



Species: *Notomastus* sp LA3 Haggin, 2023 §

P-code—P336

Synonyms:

ITI-code—none

Family: Capitellidae

Order:

Infraclass: Scolecida

Subclass: Sedentaria

Class: Polychaeta

Phylum: Annelida

Diagnostic Characters:

- 1) Prostomium with palpode present, minute; eyespots not observed.
- 2) Thorax smooth, not noticeably inflated anteriorly.
- 3) 1st chaetiger complete.
- 4) Thoracic formula ^(11c)/_(11c)
- 5) Abdomen with branchiae present, palmate, notopodial in nature.
- 6) Abdomen pinches laterally near branchial insertion, giving the appearance of a dorsal ridge in posterior abdomen.
- 7) Lateral organs and nephridial pores not observed.
- 8) Anal cirri not observed and pygidial detail unknown due to caudal regeneration.

Pigmentation/MGS:

- 1) Thorax stains uniformly.
- 2) Abdomen with dorso-lateral stain, becoming more dorsal only from branchial insertion, stain concentrates along dorsal ridge in posterior abdomen.
- 3) Branchiae unstained, giving the appearance of two unstained spots dorsally on posterior abdominal segments
- 4) Abdomen is unstained ventrally.

Material Examined:

LACM-AHF Poly# 12392 (DISCO ID: 17991) (320m—33.825°N 118.444°W—29AUG19) - 1 individual (incomplete fragment)

LACM-AHF Poly# 12394 (DISCO ID: 17993) (320m—33.825°N 118.444°W—29AUG19) - 1 individual (in 3 pieces, complete with caudal regen)

All photos by B. Haggin



Notomastus sp LA3

Haggin, 2023 §

Voucher Sheet

B. Haggin
June, 2024

Similar Species:

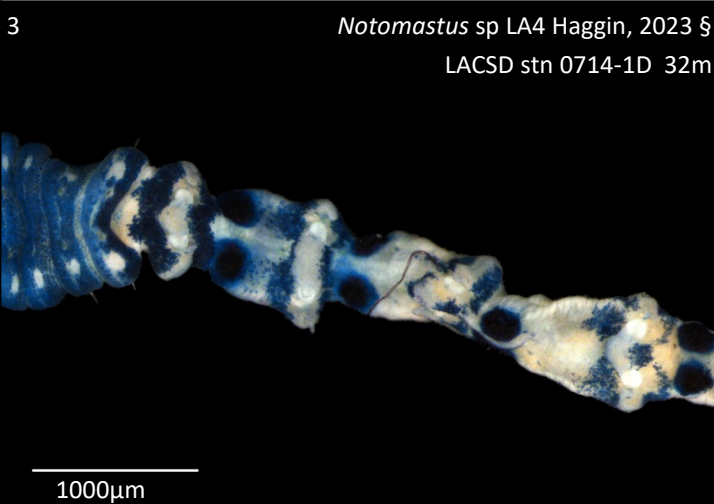
Notomastus sp LA3 is most similar to other local *Notomastus* spp. with a biramous first chaetiger, *Notomastus magnus* Hartman, 1947; *Notomastus* sp E Harris, 2021 §; *Notomastus* sp LA4 Haggin, 2023 §; *Notomastus* sp LA5 Haggin, 2023 §; *Notomastus* sp SD2 Rowe, 1999 §; and *Notomastus* sp SD3 Rowe,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

Notomastus magnus Hartman, 1947—*Notomastus magnus* is a large, robust species that is similar to *N.* sp LA3 in lacking eyes and having palmate branchiae. *Notomastus magnus* differs in having an aerolated, rather than smooth thorax, branchiae from anterior rather than median-posterior abdominal chaetigers and has 2 staining morphologies in the abdominal chaetigers depending on its reproductive status. The first is a large, broad dorsal patch (image 1). The second is a set of paired dorsal spots (image 2). *Notomastus* sp LA3 differs from *N. magnus* by having a stain pattern with a dorsal band and unstained branchiae, giving the inverse stain pattern as a reproductive *N. magnus*.



Notomastus sp E Harris, 2021 §—*Notomastus* sp E differs from *Notomastus* sp LA3 in having eyes, simple rather than palmate branchiae, and 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 LA4 Haggin, 2023 §—*Notomastus* sp LA4 differs from *N.* sp LA3 in having an aerolated rather than a smooth thorax, having eyes, having simple rather than palmate branchiae, and in the stain pattern. *Notomastus* sp LA4 has a pair of staining bands and, when reproductive, a pair of dorsal stain spots (image 3). *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 SD3 Rowe, 2004 §—*Notomastus* sp SD3 differs from *N.* sp LA3 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

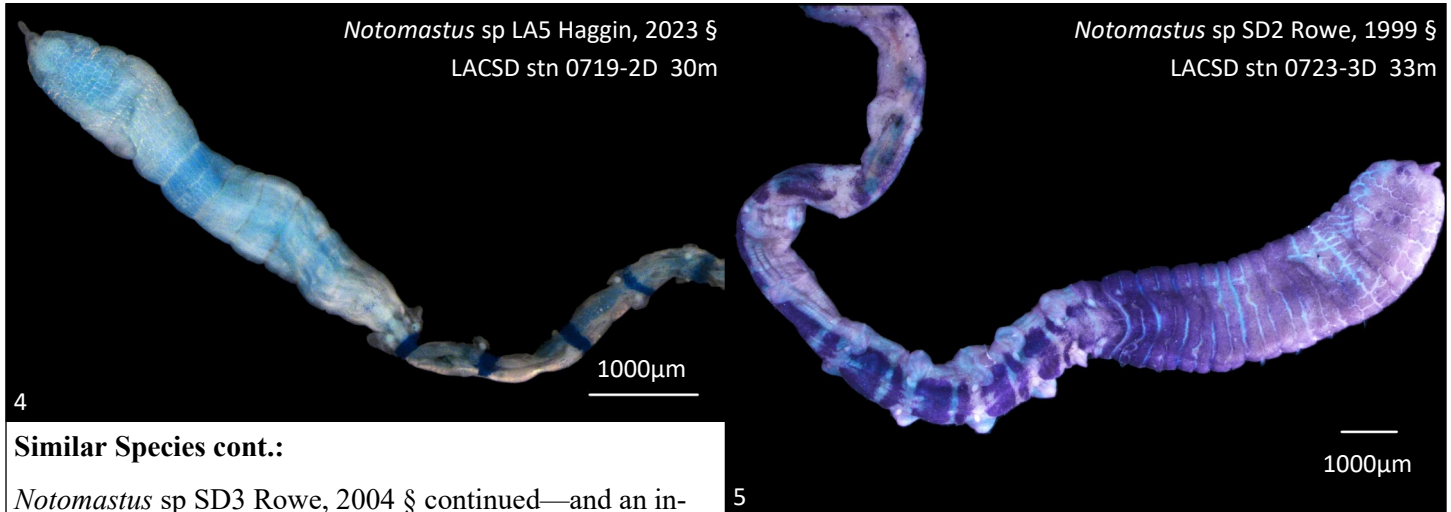


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Similar Species cont.:

Notomastus sp SD3 Rowe, 2004 § continued—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 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 LA5 Haggin, 2023 §—*Notomastus* sp LA5 differs from *N.* sp LA3 in having an areolated rather than a smooth thorax, having simple rather than palmate branchiae and in the abdominal stain pattern. *Notomastus* sp LA5 has a single staining band in the abdomen (image 4). *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 SD2 Rowe, 1999 §—*Notomastus* sp SD2 is similar to *N.* sp LA3 in lacking eyes but differs 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 5). *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.

Discussion:

The lack of eyes and palmate branchiae make *Notomastus* sp LA3 most likely to have been mis-identified as *Notomastus magnus* prior to using methyl green staining patterns. *Notomastus magnus* was originally described from the intertidal of Tomales Bay and now has a depth range of up to 900m (Blake 2000) and has been reported south to the tip of Baja California and back north into the Gulf of California (García-Garza *et al.* 2019). Hartman (1960) tentatively referred a species from the East Cortes Basin (1415-1979m) (Hartman & Barnard 1958) to *Notomastus magnus* even though it was only known from intertidal and shallow depths. Reports such as these suggest that *Notomastus magnus* may be a local species complex and a review of older records using MGS, especially records from deeper depths, may be needed to resolve this issue.

Habitat:

Notomastus sp LA3 is known only from 2 individuals. It was found in the Redondo Canyon of Santa Monica Bay at a depth of 320m in muddy substrate.



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References:

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García-Garza, M. E., de León-González, J. A. & Tovar-Hernández, M. A. 2019. Catalogue of *Notomastus* M. Sars, 1851 (Annelida, Capitellidae) and the description of a new species from the Gulf of California. *Zootaxa* 4577 (2): 249-273.

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Other Literature Consulted:

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Magalhães, W. F. & Blake, J. A. 2020. 7.6.4 Capitellidae Grube, 1862. pp. 349–403, In: Purschke, G., Bögge-mann, M. & Westheide, W. (Eds.), *Handbook of Zoology. Annelida*, 2 (Pleistoannelida, Sedentaria II), pp. 1–465.

Version History:

Version 1.0—Voucher sheet created (18JUN2024)



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