



**LOS ANGELES COUNTY
SANITATION DISTRICTS**

Converting Waste Into Resources



Prionospio of Southern California

Potential Issues with Local Species

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January 2026



OUR SERVICE AREA

Prionospio Malmgren, 1867

- Spionidae
 - *Prionospio*
 - 127 species
 - 7 species reported locally
 - At least 2 provisional species locally
 - *Prionospio dubia* Day, 1961
 - *Prionospio jubata* Blake, 1996
 - *Prionospio lighti* Maciolek, 1985
 - *Prionospio lobulata* Fauchald, 1972
 - *Prionospio multibranchiata* E. Berkeley, 1927
 - *Prionospio newportensis* Reish, 1959
 - *Prionospio pygmaeus* Hartman, 1961
 - *Prionospio* sp J Harris, 2014 §
 - *Prionospio* sp LA1 Haggin, 2022 §



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Prionospio Malmgren, 1867

- Most diverse and complex group within the Spionidae
- Common globally
- Intertidal to deep-sea (>4000m)
- Often form populations of high density
- High salinity -> brackish -> freshwater
- Some species are used as bioindicators
- Many species with “Cosmopolitan” distributions due to vague original descriptions in the 19th and early 20th centuries
- Recent molecular work from northern Europe has led to a revision of the genus and restrictions to species distributions



Prionospio Malmgren, 1867

- Diagnosis (sensu Hektoen *et al.* {2025})
 - Prostomium anteriorly rounded to truncate, with frontal margin entire to weakly incised, rarely with fronto-lateral horns; subtriangular, rectangular or oval in shape, extending posteriorly at least to end of chaetiger 1 as a low caruncle. Nuchal organs U-shaped lateral to caruncle. Red, rarely black eyes present or absent. Occipital antenna absent. Peristomium at least partially fused with notopodial postchaetal lamellae of chaetiger 1, forming low wings to prominent ear-shaped structures on lateral sides of prostomium. Notopodial lamellae of chaetiger 1 small, usually fused with dorsal posterior parts of peristomium; neuropodia lamellae small. Noto- and neuropodial postchaetal lamellae largest on branchiate chaetigers, reduced thereafter. Notopodial lamellae on postbranchiate chaetigers often interconnected by dorsal transverse low ridges to high crests. Interparapodial pouches or membranous folds present or absent. Branchiae usually from chaetiger 2, rarely from chaetiger 3 or absent, limited to anterior part of body, cylindrical or flattened with surfaces perpendicular to body axis, free from notopodial lamellae, smooth, apinnate or with digitiform pinnules. Hooks bi-, tri-, quadri- or multidentate, with inner and / or rarely only outer hoods, present in noto- and neuropodia; shaft slightly curved, without constriction. Sabre chaetae usually present in neuropodia, rarely absent. Pygidium with one long middorsal cirrus and two shorter ventral cirri; rarely ventral cirri reduced.



Prionospio Malmgren, 1867

- Genus originally erected to contain *Prionospio steenstrupi* Malmgren, 1867
 - A new spionid with 4 pairs of branchiae, 1st & 4th pairs pinnate, 2nd & 3rd apinnate
- Expanded to include members with cirriform branchiae as well
- As more species were described, animals with similar features became known as the “*steenstrupi*-group”
 - Expanded to include members with up to 5 pairs of branchiae
 - Currently comprises around 51 species of *Prionospio*
- Historically, many synonymies based on relative length of branchial pairs 1 & 4, adding to cosmopolitan status of many species and mixed descriptions from many regions
 - Starting chaetigers for insertion of hooded hooks and shape of anterior lamellae now considered important for species separation
- Local “*steenstrupi*-group” would include the following:
 - *Prionospio dubia* Day, 1961
 - *Prionospio jubata* Blake, 1996
 - *Prionospio newportensis* Reish, 1959
 - *Prionospio* sp J Harris, 2014 §



Prionospio steenstrupi Malmgren, 1867

Description (sensu Sigvaldadóttir & Mackie {1993})

- Prostomium subtriangular, truncate anteriorly; 2 pairs of eyes present (small); caruncle to chaetiger 2
 - Blake (1996) describes it as extending to chaetiger 3 but illustrates it only to chaetiger 2
 - Illustrations in MMS are from Maciolek (1985) which are based on Icelandic & North Atlantic specimens
- Branchiae on chaetigers 2-5
 - 1st and 4th pair of branchiae about equal in length
 - ~ 1.5-2.5X longer than apinnate branchiae
 - 1st & 4th pair with digitiform pinnules and short apinnate tip
 - 2nd & 3rd short, triangular, apinnate
- Dorsal crests present from chaetiger 6
- Neuropodial lamellae of chaetiger 2 with ventral projection
- Interparapodial pouches absent
 - With membranous folds between post-branchial notopodia (arrows in Image A)
- Neuropodial sabre chaetae from chaetigers 10
- Notopodial hooded hooks from chaetigers 43-58
- Neuropodial hooded hooks from chaetigers 15-17
- Hooks multidentate, w/ 4-6 pairs of apical teeth above main fang
- Pygidium with 1 long dorsomedial cirrus & 2 tapered, ventrolateral short lobes



Prionospio steenstrupi Malmgren, 1867

- MGS
 - No distinct pattern evident
 - Some middle and posterior parapodial lamellae with irregular stain
- Originally described from Iceland
 - With additional reports from Greenland, Sweden, New England, Caribbean, California, Bering Sea & Beaufort Sea
 - Shelf depths to 150m, occasionally deeper
 - Reports to 2700m
- Redescribed by Sigvaldadóttir & Mackie (1993) from Icelandic material & Dagli & Çinar (2009) from Mediterranean material
 - Dagli & Çinar material likely an undescribed species (per Hektoen *et al.* {2025})
- Distribution restricted to Iceland by Sigvaldadóttir & Mackie (1993)
- Range restricted to 73-160m by Hektoen *et al.* (2025)
- Reported by Blake (1996) from 77m off Half Moon Bay from 2 specimens



Prionospio dubia Day, 1961

- Originally described from South Africa
 - Currently with additional reports from west & NE Atlantic, Japan, California, Australia
 - 17-2379m

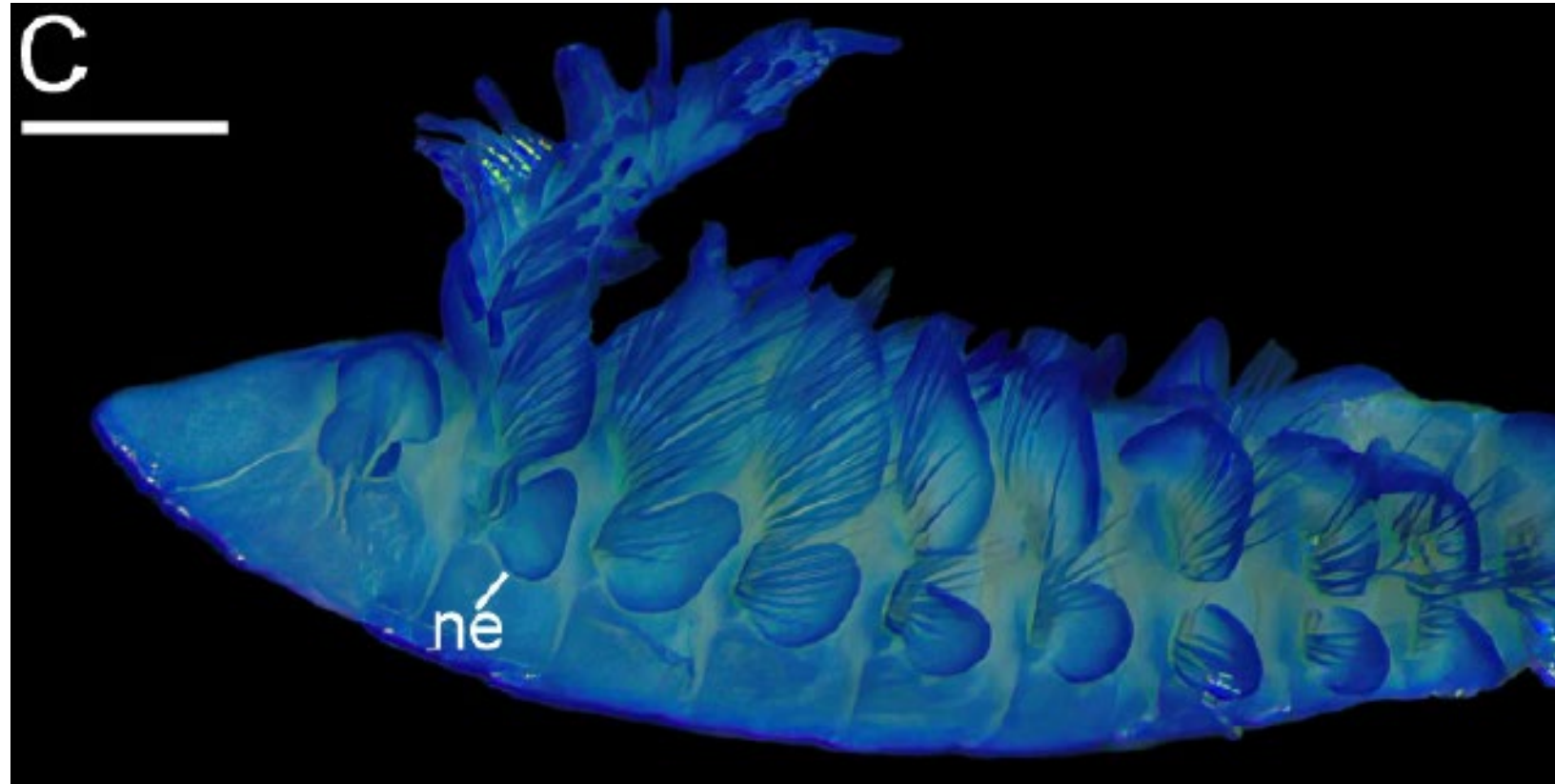
Description (sensu Wilson {1990} based on material from South Africa)

- Prostomium narrow, anteriorly rounded; eyes present or absent; caruncle extends to anterior of chaetiger 2
- Branchiae on chaetigers 2-5
 - 1st pair of branchiae (C2) elongated, cylindrical; up to 5X longer than 4th pair
 - 1st & 4th pair with digitiform pinnules and short apinnate tip
 - 2nd & 3rd short, triangular, apinnate
- Dorsal crests absent
- Neuropodial lamellae of chaetiger 2 without ventral projection
- Interparapodial pouches absent
- Neuropodial sabre chaetae from chaetigers 17-20 (usually 18-19)
- Hooded hooks not present in notopodia (longest fragment was 50 chaetigers)
 - May be present farther back, Day (1967) reported from chaetiger 50
- Neuropodial hooded hooks from chaetigers 18-19 (usually same or next chaetiger as sabre chaetae)
- Hooks with 3-4 pairs of upper teeth in two vertical rows above main fang
- Pygidium unknown



Prionospio dubia Day, 1961

- MG stains intensely on anterior chaetigers and parapodial lamellae
- Range restricted to South Africa in depths of 84-183m (Hektoen *et al.* {2025})
 - Based on reported morphological variation and molecular results from northern Europe
- Delgado-Blas & Peraza (2024) suggest that the records from California represent possibly 2 undescribed species based on the variability listed by Blake (1996)
 - Needs more investigation



Prionospio dubia - Global Variability

| Reference | Region | Width at 10 th chaetiger | Eyes | Neuropodial lamellae of chaetiger 3 shape | Sabre chaetae start chaetiger | Neuropodial hooded hooks start chaetiger |
|--|---------------------|-------------------------------------|-------------------------|---|-------------------------------|--|
| Day 1961, 1963, 1967 | South Africa | – | present or absent | rounded | 18 | 18–19 |
| Maciolek 1985 | West Atlantic | up to 0.75 mm | present or absent | squarish | 13–16 | 15–19 |
| Imajima 1990 | Japan | up to 0.8 mm | present | subrectangular, upwards-turned | 13–14 | 15–16 |
| Wilson 1990* | Australia | 0.25–0.6 mm | present or absent | asymmetrical ovoid lobe | 17–20 | 18–19 |
| Sigvaldadóttir & Mackie 1993 | North East Atlantic | 0.3–0.7 mm | absent | subrectangular, upwards-turned | 16–22 | 17–22 |
| Blake 1996 | California | up to 0.6 mm | present or absent | squarish | 13–16 | 13–16 |
| Wilson 1990, Sigvaldadóttir & Mackie 1993, present study** | South Africa | 0.4–0.7 mm | present or absent | subrectangular, upwards-turned | 16–21 | 18–22 |

Prionospio dubia Day, 1961

- What do we call our local species?

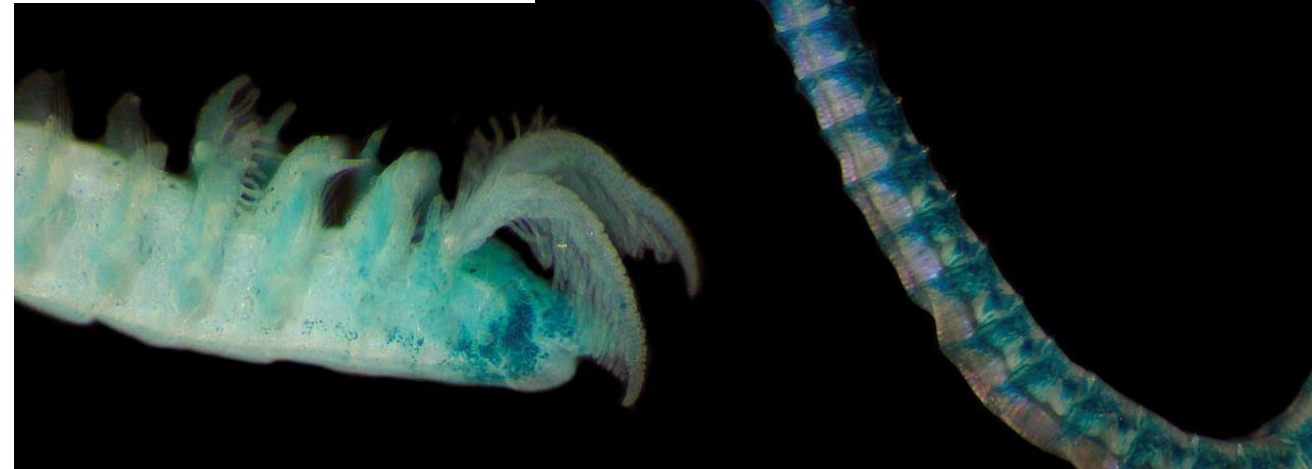


Prionospio sp B SCAMIT, 1991 §

Prionospio sp B Harris, 19?? §

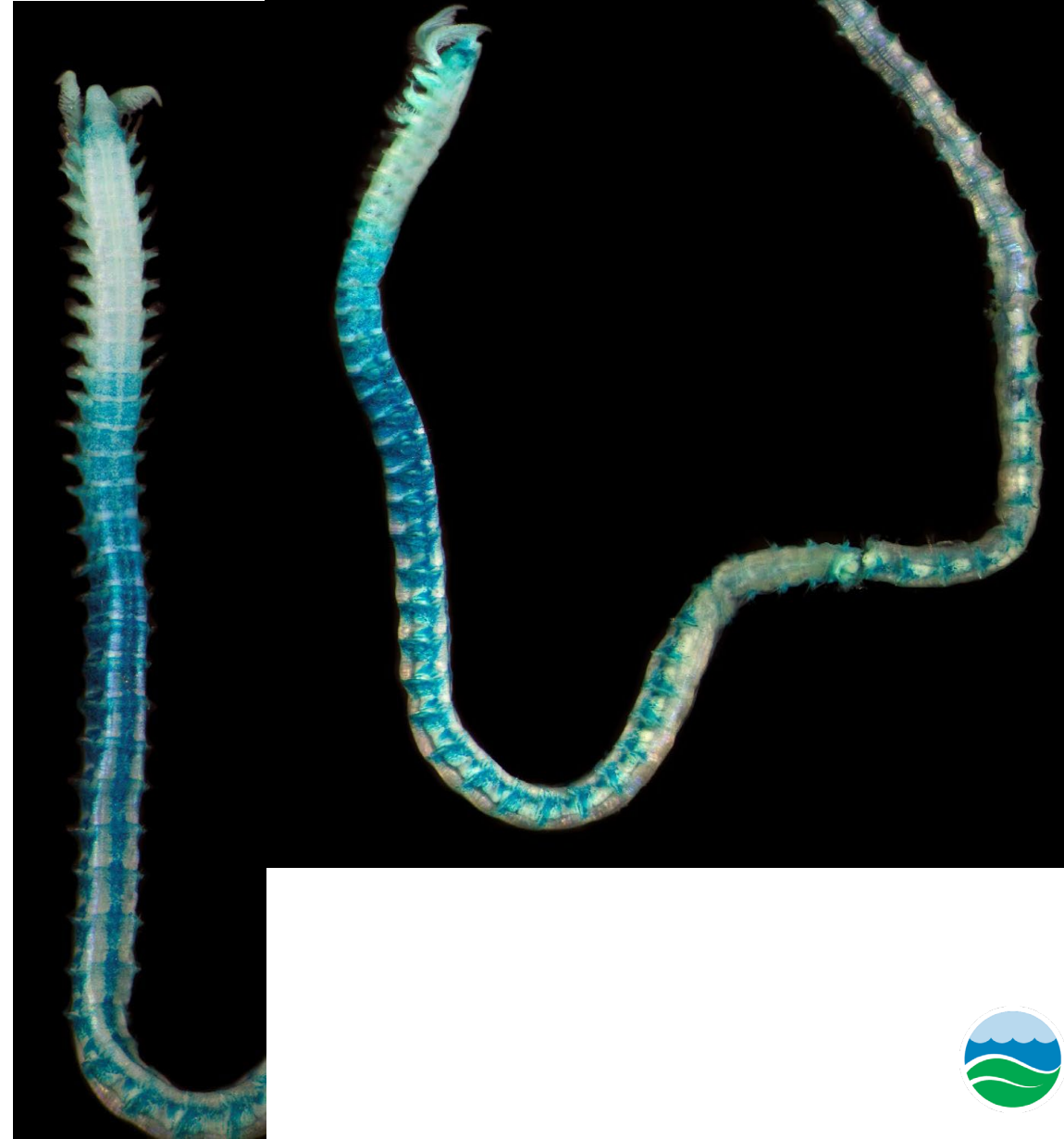
Prionospio dubia of authors SCB, not Day 1961

- Prostomium narrow, anteriorly rounded; 2-3 pairs of eyes present
 - Posterior pair usually elongate, comma shaped and much larger than other pair(s)
- Caruncle to end of chaetiger 1 (sensu Blake {1996} as *P. dubia*)
- Branchiae on chaetigers 2-5
 - 1st pair of branchiae (C2) elongated, cylindrical; up to 3X longer than 4th pair
 - 1st & 4th pair with digitiform pinnules and short apinnate tip
 - 2nd & 3rd short, triangular, apinnate
- Dorsal crests absent
- Neuropodial lamellae of chaetiger 2 without ventral projection
- Interparapodial pouches absent
- Neuropodial sabre chaetae from chaetigers 13-14
 - 13-16 in Blake (1996) as *P. dubia*
- Notopodial hooded hooks from chaetigers 42-65
- Neuropodial hooded hooks from chaetigers 14-16
 - 13-16 in Blake (1996) as *P. dubia*
- Hooks with 4 apical teeth above main fang
- Pygidium with 1 long dorsomedial cirrus & 2 ventrolateral short lobes
 - Sensu Blake (1996) as *P. dubia*



Prionospio sp B SCAMIT, 1991 §

- MGS (sensu Blake {1996} as *P. dubia*)
 - Dorsal surface of prostomium and peristomial wings staining intensely
 - Dorsal bands staining in middle chaetigers, along with some ventral and lateral stain on same chaetigers
 - Remainder unstained
- LACSD reports from 30-152m
 - 56% or reports from 61m stations
 - 4 reports from 305m need to be confirmed

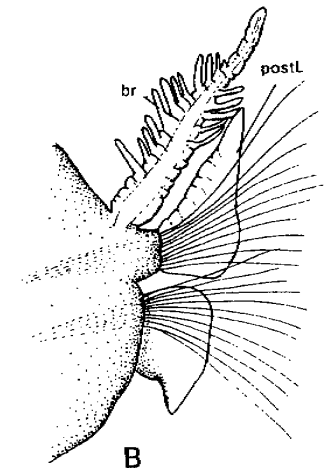
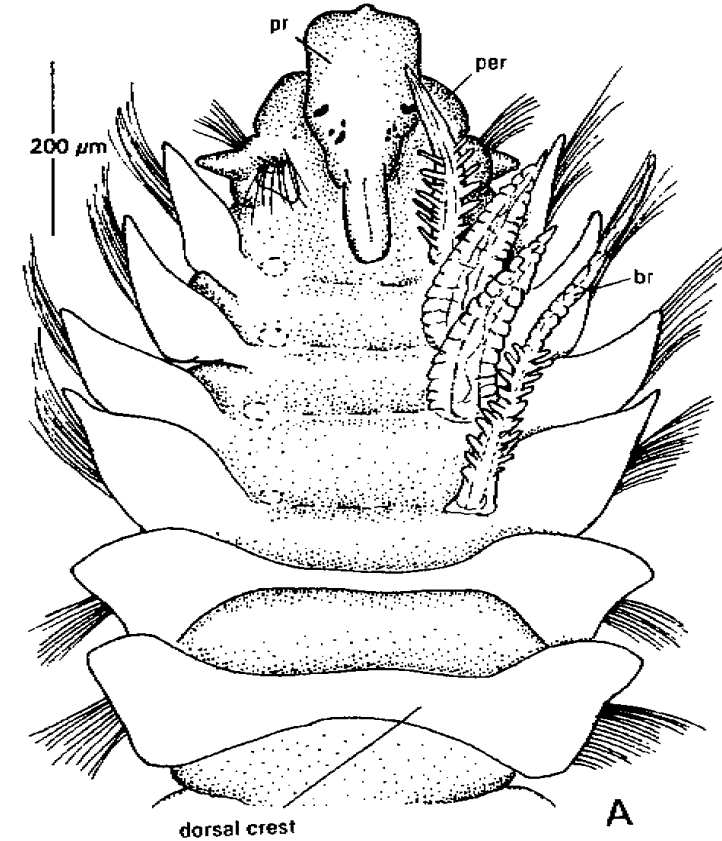


Prionospio jubata Blake, 1996

Prionospio sp A SCAMIT, 1991 §

Description (sensu Blake {1996})

- Prostomium subtriangular, truncate anteriorly w/ small terminal peak; 2 pairs of eyes present or absent; Caruncle to chaetiger 3?? (Image A)
 - only illustrated to end of C1
- Branchiae on chaetigers 2-5
 - 4th pair of branchiae elongated; up to 1.5X longer than 1st pair
 - 1st & 4th pair with digitiform pinnules and short apinnate tip
 - 2nd & 3rd short, subtriangular, apinnate
- Dorsal crests present from chaetiger 6
- Neuropodial lamellae of chaetiger 2 with ventral projection (Image B)
- Interparapodial pouches absent
- Neuropodial sabre chaetae from chaetigers 10-11
- Notopodial hooded hooks from chaetigers 45-50
- Neuropodial hooded hooks from chaetigers 13-16
- Hooks with 4-6 pairs of apical teeth above main fang
- Pygidium with 1 long dorsomedial cirrus & 2 tapered, ventrolateral short lobes



Prionospio jubata Blake, 1996

Prionospio sp A SCAMIT, 1991 §

- MGS
 - No distinct pattern evident
 - Prostomium relatively unstained, some with dark patch middorsally
 - Postbranchial parapodial lamellae with irregular stain concentrations
- Originally described from central California
 - Central – southern California; 90-295m
 - LACSD reports from 31-305m; with 97% reported from <152m



Prionospio sp A SCAMIT, 1991 §

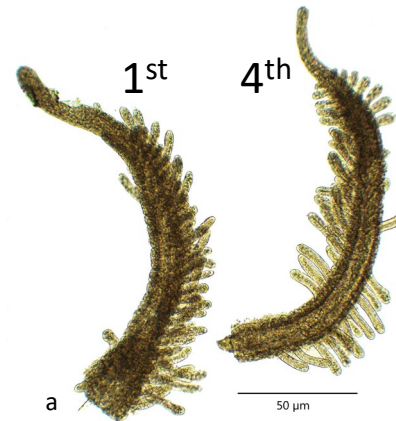
- Blake (1996) describes *P. jubata* as having the 4th branchiae 1.5X longer than the 1st
- *Prionospio* sp A SCAMIT, 1991 § describes 1st pair of branchiae as 1.25X longer than notopodial lamellae & 4th pair as 1.5-1.75X longer than notopodial lamellae
 - ~ = in length, not 4th pair longer
- *P. sp A* with notopodial hooded hooks from chaetigers 28-41 (*P. jubata* from C45-50)
- LACSD has been getting a mix of *P. jubata* with ~ = length branchiae & 4th > 1st
 - Start of notopodial hooded hooks unknown
 - Preservation artifact or another provisional??



Prionospio sp C SCAMIT, 2026 §

Prionospio sp J Harris, 2014 §

- Originally described from Santa Monica Bay & LA Harbor
 - Shallow shelf; to 60m
- Prostomium squared, truncate anteriorly w/ small terminal peak
- 1 or 2 pairs of eyes
- Branchiae on chaetigers 2-5
 - 1st and 4th pair of branchiae about equal in length (Image a)
 - 1st & 4th pair with digitiform pinnules and short apinnate tip
 - 2nd & 3rd short, subtriangular, apinnate
- Dorsal crests present from chaetiger 9
- Neuropodial lamellae of chaetiger 2 with ventral projection
- Interparapodial pouches absent
- Neuropodial sabre chaetae from chaetiger 10
- Notopodial hooded hooks from chaetigers not observed
 - If present, inserted posterior to chaetiger 31
- Neuropodial hooded hooks from chaetigers 14
- Hooks with 4-6 pairs of apical teeth above main fang
- Pygidium unknown

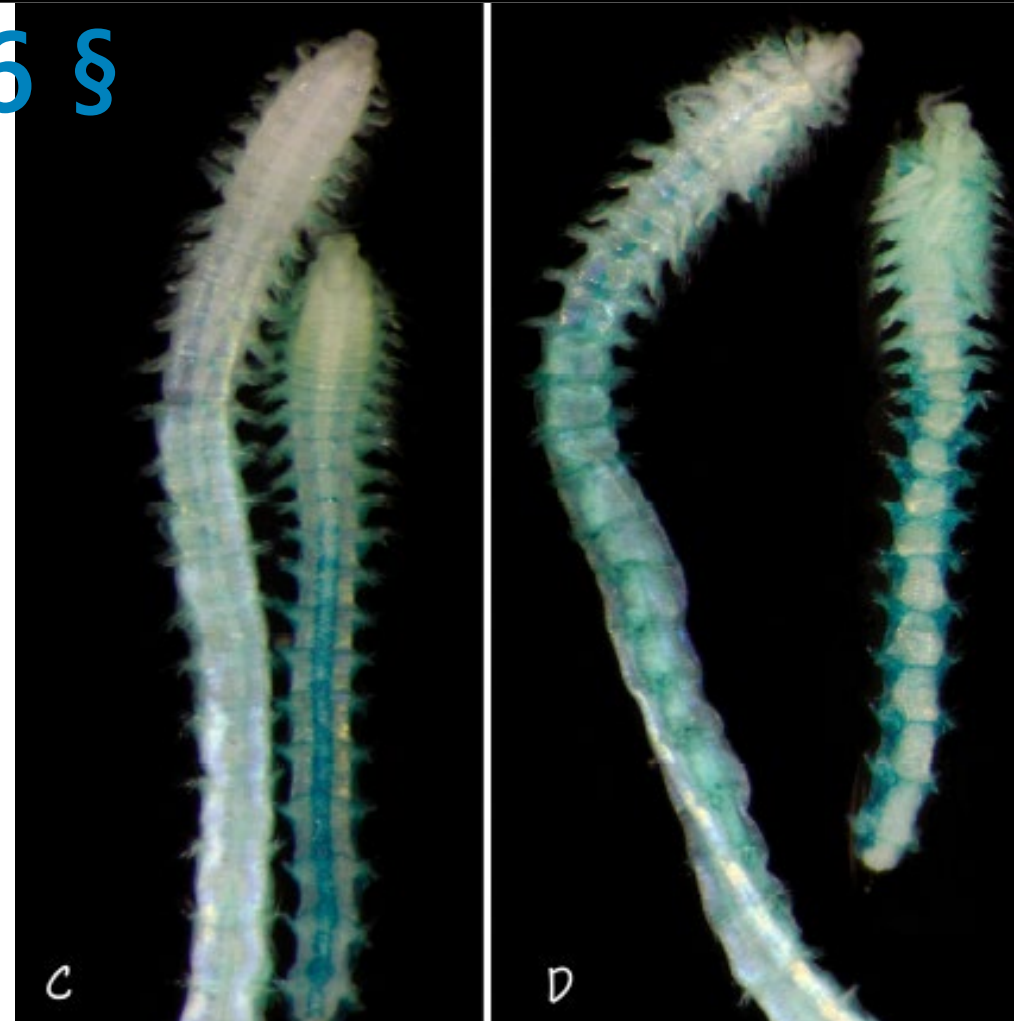


Prionospio sp C SCAMIT, 2026 §

Prionospio sp J Harris, 2014 §

- MGS
 - Prostomium, peristomium & anterior chaetigers not staining
 - From around chaetiger 10 ventral and lateral stain is intense for about 10 segments
 - With midventral patches from around chaetiger 20
- Differs from *P. jubata* in the later start of the dorsal crests and relative length of 1st & 4th pair of branchiae
 - C6 in *P. jubata* & C9 in *P. sp J*
 - 4th pair longer in *P. jubata*, ~ = in *P. sp J*
- Similar to *Prionospio steenstrupi* in the length of the 1st & 4th pair of branchiae being almost equal
- Propose establishing a provisional for this species

Prionospio sp C SCAMIT, 2026 §



Images C & D – (left) *Prionospio jubata*, paratype 1804; (right) *Prionospio* sp J
By: L. Harris

Prionospio newportensis Reish, 1959

- Originally described as a subspecies of *Prionospio heterobranchia* Moore, 1907
 - Synonymized with *P. heterobranchia* by Foster (1971)
 - Reinstated and redescribed by Delgado-Blas (2014)

Description (sensu Delgado-Blas {2014})

- Prostomium triangular, broadly rounded anteriorly; 2 pairs of eyes present; caruncle to chaetiger 3
- Branchiae on chaetigers 2-6
 - 1st pair of branchiae (C2) longest, decreasing in size posteriorly
 - 1st, 4th & 5th pair with digitiform pinnules and short apinnate tip
 - 2nd & 3rd short, triangular, apinnate
- Dorsal crests absent
- Neuropodial lamellae of chaetiger 2 large & rounded, without ventral projection
- Interparapodial pouches absent
- Neuropodial sabre chaetae from chaetiger 16
- Notopodial hooded hooks from chaetiger 54
- Neuropodial hooded hooks from chaetiger 14
- Hooks with 4 pairs of small teeth above main fang (Image 5)
 - Main fang thicker in notopodia
- Pygidium w/ 1 long median cirrus & 2 short lateral lobes



Prionospio newportensis Reish, 1959

- MGS pattern not given during redescription
- Distribution
 - Southern California
 - Bays and shallow depths
 - To 60m

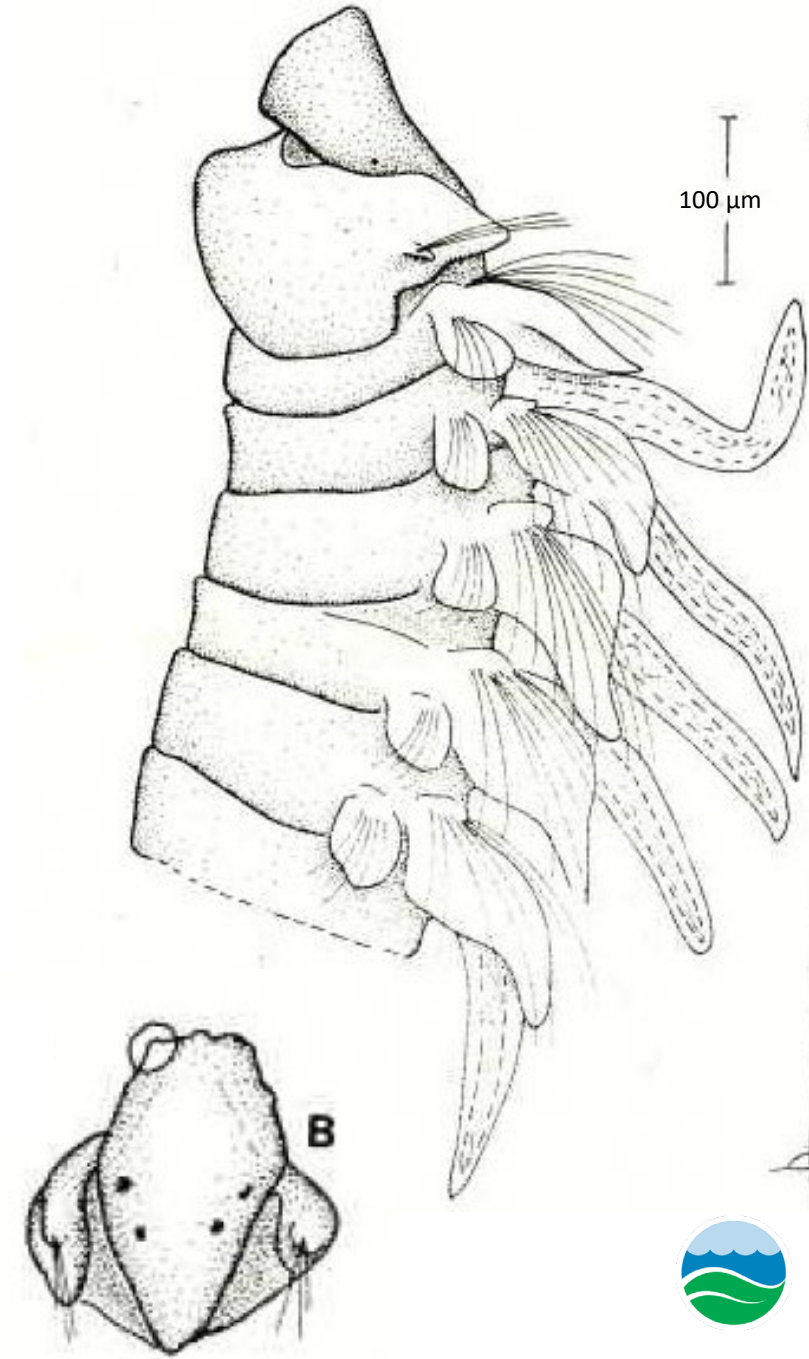


Prionospio lighti Maciolek, 1985

- Originally described from Bainbridge Island, Washington (Types) & central California Bays (Morro, San Francisco & Tomales)
 - Currently with additional reports from Mexico & Caribbean
 - Caribbean records need to be confirmed (Delgado-Blas & Salazar-Silva {2011})

Description (sensu Maciolek {1985} & Blake {1996})

- Prostomium anteriorly rounded w/ 3-5 marginal peaks; 2 pair small eyes present; caruncle to end of chaetiger 1 (Image B)
- Branchiae on chaetigers 2-(7-13) – 6-12 pairs
 - Apinnate, cylindrical, short
 - Only extend over 2-3 segments (Image far right)
- Dorsal crests absent
- Neuropodial lamellae of chaetiger 2 without ventral projection
- Interparapodial pouches absent
- Neuropodial sabre chaetae from chaetigers 12-14
- Notopodial hooded hooks from chaetigers 25-40
- Neuropodial hooded hooks from chaetigers 13-18
- Hooks with 2-3 pairs of small teeth above main fang
- Pygidium with 1 long dorsomedial cirrus and 2 shorter, ventrolateral cirri



Prionospio lighti Maciolek, 1985

- The description in the MMS atlas is taken almost verbatim from Maciolek's (1985) original description
- MGS
 - Blake (1996) describes the MGS pattern for *P. lighti* but this may not be correct.
 - His specimens (especially those used for the illustrations) were from much deeper stations (150m) and have very long branchiae
 - This is likely an undescribed species and not *Prionospio lighti*
- Current distribution
 - Washington - California
 - Intertidal - 38m



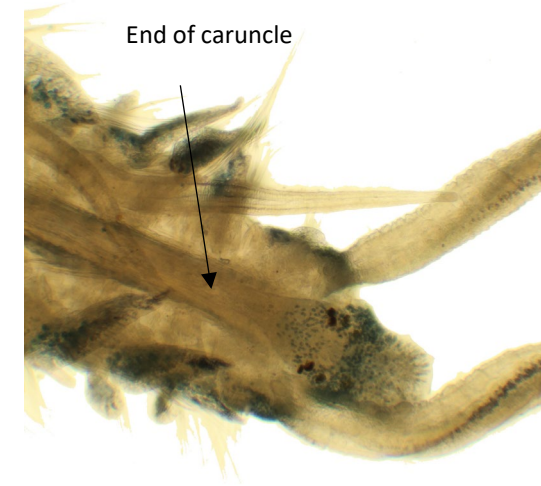
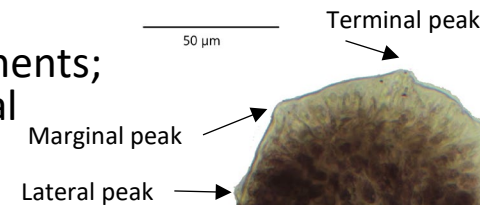
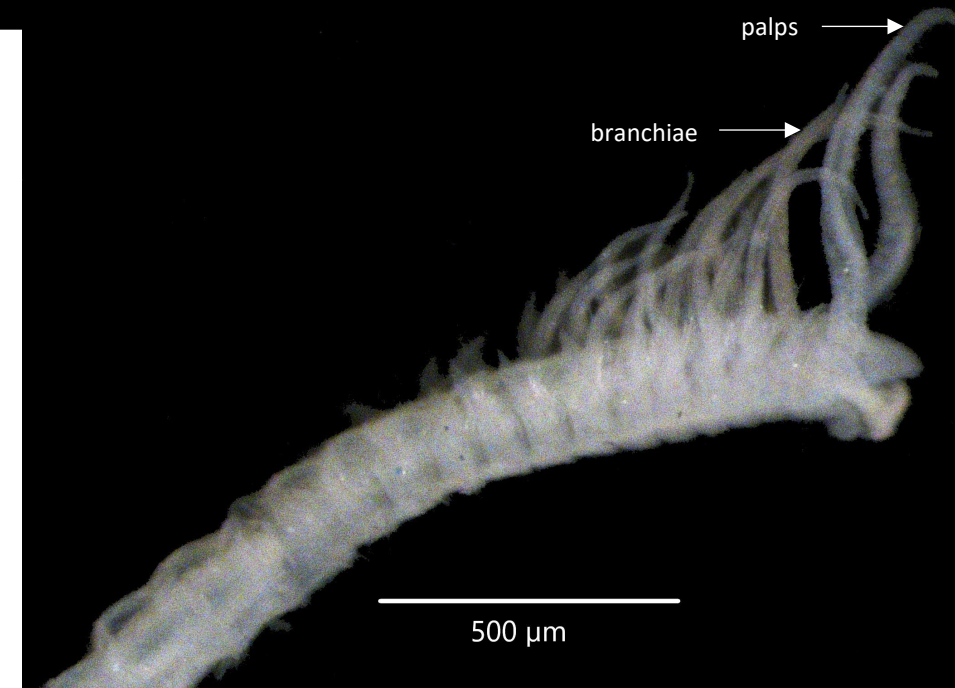
Prionospio sp D SCAMIT, 2026 §

Prionospio sp LA1 Haggin, 2022 §

Prionospio lighti of Blake, 1996, not Maciolek, 1985

Long branchiae, deeper-water form of *Prionospio lighti*

- Prostomium square, truncate anteriorly w/ 1 terminal peak, 2 marginal peaks and 2 lateral peaks; 2-3 pairs of eyes present (small to large); caruncle to chaetiger 2
- Branchiae on chaetigers 2-(10-11) – 9-10 pairs
 - Apinnate, cirriform, long
 - Extend back over 6-7 segments; 7th pair extends over 3-4 segments; last 2 pair abruptly shorter, only slightly longer than notopodial lamellae
- Dorsal crests present, weak, from chaetiger 12
- Neuropodial lamellae of chaetiger 2 rounded to leaf-like (laterally pointed), without ventral projection
- Interparapodial pouches absent

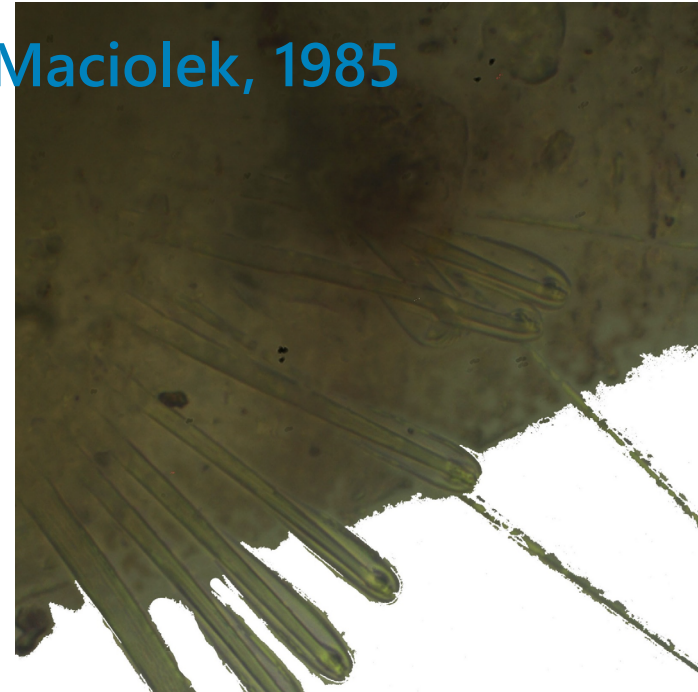


Prionospio sp D SCAMIT, 2026 §

Prionospio sp LA1 Haggin, 2022 §

Prionospio lighti of Blake, 1996, not Maciolek, 1985

- Neuropodial sabre chaetae from chaetigers 11-13
- Notopodial hooded hooks from chaetigers 26-32
- Neuropodial hooded hooks from chaetigers 13-16
- Hooks with 5 pairs of small teeth above main fang
- Pygidium with 1 long, dorsomedial cirrus and 2 short, triangular, ventrolateral cirri

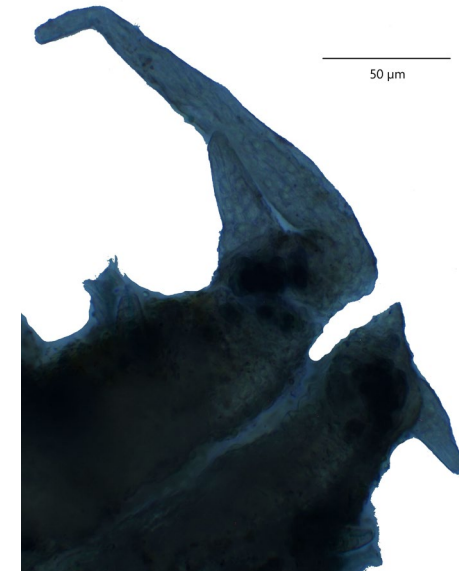


Sabre chaetae

50 µm



50 µm



50 µm



Prionospio sp D SCAMIT, 2026 §

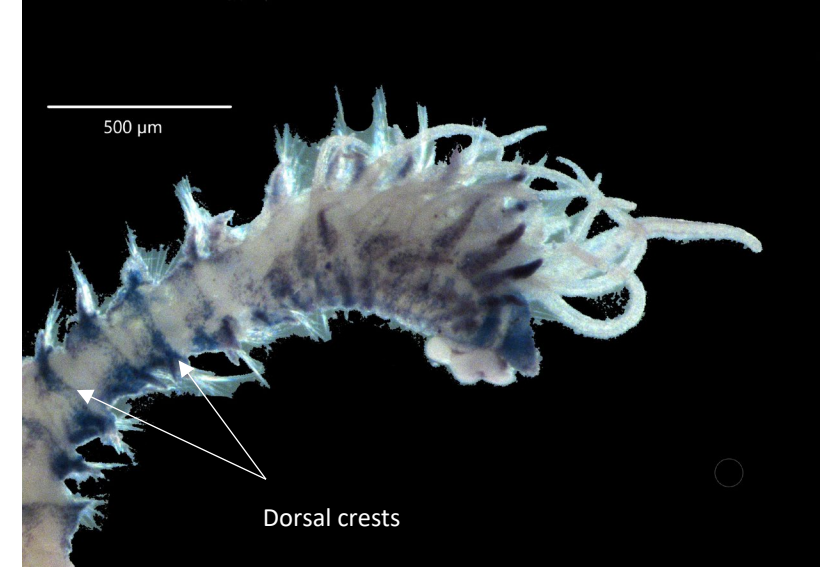
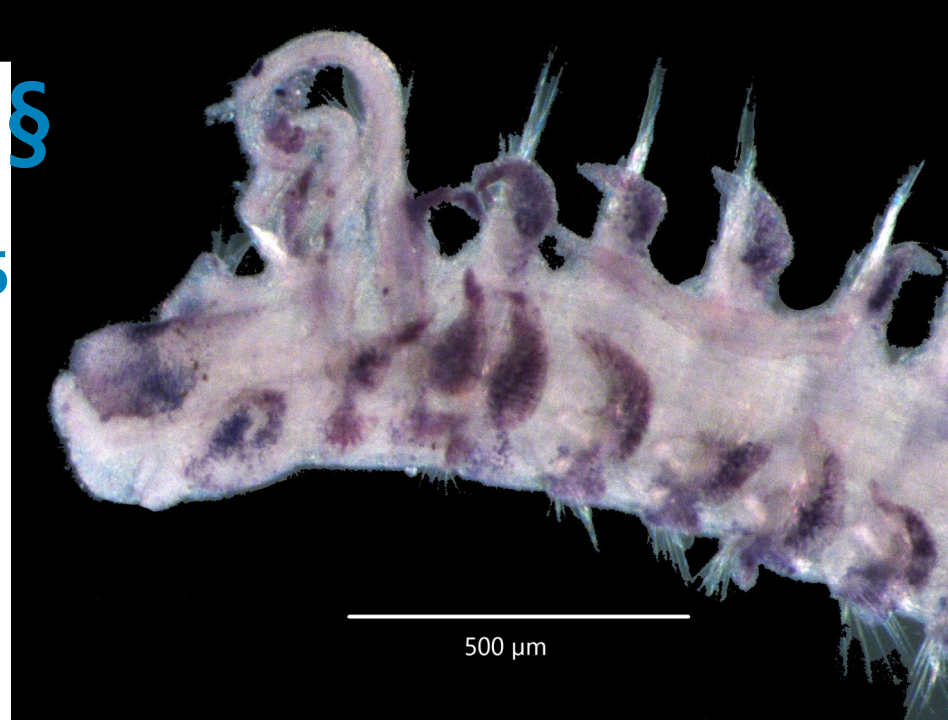
Prionospio sp LA1 Haggin, 2022 §

Prionospio lighti of Blake, 1996, not Maciolek, 1985

• MGS

- Prostomium and caruncle stain intensely, except for unstained mid-dorsal spot
- Lateral margins of peristomium stain intensely
- Margins of dorsal & ventral lamellae stain intensely, continuing dorsally and ventrally across anterior margins of each segment
- Mid-ventrum with large, square stained areas, often joined, forming paired racing stripes extending posteriorly
 - This is Blake's (1996) stain description for *Prionospio lighti*
- Propose establishing a new provisional for local species

Prionospio sp D SCAMIT, 2026 §

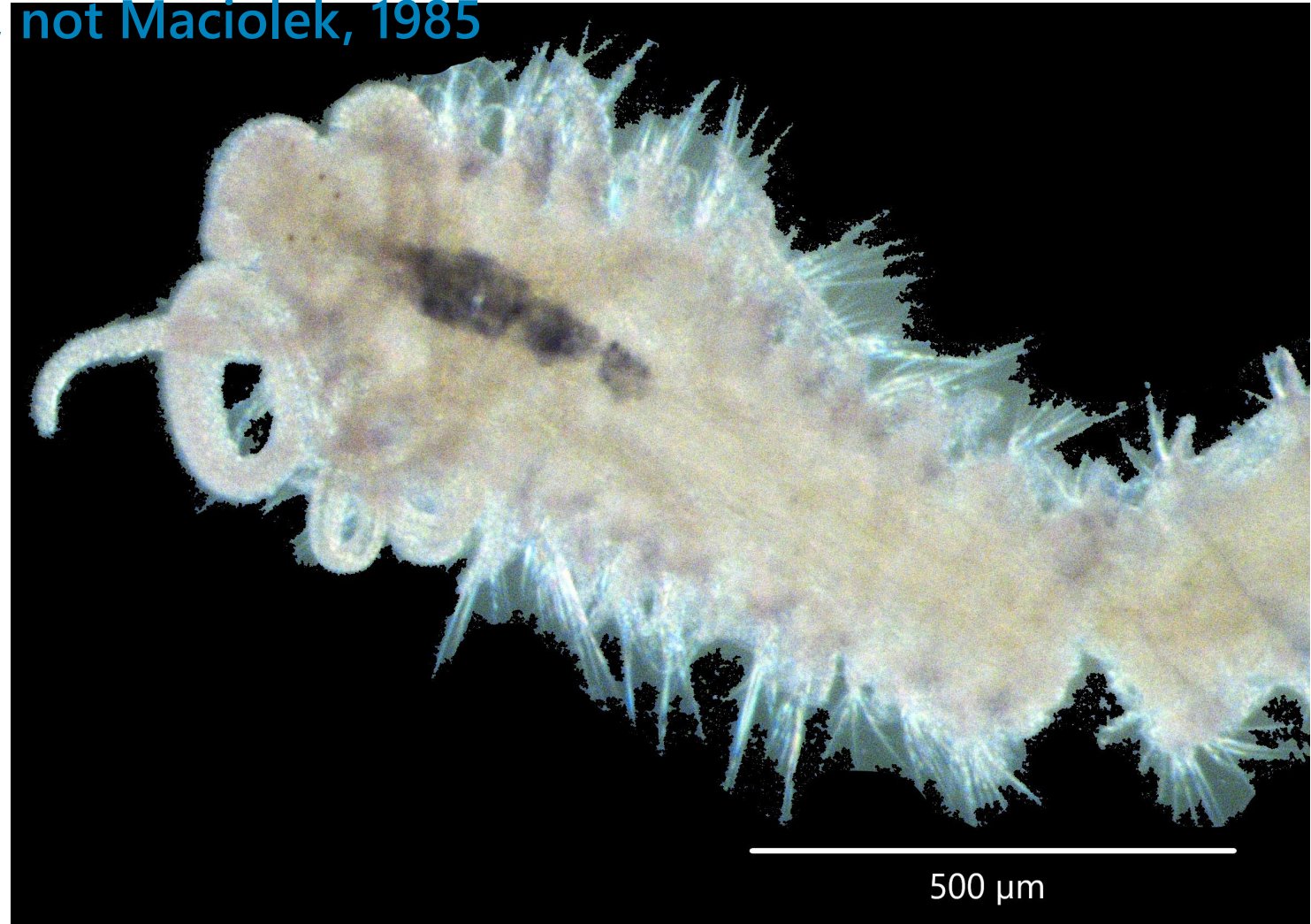


Prionospio sp D SCAMIT, 2026 §

Prionospio sp LA1 Haggin, 2022 §

Prionospio lighti of Blake, 1996, not Maciolek, 1985

- I have also been finding some that lack most stain (particularly the prostomial stain)
 - These typically have smaller eyes, but individuals with small eyes also stain
 - This individual and the ones from the previous slide were all in stain for around 2 hours



Prionospio nr *lighti*-1

- 2 pairs of small eyes
- 8-10 pairs of branchiae
 - Short, cirriform; 1st pair ~2X longer; rest short, slightly longer than notopodial lamellae
- Neuropodial lamellae of chaetiger 2 with small ventral projection
- Sabre chaetae from chaetigers 12-13
- Notopodial hooded hooks from chaetigers 24-27
- Neuropodial hooded hooks from chaetiger 15
- Hooded hook dentition difficult to determine, looks like 2 pairs of small teeth above main fang
- MGS – anterior ½ of prostomium stains lightly, remainder unstained
- Propose establishing a provisional for this local species
 - *Prionospio* sp LA2 Haggin, 2026 §



Prionospio nr *lighti*-2

- 1 pair of small, red eyes
- 6-7 pairs of branchiae
 - Short, cirriform; 1st two pairs slightly longer; rest short, slightly longer than notopodial lamellae
- Neuropodial lamellae of chaetiger 2 with ventral projection not observed
- Sabre chaetae from chaetigers 11-12
- Notopodial hooded hooks from chaetigers 17-21
- Neuropodial hooded hooks from chaetigers 12-14
- Hooded hooks with 3-4 pairs of small teeth above main fang
- MGS – anterior ½ of prostomium stains lightly, light ventral banding in post-branchial segments
- Propose establishing a provisional for this local species
 - *Prionospio* sp LA3 Haggin, 2026 §



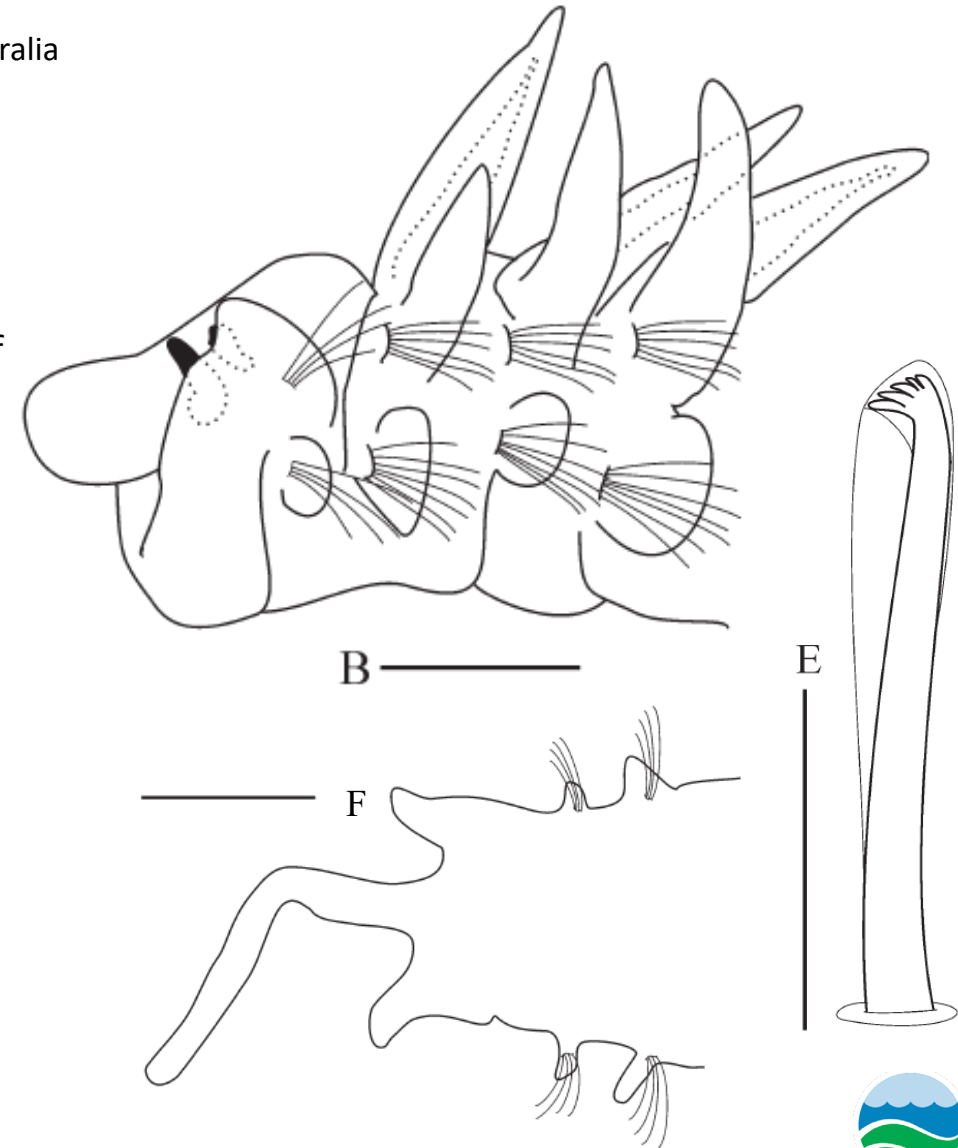
Prionospio multibranchiata E. Berkeley, 1927

- Originally described from Nanaimo District, Vancouver Island, British Columbia, Canada
 - Currently with additional reports from west & NE Atlantic, Gulf of Mexico, Japan, California, Australia
 - Suggested as a species complex by Dagli & Çinar (2011)
 - Molecular work shows it is present only in NEP (Vancouver, BC to Japan)
 - Southern California specimens not included in analysis

Description (sensu Delgado-Blas *et al.* {2019}, based on material from type locality)

(sensu Maciolek {1985}; likely a mix of characters from the Pacific NW and Gulf of Mexico)

- Prostomium triangular, anteriorly truncate; 2 pair of large eyes present; caruncle to end of chaetiger 1, beginning of chaetiger 2 (Image B)
- Branchiae on chaetigers 2-11 (9-10 pairs)
 - Apinnate, triangular, small
 - About same size as dorsal lamellae
- Dorsal crests absent
- Neuropodial lamellae of chaetiger 2 square-shaped with small ventral projection
- Interparapodial pouches absent
- Neuropodial sabre chaetae from chaetigers 11-12
- Notopodial hooded hooks from chaetigers 37-40
- Neuropodial hooded hooks from chaetigers 14-16
- Hooks with 4 pairs of small teeth above main fang (Image E)
- Pygidium with 1 long dorsal cirrus and 2 large, lateral lobes (Image F)



Prionospio multibranchiata E. Berkeley, 1927

- MGS
 - MGS patterns have not been described for this species
- Maciolek (1985) provides a decent description of this species but it is based on a mix of characters from both the east and west coast of America
- Leslie has previously stated that this may be an epitokus form of *Prionospio lighti* due to the morphological similarities and the similar type localities
 - Molecular work will likely be needed to resolve this issue
 - Dany Burgess has said that *P. multibranchiata* is not a common species in the Puget Sound region
- Distribution restricted by Delgado-Blas *et al.* (2019) to the Vancouver Island region of British Columbia, Canada in very shallow water
 - (0-0.3m)
- Local records should be re-examined

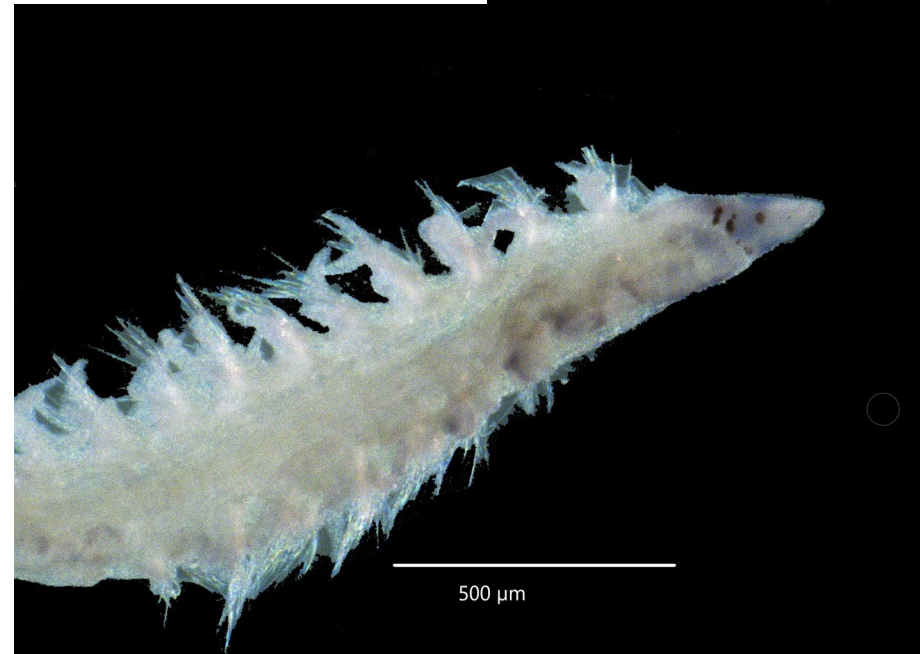
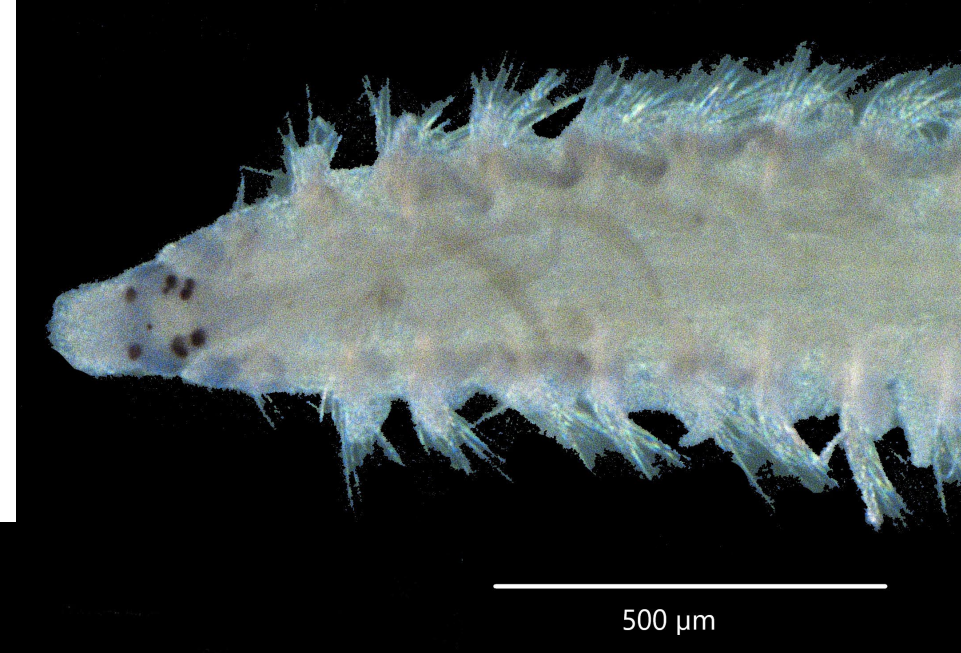


Prionospio sp E SCAMIT, 2026 §

Prionospio multibranchiata of authors NEP, not E. Berkeley, 1927

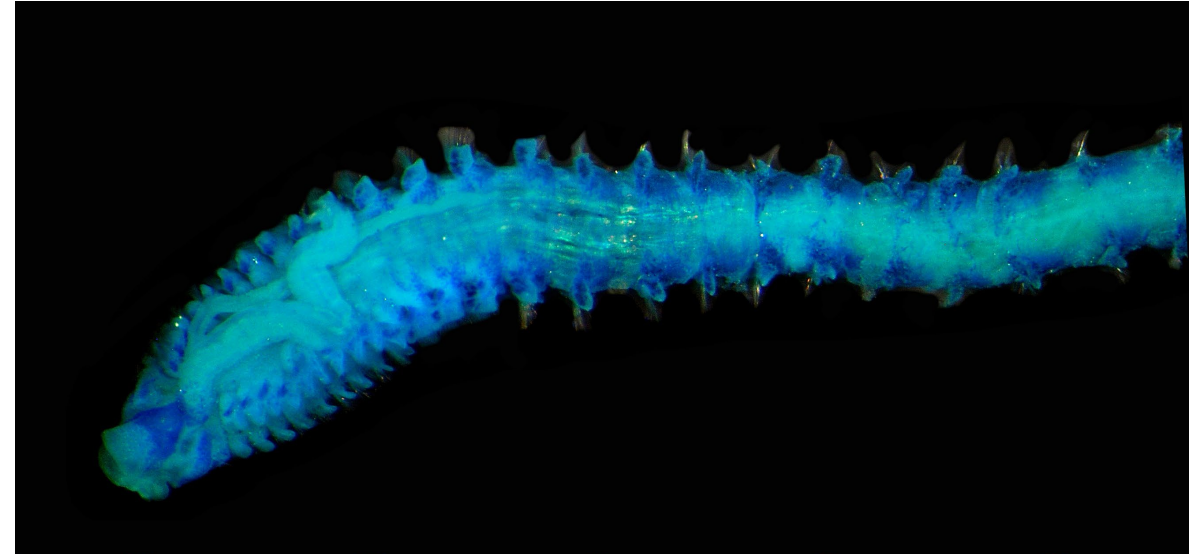
- 3 pairs of large, black eyes
- 11 pairs of branchiae
 - 1st pair about 2X longer; rest short, slightly longer than notopodial lamellae
- Ventral projection of neuropodial lamellae on chaetiger 2 not observed
- Sabre chaetae from chaetiger 14
- Notopodial hooded hooks from chaetiger 31
- Neuropodial hooded hooks from chaetiger 16
- Hooded hooks with 3-4 pairs of teeth above main fang
- MGS - Anterior border of prostomium with slight stain, remainder of prostomium unstained except for a hollow triangle set over the eyes; border of peristomium and edges of anterior notopodial lamellae retaining slight stain
- Propose establishing a provisional for the local species

Prionospio sp E SCAMIT, 2026 §



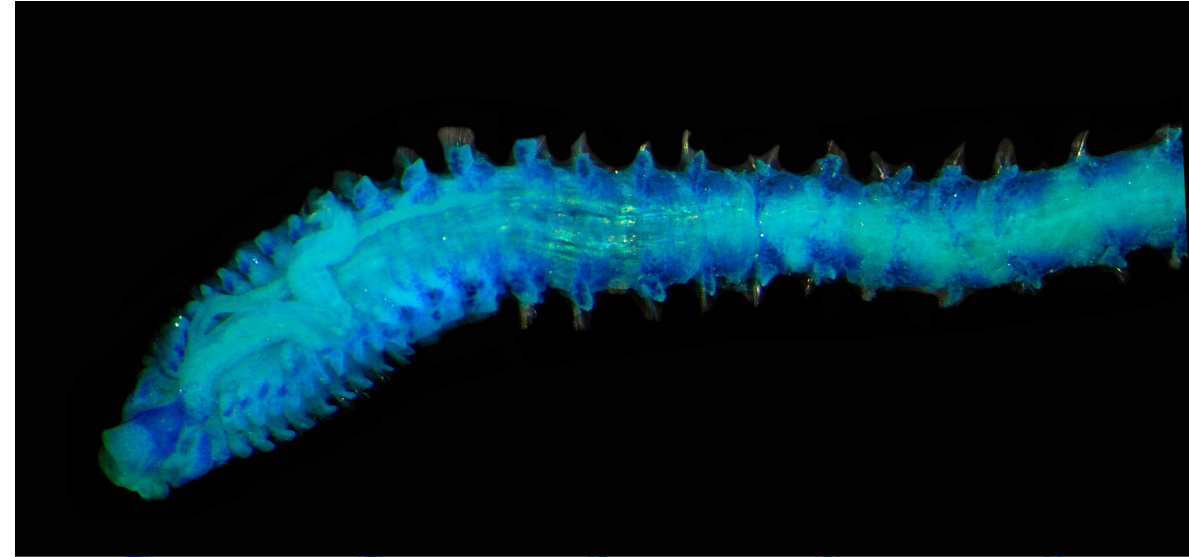
Prionospio sp A Blake, 1996

- Originally described from off Morro Bay (Santa Maria Basin); 591m
 - Reported by T. Phillips during B'13 - 564m; Pt. Dume Canyon (B13-9305)
- Prostomium broadly truncate anteriorly, with terminal & lateral peaks
- Branchiae on chaetigers 2-11
 - Branchiae long, thin, cirriform
 - Resembling those of cirratulids
- Dorsal crests not described
 - appear absent from photos
- Neuropodial lamellae of chaetiger 2 without ventral projection
- Interparapodial pouches absent
- Neuropodial sabre chaetae from chaetigers 13
- Notopodial hooded hooks not observed
- Neuropodial hooded hooks from chaetigers 21
- Hooks with at least 3 rows of apical teeth above main fang
- Pygidium unknown



Prionospio sp A Blake, 1996

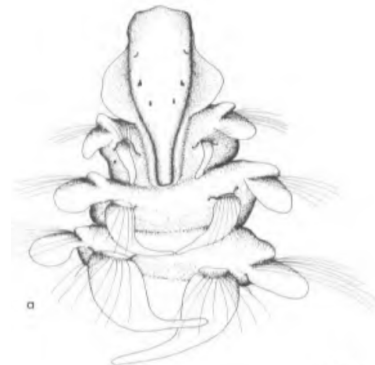
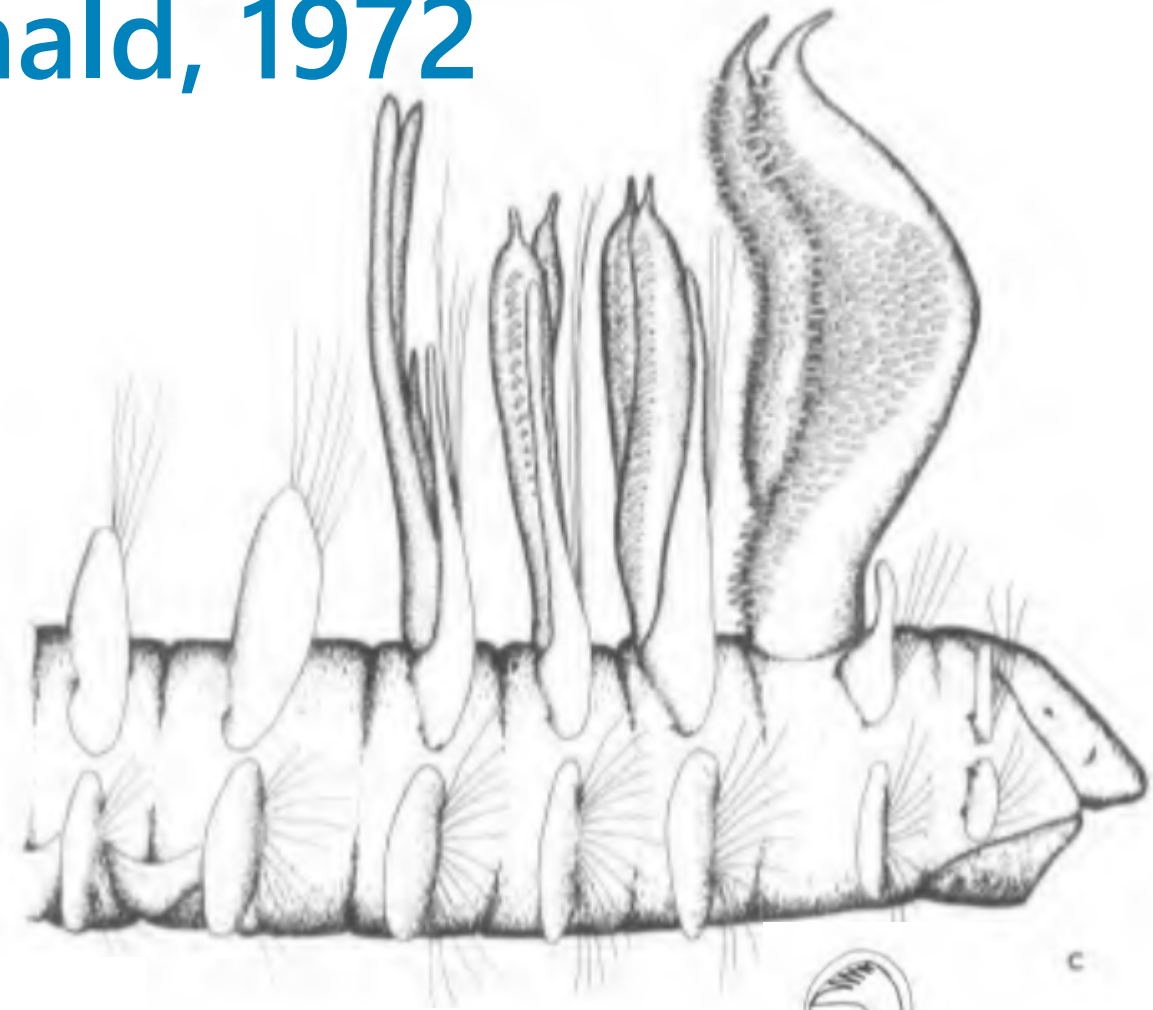
- MGS
 - Prostomium with broad anterior half unstained
 - Posterior half, including caruncle, staining intensely
 - Peristomium with granular stain laterally and ventrally
 - Ventrally from around chaetiger 10 with granulated stain bands on anterior half of segment extending laterally towards dorsum
 - becoming midventral and lateral patches



Prionospio lobulata Fauchald, 1972

Description (sensu Fauchald {1972})

- Prostomium narrow, anteriorly truncate; 3 pairs of small eyes present; caruncle not described but illustrated as extending to end of chaetiger 1 (Image a)
- Branchiae on chaetigers 2-5 (Image c)
 - 1st & 4th pair of branchiae elongated, \sim = in length
 - 1st pair with digitiform pinnules and short apinnate tip
 - 2nd & 3rd short, bipinnate (heavily ciliated, should be apinnate – sensu Maciolek {1985})
 - 4th pair cirriform
- Dorsal crests not described
- Neuropodial lamellae of chaetiger 2 without ventral projection
- Interparapodial pouches present
 - From chaetiger 6
- Neuropodial sabre chaetae not described
- Hooded hooks not described in notopodia
 - Description from a 31 chaetiger fragment, may have hooks from farther posterior
- Neuropodial hooded hooks from chaetigers 19 (Image b)
- Hooks with up to 15 small teeth above main fang
 - 5 teeth in three vertical rows above main fang
- Pygidium unknown



Prionospio lobulata Fauchald, 1972

- Originally described from Cedros Island, Baja California in 567m
- Synonymized with *Prionospio elhersi* Fauvel, 1928 by Maciolek (1985) and local specimens were referred to this name

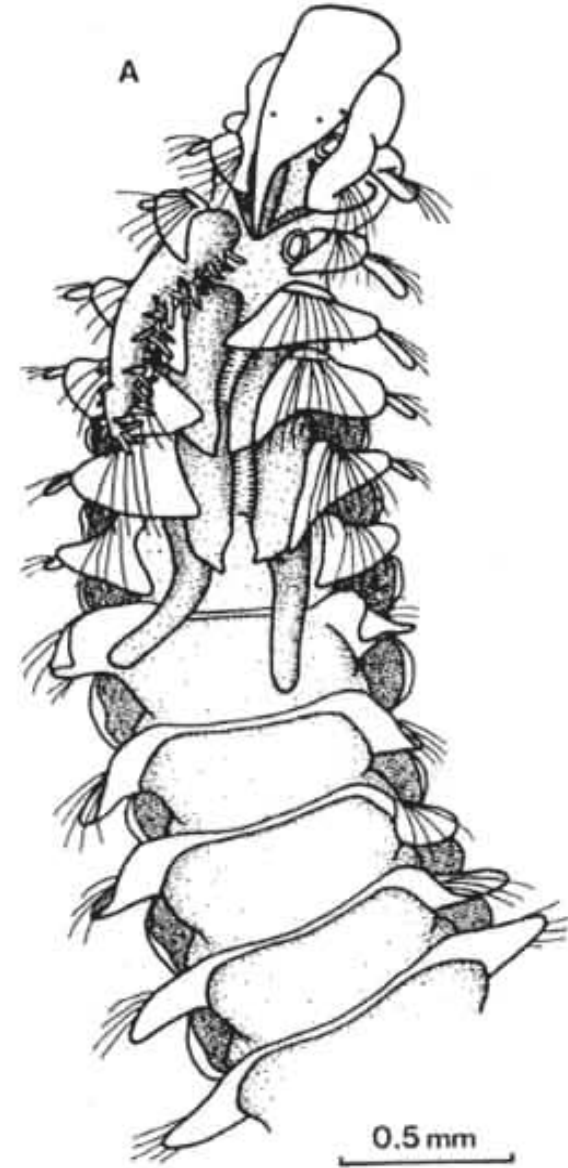


Prionospio ehlersi Fauvel, 1928

- *Prionospio ehlersi* originally described from Morocco in 75-125m
 - Subsequent synonymies expanded range to Atlantic, Pacific, Japan, Mediterranean Sea, Red Sea from 5-4176m.

Description (sensu Mackie & Hartley {1990})

- 2 pairs of subdermal eyes
- 4 pairs branchiae; 1st pair pinnate, 2nd & 3rd apinnate, 4th cirriform
 - 1st & 4th pair longest, ≈ in length
- Dorsal crest present from chaetiger 6
- Interparapodial pouches present from chaetiger 4
- Sabre chaetae from chaetiger 17-19
- Notopodial hooded hooks from chaetigers 25-32
- Neuropodial hooded hooks from chaetigers 18-20
- Hooks multidentate with 6-7 teeth in 2 vertical rows above main fang
- Pygidium unknown
- MGS not described



Prionospio sp F SCAMIT, 2026 §

Prionospio ehlersi of Blake, 1996, not Fauvel, 1928

Prionospio lobulata of SCAMIT Ed. 14, not Fauchald, 1972

- Prostomium truncate anteriorly; 2 pairs of small eyes; caruncle extending to chaetiger 2
- Branchiae on chaetigers 2-5
 - 1st & 4th pair of branchiae elongated; \sim = in length or $1 \sim 2X > 4$
 - Preservation artifact?
 - 1st pair with digitiform pinnules and short apinnate tip
 - 2nd & 3rd short, apinnate but ciliated
 - 4th pair cirriform



- Neuropodial lamellae of chaetiger 2 rounded, without ventral projection
- Dorsal crest present, weak from chaetiger 6
- Interparapodial pouches present from chaetiger 4/5
- Sabre chaetae present from chaetigers 19-20
- Notopodial hooded hooks present from chaetiger 51
- Neuropodial hooded hooks present from chaetiger 21
- Hooded hooks multidentate w/ 6 pairs of small teeth above main fang
- MGS
 - Prostomium with borders staining, interior unstained, continuing as stained caruncle
 - Sometimes connecting across the middle of prostomium to make to unstained patches
 - dorsal crest & parapodial lamellae w/ borders staining



Prionospio sp F SCAMIT, 2026 §

Prionospio ehlersi of Blake, 1996, not Fauvel, 1928

Prionospio lobulata of SCAMIT Ed. 14, not Fauchald, 1972

- Blake's (1996) description of *Prionospio ehlersi* is a very good description of our local species.
 - However, our local species is neither *Prionospio ehlersi* nor *Prionospio lobulata*
- *Prionospio ehlersi* described from Morocco in 75-125m.
 - I haven't found a paper officially restricting its range, but Mackie & Hartley (1990) say it is known only from West Africa/Southern Europe and is a victim of the "**cosmopolitan species syndrome**"
 - not our local species
 - Sabre chaetae from chaetigers 17-19 (19-20 in local species)
 - Notopodial hooded hooks from chaetigers 25-32 (51 in local species; 44-60 sensu Blake {1996})
 - Local species from 300+ meters (occasional records from 150m)
- *Prionospio lobulata* from Cedros Island, Baja California, Mexico
 - Haven't found additional reports since its description but not our local species
 - 3 pairs of small eyes (2 pairs in local species)
 - Interparapodial pouches from chaetiger 6 (chaetiger 4-5 in local species)
- Propose establishing a new provisional for local species

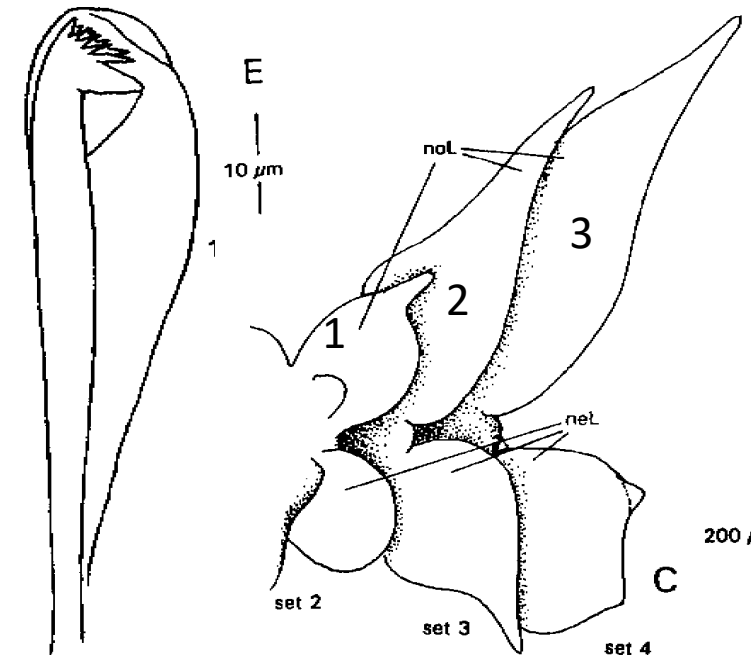
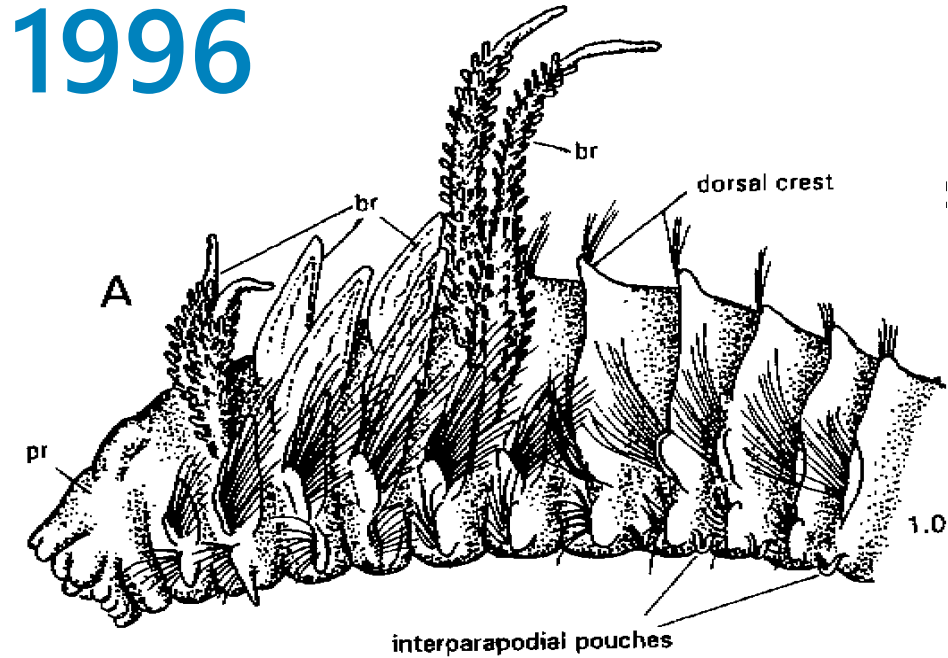
Prionospio sp F SCAMIT, 2026 §



Prionospio marsupialia Blake, 1996

Description

- Prostomium broadly triangular; eyes absent; caruncle to end of chaetiger 2 (Image a)
- Branchiae on chaetigers 2-5 (Image c)
 - 4th pair of branchiae elongated, $4 > 1$, $\sim 2X$
 - 1st & 4th pair with digitiform pinnules and short apinnate tip
 - 2nd & 3rd short, bipinnate (heavily ciliated, should be apinnate – sensu Maciolek {1985})
- Dorsal crests from chaetiger 6
- Neuropodial lamellae of chaetiger 2 with ventral projection (Image C – mislabeled by Blake based on description)
- Interparapodial pouches present
 - From chaetiger 7/8
- Neuropodial sabre chaetae from chaetiger 10
- Notopodial hooded hooks from chaetiger 47-48
- Neuropodial hooded hooks from chaetiger 16 (Image b)
- Hooks with up to 5-6 pairs of small teeth above main fang (Image E)
- Pygidium unknown
- MGS – Prostomium, peristomium and borders of dorsal & ventral cirri staining intensely, edges of dorsal crests staining lightly, light ventral banding
- Not yet reported by SCAMIT but could be encountered during Bight surveys



Apoprionospio Foster, 1969

Diagnosis (sensu Blake *et al.* {2019})

- Prostomium subtriangular, broad anteriorly, often with medial peak, caruncle extends posteriorly to end of chaetiger 1; occipital antenna absent. Peristomium reduced, fused with chaetiger 1, surrounding prostomium posteriorly as a yoke; lateral wings absent. Notopodial postchaetal lamellae of anterior chaetigers lateral rather than dorsomedial. Neuropodial postchaetal lamellae enlarged on chaetiger 2. Branchiae from chaetiger 2, with four pairs; the first three pairs are apinnate, whereas the fourth pair is larger, with flattened platelike pinnules. Anterior chaetae capillaries; multidentate hooded hooks present in posterior noto- and neuropodia, neuropodial sabre chaetae present. Pygidium with one long dorsomedial cirrus and two shorter ventrolateral lobes.
 - Genus resurrected due to the plate-like, rather than pinnate, branchiae found in the group

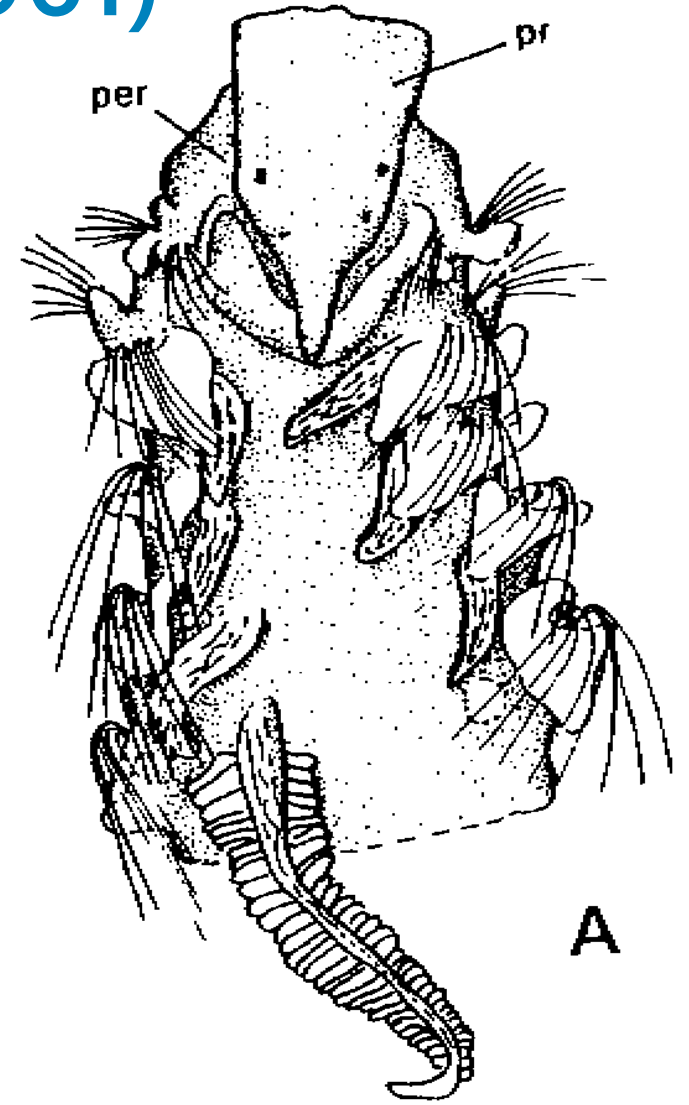


Apoprionospio pygmaea (Hartman, 1961)

- Originally described from southern California off LA/LB Harbor Complex
 - Currently with additional reports from Gulf of Mexico, Caribbean

Description (sensu Hartman {1961} & Blake {1996})

- Prostomium subtriangular, broadly expanded anteriorly; 2 pairs of red eyes present; caruncle narrow, to posterior of chaetiger 1
- Branchiae on chaetigers 2-5
 - 4th pair of branchiae elongated, with plate-like pinnules; longer than other branchiae
 - 1st, 2nd & 3rd pair apinnate but heavily ciliated
- Dorsal crests absent (or present?) (sensu Blake {1996})
 - Notopodial postchaetal lamellae large, subtriangular anteriorly; smaller, narrower, membranous posteriorly, not elaborated into dorsal folds or crests
 - Membranous lamellae semitransparent, forming indistinct transverse folds connecting notopodial lamellae
- Neuropodial lamellae of chaetiger 2 not extended downwards
- Interparapodial pouches absent
- Neuropodial sabre chaetae from chaetigers 11-21 (10-11 [Blake {1996}])
- Notopodial hooded hooks from chaetigers 18-34 (sensu Blake {1996})
- Neuropodial hooded hooks from chaetigers 13 (14-15 [Blake {1996}])
 - Hooks with 6-8 apical teeth above main fang
 - As 3 teeth 2 rows or 5-7 teeth surrounding main fang (avicular-like) (sensu Blake {1996})
- Pygidium with long, median, filiform cirrus & 2 much shorter, digitate cirri



MMS Atlas Summary

- *Prionospio steenstrupi* – unsure if this description refers to anything locally
 - Perhaps something in central CA or San Francisco area?
- *Prionospio jubata* – local species, good description
- *Prionospio marsupialia* – deep-water, not yet reported by SCAMIT, good description
- *Prionospio dubia* – good description of local *Prionospio* sp B
- *Prionospio ehlersi* – good description of local *Prionospio* sp F
- *Prionospio lighti* – MGS description is good for local, long branchiae form of *Prionospio*, rest questionable for local species – *Prionospio* sp D
- *Prionospio* sp A – deep-water, reported during Bight '13, good description
- *Apoprionospio pygmaea* – good description of local species



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