

# Voucher Sheet

B. Haggin 2017



Species:	<i>Leitoscoloplos pugettensis</i>	(Pettibone 1957)
Subfamily:	Synonyms:	<i>Scoloplos (Scoloplos) pugettensis</i> Pettibone 1957
Family:		<i>Scoloplos elongata</i> Johnson 1901
Order:		<i>Haploscoloplos elongata</i> of Hartman 1944
Infraclass:		<i>Haploscoloplos elongatus</i> Of Hartman 1957
Subclass:		<i>Leitoscoloplos elongata</i> Of Day 1977
Class:		
Phylum:		

Description: 1) Prostomium short, conical, sharply pointed. Eyes absent. Nuchal organs dorso-lateral. Proboscis a multilobed sac. Peristomium with 1 achaetous segment (Figure 1).  
 2) Branchiae from chaetigers 11-18 (8-10 in juveniles). Branchiae as small papillae (often overlooked on first few setigers) becoming triangular to strap-like in abdomen, pointed and swollen subdistally, laterally ciliated (Image 1).  
 3) Thorax with 12-22 setigers.  
 4) Subpodial lobes absent. Stomach papillae absent. Intra-segmental ciliary band (ICB) present as a band from setigers 3 or 4 and continuing throughout thorax (Image 2).  
 5) Thoracic notopodia triangular - foliaceous with crenulate capillaries.  
 6) Thoracic neuropodia mammiform, with a single short, conical - triangular postsetal process (PsP) with crenulate capillaries only (without thoracic neuropodial acicular spines).  
 7) Abdominal notopodial postsetal lobe broadly foliaceous, basally constricted, without cilia (Image 3) (lanceolate posteriorly). Notopodia with crenulate capillaries, flail setae & furcate setae from ~ 10th abdominal setiger, tines unequal in length (Image 4).  
 8) Abdominal neuropodia bilobed, both lobes triangular, inner lobe longer. Abdominal neurosetae crenulate capillaries with 1-3 fine, barely emergent acicula (Images 5 & 6).  
 9) Abdominal subpodial flange large with a well-developed notch.  
 10) Pygidium with 1 pair of dorso-laterally inserted anal cirri.  
 11) Brown pigmentation often present on branchial tips, abdominal subpodial flanges and between branchial bases in abdomen

Material Examined: STNs: B73A (38 m); B80A (38 m); 0285-(0C, 1C, 3C, 3D, 4C, 5C, 6C, 6D, 9C); 0785-(0C, 0D, 2C, 3D, 4C, 4D, 5C, 5D, 6D, 9D, 10C, 10D); 0186-(0C, 0D, 3D, 4C, 5C, 6D, 7C, 8C, 8D, 9C); 0791-6D; 0192-9D; 0196-1D; 0100-(9C, 0D); 0700-0D; 0101-(6D, 8D, 9D, 0D); 0703-(0D, 6D, 7C, 5D); 0704-(4C, 0D, 7C, 8D, 9D, ); 0706-0D; 0707-(0D, 3D, 6D, 8D, 10D); 0708-(0D, 6D, 7D); 0711-10D; 0712-5D; 0715-10D; OXY-8-1; B13-8013 (3 m); B13-8030 (13 m); B13-8038 (12 m); B13-8052 (5 m); B13-8066 (12 m); B13-8099 (9 m); B13-8316 (27 m); B13-8326 (11 m); B13-8328 (0 m); B13-9458 (34 m); B13-9467 (29 m); LH00-161 (1 m); LH00-217 (1 m)

\*All "C" stations 61 m. All "D" stations 30 m.

Similar Species: ***Leitoscoloplos panamensis* (Monro 1933)**. Both species have an overlapping # of thoracic setigers. *L. panamensis* has branchiae from setiger 9 that are slender and triangular in the abdomen. *L. panamensis* has a 2nd PsP present in the thorax from around chaetiger 10, subpodial lobes in the posterior thorax and anterior abdomen (setigers 13 - 25) and an interramal cirri in the abdomen that *L. pugettensis* lacks. *L. panamensis* lacks abdominal notopodial furcate setae. Both are shelf species (<200 m).  
***Leitoscoloplos mexicanus* (Fauchald 1972)**. These species have overlapping ranges of branchial insertion and # of thoracic setigers. *L. mexicanus* has branchiae without lateral cilia. *L. mexicanus* has an abdominal notopodial postsetal lobe that is lanceolate and lacks an ICB. *L. mexicanus* is a deep slope species (>1000 m). *L. pugettensis* is a shelf species (<220 m).  
***Scoloplos acmeceps* Chamberlin 1919**. These species have overlapping ranges of branchial insertion and # of thoracic setigers. *S. acmeceps* has thoracic neuropodial acicular spines that are lacking in *L. pugettensis*. Both are shelf species (<220 m).

Similar Species  
continued:

***Leitoscoloplos* sp A (Williams 1976 §).** These species have overlapping ranges of branchial insertion and # of thoracic setigers. *L. sp A* differs in having branchiae without lateral cilia and lacks an ICB. *L. sp A* is a shallow slope species (>200 meters). *L. pugettensis* is a shelf species (<220 m).

***Leitoscoloplos* sp LA1 Haggin 2017 §.** These species have overlapping ranges of branchial insertion. *L. sp LA1* has a long, digitate PsP and a 2nd PsP on posterior thoracic setigers. *L. sp LA1* lacks an ICB. *L. sp LA1* is a shallow slope species (>200 m). *L. pugettensis* is a shelf species (<220 m).

***Leitoscoloplos* sp LA2 Haggin 2017 §.** These species have overlapping ranges of branchial insertion and # thoracic setigers and both species have an ICB as a band from setiger 3. *L. sp LA2* differs in having a 2nd PsP in posterior thoracic neuropodia. *L. sp LA2* appears to be a bay/estuary species known only from San Diego Bay. *L. pugettensis* is a shelf species (<220 m).

***Leitoscoloplos* sp LA3 Haggin 2017 §.** These species have overlapping ranges of branchial insertion and # thoracic setigers. *L. sp LA3* differs in having an ICB as a cluster from setiger 3 and as a band from setiger 7. *L. sp LA3* is a deep shelf/shallow slope species (>150 meters). *L. pugettensis* is a shelf species (<220 m).

***Leitoscoloplos* sp LA4 Haggin 2017 §.** These species have overlapping ranges of branchial insertion and # of thoracic setigers. *L. sp LA4* has short, strap-like branchiae (shorter than abdominal notopodial postsetal lobes) and has subpodial lobes in the posterior thorax and anterior abdomen (setigers 14 - 24) and has a 2nd PsP in the posterior thorax. *L. sp LA4* lacks an ICB. *L. sp LA4* is known only from the intertidal of Washington. *L. pugettensis* is a shelf species (<220 m).

Distribution: NE Pacific - Alaska to Baja California, Mexico

Depth range: Intertidal to 220 m

Type locality: Washington, USA

Images: Images 1-4 from a specimen collected from station 0708-0D (LACSD).



Image 1. Abdominal branchiae showing lateral cilia and subdistal swelling.

Images continued:

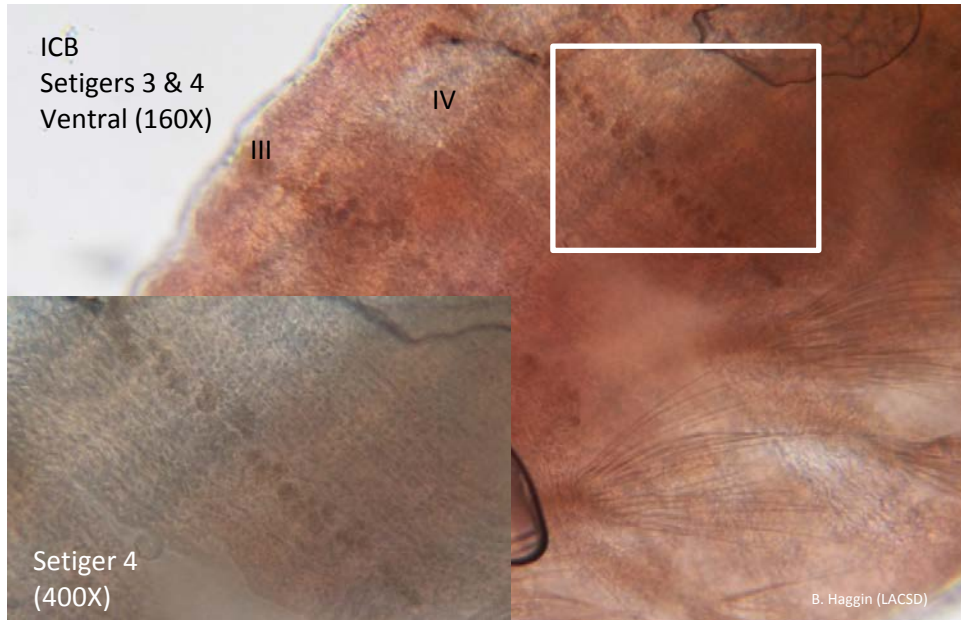


Image 2. Image shows the Intrasegmental Ciliary Band (ICB) on the anterior ventrum of the thorax from setiger 3. Inset is a close-up of setiger 4.

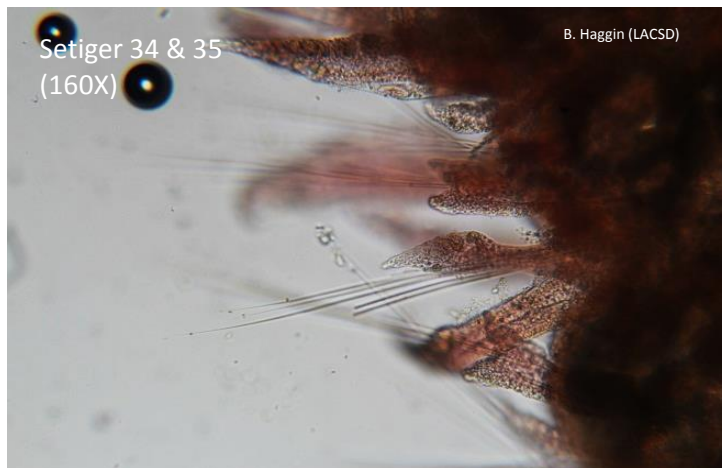


Image 3. The worm was folded strangely so multiple setigers are visible in the image. The image shows the bilobed abdominal neuropodia and foliose abdominal notopodia.

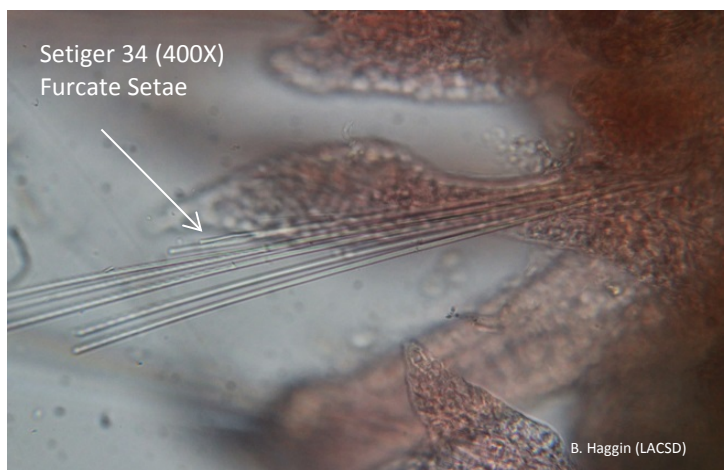


Image 4. A close up of the above image showing the furcate and capillary setae of the abdominal notopodia.

Images continued:



Image 5. Image shows the broadly bilobed abdominal neuropodia with triangular tips.

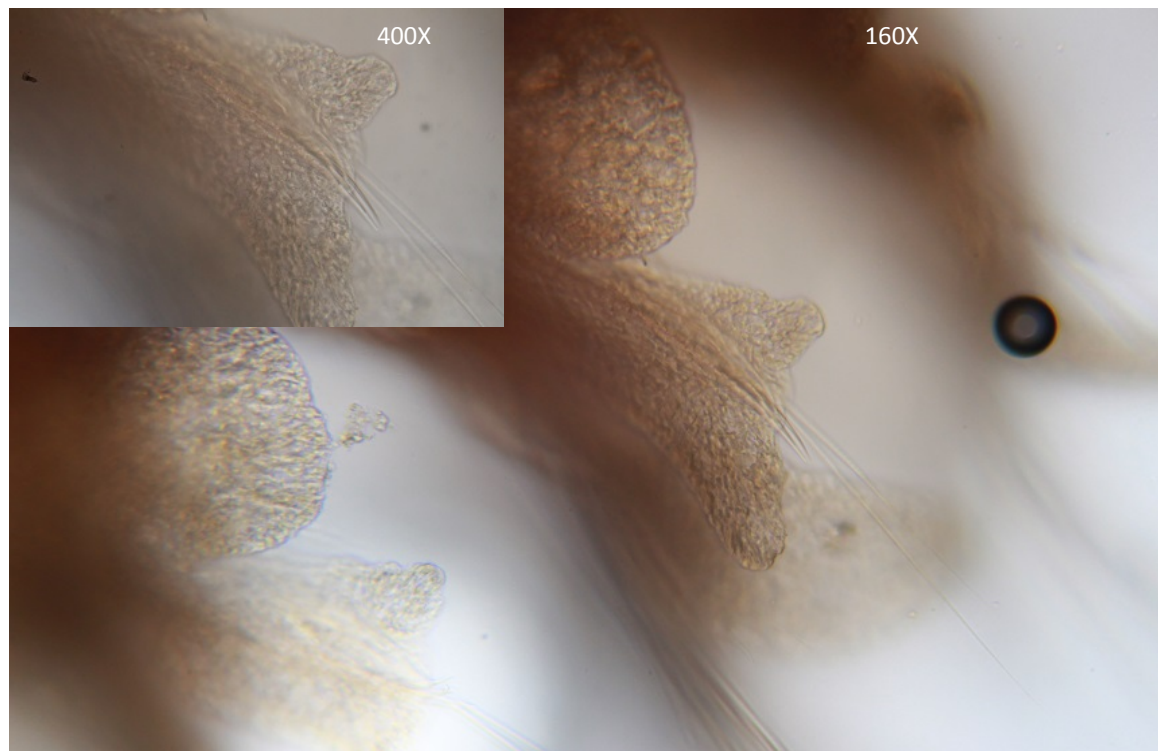


Image 6. This specimen Collected 20 May 2000, L. Harris, Puget Sound, Washington, USA (PSX-II-12-C), Intertidal. This image shows the abdominal neuropodia with capillary setae and barely emergent acicula (setiger 35).

Images continued:

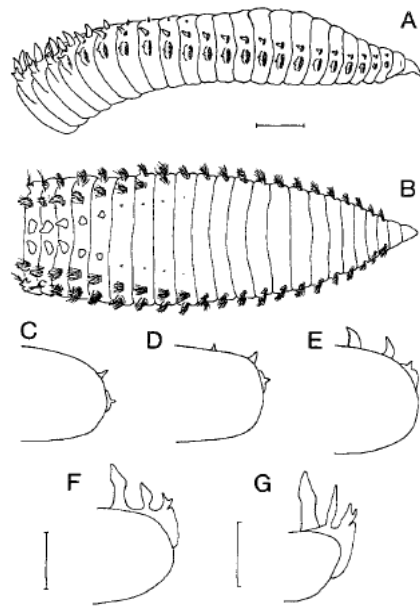


Fig. 8. *Leitoscoloplos pugettensis* (paratype). A. Anterior region, lateral view. B. Anterior region, dorsal view. C-F. Setigers 10, 15, 19, and 28, posterior view. G. Posterior setiger, posterior view (setae omitted: A, C-G). Scale lines 1 mm.

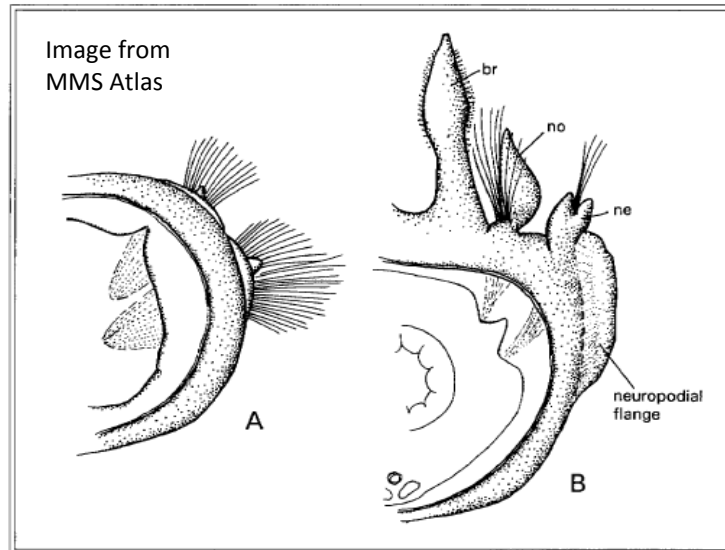


Figure 1.2. *Leitoscoloplos pugettensis*: A, thoracic neuropodium, anterior view; B, abdominal neuropodium, anterior view. (after Hartman, 1957).

Figure 1. (above) from Mackie, 1987

Figure 2. (above, right) from Blake, 1996 (MMS Atlas).

Literature reviewed:

**Blake, J. A.** 1996: *Family Orbiniidae Hartman, 1942*. Taxonomic Atlas of the Benthic Fauna of the Santa Maria Basin and Western Santa Barbara Channel. Volume 6. The Annelida Part 3 - Polychaeta: Orbiniidae to Cossuridae. 418 pp (9-10).

**Chamberlin, R. V.** 1919. Pacific Coast Polychaeta Collected by Alexander Agassiz. *Bulletin of the Museum of Comparative Zoology* 63(6): 250-270.

**Dean, H. K. & Blake, J. A.** 2015. The Orbiniidae (Annelida: Polychaeta) of Pacific Costa Rica. *Zootaxa* 3956(2): 183-198.

**Fauchald, K.** 1972. *Benthic Polychaetous Annelids from deep water off western Mexico and adjacent areas in the eastern Pacific Ocean*. Allan Hancock Monographs in Marine Biology, 7575 pp (167-169, 489).

**Hartman, O.** 1969. *Atlas of the Sedentariate Polychaetous Annelids from California*. Los Angeles, Ca, Allan Hancock Foundation, University Of Southern California. 812 pp (19-20).

**Mackie, A. S. Y.** 1987. A review of species currently assigned to the genus *Leitoscoloplos* Day, 1977 (Polychaeta: Orbiniidae), with descriptions of species newly referred to *Scoloplos* Blainville, 1828. *Sarsia* 72: 1-28.

**Pettibone, M. H.** 1957. North American genera of the family Orbiniidae (Annelida: Polychaeta), with descriptions of new species. *Journal of the Washington Academy of Science* 47(5): 159-167.