

**KEY TO THE CHAETOPTERIDAE OF POINT LOMA**

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12/93

1. Ventrum without color pattern; setiger 4 with several major spines ..... 2  
 Ventrum with a combination of brown and chalky white color pattern (Fig. 2); setiger 4 with one major spine ..... 3
2. Palps short, generally not reaching beyond setiger 6; peristomium reduced dorsally and ventrally into a thin "lip"; notopodia dorsally produced, long and tapered (Fig. 1) ..... *Chaetopterus variopedatus*  
 Palps long, generally reaching to mid-body region; peristomium broad, well developed with dorso-lateral incision forming a mid-dorsal protuberance; notopodia not long and tapered (Fig. 2) ..... *Mesochaetopterus* sp.
3. Ventrum with dark brown band on setigers 6 & 7; setigers 7-11 chalky white; prominent peristomial flaps present; prostomium without antennae; eyes present (Fig. 3) ..... *Spiochaetopterus costarum*  
 Ventrum with light brown band beginning on setiger 5; setigers 6-9 (occasionally 6-11) chalky white; antennae present; eyes present or absent (Figs. 4 & 5) ..... 3
4. Eyes present; setiger 5 light brown and setigers 6-9 (occasionally 6-11) chalky white (Fig. 4) .. *Phyllochaetopterus prolifica*  
 Eyes absent; setigers 5 & 6 light brown and setigers 6-8 chalky white (Fig. 5) ..... *Phyllochaetopterus limicolus*

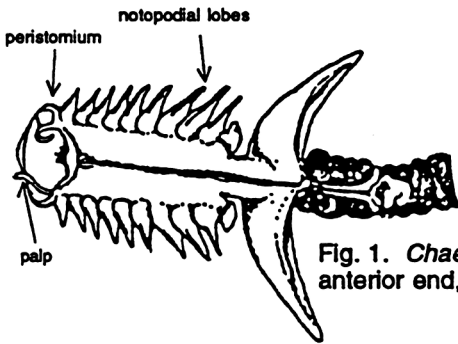


Fig. 1. *Chaetopterus variopedatus*: anterior end, dorsal view.

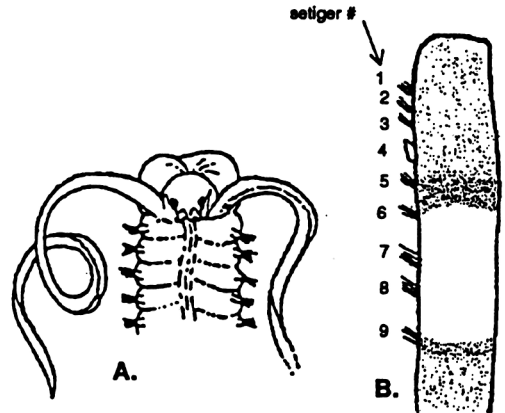


Fig. 4. *Phyllochaetopterus prolifica*: A. anterior end, dorsal view; B. anterior end, ventral view.

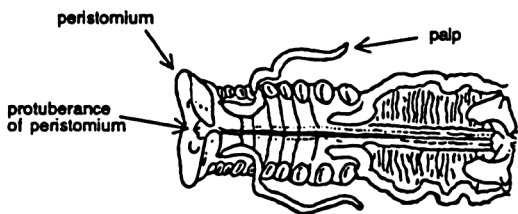


Fig. 2. *Mesochaetopterus* sp.: anterior end, dorsal view.

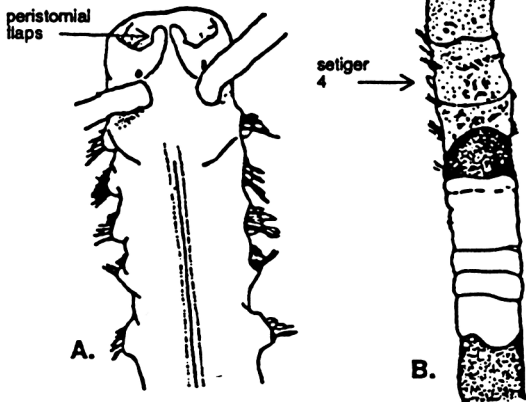


Fig. 3. *Spiochaetopterus costarum*: A. anterior end, lateral view; B. anterior end, ventral view.

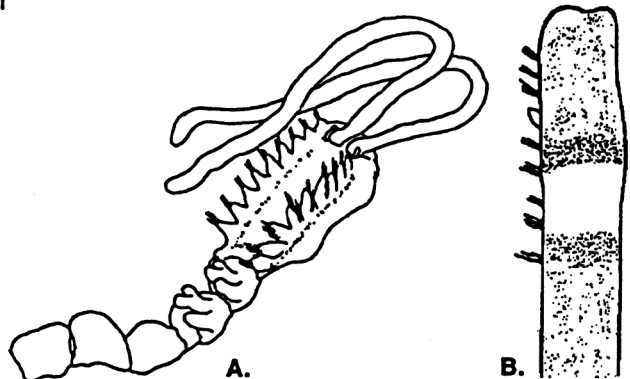


Fig. 5. *Phyllochaetopterus limicolus*: A. anterior end, lateral view; B. anterior end, ventral view.

## NOTES ON THE CHAETOPTERIDAE FROM POINT LOMA

### Problems Associated with Chaetopterid Taxonomy

Kudenov (1975) recognized that the tubicolous habits of chaetopterids frequently causes poor preservation, making identification that relies primarily on soft body parts difficult. Hartman (1969), Hobson and Banse (1981), and Uebelacher and Johnson (1984), for example, use the shape of the notopodia in the mid-body region, the presence/absence of the small tentacles at the base of the palps, and the length of the palps to distinguish genera. They also use the shape and texture of the tubes for identification. We have found these characters unsatisfactory for identifying many of our chaetopterid specimens.

We do not always have adequate preservation of animals within their tubes, nor do we ever get entire tubes - not only do the processes of sampling and screening destroy tubes, but, in the process of sorting many specimens are removed from their tubes or the tube is broken down to a smaller size that fits the animal. The key uses several characters, such as the presence or absence of a color pattern on the ventrum, the specific color pattern, the presence/absence of eyes, and the number of major spines on setiger 4 to distinguish the common species.

### Variations in Color Patterns

Of the characters listed above, ventral color pattern may cause the greatest confusion. The color patterns that we describe differ somewhat from those listed in Hartman's Atlas. For example, Hartman (1969) states that the brown coloration of *Phyllochaetopterus limicolus* occurs on setigers 3-5, whereas we describe the brown coloration on setigers 5 and 6. The setigers of several species are indistinct ventrally, and the setiger on which a pigment patch begins may be difficult to discern, consequently, the beginning or the end of a patch of color may not always appear as described. We tried to be consistent in describing each color patch from the setiger upon which its most anterior edge first appears.

### Notes on Individual Species

#### *Chaetopterus variopedatus* (Renier, 1804)

*Chaetopterus variopedatus* has been regarded as a monotypic, cosmopolitan species. Mary Peterson is presently working on a revision of the genus, apparently having documented several differences between North American specimens and the type material. We will continue to record our specimens as *C. variopedatus* until the revision of the genus is published.

#### *Mesochaetopterus* sp.

Our specimens of *Mesochaetopterus* appear to be intermediate between *M. taylori* and *M. rickettsii* but they are poorly preserved and incomplete. Our specimens have six mid-body segments, whereas *M. taylori* has three and *M. rickettsii* is reported to have more than 10, and as many as 21. Additionally, Hartman (1969) reports *M. taylori* and *M. rickettsii* from intertidal sands, and low intertidal and estuarine muds, respectively, while our specimens have been collected from silty sediments at approximately 60 m. For the time being our specimens will be designated as *Mesochaetopterus* sp., until further work can determine the status of our specimens.

