

 Puget Sound Polychaetes:  
Lumbrineridae

## Family Lumbrineridae

### General characters (from Hilbig, 1995)

- Body elongate, cylindrical in cross-section; setigers throughout the body very similar in size and shape.
- Prostomium conical to globular, about as long as wide, or a little longer than wide.
- Eversible pharynx armed with 5 pairs of maxillary plates (MI through MV) and paired mandibles (jaws) embedded in thick muscle pads.
- Parapodia subbiramous; notopodia reduced to a small bundle of fine notoaciculae.
- Neuroaciculae are conspicuous, yellow to black in color; neurosetae include limbate capillaries and either simple or compound hooded hooks.
- Pygidium usually has one or two pairs of short anal cirri.

Use key from Banse and Hobson, 1974 (pp. 86-88), which uses hooks and aciculae to distinguish genera and species in addition to jaw structure. It is easier to use than the Santa Barbara Taxonomic Atlas key which focuses on jaw structure.

### Genus-level characters (from Banse and Hobson, 1974)

- Presence/absence of gills:
  - Gills present – Genus *Ninoe*.
  - Gills absent – all other lumbrinerid genera.
- Hooded hooks:
  - All hooded hooks simple – Genus *Scoletoma*, *Errano*.
  - All anterior hooded hooks compound – Genus *Lumbrineris*.

### Species-level characters (from Banse and Hobson, 1974)

- Color of aciculae:
  - Black (dark).
  - Yellow (light).
- Length of pre- and postsetal lobes in posterior setigers:
  - Not elongate.
  - Presetal and postsetal both lobes elongate.
  - Presetal lobes short, postsetal lobes elongate.
  - May be difficult to determine since the lumbrinerids are fragile and often the posterior end is missing; retaining posterior end fragments may be helpful for identification.

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### Genus *Scoletoma*

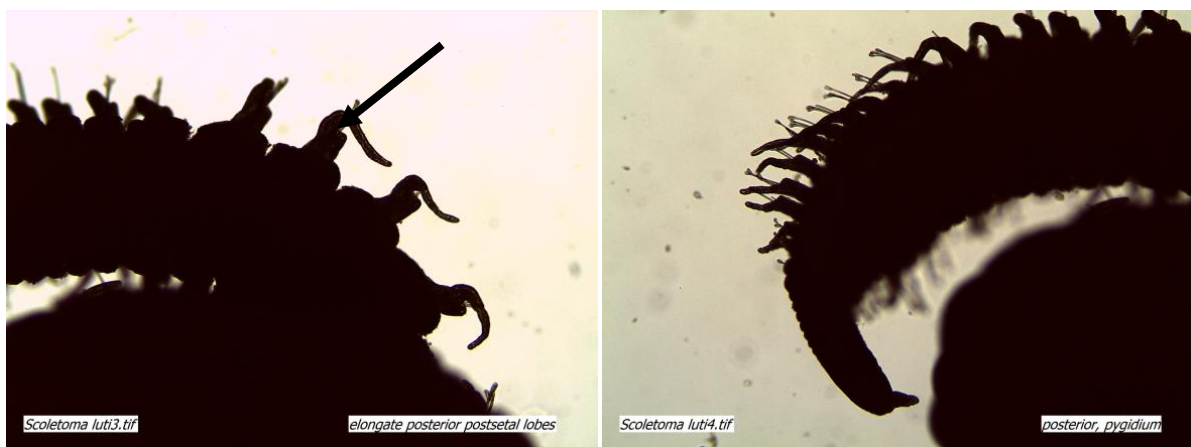
- Prostomium conical to globular.
- Setae include simple limbate capillaries and simple multidentate hooded hooks throughout.
- Aciculae yellow or black.

### *Scoletoma luti* (Berkeley and Berkeley 1945)

- Body slender, very long; integument pale, somewhat iridescent.
- Prostomium conical.
- Simple hooded hooks from setiger 1.
- Aciculae yellow.
- Only postsetal lobes of posterior parapodia elongate.
- Very common species in Puget Sound.

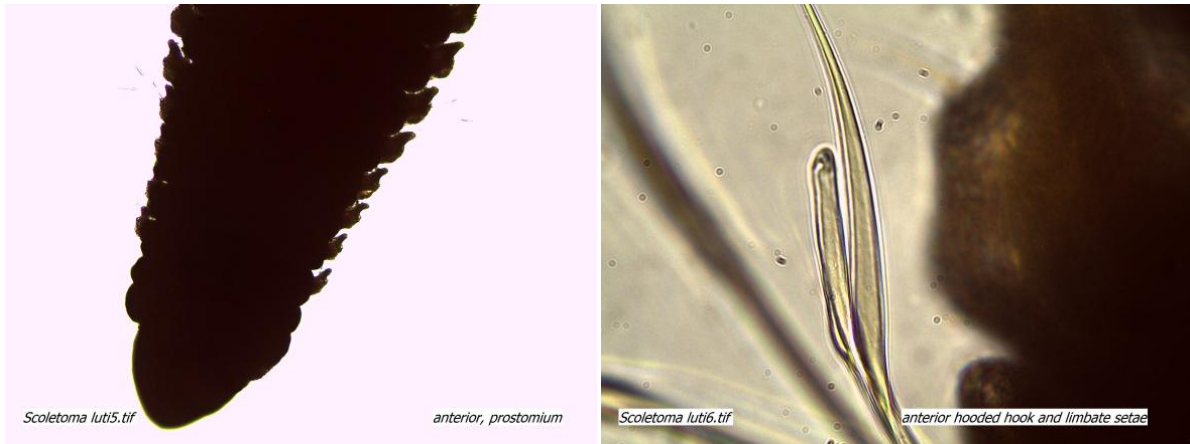


Anterior, dorsal, golden aciculae (l); simple hooded hooks from setiger 1 (r)



Elongate posterior postsetal lobes (l); pygidium (r)

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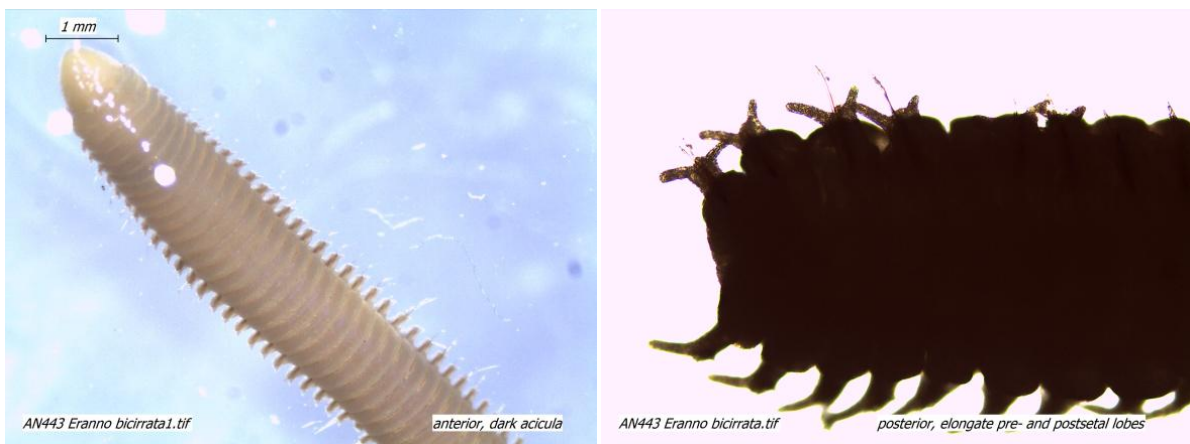
Prostomium (l); anterior simple hooded hook and limbate seta (r)

### Genus *Errano*

- Simple hooded hooks throughout.
- Aciculae black or amber to yellow.

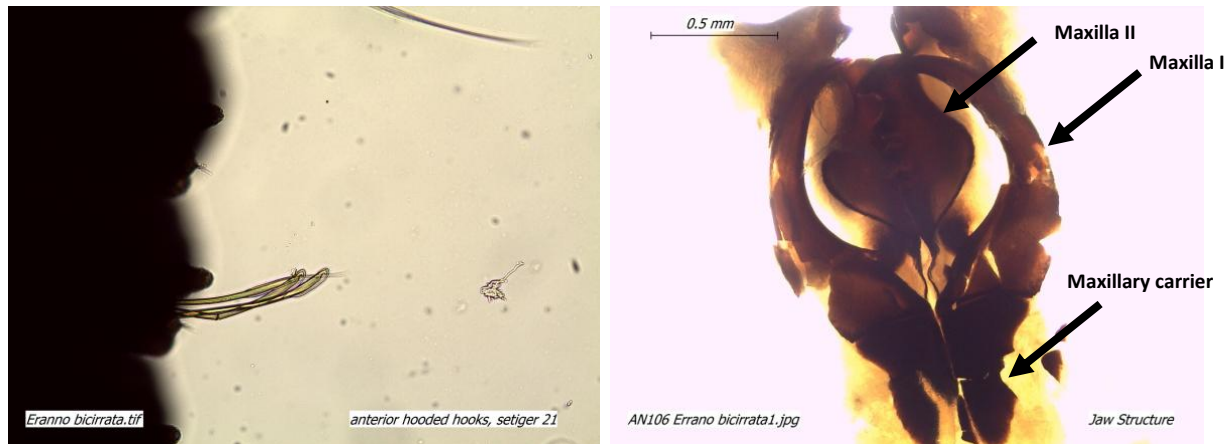
#### *Eranno bicirrata* (Treadwell 1922)

- Body robust; color in alcohol pale.
- Prostomium conical, about as long as wide, narrower than first setiger.
- Hooded hooks simple, beginning on setiger 4-25.
- Aciculae numerous, dark amber at bases, colorless toward tip.
- Both pre- and postsetal lobes of posterior parapodia elongate, digitiform, about as long as setae.
- Maxilla II with 4 or 5 teeth.



Anterior, dorsal, dark aciculae (l); posterior, elongate pre- and postsetal lobes (r)

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Simple hooded hooks from set 4-25 (l); maxillae, dorsal view (r)



Mandibles, fused, (damaged during dissection) (see illustration in Santa Barbara Taxonomic Atlas)

## Genus *Lumbrineris*

- Setae include simple limbate capillaries, compound hooded hooks in anterior setigers, and simple hooded hooks in posterior setigers.
- Prostomium conical or globular.
- We do not get *L. inflata* in Puget Sound (species with globular prostomium).

## *Lumbrineris californiensis* Hartman 1944

- Prostomium conical.
- Compound hooded hooks in anterior, simple in posterior.
- Aciculae dark.
- Pre- and postsetal lobes elongate in posterior setigers.

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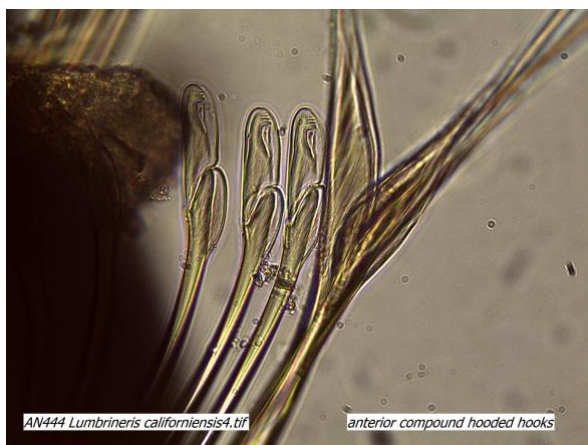
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Anterior, dark aciculae, conical prostomia (l); posterior pre- and postsetal lobes elongate (r)



Posterior pre- and postsetal lobes elongate (l); anterior limbate capillary setae & compound hooded hooks (r)



Anterior limbate capillary setae & compound hooded hooks

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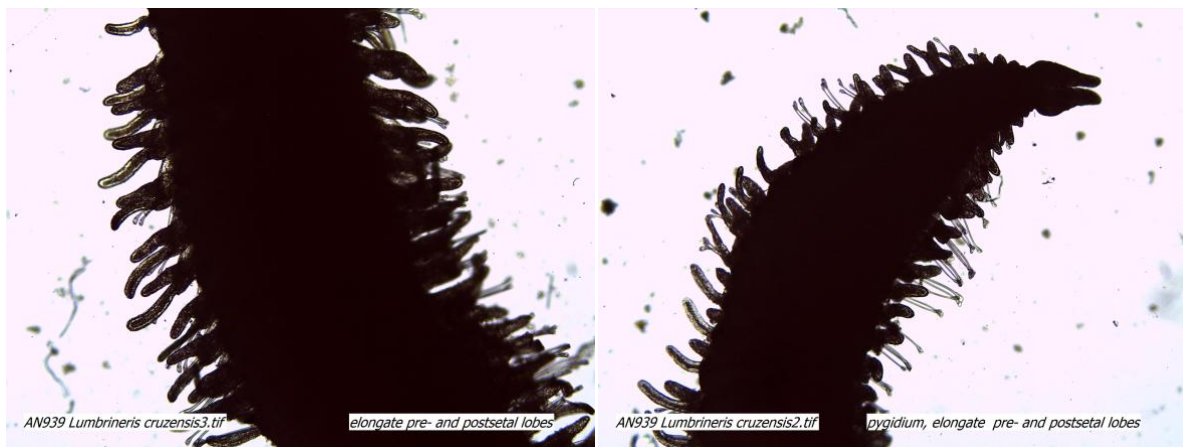
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### *Lumbrineris cruzensis* Hartman 1944

- Prostomium conical.
- Compound hooded hooks in anterior, simple in posterior.
- Aciculae yellow.
- Pre- and postsetal lobes elongate in posterior setigers.



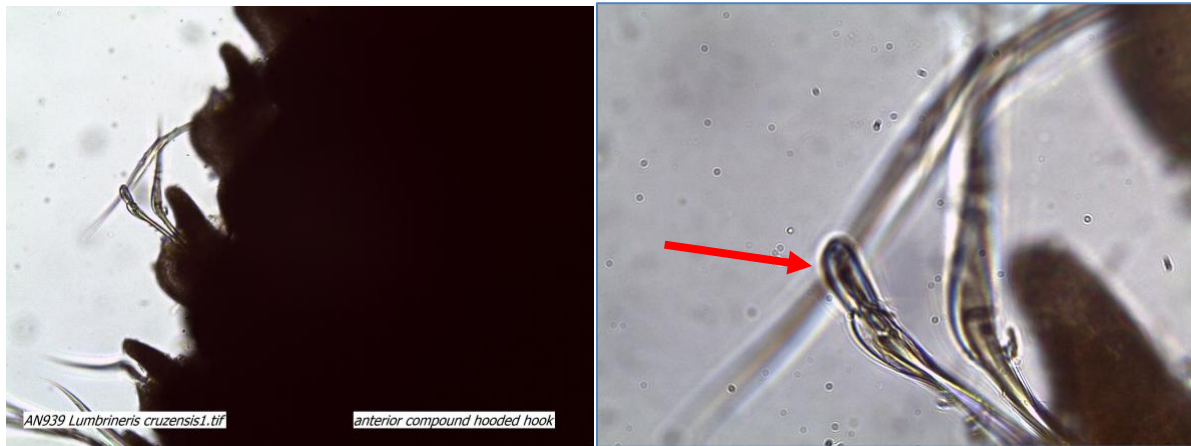
Anterior, dorsal aspect, prostomium (l); posterior end, pre- and postsetal lobes elongate (r)



Posterior pre- and postsetal lobes (l); elongate pygidium (r)

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Anterior limbate capillary setae (l); compound hooded hooks (r)

### Genus *Ninoe*

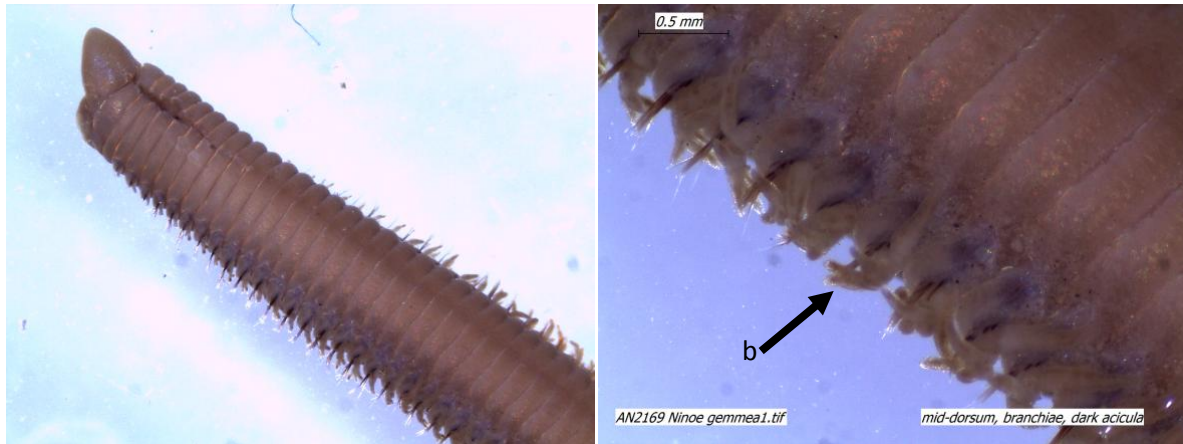
- Prostomium conical.
- Parapodia with branchiae arising from postsetal lobe, with 2 – 15 digitiform lobes.
- Setae include simple limbate capillaries and simple hooded multidentate hooks.
- Aciculae amber to black; setae amber with dark bases.
- MIII and MIV with serrations on the cutting edges; MV absent.

### *Ninoe gemmea* Moore 1911

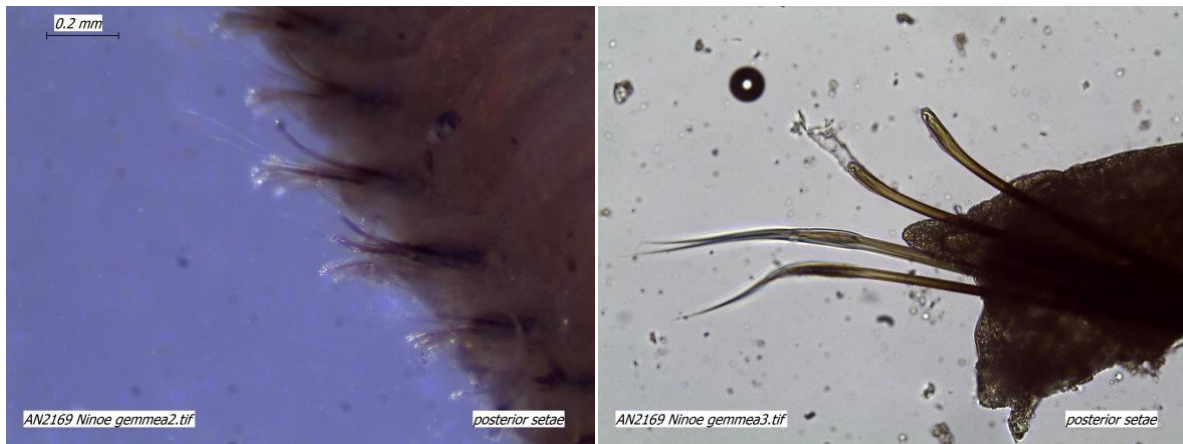
- Most common *Ninoe* in Puget Sound; *N. palmata* may be in Puget Sound, but specimens haven't been confirmed; SCAMIT doesn't think *N. gemmea* occurs in California; California taxonomists have identified many species that are not described.
- Simple hooded hooks throughout, begin on setiger 1.
- Aciculae black.
- With gills of 2-5 filaments ventral to the postsetal lobe on setigers 3-8 through 30-50 (Santa Barbara Taxonomic Atlas) (Kathy - Gills start on setiger 4, start with 2 branchiae anteriorly, then increase to four, then decrease to 1-2 posteriorly).

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Anterior, prostomium, dorsal view (l); branchiae (b), dark aciculae, mid-dorsum (r)



Simple limbate capillary setae and simple hooded hooks (l,r)

### Additional species of Lumbrineridae found in Puget Sound

*Eranno lagunae*  
*Monticellina secunda*

*Lumbrineris latreilli*  
*Lumbrineris limicola*



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### Literature

Banse, K. & Hobson, K.D. 1974. Benthic errantiate polychaetes of British Columbia and Washington. Bull. Fish. Res. Board Can. 185, 111 pages.

Hilbig, B. 1995. Chapter 11. Family Lumbrineridae Malmgren, 1867, emended Orensanz, 1990. Pages 279-313. IN: Blake, J. A., B. Hilbig, and P.H. Valentich-Scott (editors). Taxonomic Atlas of the Benthic Fauna of the Santa Maria Basin and Western Santa Barbara Channel. Volume 5 - The Annelida Part 2. Polychaeta: Phyllodocida (Syllidae and scale-bearing families), Amphinomida, and Eunicida. Santa Barbara Museum of Natural History, Santa Barbara, California. ISBN 0-93649-10-7.

### More Information

More information about Puget Sound benthic invertebrates is available at:  
<http://www.ecy.wa.gov/programs/eap/sediment/>

This document is available on the Department of Ecology's website at  
<https://fortress.wa.gov/ecy/publications/SummaryPages/1403238.html>.

If you need this document in a format for the visually impaired, call (360) 407-6764. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call (877) 833-6341.

These notes were compiled by Kathy Welch and Maggie Dutch after a polychaete workshop held on November 1, 2013 at the Department of Ecology.