

Terebellides californica Williams, 1984

Nomenclature		
Phylum	Annelida	
Class	Polychaeta	
Family	Trichobranchidae	
Synonyms	None; see comments section below.	



Distribution		
Type Locality	California, San Miguel Island, 98-101 m (holotype and paratypes)	
Geographic Distribution	British Columbia, Canada to western Mexico	
Habitat	Silty mud and fine sand, occasionally coarser sediments, in shelf and slope depths (Williams 1984)	

Description

From Hilbig 2000 (unless otherwise noted)

Size/Color: Length to 35 mm, width to 3 mm without parapodia. Mature worms at least 12 mm long (Williams 1984). Segments to 55. Pale in alcohol.

Body: Thoracic chaetigers 18, abdominal chaetigers 30-35 (Williams 1985).

Prostomium: Tentacular lobe tall, wide, undulating. Peristomium a complete ring, in adults produced into lower lip.

Branchiae: Originating from chaetiger 1; 4 lobes fused for ½ their length, tips short. With slight forward projection in adults.

Parapodia/Chaetae: Segment 3 bearing 1st notopodia, well-developed, with fine, very long chaetae (2x as long as those on following chaetigers). Chaetigers 2-5 with notopodia only (winged capillaries), with lateral lappets (largest on chaetiger 2). Chaetiger 6 with first neuropodia in the form of modified uncini – approximately 6 moderately bent spine-like hooks. Neuropodia of chaetigers 7-18 with regular acicular hooks with curved shaft and main fang surmounted by apex with several small teeth. Abdomen with neuropodia only; elongate, narrow pinnules, increasing in length toward pygidium, bearing small avicular uncini.

Pygidium: Simple, furrowed ring with low rounded papillae around terminal anus.

Diagnostic Characteristics Photo, Diagnostic Illustration Characteristics Photo, Illustrations Credit Marine 1 mm Sediment Monitoring Team Branchial lobes fused, with 4 branches on single stalk (characteristic of genus; Hilbig 2000) Branchiae, dorsal view; voucher specimen AN 1520 Marine 1 mm Sediment Monitoring Team First chaetiger with notochaetae (indicated by yellow arrow, right) 2x longer than following chaetigers, arising from welldeveloped notopodia (indicated by red arrow, right) Chaetigers 1-3, lateral view; voucher specimen AN 2078

30-35 abdominal chaetigers (Williams 1985)	branchiae branchiae branchiae branchiae		Hilbig 2000, p. 302, figure 10.3 A
Uncini from chaetiger 6 (genus	C Madified unaisi from aboutions 6	Pagular thoragia unaini	Hilbig 2000, p. 302, figures 10.3 C and D
Uncini on chaetiger 6 modified as spines; regular thoracic uncini begin on chaetiger 7	modified uncini regular thoracic uncini 500 µm Chaetigers 6-8, lateral view; v	Regular thoracic uncini 6 7 8 oucher specimen AN 2078	Marine Sediment Monitoring Team

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Methyl Green Staining:

Prostomium and peristomium staining dark green ventrally; segments 1-8 with concentrated dark bluish cells or bands ventrally, weakening through abdomen

Dorsal stain limited to lateral bands on chaetigers 4-8

Branchiae staining on ventral side and tips of lobes, otherwise white



Stained specimen from 2015 PSEMP UB Station 157, lateral view



Prostomium and anterior thorax, lateral view; specimen from 2015 PSEMP Urban Bays Station 157



Prostomium and anterior thorax, ventrolateral view; specimen from 2015 PSEMP Urban Bays Station 157



Prostomium and anterior thorax, ventrolateral view; specimen from 2015 PSEMP Urban Bays Station 157

Related Species and Characteristic Differences		
Species Name	Diagnostic Characteristics	
Terebellides horikoshii	First notochaetae as long as or only slightly longer than following, arising from more reduced notopodia (Hilbig 2000).	
Terebellides reishi	First notochaetae as long as or only slightly longer than following, arising from more reduced notopodia; abdominal chaetigers 40-55 (Hilbig 2000).	

Comments

Specimens identified as *Terebellides stroemi*, a species once thought to be cosmopolitan in distribution, were examined in 1984 by S.J. Williams, including specimens from the eastern Pacific. Several new species were described from this material, including *T. californica*, based on the distinct first notopodia and notochaetae. *T. stroemi* is still considered a valid species with a more limited Atlantic distribution.

Literature

- Hilbig, B. 2000. Family Trichobranchidae Malmgren, 1866. p. 295-310. *IN*: Blake, J.A., Hilbig, B. and P. Valentich Scott (Eds). *Taxonomic Atlas of the Benthic Fauna of the Santa Maria Basin and Western Santa Barbara Channel. Volume 7 The Annelida Part 4. Polychaeta: Flabelligeridae to Sternaspidae*. Santa Barbara Museum of Natural History. Santa Barbara, CA. (p. 301-303)
- Williams, S.J. 1984. The status of *Terebellides stroemi* (Polychaeta; Trichobranchidae) as a cosmopolitan species, based on a worldwide morphological survey, including description of new species. 118-142. *IN:* Hutchings, Patricia A. (Ed.). *Proceedings of the First International Polychaete Conference*. Sydney, Australia, 1983: Sydney, The Linnean Society of New South Wales
- Williams, S.J. 1985. *Terebellides californica* Williams, 1984. SCAMIT Voucher Sheet. In: SCAMIT Taxonomic Toolbox, Southern California Association of Marine Invertebrate Taxonomists. Accessed online at
 - http://www.scamit.org/tools/toolbox/Phylum%20Annelida/Class%20Polychaeta/Family%20Trich obranchidae/Terebellides%20californica.pdf on 7/15/2016

More Information

To learn more about our Voucher Sheet project, please visit:

http://ecologywa.blogspot.com/2017/ 03/eyes-under-puget-soundvoucher-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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