

10 February 2005

AORIDAE – A, TB Urosome articles separate, uropod 3 usually biramus. Rostrum short or absent, eyes small or large, interantennal head lobe distinct and rounded. Antenna 1 usually long and often missing. Gnathopod 1 larger than gnathopod 2 in most genera. Telson entire, fleshy with small dorsal cusps. Pereopod 7 long with propodus extending beyond pereopod 6. Taxonomy emphasizes males. Aoridae are tube building suspension feeders, that occur at a wide range of depths. The taxonomy of Aoridae is not reliable for females.

1. Male gnathopod 1 merochelate (Conlan & Bousfield 1982:91, fig. 8 whole body):1; (Conlan & Bousfield 1982:84, fig. 3 right male body):2 2
- Male gnathopod 1 carpochelate (Chapman & Dorman 1975:105, fig 1d):3 or subchelate, (Conlan & Bousfield 1982:82, fig. 2, male GN1):4 9
2. Male coxa 1 greatly inflated (Conlan & Bousfield 1982:84, fig. 3 right male body):2, mandibular palp article 3 falcate and densely setose (Conlan & Bousfield 1982:84 fig 3 LFT MD):5, antenna 1 accessory flagellum conspicuous but only as long as first article of flagellum (Conlan & Bousfield 1982:84, fig. 3 antenna 1 from whole body):6 *Columaora cyclocoxa*
- Male coxa 1 not inflated (Conlan & Bousfield 1982:91, fig. 8 whole body):1, mandibular palp article 3 not falcate or densely setose (todd palp):7; antenna 1 accessory flagellum minute or absent (Conlan & Bousfield 1982:90, fig. 7 ACC FL):8 (view under 100x) 3
3. Coxae 2-4 distinctly deeper than wide (whole body):9; article 5 of gnathopod 2 distally blunt (Todd G2):10; uropod 3 short (todd):11; mandibular palp stout (todd palp):7 *Paracorophium sp.*
- Coxae 2-4 not deeper than wide (Conlan & Bousfield 1982:91, fig. 8 whole body):1; distal end of gnathopod 2 article 5 sharply pointed (Conlan & Bousfield 1982:91, fig. 8 whole body):1, (Conlan & Bousfield 1982:84, fig. 3 right male body):2; uropod 3 long (Conlan & Bousfield 1982:82, fig. 2, male GN1):4; mandibular palp slender, article 3 cylindrical, straight and weakly setose (Conlan & Bousfield 1982:91 fig 8 Rt Md):12 4
4. Uropod 2, peduncle lacking ventral distal interramal spine *Aoroides secundus*
- Uropod 2, peduncle with prominent ventral distal interramal spine (Conlan & Bousfield 1982:91 fig. 8, blow up U2):13 5
5. Male gnathopod 1, article 5 without anterior setal bundles, article 5 width greater than 1.4 times width of article 2 (Conlan & Bousfield 1982:91, fig. 8 whole body: 1, Conlan & Bousfield 1982:94, fig. 10 male G1 only):14, (Conlan & Bousfield 1982:92, fig. 9 male G1 only):15 6
- Male gnathopod 1 article 5 with anterior setal bundles and with article 5 and article 2 widths nearly equal (Conlan & Bousfield 1982:87, fig. 4 male G1 only: 16, Conlan & Bousfield 1982:88, fig. 5 male G1 only):17 8
6. Gnathopod 1, anterior and lateral edges of article 2 and anterior edge of article 3 densely setose, hind margin of article 2 bare (Conlan & Bousfield 1982:91, fig. 8 whole body):1 *Aoroides columbiae*
- Gnathopod 1, anterior and lateral edges of article 2 and anterior edge of article 3 sparsely setose, hind margin of article 2 with setae (Conlan & Bousfield 1982:94, fig. 10 male G1 only: 14, Conlan & Bousfield 1982:92, fig. 9 male G1 only):15. 7

7. Gnathopod 1, anterior edge of article 3 with sparse setae (Conlan & Bousfield 1982:94, fig. 10 male G1 only):14 *Aoroides spinosus*
 - Gnathopod 1, anterior edge of article 3 with dense setae (Conlan & Bousfield 1982:92, fig. 9 male G1 only):15 *Aoroides exilis*
8. Gnathopod 1, article 2 anterior margin densely setose (Conlan & Bousfield 1982:87, fig. 4 male G1 only):16, thick spines of inner edge of inner plate of maxilliped nearly smooth (Conlan & Bousfield 1982:87, fig. 4 MXPDL):18 *Aoroides inermis*
 - Gnathopod 1, article 2 anterior margin sparsely setose (Conlan & Bousfield 1982:88, fig. 5 male G1 only):17, thick spines of inner edge of inner plate of maxilliped serrate (Conlan & Bousfield 1982:88, fig. 5 MXPDL):19 *Aoroides intermedius*
9. Gnathopod 1 subchelate (Bousfield & Conlan 1982:82, fig. 2, male GN1):4 Barnard 1962 7-9, fig 2):20 *Bemlos concavus*
 - Gnathopod 1 carpochele (Chapman & Dorman 1975:105, fig 1d):3 10
10. Gnathopod 2 article 2 1/3 width of gnathopod 1 article 2 (Chapman & Dorman 1975:105, fig 1 a):21, expanded proximal anterior of mature male gnathopod 1 with medial stridulation ridges that bear against the lateral anterior edge of expanded article 2 (Chapman & Dorman 1975:105, fig 1d):3 *Grandidierella japonica*
 - Gnathopod 2 article 2 and gnathopod 1 article 2 widths nearly equal (Shoemaker 1942b:19, fig 6a, anterior through G2 only):22 (Bousfield 1973:261, pLXLIX.1, whole body):23 11
11. Article 2 of male gnathopods 1 and 2 not expanded (Shoemaker 1942b:19, fig 6a, anterior through G2 only):22 *Paramicrodeutopus schmitti*
 - Article 2 of male gnathopods 1 and 2 both expanded (Bousfield 1973:261, pLXLIX.1, whole body):23 *Microdeutopus gryllotalpa*

Aoroides columbiae Walker, 1898. Amchitka Is, Alaska to Bahia de San Quintin, Baja California, 0 - > 100 m.

Aoroides exilis Conlan and Bousfield, 1982b, Klokachef Is., Alaska to Santa Maria Basin, California, 0 - 50 m.

Aoroides inermis Conlan and Bousfield, 1982b Goose Island, B. C. to Santa Maria Basin, California, , 0-148 m.

Aoroides secundus Guryanova, 1938 Floats and docks of central San Francisco Bay and southern California harbors, 0-2 m.

Aoroides spinosus Conlan & Bousfield, 1982b Prince William Sound, Alaska to Coos Bay, Oregon, 0-45 m.

Bemlos concavus (Stout, 1913) B. C., Canada to southern California, 0 - 3m.

Columbaora cyclocoxa Conlan and Bousfield, 1982 Exposed rocky algae covered beaches, southeastern Alaska to southern California, 0-10 m.

Grandidierella japonica Stephensen 1938 In fine muds of high intertidal estuary flats from the Fraser River estuary, Canada to Bahia de San Quintin, Baja California, 0- 10 m. (Can survive on epiphytes, suspended particulates or detritus and is a facultative cannibal/ and amphipod predator introduced from Japan to eastern Pacific, England and Australia. Distinctive male gnathopod and black head permit recognition of wandering males in the field.)

Microdeutopus gryllotalpa Costa, 1853 , intertidal mud flats of Humboldt Bay, CA since the 1980s (Boyd et al. 2002).

Paramicrodeutopus schmitti (Shoemaker, 1942) Monterey Bay, CA to Cape San Lucas, Baja California, 0 – 43 m

Paracorophium sp. Intertidal mudflats of northern Humboldt Bay, CA 0 m.

Paramicrodeutopus schmitti (Shoemaker, 1942) Monterey Bay, CA to Cape San Lucas, Baja California, 0-221 m.

Aoridae Plate 1

Aoridae

