

SCAMIT CODE: None

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SYNONYMY: *Prochaetoderma californicum* Schwabl 1963

LITERATURE: Schwabl, 1963; Scheltema, 1985; Scheltema 1998

DIAGNOSTIC CHARACTERS:

1. Body not regionated, tapering relatively evenly from front to back (Figure A)
2. Oral shield divided into two hemispheres surrounding mouth (prochaetodermatids), two rows of enlarged spicules lateral to shield (Figure C)
3. Shank variable in length, typically between 1.5-3x length of knob; shank diameter about 1/3 diameter of trunk; knob diameter more than half that of trunk
4. Color always whitish silver, uniform throughout body; lacking ferric incrustations seen in some other chaetodermomorph species (especially *Limifossor*)
5. Posterior knob with protrusive spicular fringe. Fringe spicules originate about midway on the knob, and are straight to slightly divergent (Figure B)
6. Body spicules are waisted at about 55-60% of length; bent laterally distal to waist by 3-8 degrees; lacking ridges or chevrons; thickest centrally with thin edges (Figure F). Spicules are normally held closely adherant to body axis; only specimens damaged by rough handling will appear to have any degree of spicular shagginess
7. Radula distichous, with each radular tooth strongly curved medially with denticles along inside of curve (Figure G). Paired jaws are robust, much larger than the radula, with recurved masticatory borders (Figures D and E)

RELATED SPECIES AND CHARACTER DIFFERENCES:

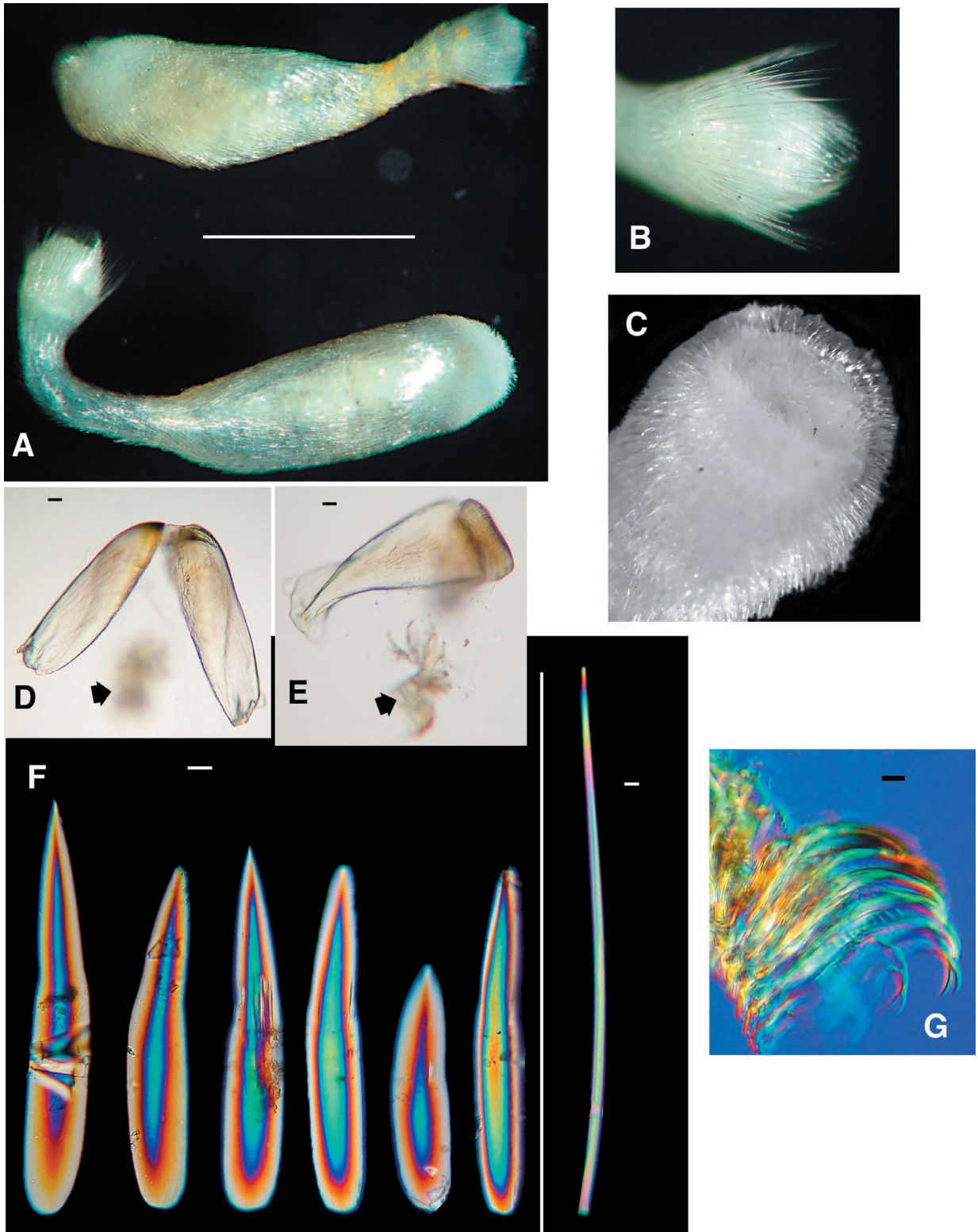
1. Differs from *Spathoderma* sp A in color, in being more tapered, with a more gradual transition between the trunk and the shank; in the orientation of the spicular fringe; and in the degree of lateral bend in the body spicules. Jaw and radular differences probably also are present, but those structures are yet to be examined for *S.* sp A.
2. Differs in size and detailed structure of body spicules from several other provisional species of *Spathoderma* from the Gulf of the Farallones and from off Oregon according to Scheltema. These very similar species are not known to occur south of Point Conception. The only prochaetodermatids known from the Southern California Bight are this species and *Spathoderma* sp A.

DEPTH RANGE: 500 - 1800m

DISTRIBUTION: Upper and mid Continental Slope; Southern California Bight to Monterey Bay

DISCUSSION: Because the species is fairly diminutive it is better retained on a 0.5mm screen. It is not uncommon in the above depth range, and shows some indication of being more prevalent in areas of glass sponge occurrence (Schwabl 1963). This was the first described prochaetodermatid from the North East Pacific, and remains the only well known one. There are apparently several closely related species that occur to the north of Point Conception in the Gulf of the Farallones and off Oregon. These species apparently can only be separated based on size differences in the spicules, and in details of the radula (Scheltema 1998). Another related species from 950m off Oregon is similar, but has a very elongate body relative to the other

*Spathoderma* species. Also off Oregon there is a species, probably a *Niteomica*, which can be distinguished externally by the attitude, length, and point of origin of the spicular fringe on the knob. Additional separatory characters must await detailed examination of jaws, radulae, and spicules of all these forms. The NEP prochaetodermatid fauna, which currently consists of *S. californicum* and *Chevroderma whitlatchi* from several thousand meters of water, will become diverse once these additional forms are described.



*Spathoderma californicum* (Schwabl 1963) A. Whole animal, lateral view (scale bar 1mm) B. Posterior lateral view C. Anterior view D. Jaws side view E. Jaws medial view (arrows indicate radula) F. Spicules G. Radula enlarged view (scale bars 0.01mm) (Sta. GCT2, 643m, IV 0.5a, 24Mar03)