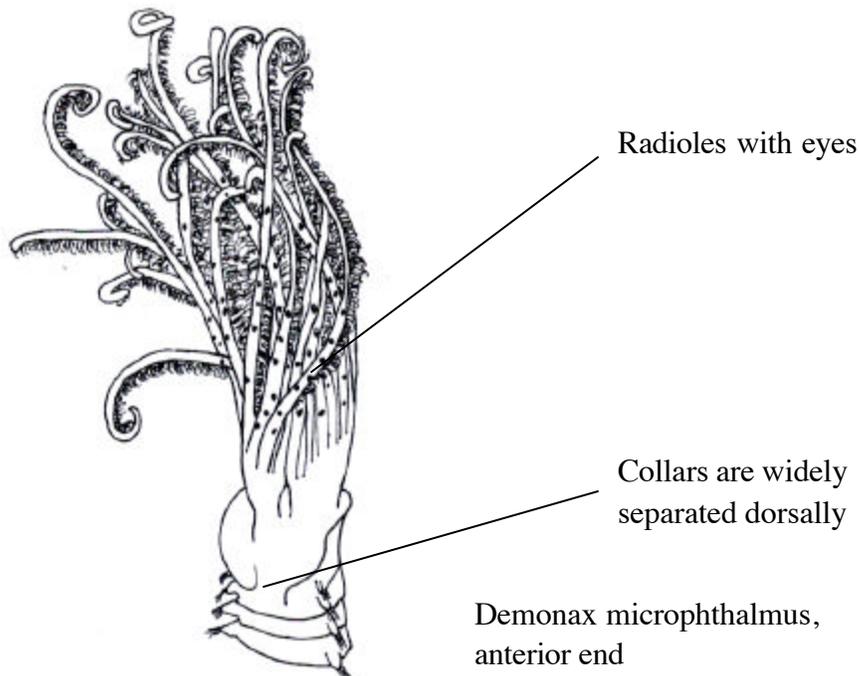


## Sabellariidae

*Sabellaria vulgaris* is the only species from Virginia

## Sabellidae

- 1a.** Worm is very small, with 12 or less setigers. ....2
- b.** Worm with more than 12 setigers.. ....3
- 2a.** Tentacular crown with 2 pair of radioles; pygidium without eyespots; *helpful hint*: this is a freshwater species.. ....**Manayunkia speciosa**
- b.** Tentacular crown with 3 pairs of radiole; pygidium with eyespots; *helpful hint*: this is a species present in saline waters.....**Fabricia sabella**
- 3a.** Collar is 4 lobed; *helpful hint*: 1-8 large eyes present on radioles in a single row .....**Pseudopotamilla reniformis**
- b.** Collar is bilobed; *helpful hint*: eyespots present or absent from radioles.....4
- 4a.** Radioles without eyes; dorsally, collars come together at their bases, forming a v-shaped gap. ....**Potamilla neglecta**
- b.** Radioles with numerous, scattered eyes; dorsally, collars are widely separated, and do not come together forming a v-shaped gap (see below).....**Demonax microphthalmus**



## Scalibregmidae

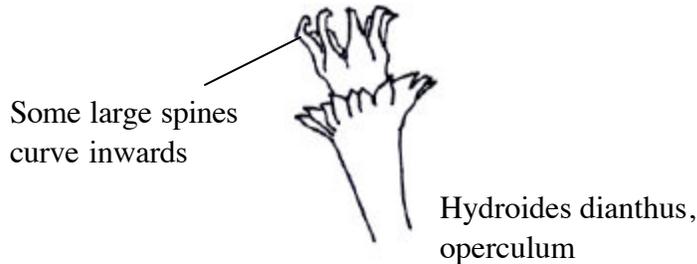
*Scalibregma inflatum* is the only species from Virginia

## Serpulidae

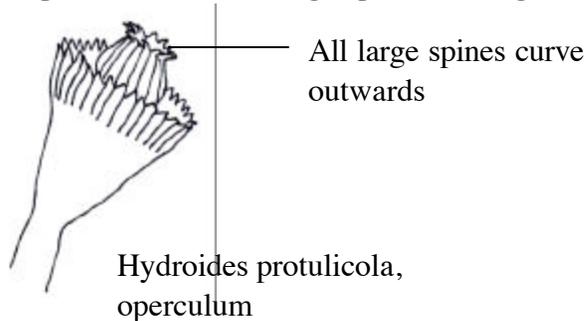
**1a.** Two spoonlike, membranous, transparent opercula present on two stalks dorsal to three pairs of radioles; barbules usually present on the stalks; *helpful hint*: tubes are small and quite thin, usually intertwining in a lacy, coral like network.....**Filograna implexa**

**b.** One operculum present, with a spiny, chitinous crown, on a single stalk formed from fused radii, dorsal to about 20 radioles; barbules absent from the stalks.....**2**

**2a.** Operculum with some large spines curving inwards, and some curving outwards from the center (see below).....**Hydroides dianthus**



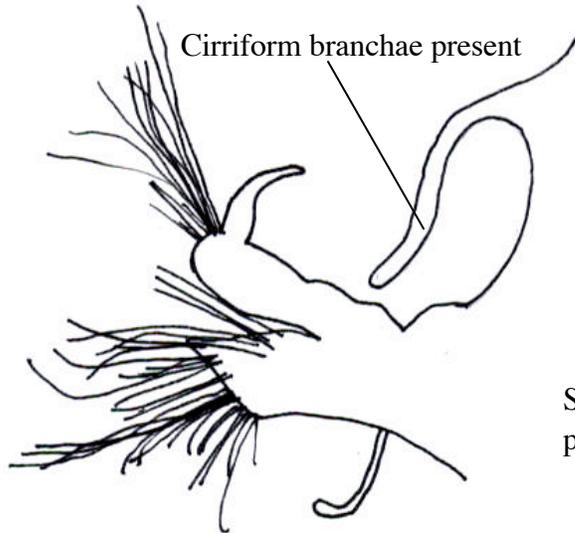
**b.** Operculum with all large spines curving outwards (see below).**Hydroides protulicola**



## Siglionidae

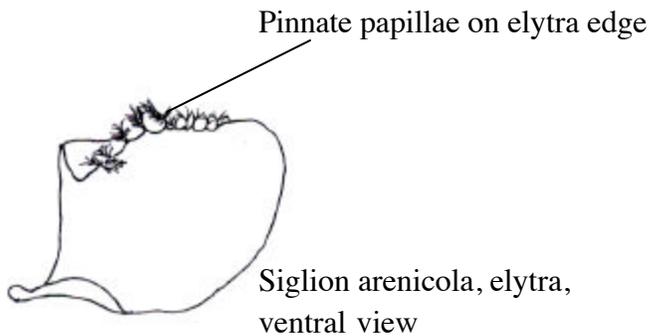
**1a.** Cirriform branchiae absent from notopodia. ....**Phloe minuta**

**b.** Cirriform branchiae present on all but anteriormost notopodia (see below).....**2**

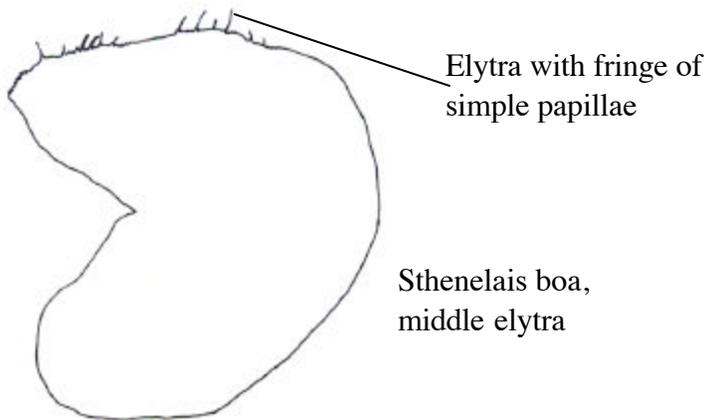
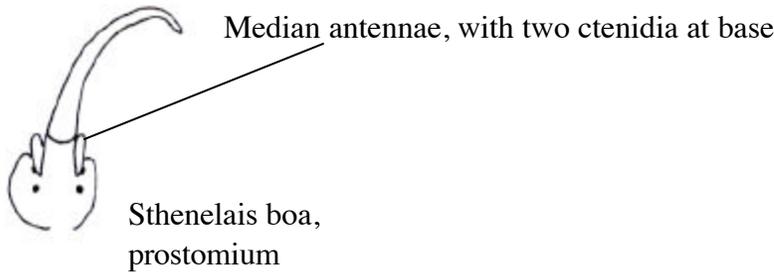


Sigalion arenicola, middle parapodia, view from posterior

**2a.** Prostomium without a median antennae, with two small lateral antennae on anterior edge of prostomium; elytra with a fringe of pinnate, branched papillae on the edge (see below); *helpful hint*: palps are usually quite long, about 4-5 times longer than tentacular cirri.....**Sigalion arenicola**



**b.** Prostomium with median antennae, with two small antennal ctenidia at base of median antennae (see below); elytra with a fringe of simple papillae (see below), or without any fringe of papillae; *helpful hint*: palps are long, but usually only 2-3 times longer than tentacular cirri.....**3**

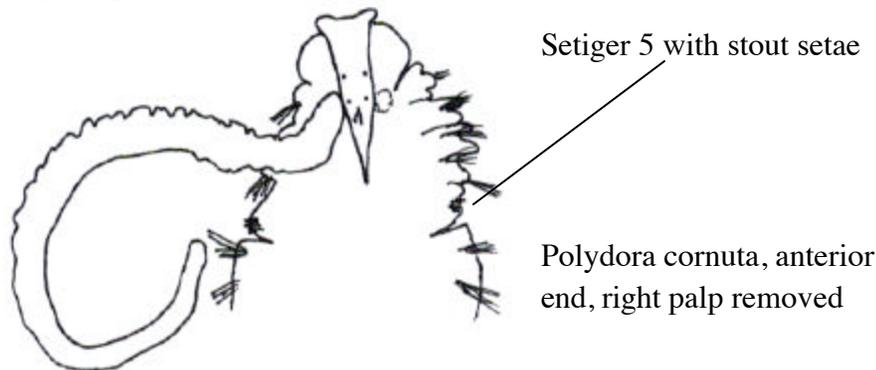


**3a.** All elytra with an obvious fringe of simple papillae on the external border; elytra opaque, with microtubules. ....**Sthenelais boa**

**b.** Anterior elytra with a small fringe of simple papillae on external border, middle and posterior elytra without a fringe of papillae, but with a lateral notch; elytrae translucent, without microtubules.....**Sthenelais limicola**

**Spionidae**

**1a.** Setiger 5 enlarged relative to nearby setigers, with setae that are much stouter than nearby setigers (see below).....**2**

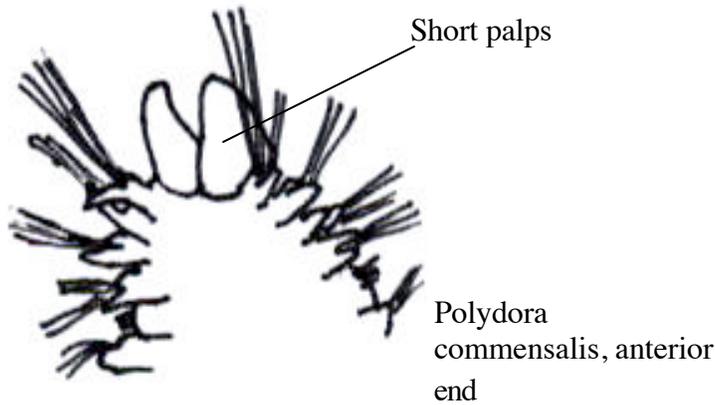


**b.** Setiger 5 not enlarged relative to nearby setigers, with setae that are as stout as nearby setigers.....7

**2a.** Branchiae present on setigers 2, 3, 6 and subsequent setigers; notopodia of posterior segments with recurved, hook-like spines; *helpful hint*: often found in bivalve shells.  
.....**Boccardia hamata**

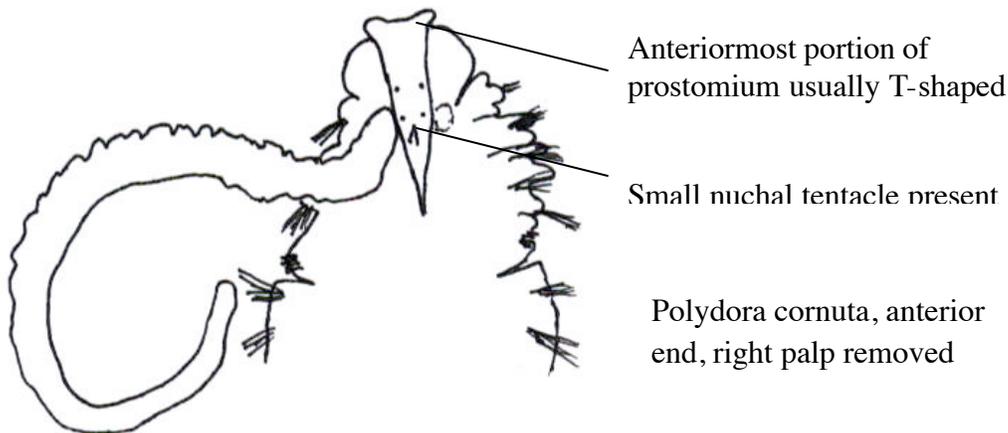
**b.** Branchiae begin on setigers 6-8, and present on subsequent setigers; notopodia of posterior segments without recurved, hook-like spines.....3

**3a.** Hooded hooks begin on setigers 10-17; palps fairly short, extending backwards only to setiger 6 at most (see below); caruncle absent; *helpful hint*: found in shells inhabited by hermit crabs.. .....**Polydora commensalis**



**b.** Hooded hooks begin on setiger 7; palps are long, extending backwards beyond setiger 6; short or long caruncle present.....4

**4a.** Small nuchal tentacle present (see below); *helpful hint*: anteriormost portion of prostomium usually T-shaped (see below); builds fragile mucus and mud tubes.....**Polydora cornuta**



**b.** Small nuchal tentacle absent; *helpful hint*: anteriormost portion of prostomium usually cleft, but usually does not flare laterally, forming a T-shape; may or may not form mucus and mud tubes.....**5**

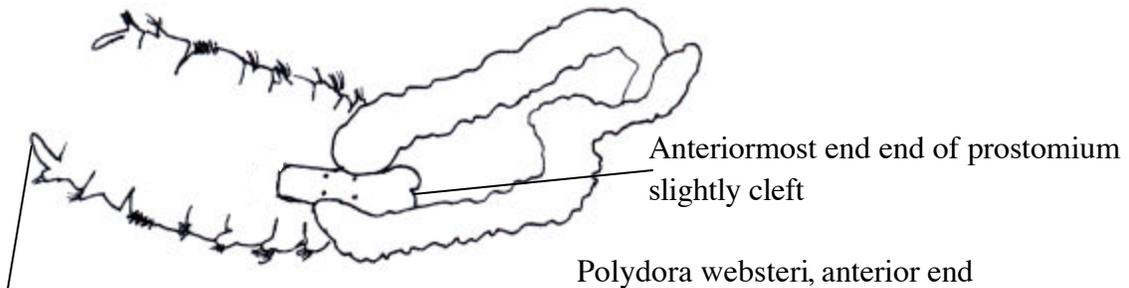
**5a.** Modified setae of setiger 5 with pectinate, or bushy tops (see below); pygidium consists of 4 equal lobes; *helpful hint*: modified setae of setiger 5 are strongly falcate, and the tips are nearly at right angles to the shafts .....**Polydora caulleryi**



Polydora caulleryi, falcate 5<sup>th</sup> setae with pectinate tops

**b.** Modified setae of setiger 5 without pectinate, or bushy tips; pygidium usually cup shaped, with a dorsal gap in it; *helpful hint*: modified setae of setiger 5 may have slightly curved tips, but they are not strongly falcate.....**6**

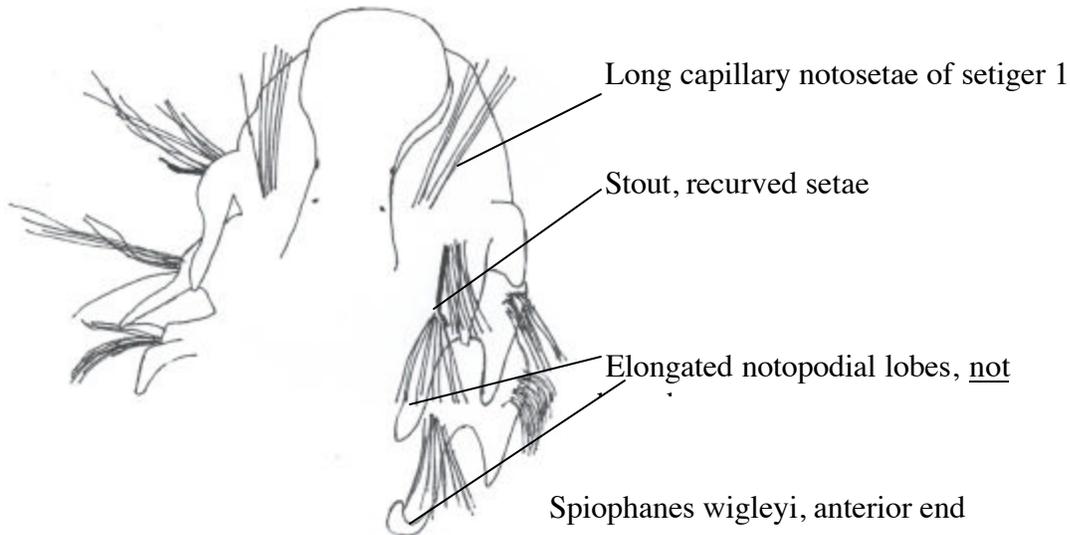
**6a.** Caruncle terminates at the beginning of setiger 3; anteriormost end of prostomium slightly notched or rounded (see below); branchiae begin on setiger 7 (see below); modified setae of setiger 5 with a lateral flange; *helpful hint*: bores into calcareous structures, most notably oyster shells.. .....**Polydora websteri**



Branchae begin on 7<sup>th</sup> setiger

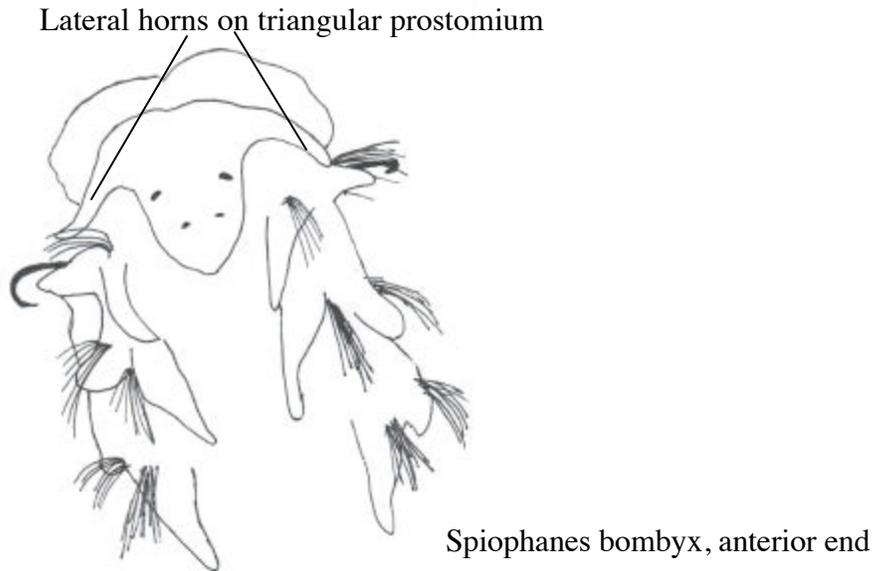
**b.** Caruncle terminates at setigers 4-9; anteriormost prostomium deeply cleft and V-shaped; branchiae usually begin on setiger 8 (rarely on setiger 7 or 9); modified setae of setiger 5 without a lateral flange .....**Polydora socialis**

**7a.** Branchiae entirely absent; neuropodia of setiger 1 includes 1-2 pairs of stout, recurved setae (see below), and capillary setae; *helpful hint*: capillary notosetae of setiger 1 are usually slightly longer than subsequent notosetae (see below); elongated notopodial lobes are present, beginning on setiger 1 (see below), and these should not be confused with branchiae.....**8**

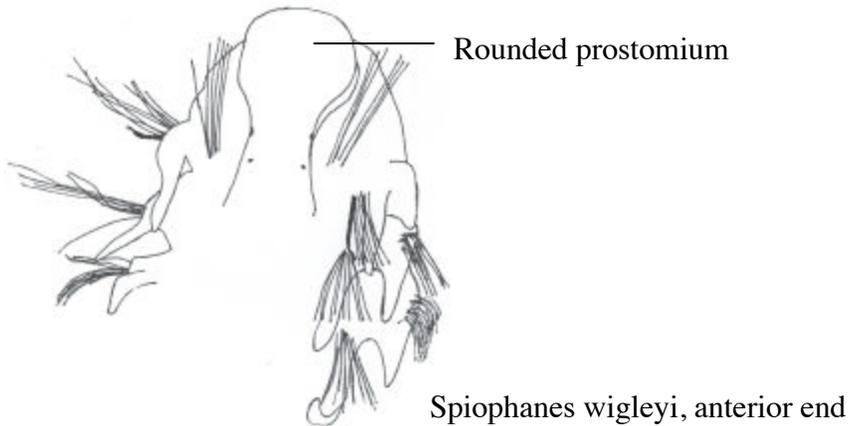


**b.** Branchiae present; neuropodia of setiger 1 without 1-2 pairs of stout, recurved setae. ....**9**

**8a.** Prostomium triangular, with conspicuous lateral horns (below)..**Spiophanes bombyx**



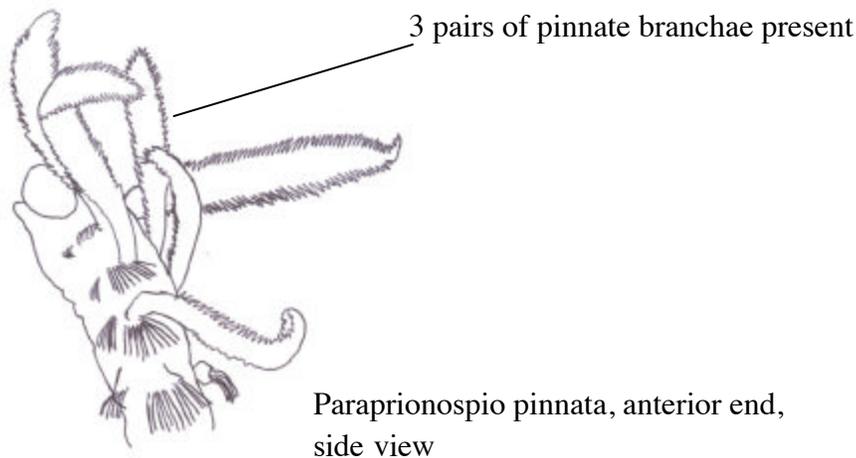
**b.** Prostomium oval, without conspicuous lateral horns (see below)...**Spiophanes wigleyi**



**9a.** One pair of smooth branchiae present on setiger 1; conspicuous dorsal crest, or hood, present across setiger 2. ....**Streblospio benedicti**

**b.** More than one pair of branchiae present; conspicuous dorsal crest, or hood, absent from setiger 2. ....**10**

**10a.** Three pairs of pinnate branchiae present, on setigers 1 to 3 (see below); *helpful hint*: branchiae may be missing, look for scars; prostomium rounded, enclosed laterally by the peristomium in a collar-like fashion; ventral sabre setae present, beginning on setiger 9  
.....**Paraprionospio pinnata**



**b.** More than three pairs of branchiae present, on more setigers. ....**11**

**11a.** Branchiae present on 20 or more setigers; branchiae begin on setigers 1 or 2 .....**12**

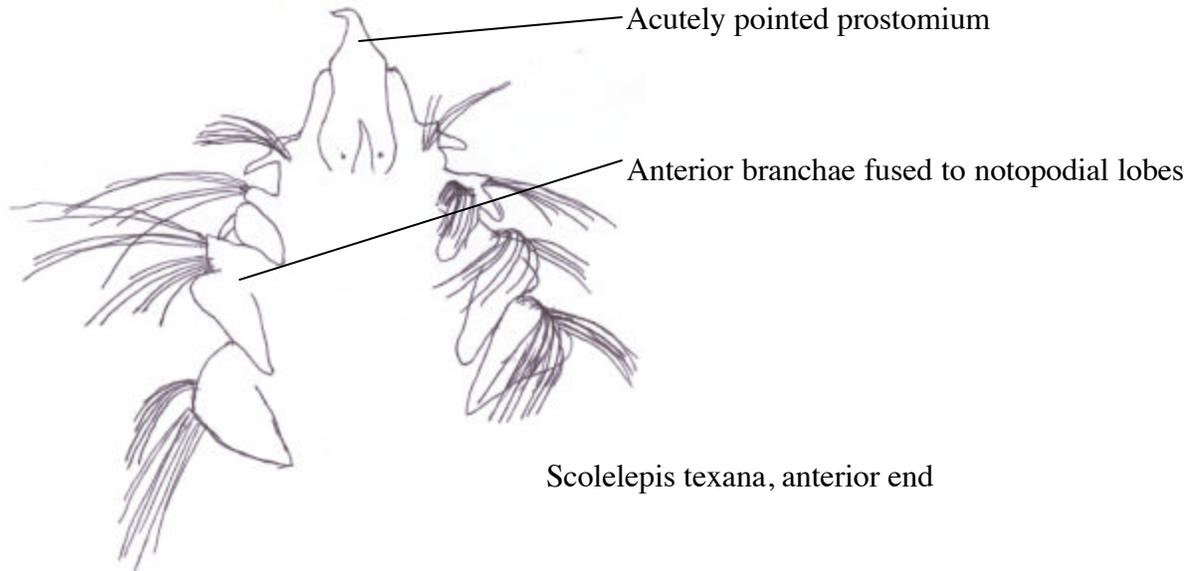
**b.** Branchiae present on 4 to 12 setigers; branchiae begin on setiger 2 only .....**21**

**12a.** Branchiae begin on setiger 2. ....**13**

b. Branchiae begin on setiger 1.....17

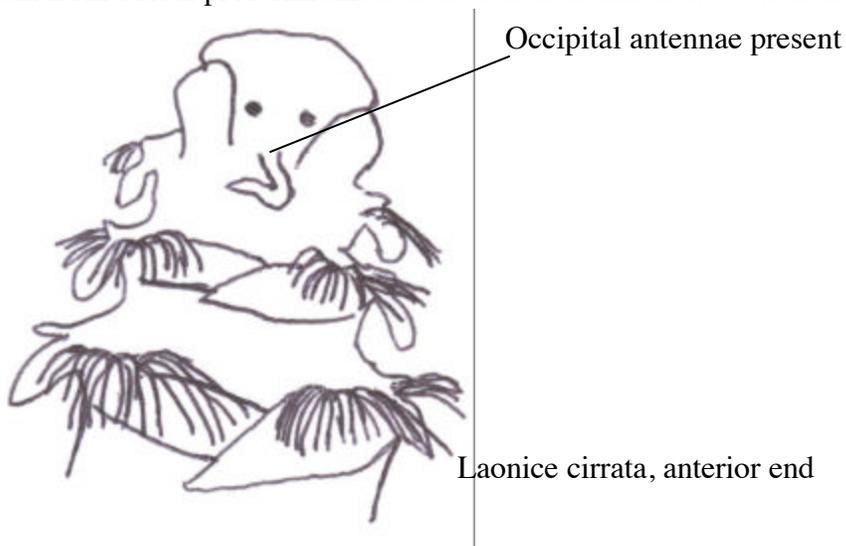
13a. Prostomium rounded or slightly bilobed anteriorly; anterior branchiae are completely separate from notopodial lobes.....14

b. Prostomium is acutely pointed anteriorly (see below); anterior branchiae are completely or basally fused to notopodial lobes (see below).. .....15

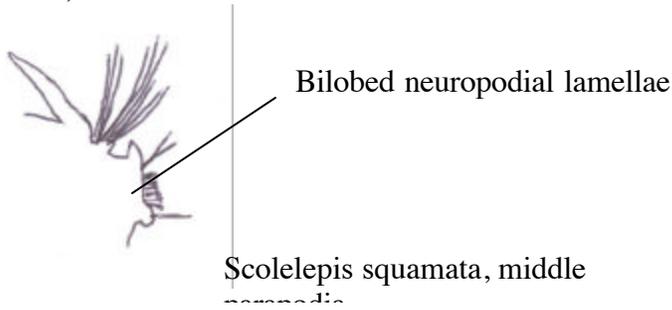


14a. Prostomium without occipital antennae; *helpful hint*: large pigment patch present on dorsal prostomium in fresh specimens.....**Microspio pigmentata**

b. Prostomium with occipital antennae (see below); *helpful hint*: large pigment patch absent from dorsal prostomium. ....**Laonice cirrata**



**15a.** Occipital antennae absent; *helpful hint*: 1st setiger with notosetae present; neuropodial lamellae are notched and bilobed, beginning around setiger 18 (see below).....**Scolelepis squamata**

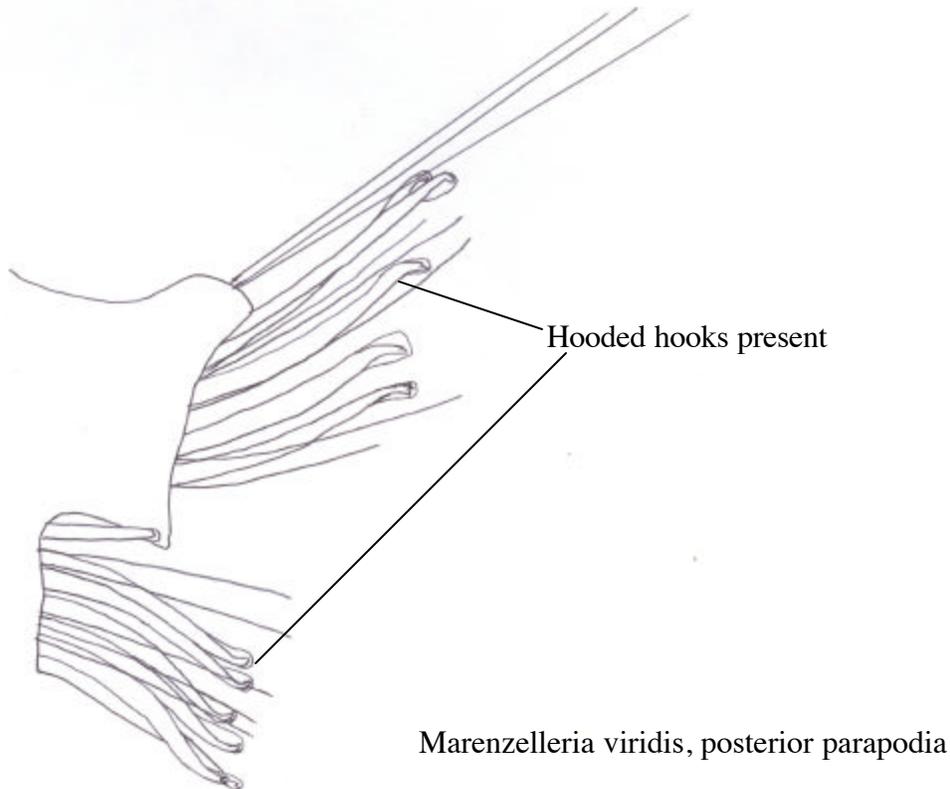


**b.** Occipital antennae present.....**16**

**16a.** 1st setiger without notosetae present; neuropodial lamellae are cleft, beginning around setiger 28.....**Scolelepis texana**

**b.** 1st setiger with notosetae present; neuropodial lamellae remain entire throughout.....**Scolelepis bousfieldi**

**17a.** Posterior notosetae include hooded hooks (see below); branchiae present on anterior 1/2 to 2/3 of body only; prostomium bilobed, and slightly T-shaped anteriorly; *helpful hint*: this is most common in oligohaline areas. ....**Marenzelleria viridis**



**b.** Posterior notosetae without hooded hooks; branchiae present to posterior segments; prostomium pointed or rounded anteriorly... ..**18**

**18a.** Prostomium pointed anteriorly; small, accessory branchiae present as digitiform projections posterior to main branchiae, beginning on setigers 18-28; *helpful hint*: notosetae of setiger 1 are exceptionally long, subequal to, or extending beyond the tip of the prostomium.. ..**Dispio uncinata**

**b.** Prostomium rounded anteriorly; small, accessory branchiae absent; *helpful hint*: notosetae of setiger 1 usually do not extend beyond the tip of the prostomium .. ..**19**

**19a.** Neurosetal hooded hooks number from 15-20, beginning on about setigers 13-15 .. ..**Spio setosa**

**b.** Neurosetal hooded hooks number from 6-10, beginning on about setigers 10-15 .. ..**20**

**20a.** Neuropodial hooded hooks are tridentate.....**Spio pettibonae**

**b.** Neuropodial hooded hooks are bidentate.. ..**Spio filicornis**

**21a.** 4 or 5 pairs of branchiae present; at least one pair of branchiae are pinnate .. ..**22**

**b.** More than 5 pairs of branchiae present; all branchiae are apinnate.....**27**

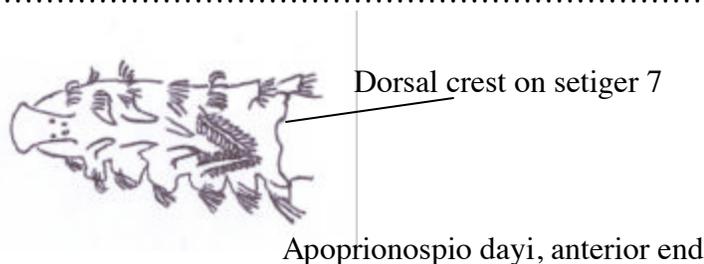
**22a.** 5 pairs of branchiae present, branchiae on setigers 2, 5 and 6 are pinnate; *helpful hint*: two pairs of eyes present in fresh specimens, with posterior pair quite large, larger than anterior pair.....**Prionospio heterobranchia**

**b.** 4 pairs of branchiae present, pinnate branchiae otherwise; *helpful hint*: in fresh specimens, eyes, if present, with posterior pair small, usually subequal to anterior pair.. ..**23**

**23a.** Branchiae on setigers 2 to 4 apinnate, branchiae on setiger 5 pinnate, and longer than the other branchiae; pinnules on pinnate branchiae are plate-like, not digitiform.....**24**

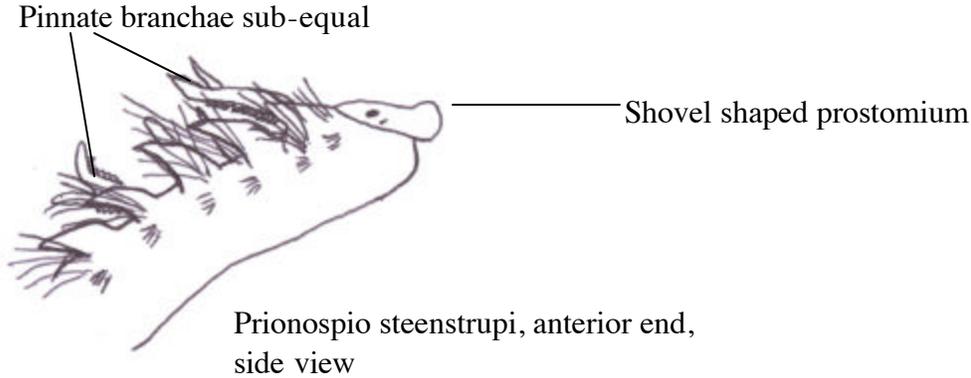
**b.** Branchiae on setigers 3 and 4 apinnate, branchiae on setigers 2 and 5 pinnate; pinnules on pinnate branchiae are digitiform, not plate-like. ....**25**

**24a.** Notopodial lamellae are connected in a large dorsal crest on setiger 7 (see below) .. ..**Apoprionospio dayi**



b. Notopodial lamellae are not connected in a dorsal crest on setiger 7 .....**Apoprionospio pygmaea**

**25a.** Prostomium distinctly shovel shaped anteriorly, as it is broadest anteriorly, and with a straight edge (see below); *helpful hint*: pairs of pinnate branchiae are subequal in length (see below). .....**Prionospio steenstrupi**

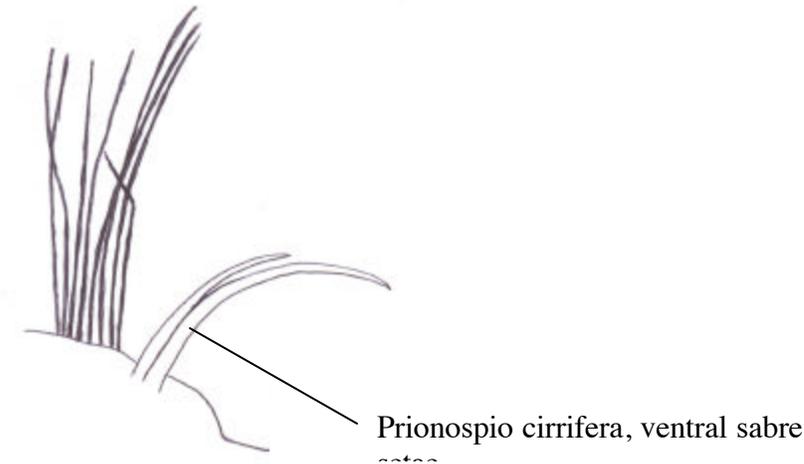


b. Prostomium otherwise, slightly narrower anteriorly than in mid-region, and rounded anteriorly; *helpful hint*: pinnate pairs of branchiae either subequal in length, or anteriormost pair are longer than posterior pair. ....**26**

**26a.** Anteriormost pair of pinnate branchiae are larger than posterior pair; dorsal crests absent from setigers 7 and 9; without a pair of prominent nuchal organs fused over caruncle.....**Prionospio dubia**

b. Pinnate pair of branchiae are subequal in length; notopodial lamellae form dorsal crests across setigers 7 and 9; with a pair of prominent nuchal organs fused over the caruncle.....**Prionospio cristata**

**27a.** Inward curving ventral sabre setae present, beginning on setiger 10; 6-8 pairs of branchiae present; *helpful hint*: hooded hooks are multidentate.....**Prionospio cirrifera**



**b.** Ventral sabre setae absent; 6-12 pairs of branchiae present; *helpful hint*: hooded hooks are either multi dentate, or bidentate.....**28**

**28a.** Antermost 3 pairs of branchiae are obviously longer than subsequent branchiae; 6-10 pairs of branchiae present; hooded hooks are multidentate .....**Prionospio perkensi**

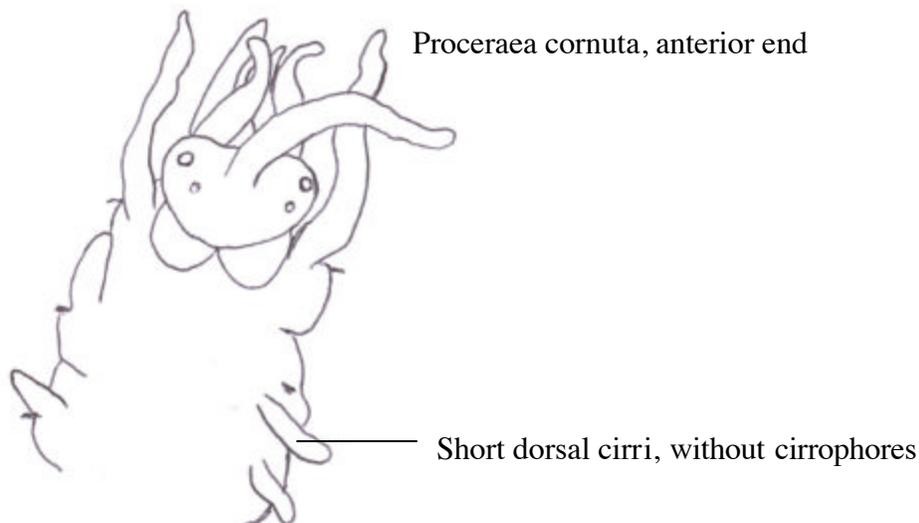
**b.** All branchiae are subequal; 10-12 pairs of branchiae present; hooded hooks are bidentate.....**Prionospio cirrobranchiata**

## Syllidae

**1a.** Ventral cirri absent; pharynx coiled or sinuous; *helpful hints*: palps are completely fused; nuchal organs present as small or large epaulettes.....**2**

**b.** Ventral cirri present; pharynx usually straight; *helpful hints*: palps completely fused, or otherwise; nuchal organs usually not as epaulettes.....**6**

**2a.** Dorsal cirri short, shorter than width of body (except first two pairs); dorsal cirri without cirrophores (see below).....**3**

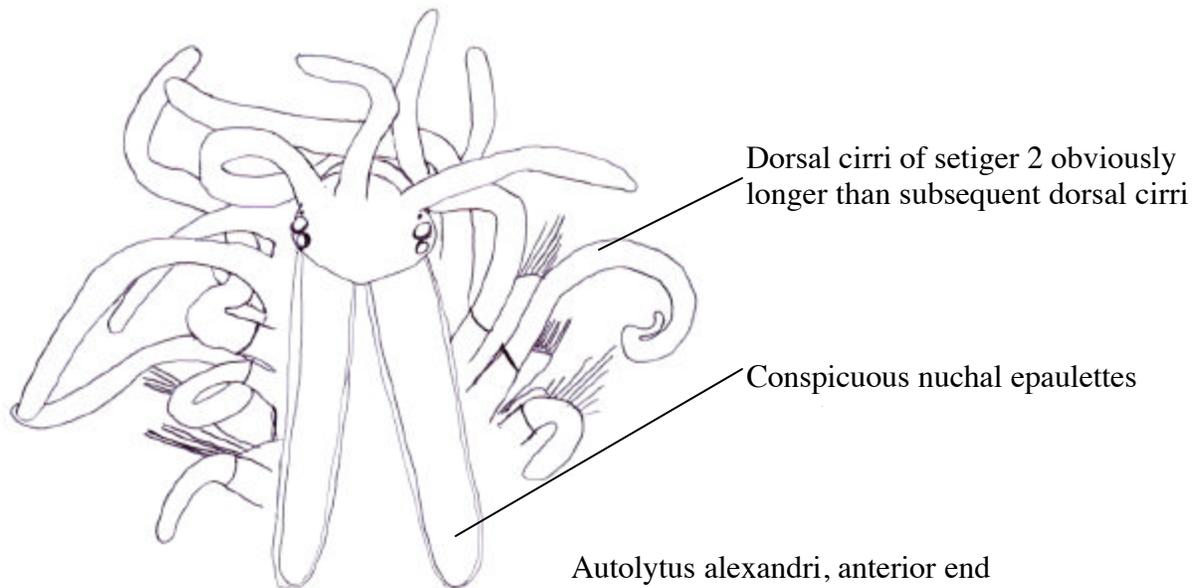


**b.** Some dorsal cirri long, equal to, or longer than, the width of the body; dorsal cirri with cirrophores.....**4**

**3a.** Body with transverse bands; nuchal epaulettes conspicuous, extending to posterior portion of setiger 1.....**Proceraea fasciata**

**b.** Body with lateral longitudinal bands; nuchal epaulettes inconspicuous, extending only to the tentacular segment.....**Proceraea cornuta**

**4a.** Dorsal cirri on setiger 2 are subequal to dorsal tentacular cirri and lateral antennae, obviously longer than subsequent dorsal cirri (see below); *helpful hint*: conspicuous nuchal epaulettes present, extending to setigers 2 to 4 (see below)....**Autolytus alexandri**



**b.** Dorsal cirri on setiger 2 are shorter than dorsal tentacular cirri, and lateral antennae, only slightly longer than subsequent dorsal cirri; *helpful hint*: nuchal epaulettes may or may not be prominent.....**5**

**5a.** Nuchal epaulettes prominent, extending to setigers 3-4; trepan with about 30 teeth.  
.....**Autolytus dentalius**

**b.** Nuchal epaulettes not prominent, not extending beyond setiger 1; trepan with 10 teeth.  
.....**Autolytus prolifer**

**6a.** Two pairs of tentacular cirri present; *helpful hint*: dorsal cirri subequal to, or greatly exceeding the length of the parapodia; tentacles and/or dorsal cirri may or may not be clearly articulated; worm may or may not be large, exceeding 10 mm in length.....**13**

**b.** One pair of tentacular cirri present; *helpful hint*: dorsal cirri subequal to, or shorter than parapodia, never greatly exceeding the length of the parapodia; dorsal cirri and tentacles never clearly articulated; worm is always less than 10 mm in length.....**7**

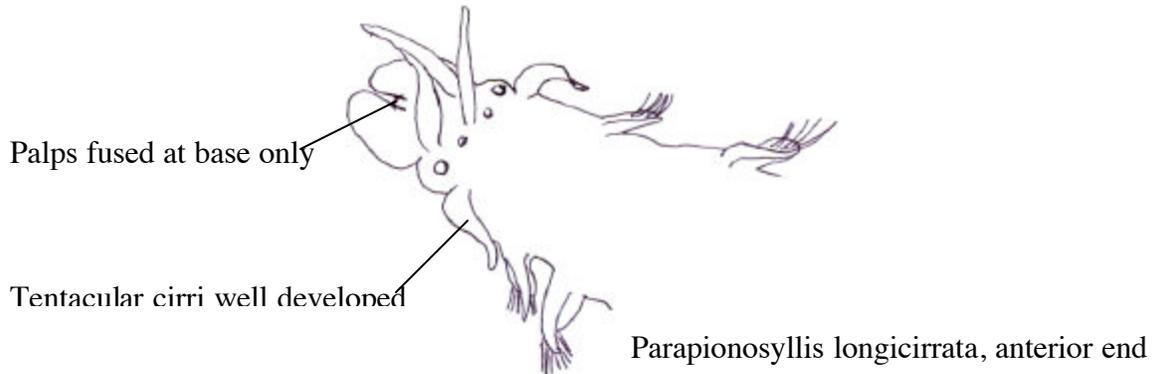
**7a.** Body with a covering of adhesive papillae, usually encrusted with mud; *helpful hints*: dorsal cirri absent from setiger 2, and replaced by a small papillae; palps almost completely fused; tentacular cirri are well developed, and are similar to the dorsal cirri..**8**

**b.** Body smooth, without adhesive papillae; *helpful hints*: dorsal cirri present or not on setiger 2; palps completely or only partially fused; tentacular cirri well developed, or not.....**9**

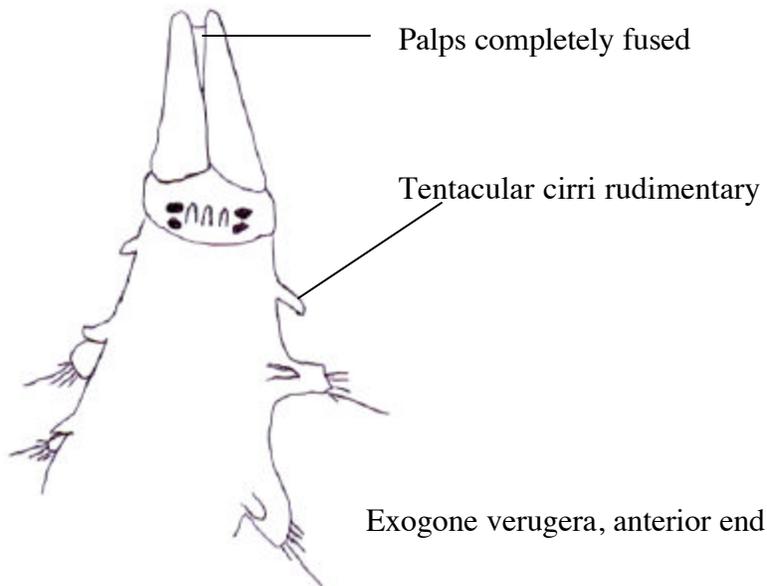
**8a.** 4 eyes present; spherical parapodial glands, containing needle-like rods present, beginning on setiger 4.....**Sphaerosyllis taylori**

**b.** 6 eyes present; spherical parapodial glands completely absent .....**Sphaerosyllis longicauda**

**9a.** Palps fused on basal third only (see below); tentacular cirri well developed (see below); *helpful hint*: dorsal cirri present on setiger 2.....**Parapionosyllis longicirrata**



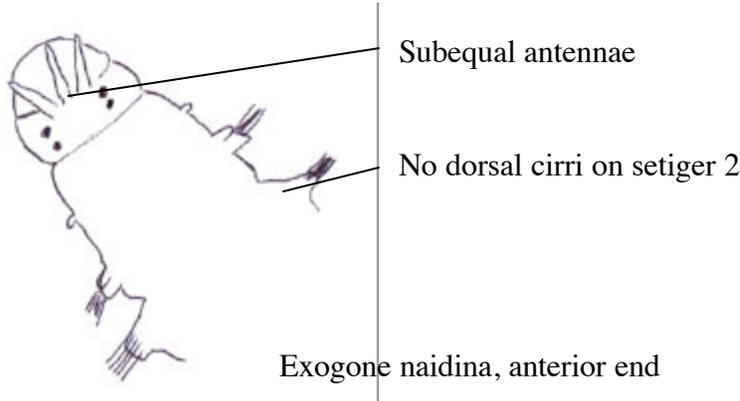
**b.** Palps completely fused (see below); tentacular cirri rudimentary (see below); *helpful hint*: dorsal cirri present or not on setiger 2.....**10**



**10a.** All 3 prostomial antennae are minute and subequal, much shorter than the length of the prostomium.....**Exogone verugera**

**b.** At least one prostomial antennae is long, exceeding the length of the prostomium...**11**

**11a.** All 3 antennae on the prostomium are subequal in length (see below); *helpful hint*: dorsal cirri absent from setiger 2.....**Exogone naidina**



**b.** Median antennae is longer than two lateral antennae; *helpful hint*: dorsal cirri present or not on setiger 2.....**12**

**12a.** Dorsal cirri present on setiger 2 anterior parapodia with three types of setae: simple curved upper one, compound spinigers, and compound falcigers .....**Exogone dispar**

**b.** Dorsal cirri absent from setiger 2; anterior parapodia with all setae as compound falcigers.....**Exogone hebes**

**13a.** Most dorsal cirri are clearly articulated, resembling a string of beads; *helpful hint*: antennae and tentacular cirri may or may not be articulated as well.....**14**

**b.** Most dorsal cirri are smooth, or with indistinct articulation; *helpful hint*: antennae and tentacular cirri never are articulated.....**19**

**14a.** Antennae, tentacular cirri, and first two pairs of dorsal cirri are not distinctly articulated; worm is small, less than 5 mm in length.....**15**

**b.** Antennae, tentacular cirri and first two pairs of dorsal cirri are distinctly articulated; worm is usually large, 10 mm or more in length.....**16**

**15a.** Palps are short and scarcely visible dorsally; upper simple setae with bifurcated tips.....**Streptosyllis verrilli**

**b.** Palps are large and clearly visible dorsally; upper simple setae with rounded tips.....**Syllides fulvus**

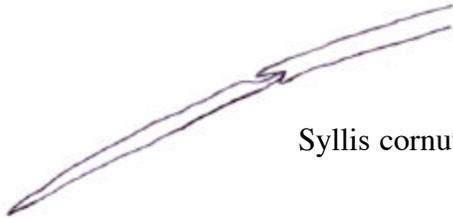
**16a.** All setae are simple.....**Haplosyllis spongicola**

**b.** Some setae are compound. ....**17**

**17a.** Setae as follows: anterior setae entirely composite falcigers, replaced by thick simple setae beginning on setigers 14-21, posterior as composite falcigers and slender simple setae.....**Syllis gracilis**

**b.** Setae otherwise, specifically: all parapodia have compound setae, and simple setae present posteriorly only.....**18**

**18a.** Some compound setae with elongated, spinigerous blades (below)....**Syllis cornuta**



Syllis cornuta, compound spiniger

**b.** All compound setae with shorter, falcigerous blades (below).....**Syllis hyaline**



Syllis hyaline, compound falciger

**19a.** Antennae subequal to, or slightly exceeding the length of the palps, and dorsal cirri on setiger 1 subequal to, or slightly exceeding the length of the setae on setiger 1.....**20**

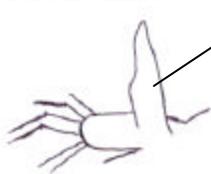
**b.** Antennae greatly exceeding the length of the palps, and/or the dorsal cirri on setiger 1 greatly exceeding the length of the setae on setiger 1.....**22**

**20a.** Dorsal cirri absent from setiger 2; *helpful hint*: fresh specimens without distinct eyespots.....**Brania wellfleetensis**

**b.** Dorsal cirri present on setiger 2; *helpful hint*: fresh specimens with distinct eyespots.....**21**

**21a.** Dorsal cirri abruptly truncate at tips; compound falcigers with unidentate blades; *helpful hint*: prostomium with only 4 eyes.....**Brania pusilla**

**b.** Dorsal cirri taper to a tip (see below); compound falcigers with minutely bidentate blades; *helpful hint*: prostomium with 4 eyes, and 2 small eyespots near the bases of the lateral antennae.....**Brania clavata**



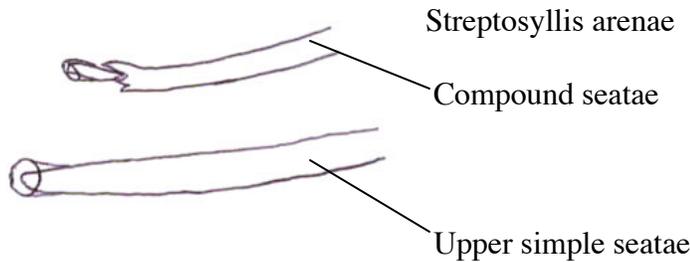
Dorsal cirri taper to a tip

Brania clavata, middle parapodia

**22a.** Setigers 2 to 5 with enlarged acicula, with knobbed tips; *helpful hint*: some dorsal cirri may appear to be articulated..... **23**

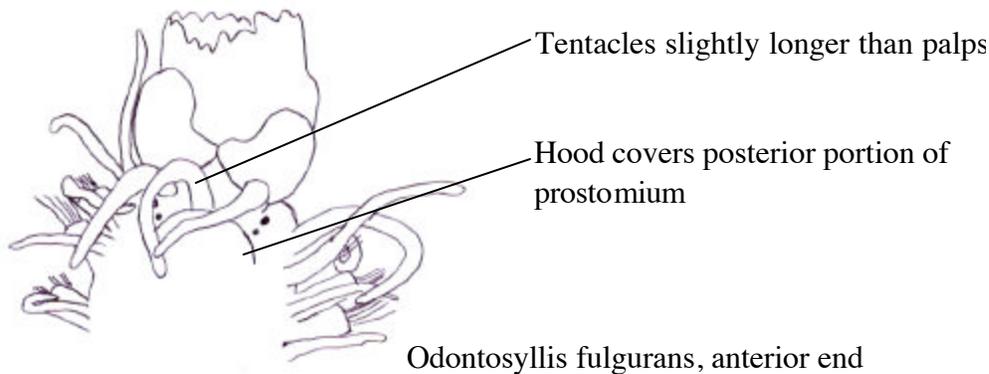
**b.** Acicula in setigers 2 to 5 otherwise; *helpful hint*: all dorsal cirri are smooth, or slightly wrinkled..... **24**

**23a.** Compound setal blades with distinctive circular hoods at tips; upper simple setae with circular, or semi-circular hood on tips (see below)..... **Streptosyllis arenae**



**b.** Compound setal blades with bifid tips after setiger 5 or 6; upper simple setae with hood that is excavate at the tips..... **Streptosyllis pettibonae**

**24a.** Tentacles on prostomium are short, slightly longer than the lengths of the palps (see below); tentacular segment with a hood that covers the posterior portion of the prostomium (see below)..... **Odontosyllis fulgurans**



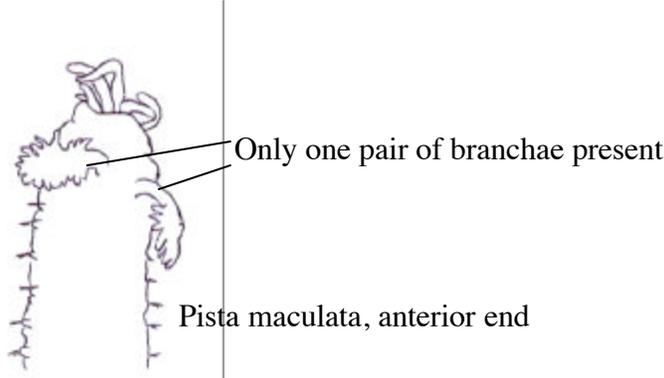
**b.** Tentacles on prostomium are long, greatly exceeding the length of the palps; tentacular segment without hood..... **Eusyllis lamelligera**

## Terebellidae

**1a.** Branched branchiae present on anteriormost segments ..... **2**

**b.** Branchiae absent from anteriormost segments; *helpful hint* branchiae-like notopodia may be present in middle region, beginning on about segment 9..... **8**

**2a.** Only one pair of branched branchiae present on second segment (see below); *helpful hint*: numerous small eyespots present on first segment, in fresh specimens  
 .....**Pista maculata**

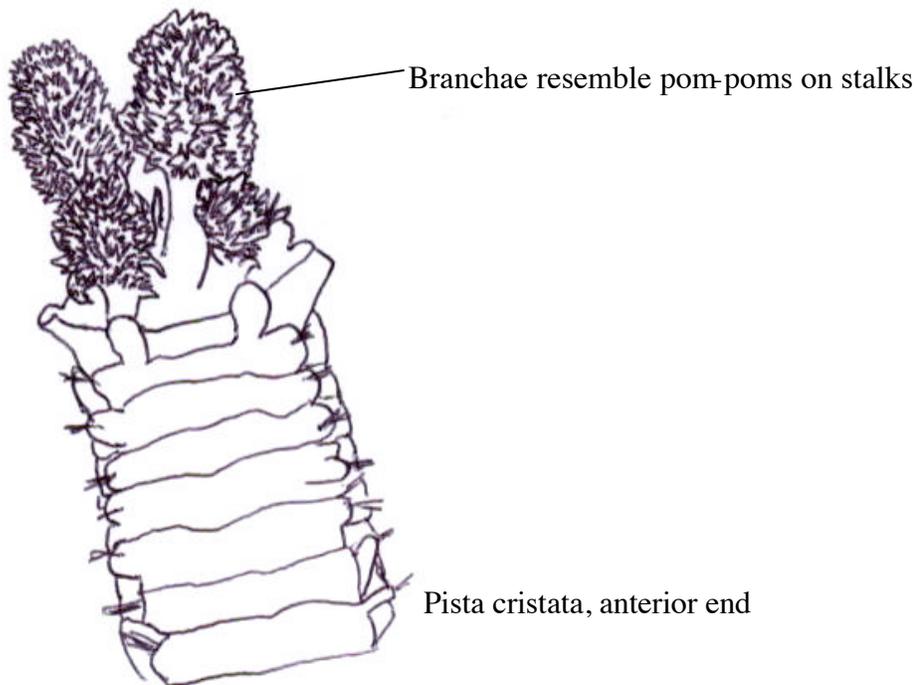


**b.** Two to three pairs of branched branchiae present on more segments; *helpful hint*: small eyespots present or absent in fresh specimens.....**3**

**3a.** Two pairs of branchiae present on segments 2 and 3.....**4**

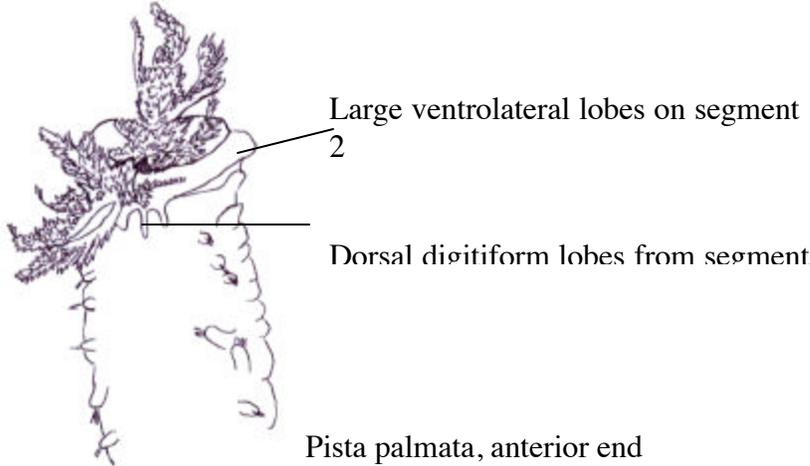
**b.** Three pairs of branchiae present on segments 2, 3 and 4.....**6**

**4a.** Branchiae spirally branched, resembling oval pom-poms on long stalks (see below)  
 .....**Pista cristata**



**b.** Branchiae are arborescent, not resembling pom-poms.....**5**

**5a.** Lateral lobes originating from segment 3 form small, digitiform lobes dorsally, directly posterior to branchiae (see below); first row of uncini without long necks; numerous eyespots absent from segment one in fresh specimens; *helpful hint*: segment two with large ventrolateral lobes (see below).....**Pista palmata**

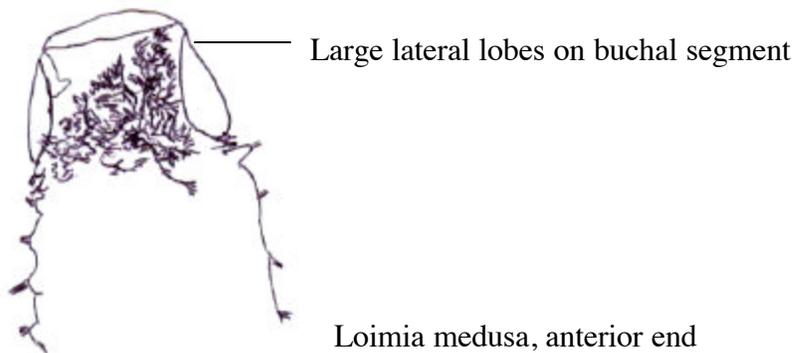


**b.** Lateral lobes from segment 3 not forming digitiform lobes dorsally; first row of uncini with long necks; numerous eyespots present on segment one in fresh specimens; *helpful hint*: segment 2 with small, or no ventrolateral lobes.....**Pista quadrilobata**

**6a.** Notopodia present on 17 segments only.....**7**

**b.** Notopodia present on 40 to 50 segments.....**Amphitrite ornata**

**7a.** Uncini with 4 to 6 teeth; *helpful hint*: buchal segment with large lateral lobes (see below).....**Loimia medusa**



**b.** Uncini with 6 to 8 teeth; *helpful hint*: buchal segment with small lateral lobes. ....**Loimia viridis**

**8a.** Branched, branchiae-like notopodia present in middle region, starting at about segment 9.....**Enoplobranchus sanguineus**

**b.** Notopodia in middle region not branchiae-like. ....**9**

**9a.** Uncini completely absent; notosetae very fine, and not immediately obvious.....**Lysilla alba**

**b.** Uncini present; notosetae readily apparent; *helpful hint*: uncini may be inconspicuous. ....**10**

**10a.** Thorax with 16 or more notosetae; uncini begin on setiger 7 to 9 .....**Polycirrus eximius**

**b.** Thorax with 11 to 13 notosetae; uncini begin on setiger 15 to 16 ...**Polycirrus medusa**

### **Trichobranchidae**

**Terebellides stroemi** is the only species from Virginia