

***Americhelidium shoemakeri* (Mills, 1962)**

Nomenclature	
Phylum	Arthropoda
Class	Malacostraca
Order	Amphipoda
Family	Oedicerotidae
Authority	(Mills, 1962)
Original Description	Mills E.L. 1962.
Common Synonyms (S)	<i>Synchelidium shoemakeri</i>
Previous Names (PN)	(basonym)



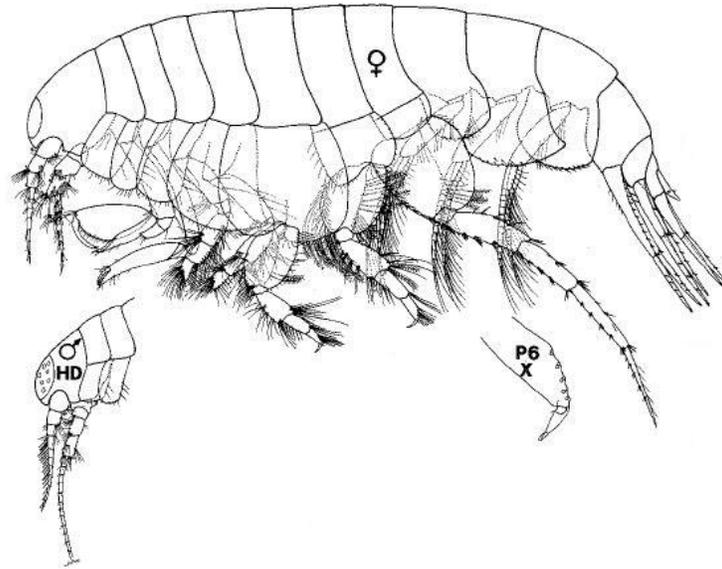
Distribution	
Type Locality	Boat Bay, Vancouver Island, British Columbia; sand, stones, rock, eel grass, kelp
Geographic Distribution	British Columbia to southern California (Bousfield & Chevrier 1996)
Habitat	Clean sand bottoms, intertidal-180 m (Chapman 2007); rarely found below 40 m (Thomas and McCann 1995)

Description	
From Bousfield and Chevrier 1996	
Female: 3.5-4.5 mm. Head, rostrum short, deflexed. Fused eyes large, fully on rostrum. Antenna medium, flagella 5-6 segmented.	
Coxa 1, not broadened hind margin with 2-3 spines, lower margin weakly setose. Coxa 2 narrow, hind margin with 5-6 unequal spines. G1, basis antero-distally nearly bare of setae; propod strong, relatively slender; palm regularly oblique, smooth, carpus narrow, hind lobe slender, apex with single spine, extending slightly beyond palm. G2, basis slender, hind margin with 1-2 long setae; propod medium, length 5-6x maximum depth; dactyl medium, length ~1/5 propod.	
Coxa 4 strongly broadened distally, hind corner acute, strongly produced, upturned. P3 & 4, distal segments regularly setose; segment 6 short, dactyl minute. Coxa 5 very large, as deep as coxa 4, hind lobe nearly bare below. Coxa 6, antero-distal lobe medium strong, regularly rounded. P5 & 6, bases subsimilar, with strong postero-proximal lobe; dactyls short. P7, basis broad, hind margin convex, inner facial row of 4-5 plumose setae.	
Pleon side plate 2, hind corner acute, produced; plate 3, hind corner obtuse. U1 & 3, rami very slightly unequal. U2, rami relatively long, outer ramus distinctly the shorter; all rami extending equidistant	

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posteriorly. U3, inner ramus with 2 marginal spines; outer ramus smooth. Telson narrowing distally, apical margin rounded, penicillate setae distal.

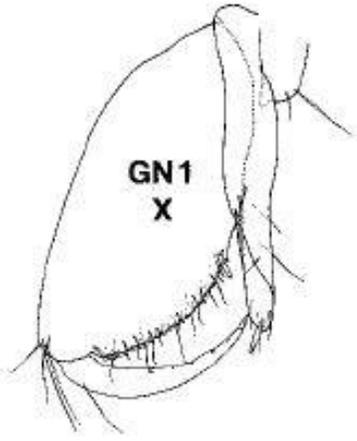
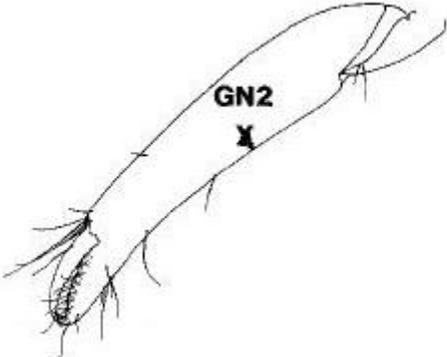
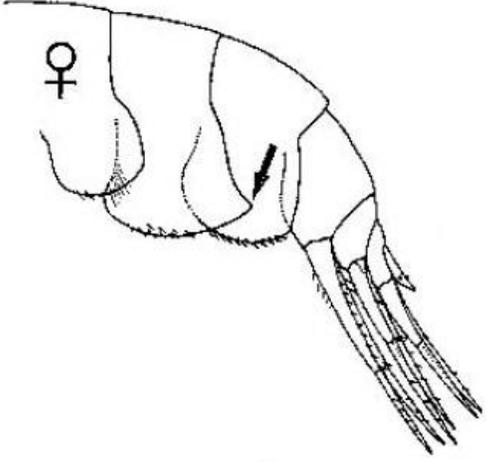
Male: 2.4-3.5 mm. A1, peduncular segments 2 & 3 shorter and less setose than female; basal flagellum 7-8 segmented. A2, peduncular segments 4 & 5 short, lacking anterior marginal brush setae; flagellum very elongate, with 50-60 segments.



Diagnostic Characteristics

Diagnostic Characteristics (from Bousfield and Chevrier 1996)	Photo, Illustrations	Photo, Illustration Credit
Mandibular palp segment 3 (female) short, length <1/2 the length of segment 2		Bousfield and Chevrier 1996

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<p>Gnathopod 1, basis, anterior margin nearly smooth (see image of whole animal, above); palm of propod markedly oblique</p>		<p>Bousfield and Chevrier 1996</p>
<p>Gnathopod 2 propod, length 5-6x greatest depth</p>		<p>Bousfield and Chevrier 1996</p>
<p>Epimeron 2 posterior ventral corner acutely produced</p>		<p>Chapman 2007</p>

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Related Species and Characteristic Differences	
Species Name	Diagnostic Characteristics
<i>Americhelidium millsii</i>	Similar to <i>A. shoemakeri</i> in the oblique G1, acute hind corner of epimeron 2, and nearly bare hind lobe of setiger 5; however, <i>A. millsii</i> differs in the following ways: <ul style="list-style-type: none">- G2, propod very slender, length ~7x depth- G1, basis with cluster of anterior marginal setae- mandibular palp segment 3 long, > ½ length of segment 2
<i>Americhelidium pectinatum</i>	Epimeron 2, posterior ventral corner square
<i>Americhelidium rectipalmmum</i>	G1, palm of propod transverse; epimeron 2, posteroventral corner subquadrate

Comments

From Bousfield and Chevrier 1996: *A. shoemakeri* is the most common species on the Pacific coast of North America. It is not closely related to any species but it is least different from *A. millsii*.

This species varies considerably, in morphology and size at maturity, throughout its geographical and bathymetrical range. The degree of variation was not considered of species significance in this investigation, but further study may indicate otherwise.

Literature

Barnard, J.L. 1971. Gammaridean Amphipoda from deep-sea transect off Oregon. *Smithsonian contributions to Zoology* 61: 1-86. (p. 51)

Bousfield E.L. and A. Chevrier. 1996. The Amphipod Family Oedicerotidae on the Pacific coast of North America. Part 1. The *Monoculodes* and *Synchelidium* Generic complexes: Systematics and Distributional Ecology. *Amphipacifica* 2(2): 75-148. (pp. 132-134)

Chapman, J. W. 2007. Gammaridea. In: Carlton, J. T., Eds. *The Light and Smith Manual. Intertidal Invertebrates from Central California to Oregon*. 4th ed. Los Angeles, CA: University of California Press. pp. 545-618. (pp. 546, 555, 583, 584)

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Thomas J. D., and L.D. McCann. 1995. The families Argisiidae, Dexaminidae, Eusiridae, Gammaridae, Leucothoidae, Melphidippidae, Oedicerotidae, Pardaliscidae, Phoxocephalidae, Podoceridae, Stegocephalidae, Stenothoidae, Stilipedidae, Synopiidae, and Urothoidae. In: Blake J. A., Watling L., Scott P. H., Eds. *Taxonomic Atlas of the Benthic Fauna of the Santa Maria Basin and the Western Santa Barbara Channel*. Volume 12. ISBN 0-93649-17-4. Santa Barbara: Santa Barbara Museum of Natural History. Chapter The Crustacea Part 3: The Amphipoda. pp. 21-136. (p. 59)

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More Information		
<p>More information about Puget Sound benthic invertebrates is available at: http://www.ecy.wa.gov/programs/eap/psamp/index.htm</p>	<p>Prepared by Julianne Ruffner (Department of Ecology), Jeff Cordell (University of Washington - Seattle) on 3/20/13. This document is available on the Department of Ecology's website at https://fortress.wa.gov/ecy/publications/SummaryPages/1403222.html.</p>	<p>If you need this document in a format for the visually impaired, call (360) 407-6764. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call (877) 833-6341.</p>