



Species: *Notomastus* sp LA4

Haggin, 2023 §

P-code—P336

Synonyms: *Notomastus latericeus*

of authors SCB; not M. Sars, 1851

ITI-code—none

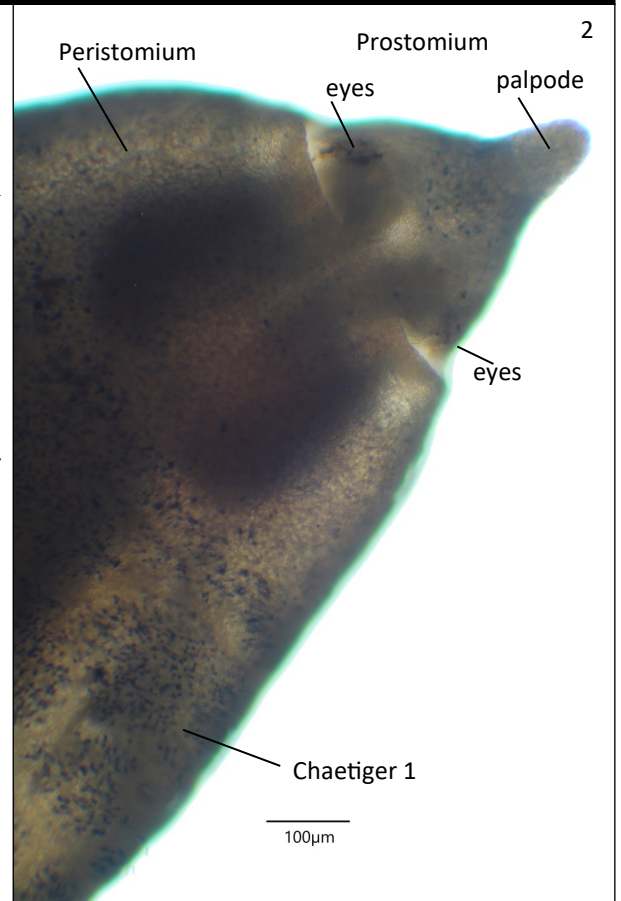
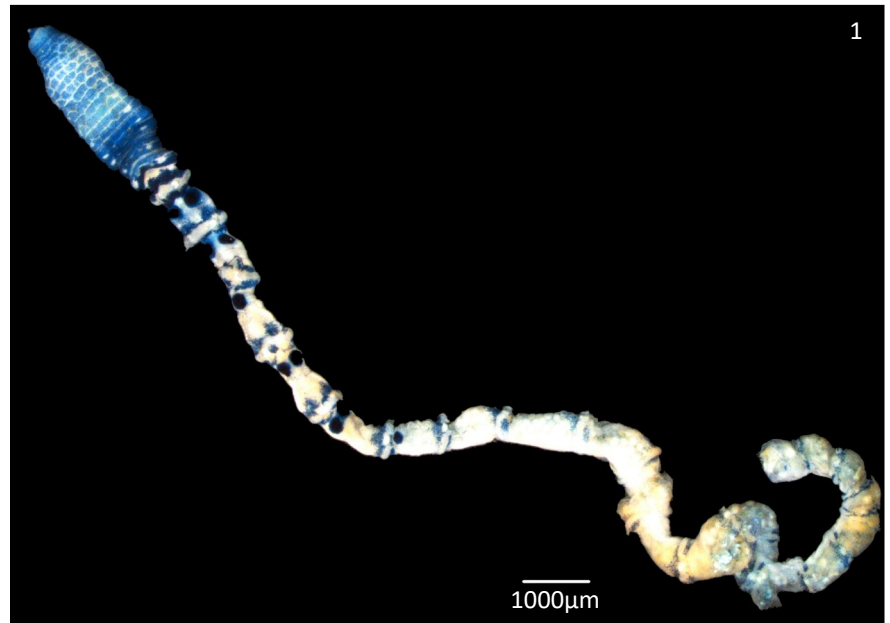
Family: Capitellidae
Order:
Infraclass: Scolecida
Subclass: Sedentaria
Class: Polychaeta
Phylum: Annelida

Diagnostic Characters:

- 1) Prostomium small, conical; palpode present; eyes present as dorsolateral ocular patches, sometimes obscured by peristomium (images 1—5).
- 2) Chaetigers 1-5 areolated, inflated; chaetiger 6 & 7 less areolated, less inflated; chaetigers 8-11 smooth (images 3 & 4).
- 3) First chaetiger complete, thorax with capillary chaetae only (images 4 & 5).
- 4) Thoracic Formula - ^(11e)/_(11e)
- 5) Abdominal hooded hooks with 1-2 rows of small teeth surmounting main fang (difficult to discern even @ 1000X) (images 6 & 7).
- 6) Branchiae present in abdomen, rudimentary, as small dorsolateral swellings of notopodia and large triangular extensions of neuropodia (images 8 & 9).
- 7) Lateral organs present from chaetiger 1, between noto- and neuropodia, present throughout thorax (image 3).
- 8) Pygidium unknown.
- 9) Eggs visible thru body wall of abdomen in reproductive individuals (image 10).

Pigmentation/MGS:

- 1) Palpode unstained.
- 2) Prostomium staining lightly; peristomium stains lightly anteriorly, darker posteriorly (images 1 & 3).
- 3) Chaetigers 1-7 staining moderately (images 1, 3 & 4).
- 4) Chaetigers 8-11 staining intensely (images 1, 3 & 4).
- 5) Abdomen with pre- & post-chaetal stain bands, most intense dorsally (images 1, 8, 9, 11, 12 & 13).
- 6) Genital pores stain as paired dorsal spots in anterior abdomen (image 11) (may be absent in juveniles or non-reproductive individuals) (image 13).



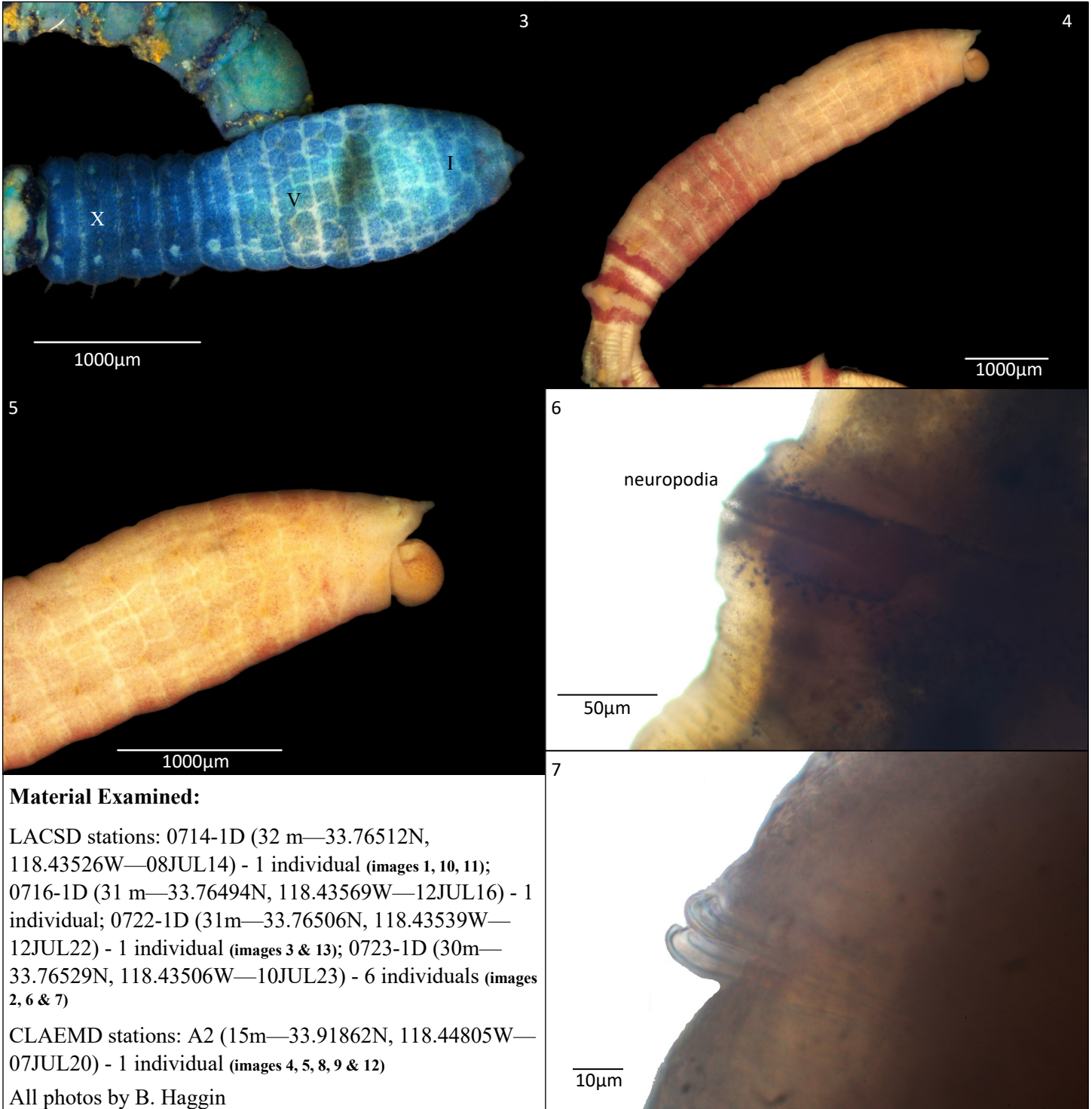


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Material Examined:

LACSD stations: 0714-1D (32 m—33.76512N, 118.43526W—08JUL14) - 1 individual (images 1, 10, 11); 0716-1D (31 m—33.76494N, 118.43569W—12JUL16) - 1 individual; 0722-1D (31m—33.76506N, 118.43539W—12JUL22) - 1 individual (images 3 & 13); 0723-1D (30m—33.76529N, 118.43506W—10JUL23) - 6 individuals (images 2, 6 & 7)

CLAEMD stations: A2 (15m—33.91862N, 118.44805W—07JUL20) - 1 individual (images 4, 5, 8, 9 & 12)

All photos by B. Haggin

Similar Species:

Notomastus sp LA4 is most similar to other local *Notomastus* spp. with a biramous first chaetiger, *Notomastus magnus* Hartman, 1947; *Notomastus* sp E Harris, 2021 §; *Notomastus* sp LA3 Haggin, 2023 §; *Notomastus* sp LA5 Haggin, 2023 §; *Notomastus* sp SD2 Rowe, 1999 §; and *Notomastus* sp SD3 Rowe, 2004 §. Differences between the species are detailed below.



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Similar Species cont.:

Notomastus magnus Hartman, 1947—*Notomastus magnus* is a large, robust species that lacks eyes and has retractile, palmate branchiae from anterior abdominal chaetigers. *N. magnus* has 2 staining morphologies in the abdominal chaetigers depending on its reproductive status. The first is a large, broad dorsal patch (image 14). The second is a set of paired



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Similar Species cont.:

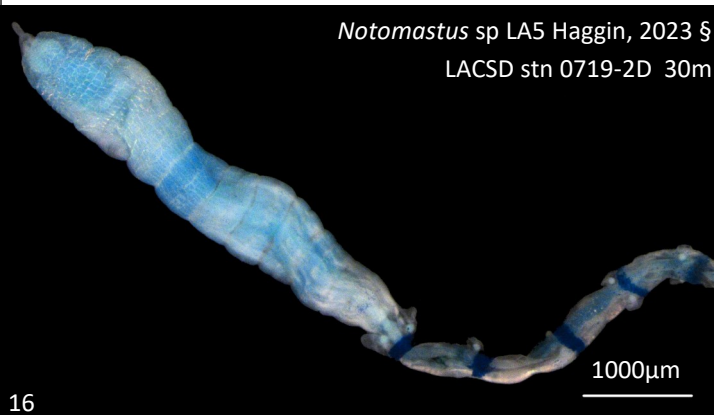
Notomastus magnus continued— dorsal spots (image 15). *Notomastus* sp LA4 differs from *N. magnus* by having eyes and having rudimentary branchiae as swellings of the noto- & neuropodial lobes. The stain pattern of *N. sp LA4* also differs in having pre- & post-chaetal staining bands rather than a broad dorsal patch (image 13). When reproductive, *N. sp LA4* also has paired dorsal stain spots, but it retains the stain bands as well (images 1 & 11).



Notomastus sp E Harris, 2021 §—*Notomastus* sp E is similar to *Notomastus* sp LA4 in also having eyes but differs in the stain pattern. *Notomastus* sp E has an intense staining band on chaetiger 6 while the rest of the animal retains a uniform stain without any distinctive patterns in the abdominal region.

Notomastus sp LA3 Haggin, 2023 §—*Notomastus* sp LA3 differs from *N. sp LA4* in having a smooth rather than an areolated thorax, lacking eyes, having palmate rather than simple branchiae, and in the stain pattern. *Notomastus* sp LA3 has a dorso-lateral abdominal stain and an unstained ventrum. The branchiae do not stain leaving a pair of unstained spots in the abdomen. *Notomastus* sp LA4 has a pair of staining bands and, when reproductive, a pair of dorsal stain spots.

Notomastus sp LA5 Haggin, 2023 §—*Notomastus* sp LA5 differs from *N. sp LA4* in lacking, rather than having eyes and in the abdominal stain pattern. *Notomastus* sp LA5 has a single post-chaetal stain band (image 16) rather than both pre- and post-chaetal staining bands and lacks the paired dorsal stain spots found in reproductive *Notomastus* sp LA4 (images 11 & 13).



Notomastus sp SD3 Rowe, 2004 §—*Notomastus* sp SD3 differs from *N. sp LA4* in the posterior thoracic and abdominal stain pattern. The thorax of *Notomastus* sp SD3 has a dark stain band on the anterior of chaetiger 10, an unstained posterior chaetiger 10 and anterior chaetiger 11 and an intense stain band on the posterior of chaetiger 11. The abdomen has a post-chaetal mid-dorsal stain dot and a “U” shaped stain patch that opens anteriorly, giving the appearance of a smiling cyclops. *Notomastus* sp LA4 has



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Similar Species cont.:

Notomastus sp SD3 Rowe, 2004 § continued—a pre- and post-chaetal stain band and paired dorsal stain spots in reproductive individuals.

Notomastus sp SD2 Rowe, 1999 §—*Notomastus* sp SD2 differs from *N.* sp LA4 in lacking eyes and in the abdominal stain pattern. *Notomastus* sp SD2 has a broad pre-chaetal dorsal stain patch that appears as a “U” shape that opens to the posterior (image 17). *Notomastus* sp LA4 has a pre- and post-chaetal stain band and paired dorsal stain spots in reproductive individuals.

Discussion:

Notomastus latericeus M. Sars, 1851 was originally described from either Cobscook Bay, New Brunswick, Canada (WoRMS) or the Norwegian Sea, Norway (García-Garza *et al.* 2019). The species has since gained a cosmopolitan distribution with a depth range of intertidal to 4360m. The most recent re-description was by Ewing (1984) but was based on material from the Gulf of Mexico and not from either of the potential type localities. Descriptions of the staining patterns were not given by Ewing (1984).

García-Garza *et al.* (2019) does not list any records of *Notomastus latericeus* from the Pacific Ocean, the closest being from Viet Nam. They do recognize that *N. latericeus* was considered a cosmopolitan species by multiple authors but that those records need to be confirmed. Green (2002) described the staining pattern of what she called *N.* near *latericeus* from the Andaman Sea and it is clearly different that what we have locally. She also recognized the reported variation in hooded hook dentition from different localities and suggested that *Notomastus latericeus* is a species complex.

Hernández-Alcántara & Solis-Weiss reported *Notomastus latericeus* from the Gulf of California in 1993, 1998, and 1999 but a re-examination of the material by García-Garza & de León-González (2011) found them to be *Notomastus magnus*. True *Notomastus latericeus* likely does not occur locally and the provisional species *Notomastus* sp LA4 Haggin, 2023 § should be used in its place.

Habitat:

Notomastus sp LA4 is known from the Santa Monica Bay and Palos Verdes at a depth of 15-32m. This range is likely to increase across southern California as local reviews of *Notomastus latericeus* occur.

References:

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Version History:

Version 1.0—Voucher sheet created (18JUN2024)

Version 1.1—Updated references (20JUN2024)



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