

Key to the Common Corophiidae, Aoridae and Isaeidae¹
Known from the San Diego Region of the Southern California Bight
by Ronald G. Velarde

1. Gnathopod 2 merochelate, heavily setose and larger than subchelate gnathopod 1 in both sexes; antenna 2 stout in both sexes; uropod 3 uniramus **Corophium**²
1. Gnathopod 2 not merochelate; antenna 2 normal; uropod 3 uniramus or biramus 2
2. Head lobes immense, extending anteriorly beyond article 1 of antenna 1 peduncle, forming pedunculate lateral ocular lobes; eyes distal; uropod 3 uniramus; gnathopod 2 larger than gnathopod 1 **Ampelisciphotis podophthalma**
2. Head lobes not immense, if produced, not reaching end of article 1 of antenna 1 peduncle; uropod 3 biramus 3
3. Head lobes produced, extending beyond the mid-point of article 1 of antenna 1 peduncle; large triangular dark brown eyes fill each lobe; both male gnathopods enlarged, gnathopod 1 carpochelate, and gnathopod 2 subchelate and heavily setose; female gnathopod 2 larger than gnathopod 1 **Amphideutopus oculus**
3. Head lobes only slightly produced, never reaching the mid-point of article 1 of antenna 1 peduncle; eyes large and triangular or small and round; if male gnathopod 1 carpochelate, gnathopod 2 will not be enlarged or heavily setose 4
4. Gnathopod 2 larger than gnathopod 1 (obvious in males, check females carefully!); gnathopods 1 & 2 subchelate in both sexes (Isaeidae, in part) ... 5
4. Gnathopod 1 larger than gnathopod 2 (obvious in males, check females carefully!); male gnathopod 1 carpochelate, merochelate or if subchelate, much larger than gnathopod 2; female gnathopods 1 & 2 subchelate (Aoridae) ... 9
5. Uropod 3 with inner ramus distinctly shorter than outer ramus **Photis**³
5. Uropod 3 with subequal rami 6

¹ Barnard & Karaman (1991) include the families Aoridae and Isaeidae in the family Corophiidae while other workers (including SCAMIT) prefer to keep them separate.

² See key to species in J.L. Barnard, 1975; Shoemaker, 1949

³ See key to species in J.L. Barnard, 1962; Conlan, 1983; and SCAMIT and City of San Diego voucher sheets.

6. Uropod 2 with a peduncular spine; head lobe rounded; eyes small, round; ventral margin of epimeron 2 with setae ***Protomedeia articulata***⁴
6. Uropod 2 without a peduncular spine; head lobe acutely produced; eyes large, filling most of head lobe; ventral margin of epimeron 2 without setae *Gammaropsis*...7
7. Epimeron 3, posterior margin strongly convex; epimera 1-3 with a lateral ridge emanating from postero-distal notch; urosomites 1 and 2 with pair of erect setae and cusps ***Gammaropsis thompsoni***
7. Epimeron 3, posterior margin not strongly convex (straight or nearly so); epimera 1-3 without a lateral ridge emanating from postero-distal notch (though notch and tooth may be present); urosomites 1 and 2 without erect setae and cusps 8
8. Epimera 1-3 rounded postero-ventrally, notch and tooth absent; uropod 1 peduncle with many spines; telson entire, without lobes; accessory flagellum a minute button . ***Gammaropsis ociosa***
8. Epimera 1-3 with small notch and acute tooth postero-distally; uropod 1 peduncle with few spines (<5); telson bilobed, each lobe with erect seta distally; accessory flagellum consists of one normal article ***Gammaropsis martesia***
9. Body dorso-ventrally flattened; mandibular palp well developed, and obvious; male gnathopod 1 subchelate, much larger than gnathopod 2; head lobe rounded; uropod 2 with a peduncular spine; (female undescribed) ***Bemlos aurbettius***
9. Body laterally compressed; mandibular palp slender, not always obvious; male gnathopod 1 carpochelate or merochelate; head lobe rounded or acute; uropod 2 with or without a peduncular spine 10
10. Head lobe acute; male gnathopod 1 carpochelate; uropod 2 without a peduncular spine; accessory flagellum with 2 articles; pereonite 7 commonly with dorsal pigment patch ***Rudilemboides stenopropodus***
10. Head lobe rounded; male gnathopod 1 merochelate; uropod 2 with a peduncular spine. . .
..... *Aoroide*... 11
11. Body without pigment; uropod 2 with minute peduncular spine, <1/10th the length of rami (check uropod 2 carefully) ***Aoroidea* sp A**
11. Body pigmented; uropod 2 with well developed peduncular spines, >1/4 the length of rami (easily viewed with dissection microscope) ***Aoroidea* spp**⁵

⁴ *Protomedeia articulata* probably represents a species complex.

⁵ See key to species in Conlan and Bousfield 1982.