



Species: *Capitella* sp LA3 Haggin, 2023 §

P-code—P103

Synonyms: *Capitella capitata* Cmplx of authors SCB, in part
Capitella sp LA1 Parker, 1994 §, in part

ITI-code—Group 4

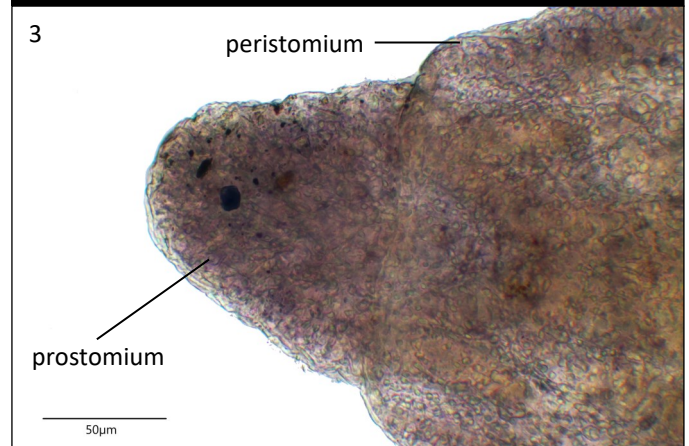
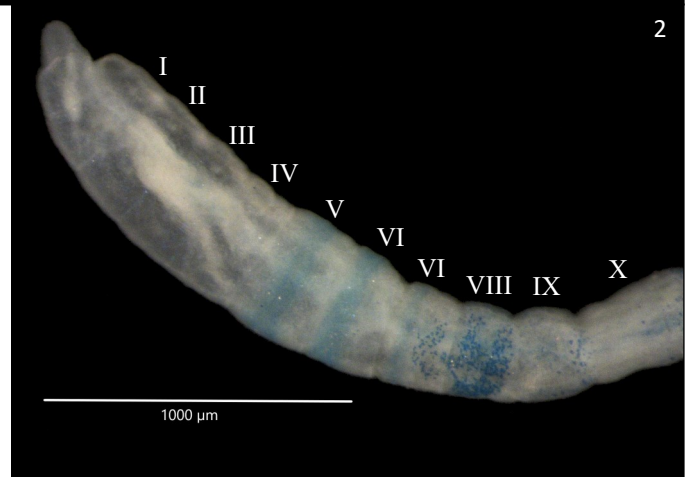
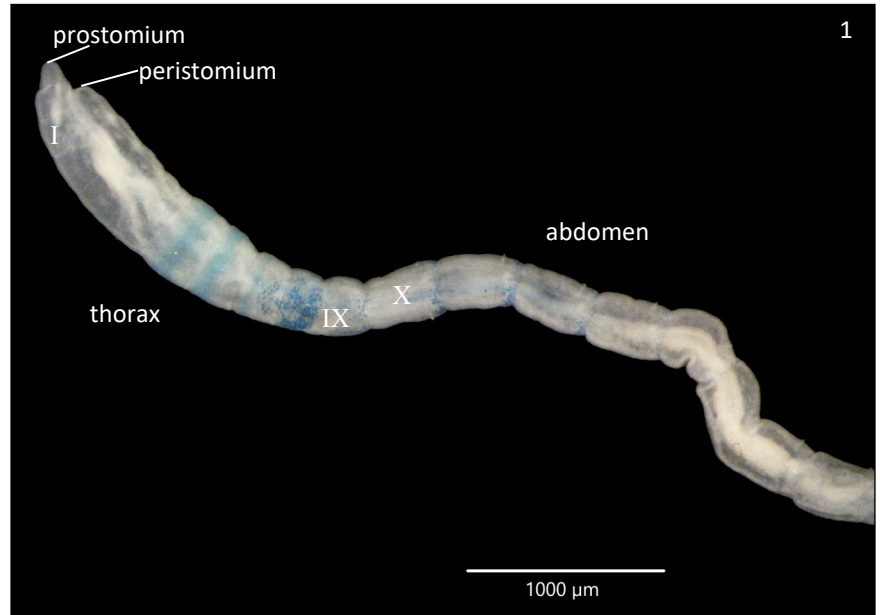
Family: Capitellidae
Order:
Infraclass: Scolecida
Subclass: Sedentaria
Class: Polychaeta
Phylum: Annelida

Diagnostic Characters:

- 1) Prostomium conical, rounded, slightly compressed dorsoventrally; eyes absent (images 1 - 3).
- 2) Thorax with 4 chaetigers with capillary notochaetae (images 4 & 5).
- 3) Thoracic Formula - $\frac{(4c+3h+2g)}{(4c+5h)} \text{ ♂ + ♀; } \frac{(4c+4h+1g)}{(4c+5h)}$ OR $\frac{(4c+5h)}{(4c+5h)}$ Juveniles
- 4) Genital spines present in chaetigers 8 & 9. 3 pairs max in each chaetiger (images 6 & 7).
- 5) Juveniles with genital spines undeveloped. Genital spines appear to develop with age, developing first in chaetiger 9, then in chaetiger 8.
- 6) Thoracic hooded hooks with 2 small teeth surmounting main fang (image 8).
- 7) Abdominal hooded hooks with 2 rows of small teeth over main fang; 2 teeth in upper row, 2-3 teeth in lower row (image 9).
- 8) Branchiae not observed.
- 9) Pygidium a terminal ring; anal cirri absent (image 10).

Pigmentation/MGS:

- 1) Not retaining stain, or
- 2) Slight retention on prostomium.
- 3) Light speckling on chaetigers 1-4 (image 11).
- 4) Slight stain retention in chaetigers 5 & 6 as segmental bands (images 1, 2 & 11).
- 5) Broad lateral stain patch in chaetigers 7 & 8, post chaetal only in chaetiger 7 (images 1, 2 & 11).
- 6) Chaetiger 9 and anterior abdomen with speckled postchaetal stain band.



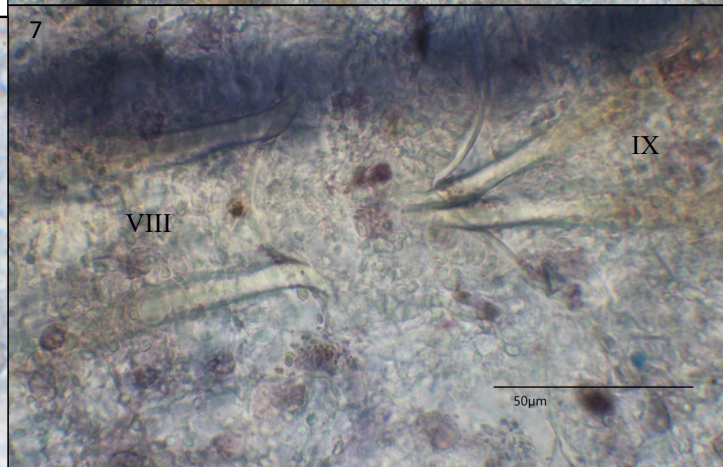
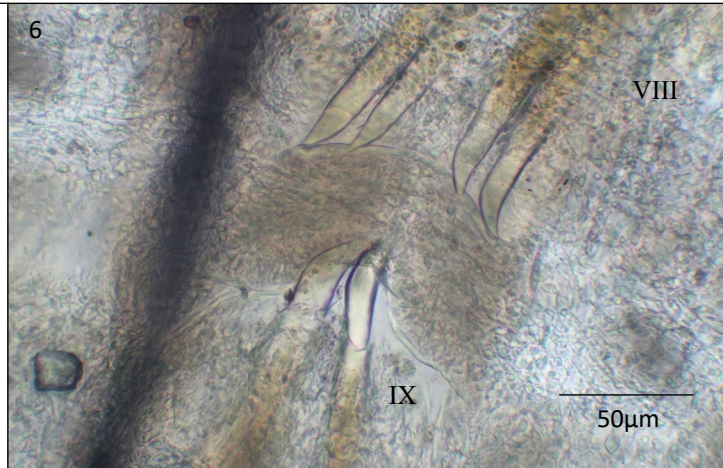
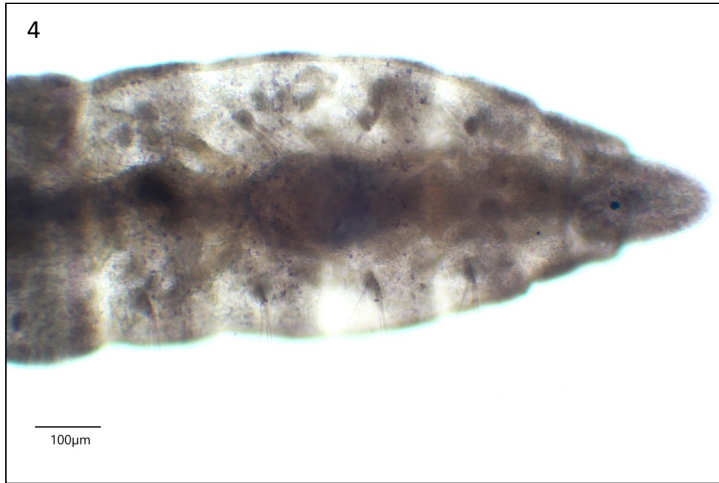


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June, 2024



Material Examined:

LACSD stations: 0715-9D (31 m—33.69963N, 118.31345W—08JUL15) - 1 individual; 0717-1B (151 m—33.74940N, 118.44653W—31JUL17) - 1 individual; 0722-1D (31 m—33.76506N, 118.43539W—12JUL22) - 6 individuals; 0722-2B (156 m—33.73228N, 118.42602W—12JUL22) - 1 individual; 0722-4B (150 m—33.71684N, 118.38760W—13JUL22) - 2 individuals; 0722-8D (31 m—33.70682N, 118.32994W—13JUL22) - 13 individuals (images 1 & 2); 0722-9B (154 m—33.68150N, 118.32222W—11JUL22) - 1 individual; 0723-1B (152m—33.74944N, 118.44666W—10JUL23) - 1 individual; 0723-3B (149m—33.72396N, 118.40733W—06JUL23) - 2 individuals; 0723-3D (33m—33.73310N, 118.40060W—11JUL23) - 1 individual; 0723-4D (30m—33.73201N, 118.38047W—10JUL23) - 2 individuals; 0723-6D (31m—33.71607N, 118.34822W—07JUL23) - 17 individuals (images 3-10); 0723-7D (30m—33.71273N., 118.34353W—07JUL23) - 9 individuals; 0723-9C (60m—33.68872N, 118.31818W—07JUL23) - 4 individuals; 0723-9D (30m—33.69961N, 118.31289W—07JUL23) - 5 individuals

SCBPP stations: PSCBE 01500 (77 m—34.40588N, 120.40885W—18AUG94) - 1 individual; PSCBE 03710 (57 m—34.33517N, 119.64275W—17AUG94) - 1 individual (image 11); PLABE 13400 (43 m—33.64092N, 118.23883W—15JUL94) - 1 individual



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Similar Species:

Capitella capitata (Fabricius, 1780), redescribed by Blake (2009)—This species has had its range restricted to western Greenland and is not found locally. *Capitella capitata* has 7 chaetigers with capillary notochaetae, thoracic formula: ♂ + ♀ $(7c+2g)_{(7c+2e)}$. *Capitella* sp LA3 has only 4 chaetigers with capillary notochaetae.

Capitella capitata oculata Hartman, 1961—This species has black eyes present and 7 chaetigers with capillary notochaetae, thoracic formula: ♂ $(7c+2g)_{(7c+2h)}$ & ♀ $(7c+2h)_{(7c+2h)}$. *Capitella* sp LA3 lacks eyes and has only 4 chaetigers with capillary notochaetae.

Capitella capitata tripartita Hartman, 1961—This species has small lateral eyespots and 6 or 7 chaetigers with capillary notochaetae, thoracic formula: ♂ $(3c+1c(m)+2m+1m(h)+2g)_{(3c+2m+2m(h)+2h)}$ & ♀ $(3c+1c(m)+2m+1m(h)+2h)_{(3c+2m+2m(h)+2h)}$. *Capitella* sp LA3 lacks eyespots and has only 4 chaetigers with capillary notochaetae.

Capitella ovincola Hartman, 1947—This species has 7 chaetigers with capillary notochaetae, thoracic formula: ♂ $(5c+2c(m)+2g)_{(4c+3c(m)+2h)}$ & ♀ $(5c+2c(m)+2h)_{(4c+3c(m)+2h)}$. *Capitella* sp LA3 has only 4 chaetigers with capillary notochaetae.

Capitella teleta Blake, Grassle & Eckelbarger, 2009—This species was originally described from a laboratory culture from Woods Hole, Massachusetts. *Capitella teleta* has red eyes present and 7 chaetigers with capillary notochaetae, thoracic formula: ♂ $(7c+2g)_{(7c+2h)}$ & ♀ $(7c+2h)_{(7c+2h)}$. *Capitella* sp LA3 lacks eyes and has only 4 chaetigers with capillary notochaetae.

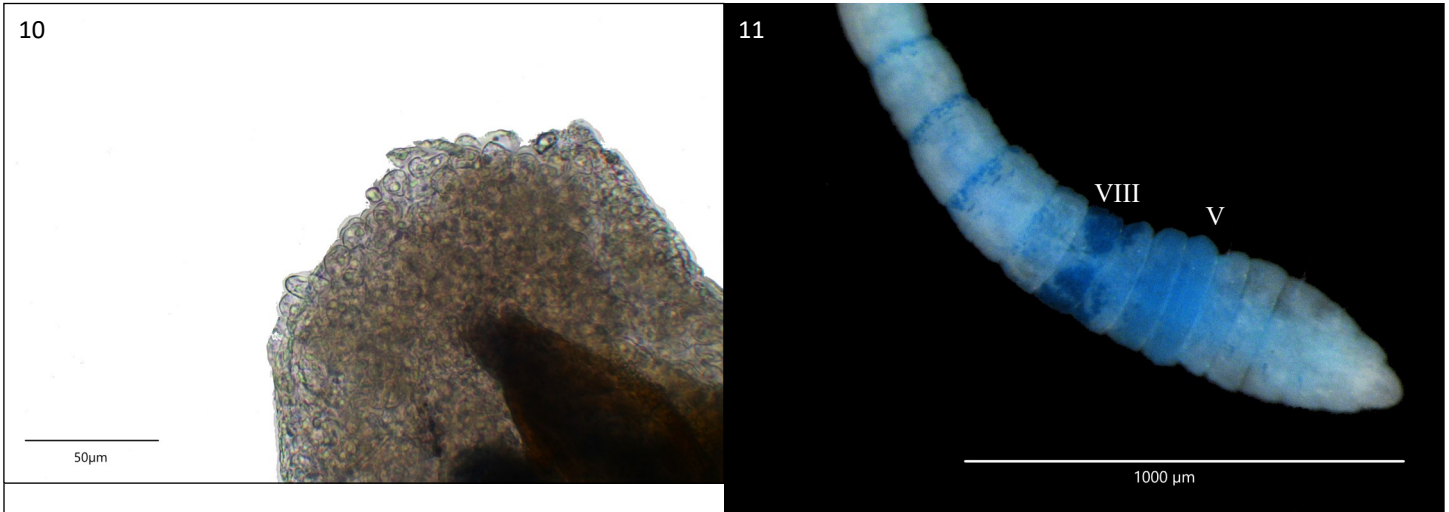


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Discussion:

Capitella capitata (Fabricius, 1780) was originally described from western Greenland and subsequently gained a cosmopolitan distribution in the literature. Blake (2009) designated a neotype and redescribed *Capitella capitata* using new material from the type locality and restricted the range of *C. capitata* to western Greenland. This redescription was very robust and allows for the separation of local specimens previously identified as *Capitella capitata* Cmplx. As of the publication of Blake (2009), 12 to 13 biologically distinct sibling species of the *Capitella capitata* Cmplx have been identified in laboratory culture, and the previous concepts of *Capitella capitata* based on the works of Eisig (1887), Hartman (1947) and Warren (1976) refer to other species that differ significantly from the Greenland specimens (Blake, 2009).

A review of LACSD collections of *Capitella capitata* Cmplx has yielded 1 new provisional species so far, *Capitella* sp LA3 Haggin, 2023 §. Images of staining variation suggests that there may be at least 2 additional cryptic species hiding within the *C. capitata* Cmplx locally. ITI- and P-code values were inherited from *Capitella capitata* Cmplx as this is how it would have been identified historically.

Habitat:

Capitella sp LA3 is currently known only from the Palos Verdes Peninsula from depths of 30-156m. This range could expand farther across southern California as local reviews of *Capitella capitata* Cmplx occur. *Capitella* sp LA3 has been collected in samples with many of the common shelf species from the Palos Verdes Peninsula, but a review of LACSD specimens has yet to find it co-occurring with any other *Capitella* spp. This finding may change as local reviews of the complex continue to occur.

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Version History:

Version 1.0—Voucher sheet created (06JUN2024)



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