

**Key to the Aoridae Reported from the
Southern California Bight, SCAMIT, Edition 14**

D. Pasko 18May2017 (Rev. 5Dec2023)

INFRAORDER COROPHIIDA

Superfamily Aoroidea

FAMILY AORIDAE

Subfamily Ampithoinae

Aoroides columbiae Walker 1898

Aoroides exilis Conlan & Bousfield 1982

Aoroides inermis Conlan & Bousfield 1982

Aoroides intermedia Conlan & Bousfield
1982

Aoroides secunda Gurjanova 1938

Aoroides spinosa Conlan & Bousfield 1982

Aoroides sp A SCAMIT 1996 §

Bemlos audbettius (J. L. Barnard 1962)

Bemlos concavus (Stout 1913)

Bemlos macromanus Shoemaker 1925

Columbaora cyclocoxa Conlan & Bousfield
1982

Grandidierella japonica Stephensen 1938

Paramicrodeutopus schmitti (Shoemaker
1942)

Key to the SCB Aoridaeⁱ

4. Uropod 3 uniramous; female gnathopod 2 transverse, weakly parachelate
..... *Grandidierella japonica*
- Uropod 3 biramous; female gnathopod 2 not parachelate 5
5. Mandibular palp slender, article 3 cylindrical; antenna 1 accessory flagellum a minute button
..... *Aoroides* 10
- Mandibular palp robust, article 3 broadened; antenna 1 accessory flagellum multi-segmented.
..... 6
6. Mandibular palp, article 3 nearly twice as long as article 2; male gnathopod 1 merus produced
into elongated distal tooth/process; male coxa 1 circular, enlarged to encircle head; female
coxa 1 distinctly smaller than coxa 2 *Columbaora cyclocoxa*
- Mandibular palp, article 3 subequal to or shorter than article 2; male gnathopod 1 subchelate
or carpochelate; male coxa 1 not circular, not grossly enlarged; female coxa 1 subequal to or
only slightly smaller than coxa 2 7
7. Accessory flagellum 2–3 articles; pleonites without paired dorsal setae; male gnathopod 2
carpochelate; female gnathopod 1, article 5 produced into postero-distal tooth
..... *Paramicrodeutopus schmitti*
- Accessory flagellum of 8 articles; pleonites 3 & 4 with paired dorsal setae; male gnathopod 2
subchelate; female gnathopod 1, article 5 not distally produced into acute tooth *Bemlos* ... 8
8. Male coxa 1 produced strongly forward; male sternum with 6 ventral processes (pereonites
(2–7); epimeron 1–3 without oblique ridge and weak distal tooth *Bemlos audbettius*
- Male coxa 1 weakly produced; male sternum with 0 or 2 ventral processes (pereonites 2–3);
epimeron 1–3 with oblique ridge and relatively strong distal tooth 9
9. Male sternum with 2 ventral processes (pereonites 2–3); telson emarginate; male gnathopod 1
transverse; female gnathopod 2 oblique, finely toothed *Bemlos macromanus*
- Male sternum without ventral processes; telson posterior margin straight; male gnathopod 1
oblique; female gnathopod 2 transverse *Bemlos concavus*
10. Male 11
- Female 17
11. Gnathopod 1 basis posterior margin bare 12
- Gnathopod 1 basis posterior margin setose 16

12. Uropod 2 peduncle lacking distal median process between rami or process exceedingly small (<1/6 rami) and difficult to view13
 – Uropod 2 peduncle with distal median process between rami clearly visible ($\geq 1/5$ rami)14
13. Uropod 2 without distal median process between rami; antennae and gnathopod 1 basis with dense, plumose setae *Aoroides secundus*
 – Uropod 2 with tiny distal median process between rami; antennae and gnathopod 1 basis with simple setae *Aoroides* sp A
14. Gnathopod 1 carpus dorsally with only one or two distal setae, dorsal marginal clusters of multiple setae absent *Aoroides columbiae*
 – Gnathopod 1 carpus dorsally with multiple (4–15) setal groups or clusters of setae15
15. Gnathopod 1 carpus dorsally with 8-15 setal clusters, gnathopod 2 carpus and propodus with long setae; body speckled with clusters of concentrated pigment in pereonite hind corners *Aoroides inermis*
 – Gnathopod 1 carpus dorsally with 5–7 setal bundles, gnathopod 2 carpus and propodus with only short setae; body speckled but rarely or weakly with concentrated spots in pereonite hind corners *Aoroides intermedius*
16. Gnathopod 1 basis anterior margin with sparse, short setae; gnathopod 2 carpus with dense setal clusters dorsally, setae longer than article width *Aoroides spinosus*
 – Gnathopod 1 basis anterior margin with numerous, long setae; gnathopod 2 carpus with sparse thin setal clusters dorsally, setae shorter than article width *Aoroides exilis*
17. Uropod 2 peduncle lacking distal median process between rami or process exceedingly small (<1/6 rami) and difficult to view18
 – Uropod 2 peduncle with distal median process between rami clearly visible ($\geq 1/5$ rami)19
18. Uropod 2 without distal median process between rami; gnathopod 1 basis with 1 or more long distal, plumose setae *Aoroides secundus*
 – Uropod 2 with tiny distal median process between rami; gnathopod 1 basis with single very short, simple distal seta *Aoroides* sp A
19. Gnathopod 1 basis anterior margin with multiple long setae distally; mandibular palp, article 2 with one or more distal setae20
 – Gnathopod 1 basis anterior margin bare or with only a single distal cluster of short setae; mandibular palp, article 2 bare22
20. Gnathopod 1 basis with many long setae anterodistally; marginal teeth along outer plate of maxilliped strongly serrated (practically visible with dissection scope), lower teeth with 1–4 cusps each; body pigmented in broad bands, with parts of head and pereonites 6 and 7 dorsally bare *Aoroides columbiae*
 – Gnathopod 1 basis with few long setae anterodistally; marginal teeth along outer plate of maxilliped weakly serrated (typically not visible with dissection scope), lower teeth with 0–1 cusps each; body pigmentation typically speckled21
21. Pereopod 7 basis narrow; marginal teeth along outer plate of maxilliped with lower teeth smooth (below the upper 3); body speckled with clusters of concentrated pigment in pereonite hind corners *Aoroides inermis*
 – Pereopod 7 basis broad; marginal teeth along outer plate of maxilliped with 0–2 cusps on lower teeth; body speckled but rarely or weakly with concentrated spots in pereonite hind corners *Aoroides intermedius*

- 22. Gnathopod 1, medial margin of propodus with three or fewer setal bundles, all of similar length; anterior margin of gnathopod 2 basis nearly bare, but for a few short distal setae; oostegite large, notably longer than coxal gill; body pigmented in broad bands, with parts of head and pereonites 6 and 7 dorsally bare.....*Aoroides exilis*
- Gnathopod 1, medial margin of propodus 5 or more setal bundles, proximal setae shorter than distal groups; anterior margin of gnathopod 2 basis bearing multiple short setae; oostegite relatively small, generally not exceeding coxal gill; body diffusely speckled throughout
.....*Aoroides spinosus*

ⁱ This key was adopted from Myers & Lowry 2003; Conlan & Bousfield 1982; Cadien 2004 and 2023.

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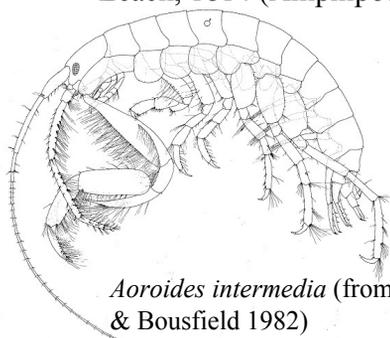
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Cadien, DB. 2023. Key (decision tree) to separation of *Aoroides* spp in the NEP – dbcadien 2May2023 (based in part on the key in Conlan and Bousfield 1982, with the addition of other characters drawn from the text or illustrations in that paper)

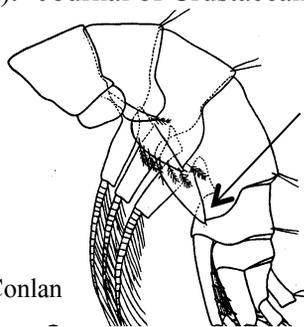
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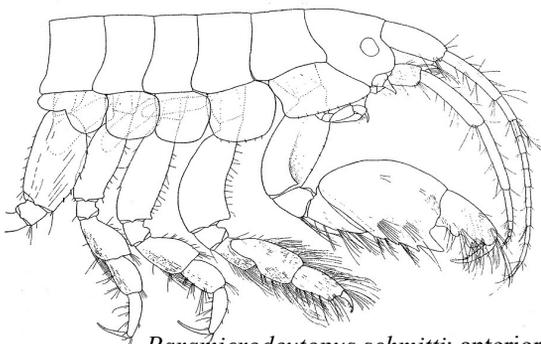
Aoroides intermedia (from Conlan & Bousfield 1982)



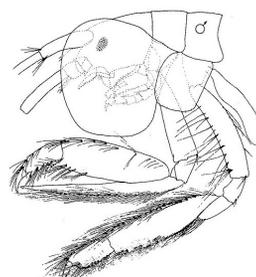
Bemlos macromanus; pereonite 7 and pleonites of male. Arrow indicates pleonite 3 oblique ridge and tooth (from Shoemaker 1925)



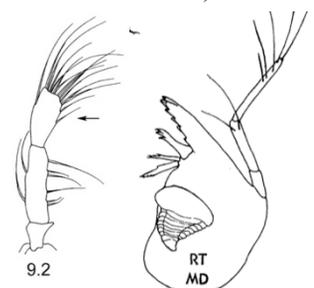
Bemlos sp, ventral process of sternum (pereonites 2-4) (from Meyers & Lowry 2003)



Paramicrodeutopus schmitti; anterior of male (from Shoemaker 1942)



Columbaora cyclocoxa male (from Conlan & Bousfield 1982)



Robust vs. slender mandibular palp: *Neomegamphopus* (left) and *Aoroides* (right). (from Meyers & Lowry 2003)