating just posterior to it. **Male** (Fig. B) with three weak, horizontal ribs, one above and one below the adductor muscle and one more above the ventral margin of the carapace. The dorsal rib is produced into a low laminar ridge which is occasionally bisected by a saddle to form two small posterior swellings, each of which may bear erect setae.

Infold bristles: rostral and caudal bristles long, tapering and bare.

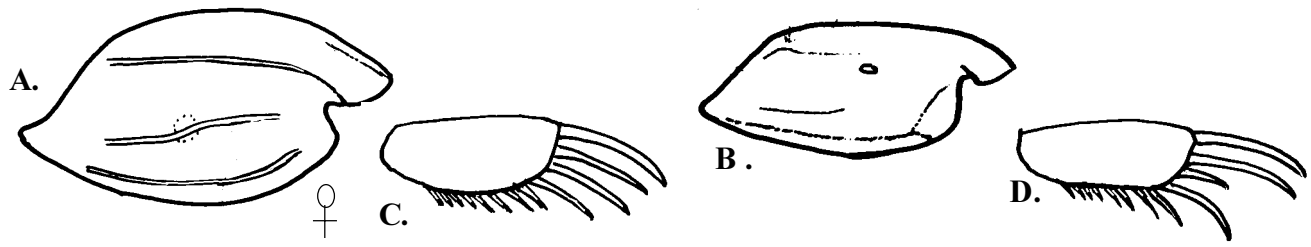
Antenna 2: **Female** endopodite three jointed, with a single terminal bristle (Fig. E). **Male** endopodite with three joints: 1st joint with six basal bristles (5 proximal, 1 distal), 2nd joint elongate with three spinose ventral bristles, 3rd joint reflexed with two distal bristles and 12 "pustules" along ventral margin (Fig. F).

Rod-shaped organ: **Female,** elongate with two sutures and approximately 8-10 "wrinkles," with oblique tip bearing two distal setae plus a supra-terminal fine seta (Fig. G). **Male** similar, except distally where two median setae are flanked by two fine setae, one dorsal and one ventral (Fig. H).

Mandible: **Female** exopodite approximately 80% the length of the first endopodite joint, with a prolonged tip overhanging two long, spinose distal bristles (Fig. I). **Male** similar without prolonged tip. **Female** coxal endite birfurcate, densly setose, with a single minute bristle near its base (Fig. J). **Male** endite reduced to two strong spines (Fig. K).

7th limb: **Female** with 10 bristles each bearing three "bells"; terminal comb with six alate teeth and one long peg, opposite side bearing one peg (Fig. L). **Male** 7th limb variable with 4 - 6 distal bristles.

Caudal furca with 12 claws: **Female**, 4L - 8S, long claws decreasing in size (Fig. K); **male**, 2L - 1S - 1L - 8S. All large claws with numerous secondary teeth / spines (Fig. L).



RELATED SPECIES AND CHARACTER DIFFERENCES:

The genus *Anarthron* Kornicker 1975 was erected for a group of species intermediate in character between *Philomedes* and *Scleroconcha*. *Anarthron* is differentiated from *Scleroconcha* by the reduced number (< 10) of true sutures on the rod-shaped organ, and from *Philomedes* by the presence of longitudinal carapace ribs and the more elongate rod-shaped organ bearing two or more sutures in addition to the various pseudo-sutures or "wrinkles".

Anarthron sp SD1 posesses the intermediate characters discussed by Kornicker (1975) and thus differs from all other philomedid ostracods in the Southern California Bight. It most closely resembles *Scleroconcha trituberculata* Lucas 1931 in general appearance, however, *S. trituberculata* is less elongate (i.e., taller dorsum-to-ventrum), has more distinctive fossae, has four ribs, of which the lower two meet anteriorly, and has 16 furcal claws. *Anarthron* sp SD1 appears to be closely related to *A. reticulata* (Hartmann 1965). *Anarthron* sp SD1 differs in possesing more shallow fossae, a more elongate caudal extension, the presence of horizontal ribs in male specimens, details of the endopodites of second antenna (male & female), and a less tapered tip of the rod-shaped organ (female), as well as differences in the number of sutures and "wrinkles."

DEPTH RANGE / HABITAT: 88 - 115 m / coarse sand

DISTRIBUTION: La Jolla to Point Loma, San Diego, CA.
(CSDMWWD Stations: E-9, E-14, E-19, B-8, B-9, B-13)