Hesionidae

1a. Distinct anal plate or disc present; prostomium with two rudimentary eyes, or eyes lacking; *helpful hint*: 6 tentacular cirri present, on 3 distinct segments…….**2**

b. Anal plate or disc lacking; prostomium with four eyes (note: eyes may appear to be partially fused); *helpful hint*: 6 or 8 tentacular cirri present, on 3 or four segments that may not appear distinct from each other. ……...**3**

2a. Anal plate rounded and entire; anal cirri are shorter than anal plate . ……...**Microphthalmus sckelkowii**

b. Anal plate bilobed; anal cirri extend beyond anal plate ….**Microphthalmus aberrans**

3a. Tentacular cirri 6 pairs...……...**4**

b. Tentacular cirri 8 pairs..…….……**5**

4a. Prostomium with a median antennae; notopodia small, and not forming a distinct lobe, with only 0 to 3 furcate notosetae present (note: there is usually 1 furcate notosetae present). ……..……..**Podarke obscura**

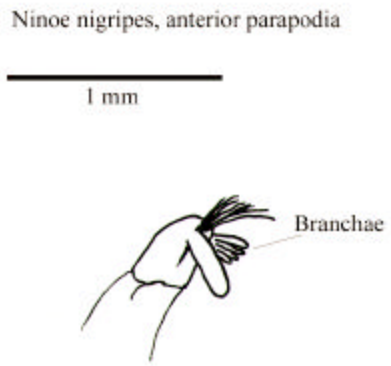
b. Prostomium without a median antennae; notopodia well developed, and forming a distinct lobe, with numerous notosetae present ……...**Parahesione luteola**

5a. Notosetae begin on setiger 1; median antennae arises medially from the prostomium.. ……...**Gyptis vittata**

b. Notosetae begin on setiger 5; median antennae arises from the anteriormost tip of the prostomium. ……...**Podarkeopsis levifuscina**

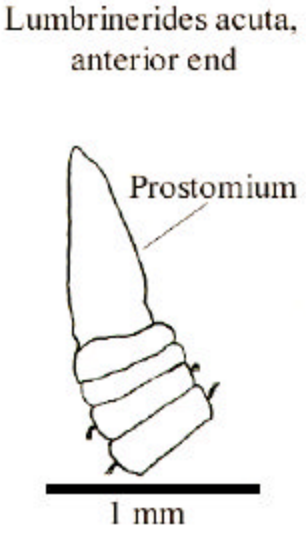
Lumbrineridae

1a. Branchiae present, beginning as single lobes on setigers 3 to 4 and continuing up to setigers 24 to 30 as 6 to 7 lobes (see below) ……..**Ninoe nigripes**

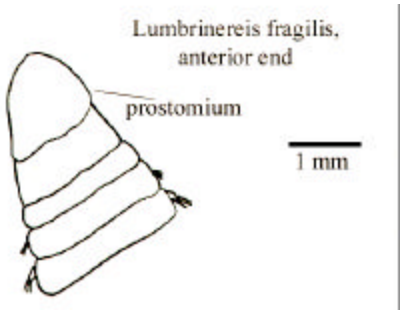


b. Branchiae entirely absent……**2**

2a. Prostomium exceptionally long, and acutely conical (see below); hooded hooks have bidentate tips; *helpful hint*: prostomium is 2 to 3 times longer than wide…..……..**Lumbrinerides acuta**



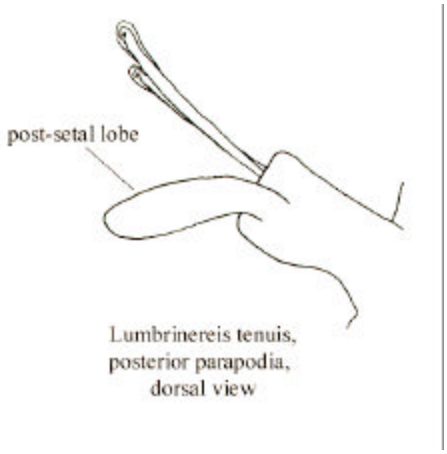
b. Prostomium is not exceptionally long, and is bluntly conical or rounded (see below); hooded hooks have multidentate tips; *helpful hint*: prostomium length less than 2 to 3 times as long as width. ……..….**3**



3a. Acicula are black.. ……**Lumbrinereis fragilis**

b. Acicula are pale yellow or amber colored.. ……..**4**

4a. Hooded hooks begin to appear on setigers 9 to 20; posterior parapodia with elongate postsetal lobes extending upwards (see below) ……...**Lumbrinereis tenuis**



b. Hooded hooks begin to appear on setigers 1 to 5; posterior parapodial lobes are not elongated and extending upwards. ……...**Lumbrineris impatiens**

Lysaretidae

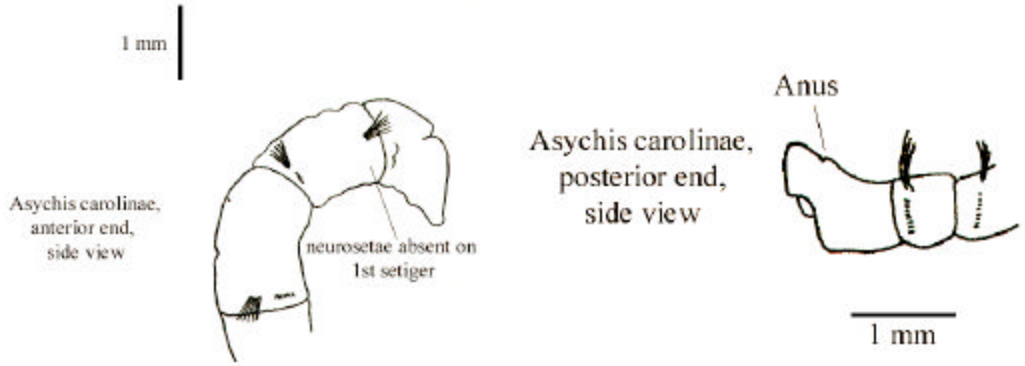
Lysarete brasiliensis is the only species from Virginia

Magelonidae

Magelona rosea is the only species from Virginia

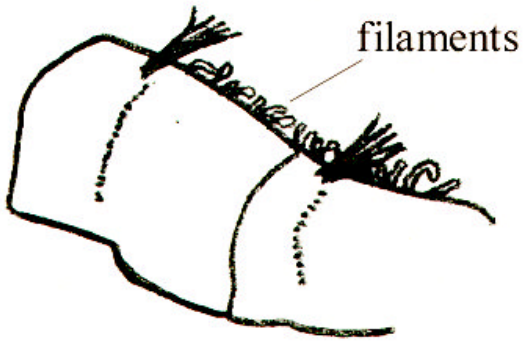
Maldanidae

1a. Neurosetae absent from setiger 1 (see below, left), beginning on setiger 2 as uncini; anal plaque with a long dorsal lobe, not ringed with digitiform cirri; anus emerges dorsally, just above the lobe (see below, right). ……....**2**



b. Neurosetae present on setiger 1 as uncini or acicula; anal plaque ringed with digitiform cirri; anus emerges terminally from the center of the ring ……..…...**3**

2a. 19 setigers present; large or small white tubercles may be present fom setiger 6 to posterior end; numerous small filaments may be present dorsally from setiger 6 to 10 (see below); *helpful hint*: cephalic rim is short laterally, and forms a shallow pocket posteriorly. ……..**Asychis elongata**

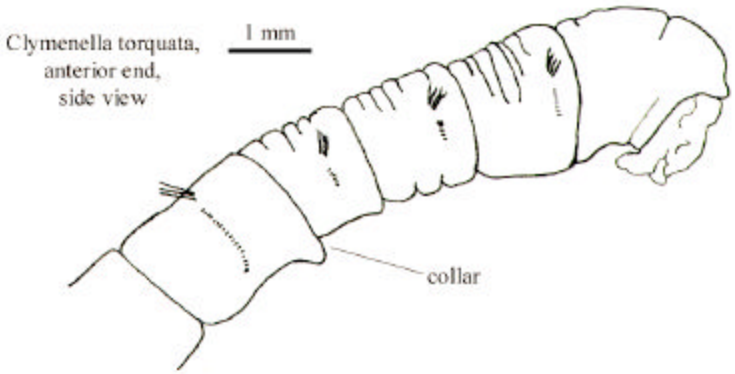


Asychis elongata, setigers 6 and 7, side view

1 mm

b. 18 setigers present; tubercles always absent; small filaments always absent; *helpful hint*: cephalic rim is long laterally, and forms a deep pocket posteriorly.. ……**Asychis carolinae**

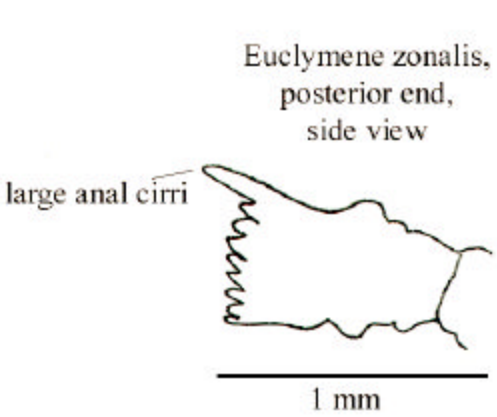
3a. Anterior portion of setiger 4 with a deep, membranous collar (see below); all anal cirri are subequal in length..……...……...**Clymenella torquata**

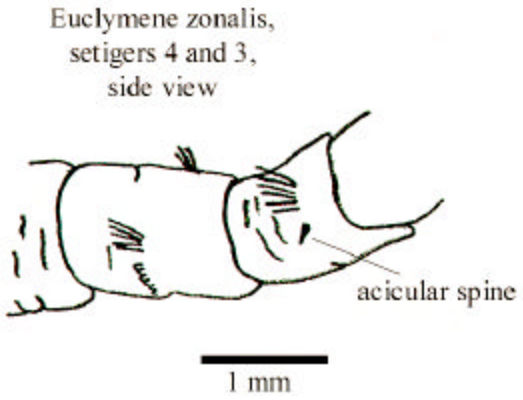


b. Setiger 4 without a membranous collar; one anal cirri is longer than the rest (see *E. zonalis*, below) …...……..……...**4**

4a. Neurosetae of setigers 1 to 3 are uncini, and are similar to neurosetae of setiger 4 . ……...**Axiothella mucosa**

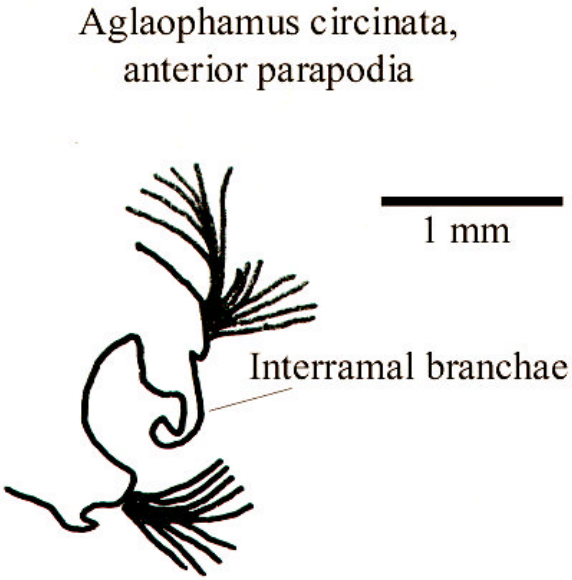
b. Neurosetae of setigers 1 to 3 are acicular spines, and are unlike neurosetae of setiger 4. ……...**Euclymene zonalis**





Nephtyidae

1a. Interramal branchiae spiral inwards toward the body.(see below) …….**2**



b. Interramal branchiae spiral outward, away from the body; *helpful hint*: the branchiae may not curve very much, but they definitely do not spiral inwards……..**3**

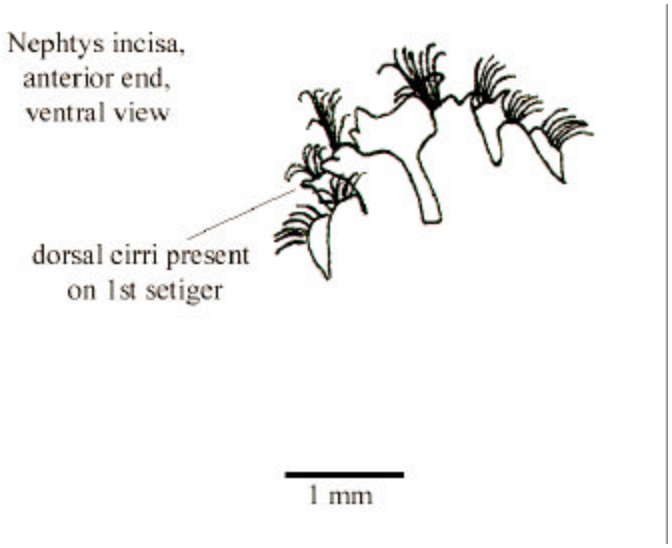
2a. Prostomium with two small, but distinct eyes present; neuropodia with digitiform accessory cirrus projecting upwards into the interramal space ……...**Aglaophamus verrilli**

b. Prostomium without any eyes; neuropodia without digitiform accessory cirrus projecting upwards into the interramal space……....**Aglaophamus circinata**

3a. Prostomium with two eyes on the posterior portion of the prostomium; *helpful hints*: eyes are located roughly between the third setigers, they are subdermal, and may not appear to be distinct, especially in larger individuals; anteriormost part of prostomium has a medial spot or streak of pigment……....**Nephtys cryptomma**

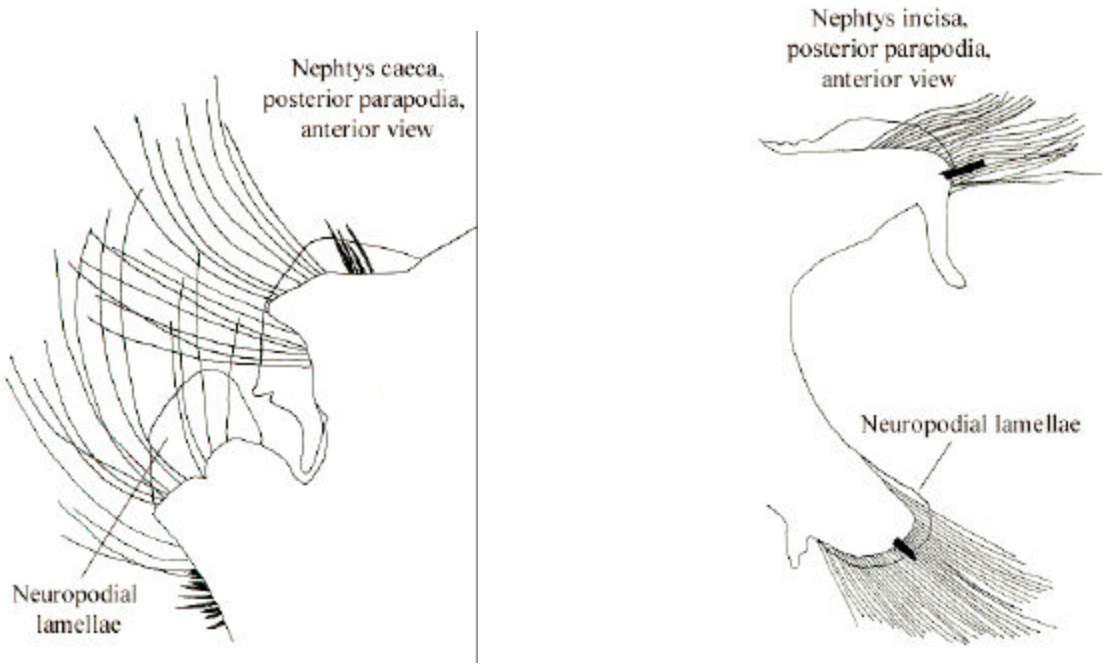
b. Prostomium without any eyes. ……**4**

4a. Setiger 1 (tentacular segment) with dorsal (see below) and ventral cirri present; *helpful hint*: never has banded dark brown or gray pigment patterns on anterior dorsum……....**5**



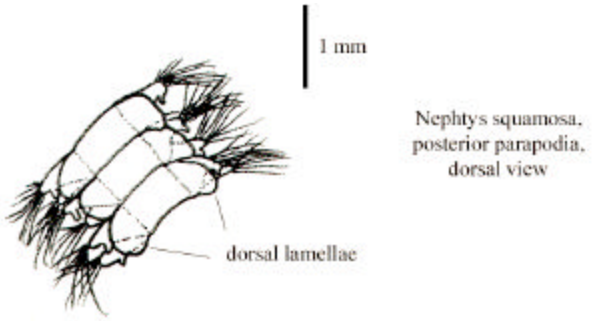
b. Setiger 1 (tentacular segment) without dorsal cirri, with ventral cirri only; *helpful hint*: may or may not have banded dark brown or gray pigment patterns on anterior dorsum...**6**

5a. Posterior parapodial lamellae are exceptionally large and prominent (see below, left), and are larger and more well developed than the rudimentary anterior parapodial lamellae; *helpful hint*: posterior parapodial lamellae are oval and foliaceous, neuropodial posterior parapodial lamellae are larger than notopodial posterior parapodial lamellae. ……..……..**Nephtys caeca**



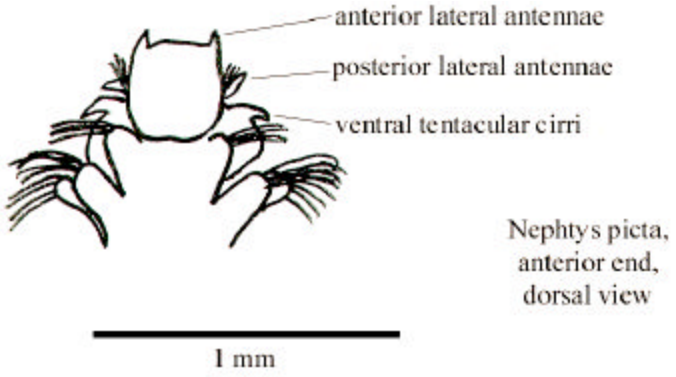
b. Posterior parapodial lamellae not exceptionally large and prominent (see above, right), anterior and posterior parapodial lamellae are about equal in size and development ……...**Nephtys incisa**

6a. Middle and posterior segments with anterior and posterior parapodial lamellae, and with additional dorsal lamellae that may overlap the following segments shingle-like (see below); *helpful hint*: additional dorsal lamellae start around setigers 12 to 17, and become larger posteriorly; banded dark brown or gray pigment patterns on anterior dorsum never present. ……**Nephtys squamosa**

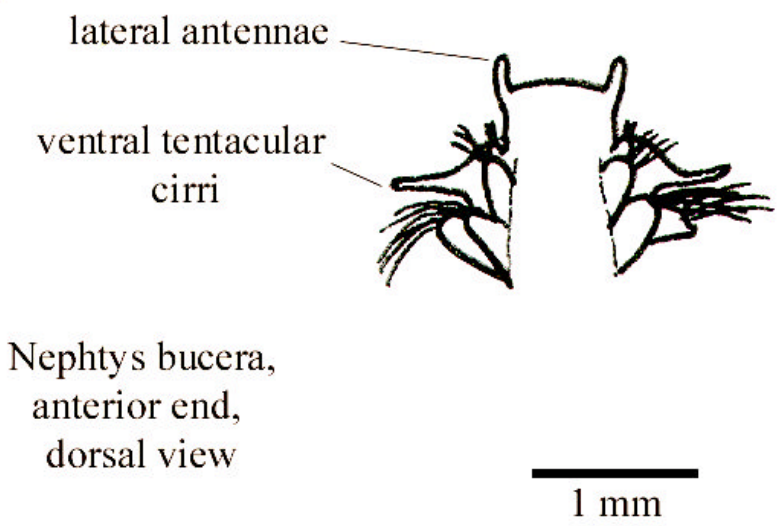


b. Middle and posterior segments with anteriror and posterior parapodial lamellae, but without additional dorsal lamellae; *helpful hint*: banded dark brown or gray pigment patterns on anterior dorsum almost always present in fresher specimens……...**7**

7a. Ventral tentacular cirri is anterior to widest part of enlarged tentacular segment on setiger 1 (see below); *helpful hint*: viewing the worm dorsally there are usually three pairs of "tentacular" projections visible on the anterior end: 1 the anteriormost lateral antennae, 2 the posterior lateral antennae that are partially obscured by setiger 1, 3 the ventraltentacular cirri.. ……...**Nephtys picta**



b. Ventral tentacular cirri is lateral and continuous with the widest part of enlarged tentacular segment on setiger 1 (see below); *helpful hint*: viewing the worm dorsally there are only two pairs of "tentacular" projections visible on the anterior end: 1 the anteriormost lateral antennae, 2 the ventral tentacular cirri, the posterior lateral antennae are small, and fully obscured.. ……..….**Nephtys bucera**



Nereidae

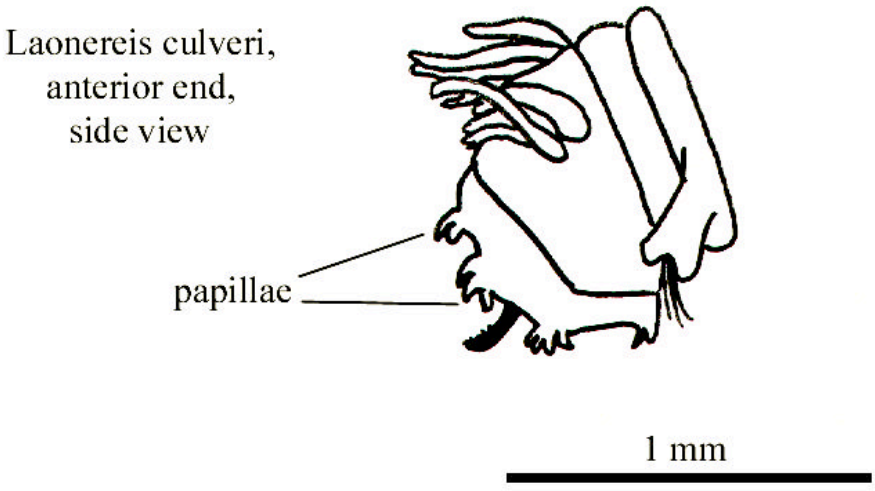
1a. Parapodia essentially uniramous throughout, with a single bundle of setae; three pairs of tentacular cirri present; proboscis without paragnaths or papillae; *helpful hint*: parapodia without ligules.. ……**Lycastopsis pontica**

b. Parapodia biramous except at anteriormost end, with two bundles of setae; four pairs of tentacular cirri present; proboscis with paragnaths or papillae; *helpful hint*: parapodia with ligules. ……...**2**

2a. Proboscis with black, chitinized paragnaths; posterior notosetae with compound spinigers, and with or without compound falcigers; *helpful hint*: tentacular cirri may or may not be exceptionally long, with the longest extending up to setiger 9……....**4**

b. Proboscis without black, chitinized paragnaths; posterior notosetae with compound spinigers, without compound falcigers; *helpful hint*: tentacular cirri fairly short, with the longest rarely extending beyond setiger 5; proboscis has papillae, rather than paragnaths on it, these papillae may or may not be lightly chitinized, if they are lightly chitinized there will be seven circular papillae on the ventral side of the basal or oral ring of the proboscis that are light brown in color. ……**3**

3a. Proboscis with tufts of papillae on maxillary or anteriormost ring (see below); oral or basal ring bare except for two conical papillae; no papillae are chitinous and light brown in color; posterior dorsal cirri are shorter than notopodial ligules……..**Laonereis culveri**

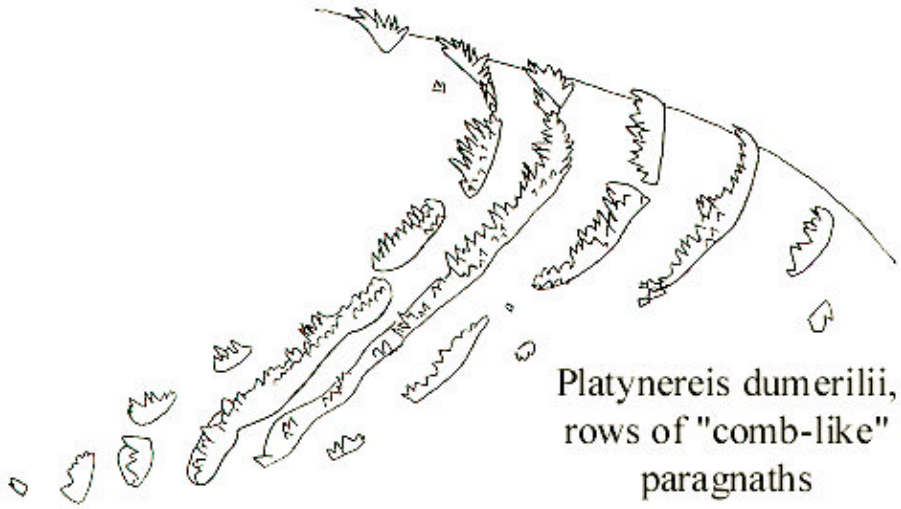


b. Proboscis with maxillary or anteriormost ring bare; oral or basal ring with seven circular papillae on ventral side; these seven are slightly chitinous, and light brown in color; posterior dorsal cirri longer or subequal to notopodial ligules…….....**Websterinereis tridentata**

4a. Paragnaths present on maxillary or anteriomost ring of proboscis only; *helpful hint*: longest tentacular cirri are usually quite long, and may extend up to setiger 9.. ……...**Ceratonereis irritabilis**

b. Paragnaths present on both maxillary or anteriormost ring of proboscis, and oral or basal ring of proboscis; *helpful hint*: longest tentacular cirri may or may not be quite long, and may or may not extend up to setiger 9; paragnaths on oral or basal ring may be small and few in number (6-8 total in 2 dorsal groups) . ……..**5**

5a. Paragnaths include comb-like bars and cones (see below); *helpful hint*: longest tentacular cirri are quite long, and may extend up to setiger 9. ……..……..**Platynereis dumerilii**

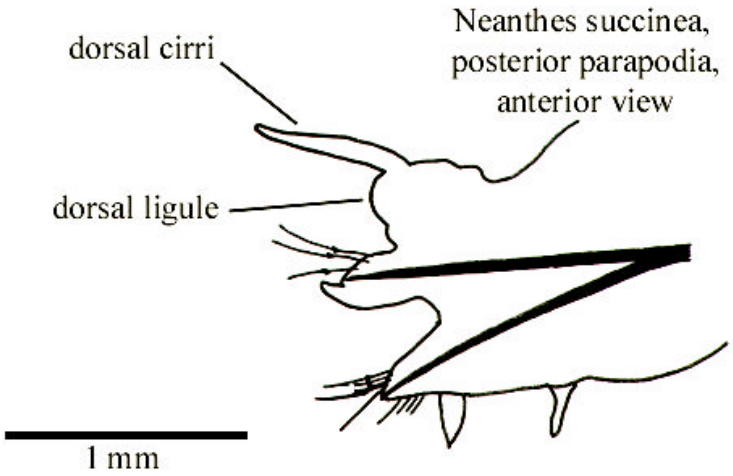


b. Paragnaths are cones only; *helpful hint*: longest tentacular cirri are not quite long, and usually do not exceed setiger 6. ……**6**

6a. Oral or basal ring of proboscis with a continuous ring of paragnaths; acicula are colorless.. ……**Neanthes arenaceodentata**

b. Oral or basal ring of proboscis with paragnaths in groups, not in a continuous band; acicula are dark or black. ……...**7**

7a. Ventral part of oral or basal ring with many paragnaths; dorsal parapodial ligules highly modified from anterior to posterior end, posterior dorsal ligules are elongate and flattened, with dorsal cirri that are subterminally attached to them (see below); posterior notosetae with compound spinigers, and without compound falcigers……..….**Neanthes succinea**



b. Ventral part of oral or basal ring with no paragnaths; dorsal parapodial ligules not highly modified from anterior to posterior, posterior ligules are acutely conical, with dorsal cirri that are basally attached to them (see blow); posterior notosetae with compound spinigers, and with compound falcigers. ……..**Nereis grayi**