



Species: *Onuphis* sp B SCAMIT, 2023 §

Synonyms: *Onuphis* sp LA1 Haggin, 2019 §

P-Code—none assigned

ITI—Group 1

Subfamily: Onuphinae
Family: Onuphidae
Order: Eunicida
Subclass: Errantia
Class: Polychaeta
Phylum: Annelida

Diagnostic Characters:

147 chaetigers (incomplete) 61 mm X 2 mm
(including parapodia)

- 1) Prostomium sub-triangular, with clavate frontal antennae (FA), tapering distally.
- 2) Eyes present, 1 pair, far lateral on prostomium, obscured by the Inner Lateral Antennae from above. Eyes a collection of many small spots.
- 3) Peristomium about = in size to chaetiger 1, slightly smaller than prostomium (**Images 1 & 2**). Peristomial cirri long, extending beyond anterior margin of prostomium, to about midpoint of Frontal Antennae.
- 4) Outer Lateral Antennae (OLA) with ~25 annulations, reaching to chaetiger 2 (**Images 1—3**).
Cerataphores with brown pigment on annulations 2-5 and 14-16. Subdermal pigment spot in annulations 3 & 4, 10 & 11 and 17 & 18. Styles short, ~½ length of ceratophore, with brown pigment at base of styles.
- 5) Inner Lateral Antennae (ILA) with 29 to 30 annulations, reaching to around chaetiger 10 (**Images 1—3**). **Cerataphores with brown pigment on annulations 3-6 and 18-24. Subdermal pigment spot in annulations 3-7, 12-14 and 18 & 19. Styles long, ~1.3X ceratophores, with brown pigment at base of styles.**
- 6) Median Antennae (MA) with ~20 annulations, reaching to chaetiger 6 or 7 (**Images 1—3**).
Cerataphores with brown pigment on annulations 2-5 and 10-13. Subdermal pigment spot in annulations 4 & 5 and 10 & 11. Styles slightly longer than ceratophores, with light brown pigment at base of style (not as noticeable as in ILA & OLA).
- 7) Branchiae from chaetiger 1 (**Images 1, 2 & 4**). Pectinate with 5 (maybe a small 6) filaments at maximum development (**Image 7**). 1st branching from chaetiger 17; 2nd branch from chaetiger 26.
- 8) Dorsal cirri digitate, slender, ≤ length of branchiae in most chaetigers (longer in 1st 2 or 3 chaetigers only) (**Images 4—7**).
- 9) Ventral cirri digitate in chaetigers 1-6 (**Image 3**), papilliform in chaetiger 7, globose in chaetiger 8 and pad-like from chaetiger 9 (globose VC in chaetiger 8 may be small pad).
- 10) Postchaetal lobe (PL) digitate for 23 chaetigers (reducing rapidly in size from chaetiger 13) then small, conical to chaetiger 35 (**Images 4—6**). PL reduced to papillae after.
- 11) Interramal papillae present on chaetigers 5-10 (**Images 5 & 6**).



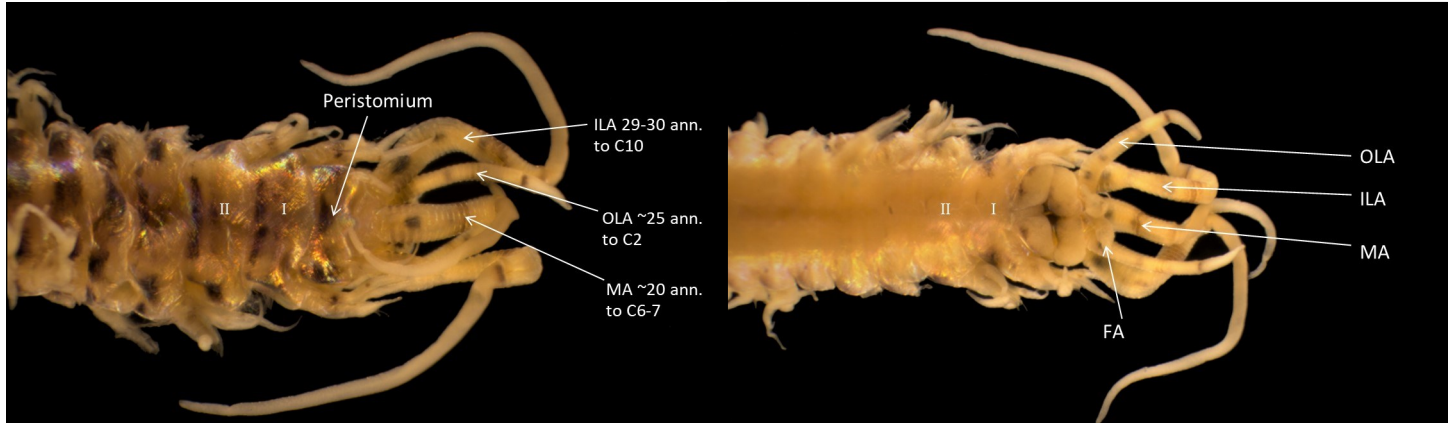
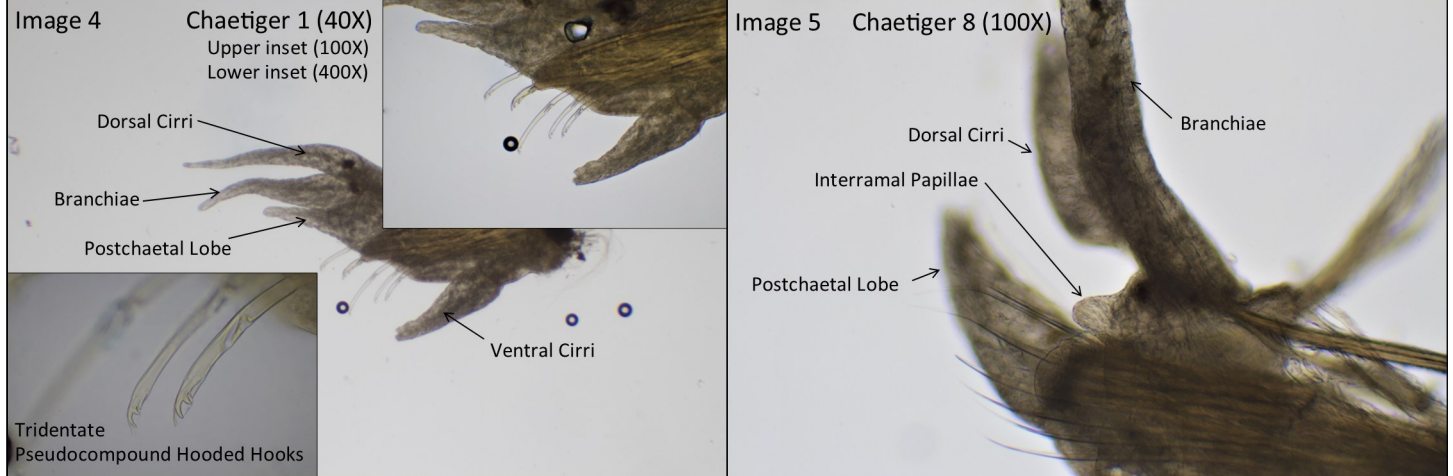


Image 2 Dorsal Prostomium Pigmentation Image 3 Ventral Prostomium Pigmentation

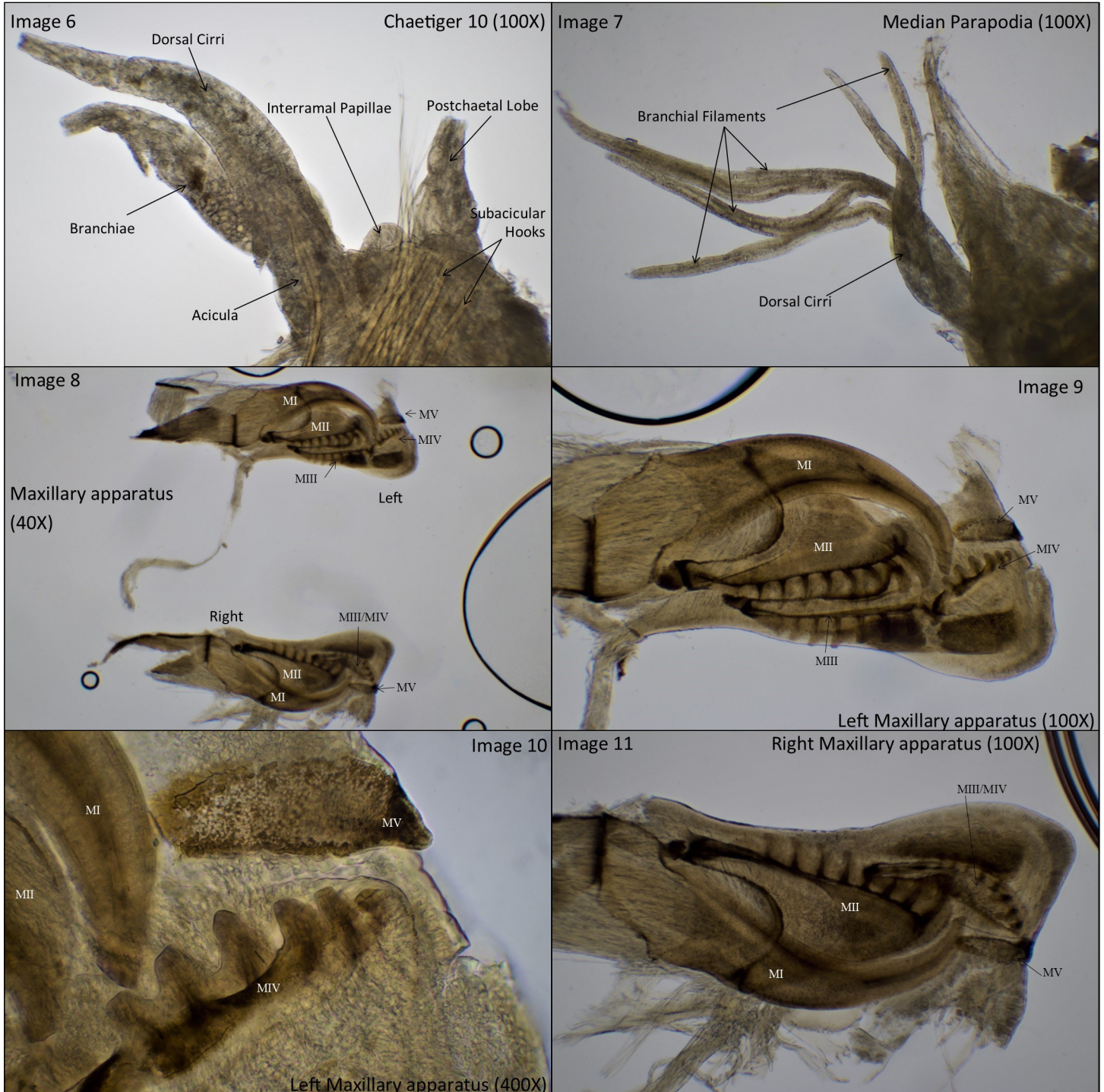


Diagnostic Characters (cont.):

- 12) Pseudocompound Hooded Hooks (PCHH) present on chaetigers 1-5. Tridentate, with proximal tooth very thin and set close to median tooth (may appear bidentate) (Image 4).
- 13) Subacicular Hooded Hooks present from chaetiger 10; bidentate, hooded (Image 6).
- 14) Pectinate chaetae present from chaetiger 6, distally slightly oblique, with 9-10 very long teeth.
- 15) Limbate chaetae with very fine wings present on all chaetigers (Image 5).
- 16) Compound spinigers absent.
- 17) Maxillary Formula: MI 1+1 (falcate); MII 9+9; MIII 8+0; MIV 6+8(9); MV 1+1 (oval plates, rounded at one end and pointed at the other, giving appearance of a tooth) (Images 8 - 11).
- 18) Pygidium unknown.
- 19) Cuticle iridescent.

Pigmentation:

- 1) Prostomium with transverse brown band anterior to MA, stretching between the bases of OLA & ILA (Images 1 & 2).
- 2) Peristomium with transverse brown band dorsally and scattered pigment around the edge of lips ventrally (Images 1—3).
- 3) Anterior chaetigers with transverse brown bands dorsally and 2 brown pigment patches (1 dorso-lateral & 1 ventro-lateral) on posterior of parapodia base (dorso-lateral patch connects to dorsal bands, ventro-lateral patch separate) (Images 1—3).



Pigmentation (cont.):

- 4) Slight brown pigment in posterior interractal region of parapodia.
- 5) Dorsal pigment decreasing in intensity thru chaetiger 40 (Image 1).
- 6) ** See also description of ceratophore pigmentation on page 1 **

Images 1-7 by N. Lee
Images 8-11 by B. Haggin



Onuphis sp B

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Voucher Sheet

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April, 2023

Material Examined:

0888-1D—off Rocky Point, Palos Verdes, 31m (1 ind., incomplete—147 chaetigers) (33.76500N, 118.43530W—05AUG88) (all images)

Similar Species:

Onuphis eremita parva Berkeley & Berkeley, 1941 — *Onuphis eremita parva* & *Onuphis* sp B are similar by the presence of interramal papillae in anterior chaetigers and branchiae present from chaetiger 1 and becoming pectinate. However, the branchiae in *O. e. parva* first branch in chaetigers 23 - 30 and in *O. sp B* they first branch in chaetiger 17 and a second branch in chaetiger 26. The two species differ in the number of chaetigers with pseudocompound hooded hooks (1-4 in *O. e. parva* & 1-5 in *O. sp B*), the start of subacicular hooded hooks (chaetiger 8 in *O. e. parva* & chaetiger 10 in *O. sp B*), the maximum number of annulations on the occipital ceratophores (21 annulations in *O. e. parva* & 30 annulations in *O. sp LA1*) and the start of pad-like ventral cirri (chaetiger 7 in *O. e. parva* & chaetiger 8 or 9 in *O. sp B*).

Onuphis multiannulata Shisko, 1981 — *Onuphis multiannulata* and *Onuphis* sp B are similar in the first appearance of subacicular hooded hooks at chaetiger 10 and the branchiae present from chaetiger 1 and becoming pectinate, but differ in the maximum number of branchial filaments (3 filaments in *O. multiannulata* & 5(maybe 6) filaments in *O. sp B*) and both have pseudocompound hooded hooks in the first 5 chaetigers but differ in their dentition (bi- & tridentate in *O. multiannulata* & tridentate in *O. sp B*). The two species differ in their maxillary formula (*O. multiannulata*—MII 8/9+10; MIII 10+0; MIV 7+10/11 and *O. sp B*—MII 9+9; MIII 8+0; MIV 6+8(or 9, difficult to count)), *O. multiannulata* lacks the interramal papillae in anterior chaetigers that are present in *O. sp B* and *Onuphis multiannulata* lacks pigment while *Onuphis* sp B is heavily pigmented in anterior chaetigers.

Habitat:

Onuphis sp B is known from a single specimen from off Rocky Point, Palos Verdes, CA in shallow water (31m) in sediments of silty sand. Also collected in the sample were the polychaetes *Platynereis bicanaliculata* (Baird, 1863); *Nereis* sp A SCAMIT, 2007 §; *Glycinde armigera* Moore, 1911; *Glycera nana* Johnson, 1901; *Glycera oxycephala* Ehlers, 1887; *Diopatra tridentata* Hartman, 1944; *Onuphis* sp A SCAMIT, 1992 §; *Mooreonuphis nebulosa* (Moore, 1911); *Podarkeopsis glabrus* (Hartman, 1961); *Micropodarke dubia* (Hessle, 1925); *Lumbrineris latreilli* Audouin & H. Milne Edwards, 1834; *Phyllococe hartmanae* Blake & Walton, 1977; *Nephtys californiensis* Hartman, 1938; *Nephtys caecoides* Hartman, 1938; *Tenonia priops* (Hartman, 1961); *Sthenelanella uniformis* Moore, 1910; *Sthenelais tertiaglabra* Moore, 1910; *Dipolydora caulleryi* (Mesnil, 1897); *Dipolydora socialis* (Schmarda, 1861); *Laonice cirrata* (M. Sars, 1851); *Paraprionospio alata* (Moore, 1923); *Prionospio lighti* Maciolek, 1985; *Prionospio jubata* Blake, 1996; *Spiophanes duplex* (Chamberlin, 1919); *Spiophanes norrisi* Meißner & Blank, 2009; *Ampharete labrops* Hartman, 1961; *Melinna oculata* Hartman, 1969; *Lanice conchilega* (Pallas, 1776); *Streblosoma crassibranchia* Treadwell, 1914; *Pista wui* Saphronova, 1988; *Spiochaetopterus costarum* Cmplx; *Chaetozone corona* Berkeley & Berkeley, 1941; *Chaetozone setosa* Cmplx; *Aphelochaeta-Monticellina* Cmplx; *Scalibregma californicum* Blake, 2000; *Aricidea* (*Aricidea*) *wassi* Pettibone, 1965; *Leitoscoloplos pugettensis* (Pettibone, 1957); Euclymeninae sp A SCAMIT, 1987 §; *Dialychone veleronis* (Banse, 1972); an unidentified *Chone*, an unidentified *Lumbrineris*, an unidentified *Mediomastus*, and an unidentified *Nereiphylla*.

Discussion:

Arias (2016) gave the generic diagnosis of *Onuphis* as follows:

Prostomium often anteriorly extended; with frontal lips. Antennae and palps with ceratophores usually with 10-25 rings and short to moderately long styles, palpostyles shorter than palpophores. Nuchal grooves straight. Peristomial cirri present. Anterior three to four (rarely two to five) pairs of parapodia modified but not enlarged. Ventral cirri subulate on anterior four to six chaetigers; dorsal cirri moderately long. Branchiae rarely absent, usually present from chaetiger 1, rarely 3-6; single or pectinate filaments (maximum 12). Hooks of modified parapodia usually tridentate (rarely only bidentate, sometimes bi- to multidentate) Pseudocompound with relatively short hoods; median hook slightly larger but not becoming simple and changing to large median hook. Hooks varying specifically, from all having appendages of almost equal thickness and length to being clearly differentiated into slender long-appendaged and robust short-appendaged hooks. Dorsal limbate chaetae from chaetiger 1, ventral limbate chaetae replacing Pseudocompound hooks from chaetiger 4 or later until replaced by bidentate hooded Subacicular hooks usually from chaetiger 9-14. Tubes round in section, ranging from thin mucous to tough parchment-like inner layer covered with extraneous particles.

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Discussion (cont.):

Onuphis sp B may be *Onuphis eremita parva* but the description of *O. e. parva* was vague and the variability of characters within the species is unknown. Recent work (Arias & Paxton 2014) suggest that *Onuphis eremita* is a species complex and due to differences in the insertions of some characters a provisional species, *Onuphis* sp B, has been erected. WoRMS currently lists 47 accepted species of *Onuphis* and SCAMIT Ed. 13 has 7 named species and 3 provisional species of *Onuphis*. *Onuphis* sp B would be the 4th provisional species when added in Edition 14.

References:

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- SCAMIT. 2021. *A Taxonomic Listing of Benthic Marco- and Megainvertebrates from Infaunal & Epifaunal Monitoring and Research Programs in the Southern California Bight, Edition 13*. Cadien, D. B., Lovell, L. L., Barwick, K. L., Haggin, B. M., eds. 203pp.
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Other Literature Consulted:

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- Gil, J. & Machado, M. 2014. A new species of *Onuphis* (Polychaeta: Onuphidae) from Southern Portugal, with comments on the validity of *O. pancerii* Claparède, 1868. *Zootaxa* 3860(4): 343-360.
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Version History:

Version 1.0—Voucher sheet created (01AUG2019)

Version 2.0—Updated voucher sheet to new SCAMIT guidelines; Updated photo labelling to reduce image clutter; Updated name to *Onuphis* sp B and author to SCAMIT, 2023 §; Updated material examined section; Updated References section; Added ITI-Code; Added Habitat, Discussion and Other Literature Consulted sections (12APR2023)