

SCAMIT CODE: None

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Voucher By: K. Barwick/D. Cadien

SYNONYMY: *Chaetoderma nanula* Heath, 1911

Chrystallophrisson riedli Schwabl, 1963 (in part)

Chrystallophrisson rubrum Schwabl, 1963

Chrystallophrisson scabrum of Schwabl, 1963 (in part) not Heath, 1911

LITERATURE: Heath, 1911; Schwabl, 1963; Scheltema, 1998

DIAGNOSTIC CHARACTERS:

1. Body regionated, relatively short, with BLI of 3.7-8.6; neck wider than anterior trunk and about as wide as posterior trunk (Figure A); anterior trunk varies between shorter than and longer than posterior trunk, with larger individuals having a longer anterior trunk.
2. Oral shield wider than tall, dorsally incised, with small indistinct dorsal lobes (Figure D); shield about $\frac{1}{2}$ the diameter of the expanded anterium (Figure A).
3. Posterium only slightly flared, if at all; spicular fringe long, projecting well beyond flat peribranchial plate (Figure E); no peribranchial skirt evident; peribranchial plate with radiating spicules.
4. Radular denticles plate-like, slightly curved; radular cone tapering evenly from non-bulbous base; cone width in frontal and lateral views about equal (Figure B).
5. Mid-anterior trunk spicules flared at base, then tapering evenly throughout their length; with central keel and thickened margins, but lacking lateral ridges, with thickened bases (Figure C).

RELATED SPECIES AND CHARACTER DIFFERENCES:

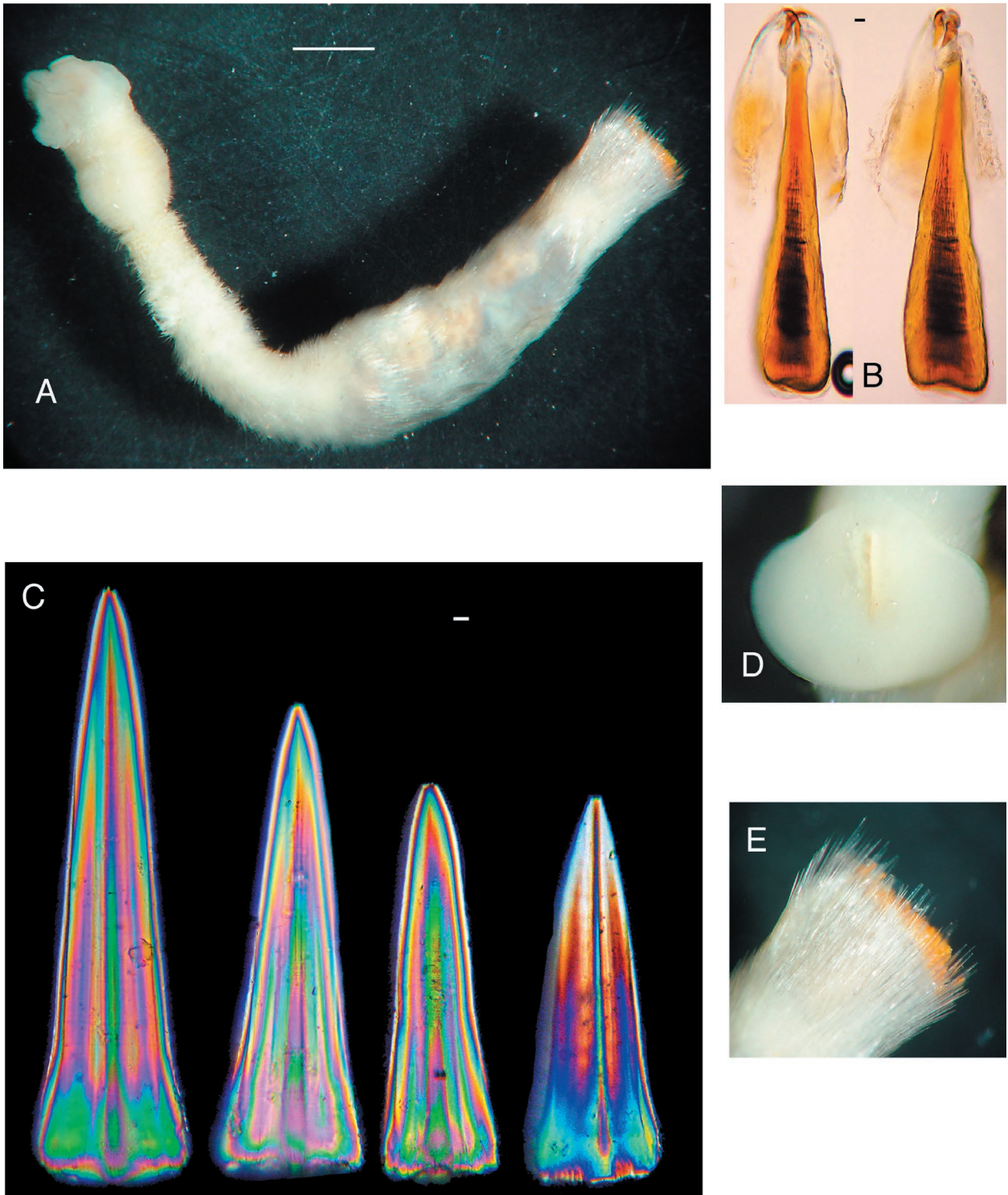
1. *Chaetoderma nanulum* is one of the short-bodied group (BLI < 10) of chaetoderms in the NEP. Other members are *C. californicum*, *C. recisum*, *C. scabrum*, *C. sp A*, *Falcidens longus*, and *F. macracanthos*. Many characters are convergent among these species, but they can be differentiated with combinations of characters.
2. *C. californicum* differs from *C. nanulum* in having: a much smaller anterium, shorter neck spicules, longer spicular fringe on the posterium, and spicules which lack thickened edges.
3. *C. recisum* differs from *C. nanulum* in having: an entire unincised oral shield, an anterior trunk narrower than either the neck or posterior trunk, and in spicules lacking thickened edges.
4. *C. scabrum* differs from *C. nanulum* in having: an entire unincised oral shield, very small radular denticles, a radular cone curved in lateral view, and spicules with a broader stronger central keel.
5. *C. sp A* differs from *C. nanulum* in having: an entire unincised oral shield, posterium with an annular expansion, very short spicular fringe on the posterium, and a radular cone curved in lateral view.
6. *Falcidens longus* differs from *C. nanulum* in having the anterior trunk significantly longer than the posterior trunk, in having shorter anterior trunk spicules, in having large sickle-shaped radular denticles, and in bearing a triangular plate between them.

7. *Falcidens macracanthos* differs from *C. nanulum* in having the oral shield taller than wide, neck narrower than anterior trunk, anterior trunk with longer spicules which are not edge thickened and basally expanded, large sickle-shaped radular denticles, and a triangular plate between them.

DEPTH RANGE: 160 - 1843m

DISTRIBUTION: Outer continental shelf and upper continental slope; Southern California Bight to Santa Maria Basin

DISCUSSION: Several of the species mentioned above are known from single specimens and may have a broader range of variability than is currently recognized. Since *C. nanulum* appears to be particularly variable in anterior trunk length it may overlap more with these species than is currently appreciated. *Chaetoderma* sp A, for instance is known from a single specimen, as is *C. recisum*. The case of *C. recisum* is particularly difficult since Schwabl's original description was not detailed, and no radular description was provided. The type could not be located at the Natural History Museum of Los Angeles County for reexamination and photography.



Chaetoderma nanulum Heath 1911 A. Whole animal, lateral view (scale bar 1mm) B. Radula frontal and lateral views C. Spicules from mid-anterior trunk (scale bar 0.01mm) D. anterior view E. Posterior lateral view (location unknown)