

Voucher Sheet

B. Haggin 2017



Species: *Leitoscoloplos* sp LA2

Haggin 2017 §

Subfamily:

Synonyms: *Leitoscoloplos pugettensis*

In part

Family: Orbiniidae

Order:

Infraclass: Scolecida

Subclass: Sedentaria

Class: Polychaeta

Phylum: Annelida

Description: 1) Prostomium conical. Eyes absent. Prostomium with 1 achaetous segment.
2) Branchiae from setigers 10 - 14. Very small, triangular in the thorax, becoming strap-like, with asymmetric subdistal swelling in the abdomen. Branchiae with lateral cilia.
3) Thorax with 13 - 15 setigers.
4) Subpodial lobes absent. Stomach papillae absent. Intra-segmental ciliary band (ICB) present as a band from setiger 3.
5) Thoracic neuropodia mammiform, with a long, digitate postsetal process (PsP) with a 2nd PsP, occasionally bifurcate, (Images 1 & 2) in posterior thorax (setigers 11 - 15). Thoracic neurosetae crenulate capillaries only (without thoracic neuropodial acicular spines).
6) Abdominal notopodial postsetal lobes digitate to foliose with a basal constriction. Abdominal notosetae crenulate capillaries with furcate chaetae present from around the 10th abdominal setiger, tines unequal. Flail setae not seen.
7) Abdominal neuropodia bilobed with pointed lobes. Abdominal neurosetae with crenulate capillaries and 2-3 fine, barely emergent acicula (Image 3).
8) Abdominal subpodial flange well-developed with a well-developed notch (Image 3).
9) Pygidium unknown.
10) Pigmentation present on tips of branchiae in abdomen and on abdominal subpodial flange. Pigmentation bands present dorsally in thorax (Image 4).

Material Examined: STN: B13-8013 (3 m); B13-8030 (13 m); B13-8038 (12 m); B13-8066 (12 m); B13-8099 (9 m)

** All stations where this species was encountered also contained *Leitoscoloplos pugettensis*.

Similar Species:

***Leitoscoloplos pugettensis* (Pettibone 1957).** These species have overlapping ranges of branchial insertion, # of thoracic setigers, an ICB as a band from setiger 3 and pigmentation on the branchiae and abdominal subpodial flange. *L. pugettensis* lacks a 2nd PsP in posterior thoracic neuropodia. Both species have overlapping distributions and depth ranges and have been found together in the same samples. *L. pugettensis* is a shelf species (<220 m). *L. sp LA2* is a bay/estuary species known only from San Diego Bay.

***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 a thoracic neuropodia with a long, slender triangular PsP and lacks a 2nd PsP. *L. mexicanus* also lacks an ICB. *L. mexicanus* has an abdominal notopodial postsetal lobe that is lanceolate. *L. mexicanus* is a deep slope species (>1000 m). *L. sp LA2* is a bay/estuary species known only from San Diego Bay.

Similar Species
continued:

***Leitoscoloplos bifurcatus* (Hartman 1957).** This species has branchiae starting from setigers 8 - 9 and 20 - 21 thoracic setigers. Branchiae are elongate with long tapering tips in *L. bifurcatus* rather than strap-like in *L. sp LA2*. Both species have 2 PsP's in the posterior thorax, however, *L. bifurcatus* have triangular thoracic neuropodial lobes. *L. sp LA2* have mammiform lobes with digitate processes. *L. bifurcatus* is known from the intertidal of Australia. *L. sp LA2* is a bay/estuary species known only from San Diego Bay.

***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 subpodial lobes in the posterior thorax and anterior abdomen (setigers 13 - 25) and an interrampal cirri in the abdomen that *L. sp LA2* lacks. *L. panamensis* lacks abdominal notopodial furcate setae. *L. panamensis* is a shelf species (<200 m). *L. sp LA2* is a bay/estuary species known only from San Diego Bay.

***Leitoscoloplos sp A* (Williams 1976 §).** These species have overlapping ranges of branchial insertion and # of thoracic setigers. *L. sp A* has branchiae without lateral cilia and has a short, triangular PsP and lacks a 2nd PsP on posterior thoracic setigers. *L. sp LA2* has an ICB while *L. sp A* lacks an ICB. *L. sp A* is a shallow slope species (>200 m). *L. sp LA2* is a bay/estuary species known only from San Diego Bay.

***Leitoscoloplos sp LA1* Haggin 2017 §.** These species have overlapping ranges of branchial insertion but *L. sp LA1* has 16 thoracic setigers vs. 15 in *L. sp LA2*. *L. sp LA1* differs in having branchiae without pigmentation. Both species have a 2nd PsP in posterior thoracic neuropodia. *L. sp LA1* lacks an ICB. *L. sp LA1* is a shallow slope species (>200 meters). *L. sp LA2* is a bay/estuary species known only from San Diego Bay.

***Leitoscoloplos sp LA3* Haggin 2017 §.** These species have overlapping ranges of branchial insertion, # of thoracic setigers and having pigmentation in the branchiae. *L. sp LA3* differs in lacking a 2nd PsP and 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. sp LA2* is a bay/estuary species known only from San Diego Bay.

Distribution: San Diego Bay, California, USA

Depth range: 3 - 12 m

Type locality: San Diego Bay, California, USA

Images: Images 1 - 4 from a specimen collected from station B13-8013.

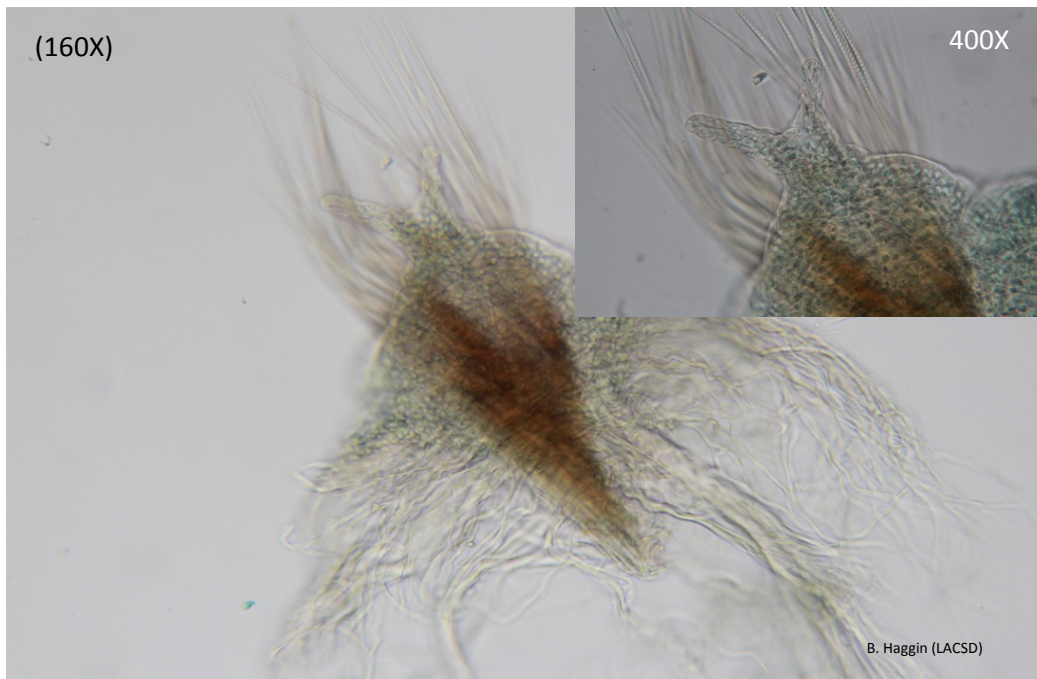


Image 1. Bifurcate thoracic (setiger 13) neuropodial postsetal process (PsP).

Images continued:

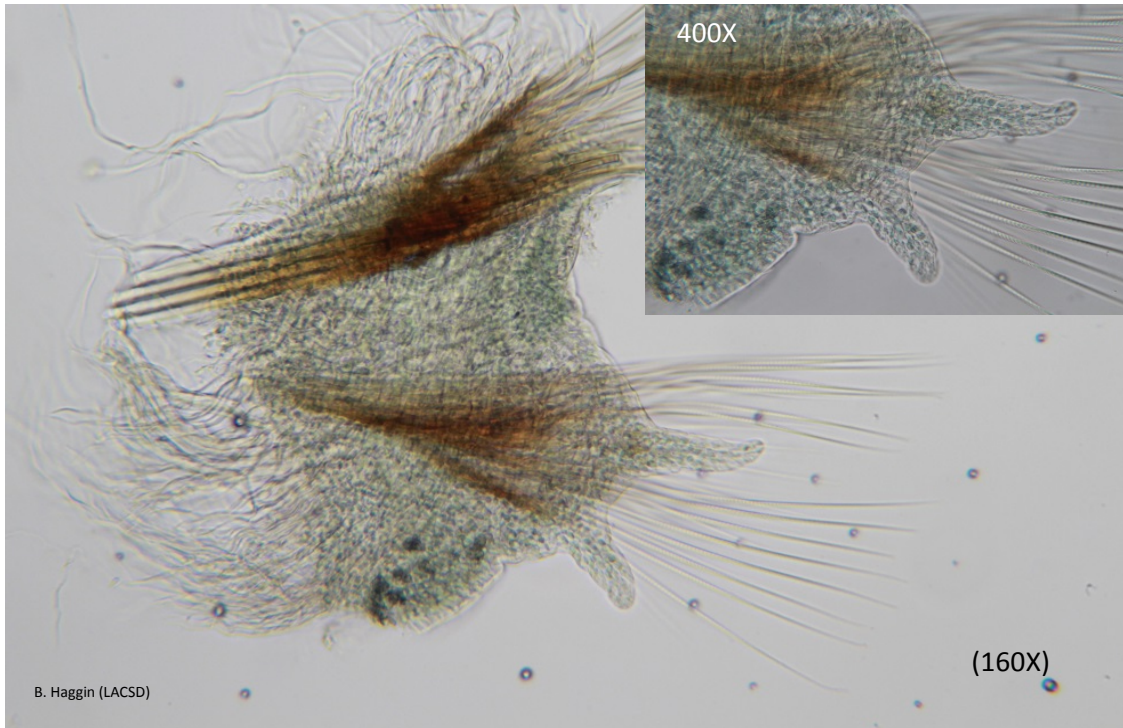


Image 2. Thoracic neuropodia (setiger 14) with 2 postsetal processes (PsP).



Image 3. 1st abdominal setiger with bilobed neuropodia and subpodial flange with pigment.

Images continued:

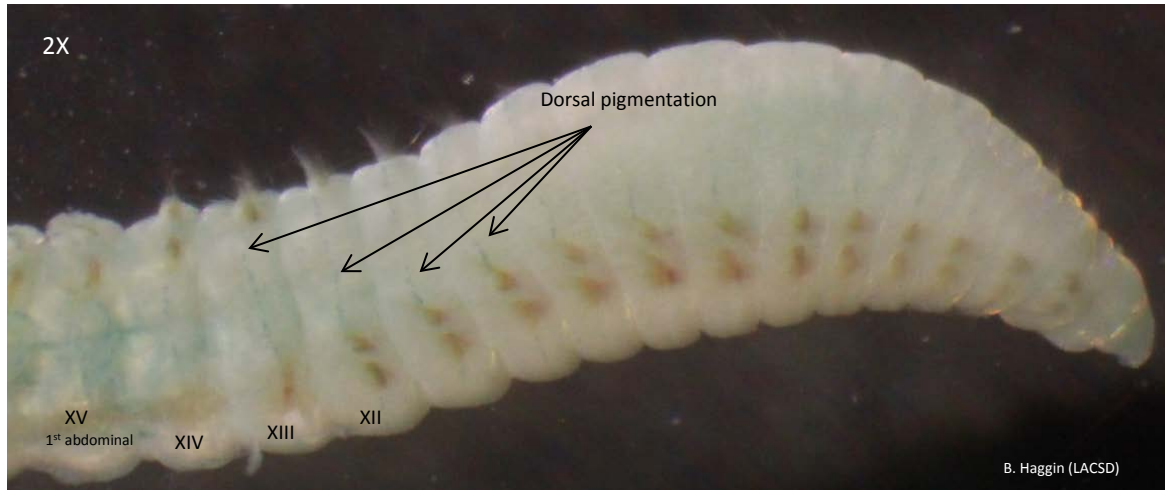


Image 4. Dorsal pigmentation of thorax.

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).

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. 1957. Orbiniidae, Apistobranchidae, Paraonidae and Longosomidae. *Allan Hancock Pacific Expeditions* 15(3): 211-308.

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.