



Notomastus hemipodus Hartman, 1945

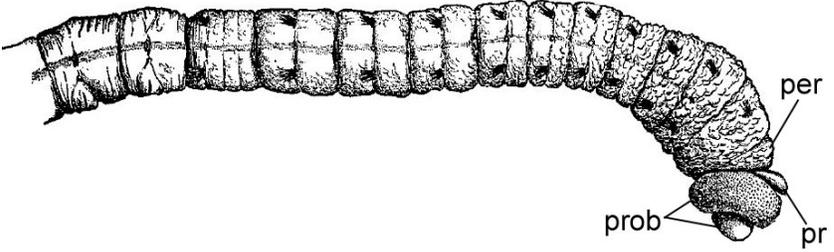
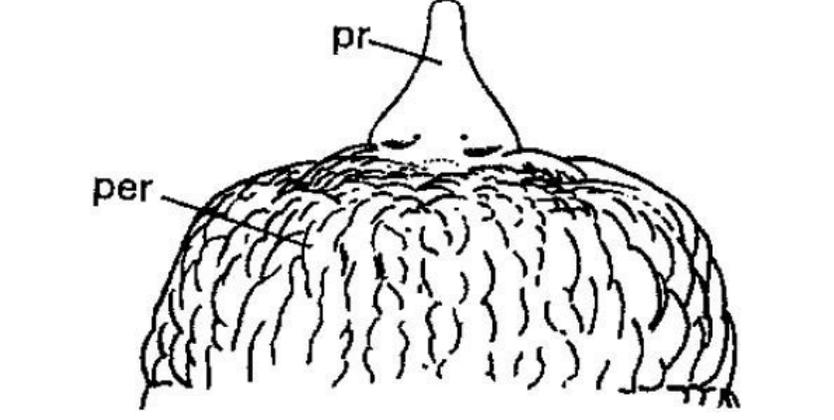
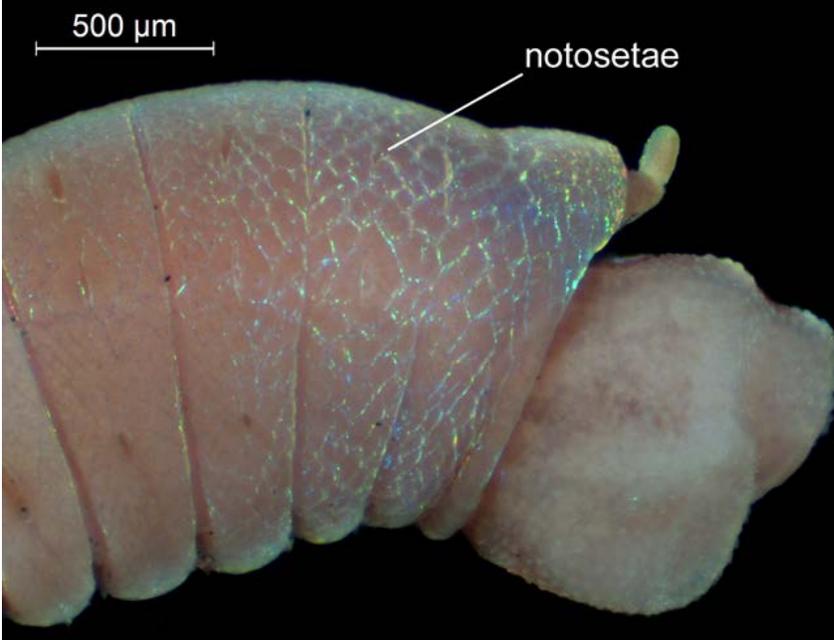
Nomenclature	
Phylum	Annelida
Class	Polychaeta
Family	Capitellidae
Synonyms	<p><i>Notomastus (Clistomastus) hemipodus</i> Hartman, 1945, 1947</p> <p><i>Notomastus americanus</i> Day, 1973</p> <p><i>Notomastus tenuis</i> (of authors NEP, not Moore 1909)</p> <p><i>Notomastus</i> sp A SCAMIT 2001 (see Rowe 2001)</p>

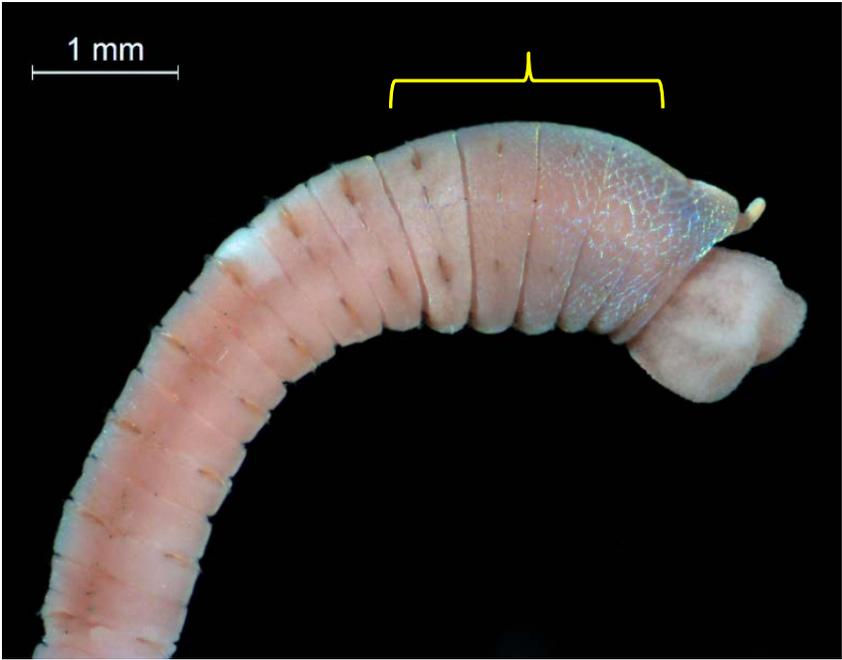
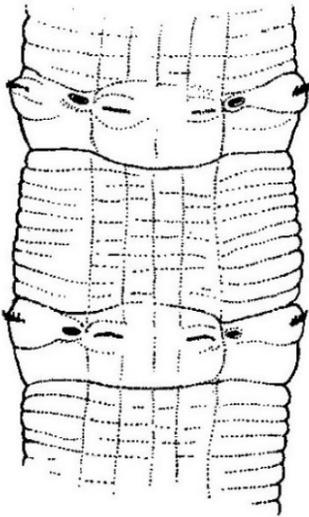
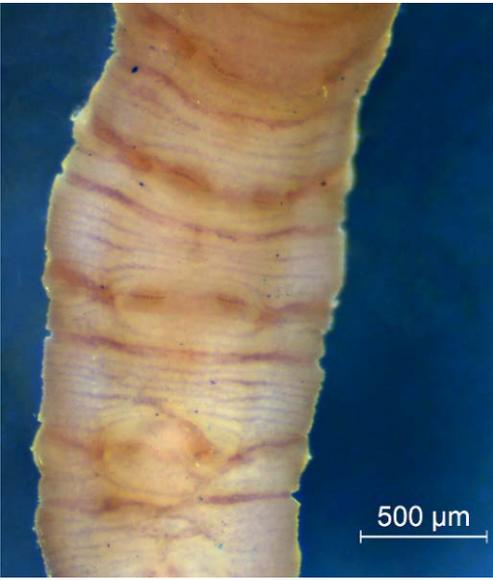


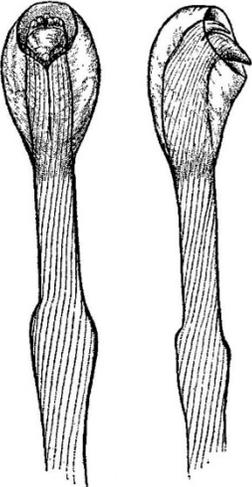
Distribution	
Type Locality	Bogue Sound, North Carolina (as <i>N. hemipodus</i>); Beaufort, NC (as <i>N. americanus</i> ; García-Garza et al 2012).
Geographic Distribution	East and Gulf coasts of North America (Blake and Ruff 2007); west coast of North America from British Columbia to Mexico (García-Garza et al 2012).
Habitat	Intertidal to shelf depths in fine sand and silt (Blake and Ruff 2007); Depth range 0.50 m – 426.72 m (García-Garza et al 2012).

Description
From García-Garza et al 2012 (unless otherwise noted)
<p>Size/Color: One nearly complete paratype – 65 mm long, 2 mm wide for 148 segments. Light tan to brown in alcohol.</p> <p>Body: 12 thoracic segments, 11 with capillaries only. 1st chaetiger uniramous. Chaetigers biannulate; transition between the 2 body regions marked by chaetal change and a constriction. Lateral organs present between noto- and neuropodia. Nephridia on intersegmental areas of last thoracic chaetigers (visible when grooves pushed apart); absent in abdomen.</p> <p>Prostomium: Triangular, with minute eyespots. Pair of nuchal slits present (near posterior margin, under peristomial fold). Achaetous peristomium about 1/3 length of chaetiger 1 (Blake 2000).</p> <p>Parapodia: Notopodia lateral in 1st thoracic chaetiger, moved dorsally in following chaetigers. Abdomen with notopodial lobes close together and neuropodial lobes lateral, expanded up to dorsal region.</p> <p>Chaetae: Bilimbate capillaries in thorax; abdomen with hooks with inflated hood and curved main fang surmounted by row of 5-6 apical teeth; shaft long, straight, with thick node near middle (Blake 2000).</p> <p>Pygidium: Simple, no appendages (Blake 2000).</p>

Diagnostic Characteristics

Diagnostic Characteristics (From Blake 2000)	Photo, Illustrations	Photo, Illustration Credit
<p>Thorax with 11 chaetigers with capillaries only (characteristic of genus)</p>	 <p><i>Pr - prostomium; per – peristomium; prob - proboscis</i></p>	<p>Modified from Blake 2000, p. 82, figure A (after Hartman 1947)</p>
<p>Prostomium with single pair of minute eyespots (Note: Very hard to see in most specimens)</p>	 <p><i>Pr - prostomium; per - peristomium</i></p>	<p>Blake 2000, p. 82, figure B (after Hartman 1947)</p>
<p>Chaetiger 1 uniramous, with notochaetae only</p>	 <p><i>Prostomium and anterior thorax (lateral view); specimen from 2014 PSEMP Long Term Station 40 Rep 1 (Thea Foss Waterway, WA)</i></p>	<p>Marine Sediment Monitoring Team</p>

<p>First 4-5 thoracic chaetigers expanded</p>	 <p><i>Thorax and anterior abdomen (lateral view); specimen from 2014 PSEMP Long Term Station 40 Rep 1</i></p>	<p>Marine Sediment Monitoring Team</p>
<p>Nephridia absent in abdomen</p>	<div style="display: flex; justify-content: space-around;"> <div>  <p><i>Middle abdominal segments (dorsal view)</i></p> </div> <div>  <p><i>Anterior abdominal chaetigers (13-16), dorsal view; specimen from 2014 PSEMP Long Term Station 40 Rep 1</i></p> </div> </div>	<p>LEFT: Blake 2000, p. 82, figure C (after Hartman 1947)</p> <p>RIGHT: Marine Sediment Monitoring Team</p>

<p>Hoods of abdominal hooks inflated but not voluminous</p>		<p>Blake 2000, p. 82, figures D-E (after Hartman 1947)</p>
<p>Methyl green staining: Peristomium and chaetigers 1-6 staining light green</p> <p>Chaetigers 7-10 staining darker, mainly on dorsum, with prominent wedge-shaped dorsal patch on chaetiger 7 (indicated by yellow arrow, right)</p> <p>Abdominal ventrum with pair of longitudinal bands ("racing stripes") extending length of body</p>	 <p><i>Thorax (dorsal view); specimen from 2015 PSEMP Urban Bays Station 152 (Bainbridge Basin, WA)</i></p> <p><i>Thorax (lateral view); specimen from 2015 PSEMP Urban Bays Station 152</i></p>	<p>Marine Sediment Monitoring Team</p>



Thorax and abdomen (dorsoventral view); specimen from 2015 PSEMP Urban Bays Station 152



Specimen from 2015 PSEMP Urban Bays Station 152

Related Species and Characteristic Differences

Species Name	Diagnostic Characteristics
<i>Notomastus tenuis</i>	Most similar species to <i>N. hemipodus</i> ; with 2 groups of numerous eyespots instead of a single pair; thoracic chaetigers do not change abruptly in size; methyl green staining body uniformly, without striking pattern (Blake 2000).
<i>Notomastus latericeus</i>	Chaetiger 1 biramous. MG staining does not produce ventral "racing stripes". Abdominal nephridia large, staining dark with MG. With long, single, filamentous branchiae in abdominal segments (Blake 2000).
<i>Notomastus lineatus</i>	Chaetiger 1 biramous (Blake 2000). MG staining does not produce ventral "racing stripes."
<i>Decamastus gracilis</i>	Chaetiger 1 biramous; 10 thoracic setigers with capillaries; MG staining does not produce ventral "racing stripes."

Comments

Notomastus hemipodus is the most commonly collected species of this genus during Ecology's Puget Sound sediment monitoring. It is most easily confused with *N. tenuis*, which is also found (less frequently) in Puget Sound, but may be easily distinguished through the use of methyl green staining.

Literature

- Blake, J.A. 2000. Family Capitellidae Grube, 1862. Pp. 47-96. *IN: Blake, James A.; Hilbig, Brigitte; and Scott, Paul Valentich (eds). Taxonomic Atlas of the Benthic Fauna of the Santa Maria Basin and Western Santa Barbara Channel. 7 - The Annelida Part 4. Polychaeta: Flabelligeridae to Sternaspidae.* Santa Barbara Museum of Natural History, Santa Barbara. (p. 80-82)
- Blake, J.A. and R.E. Ruff. 2007. Polychaeta. Pp. 309-410. *In: Carlton, J.T. (Ed). The Light and Smith Manual. Intertidal Invertebrates from Central California to Oregon.* University of California Press, Berkeley.(p. 389-390)
- García-Garza, M.E., Harris, L.H., and J.A. De León-González. 2012. Redescription of *Notomastus hemipodus* Hartman, 1945 and *N. tenuis* Moore, 1909 (Polychaeta: Capitellidae). *Proceedings of the Biological Society of Washington* 125(1): 1-11.
- Hartman, O. 1947. Polychaetous annelids Part IV. Capitellidae. *Allan Hancock Pacific Expeditions* 10(4): 391-481, plates 43-58.
- Hartman, O. 1969. Atlas of the sedentariate polychaetous annelids from California. Allan Hancock Foundation, University of Southern California, Los Angeles. 812 pp. [p. 393, as *Notomastus (Clistomastus) hemipodus*]
- Rowe, R. 2001. *Notomastus* sp. A. City of San Diego Provisional Species Voucher Sheet. Southern California Association of Marine Invertebrate Taxonomists (SCAMIT). Available online at <https://www.scamit.org/tools/toolbox-new/ANNELIDA/Class%20Polychaeta/Subclass%20Scolecida/Family%20Capitellidae/Notomastus%20hemipodus/Notomastus%20sp%20A.pdf>

More Information

To learn more about our Voucher Sheet project, please visit: <http://ecologywa.blogspot.com/2017/03/eyes-under-puget-sound-voucher-sheet.html>

More information on Puget Sound marine monitoring is available on our [website](#), including a full list of published [benthic invertebrate voucher sheets](#).

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