

SCAMIT CODE: None

Date Examined: 05 April 2005

Voucher By: K. Barwick/D. Cadien

SYNONYMY: *Crystallophrisson hancocki* Schwabl, 1963
Crystallophrisson inflatum Schwabl, 1963
Crystallophrisson rectum Schwabl, 1963 (in part)
Crystallophrisson riedli Schwabl, 1963 (in part)

LITERATURE: Schwabl, 1963; Scheltema, 1998

DIAGNOSTIC CHARACTERS:

1. Body regionated; anterium inflated, often wider than posterior trunk (Figure A), set off from neck by pronounced constriction; neck shorter than anterium, about the same diameter as anterior trunk but differentiated from it by a second constriction; anterior trunk longer than posterior trunk.
2. Oral shield about as high as wide, dorsally incised (Figure C), with pronounced dorsal lobes; about ½ the diameter of the inflated anterium.
3. Posterium short, not or only slightly flaring, with short spicular fringe and broad spicule free peribranchial skirt (Figure D); peribranchial plate nearly flat, branchial opening barbell shaped. Gills, if protruded, normally held against peribranchial plate.
4. Radula with small denticles; radular cone tapering moderately in frontal view (Figure E), tip slightly curved in lateral view; cone slightly wider in lateral view when compared to frontal view.
5. Mid-anterior trunk spicules long, relatively coarse, tapering nearly evenly over length, with slight keeling and ridging basally; spicules distally nearly flat, with both keel and ridges fading out. Distal half thickest part of spicule. (Figure B).

RELATED SPECIES AND CHARACTER DIFFERENCES:

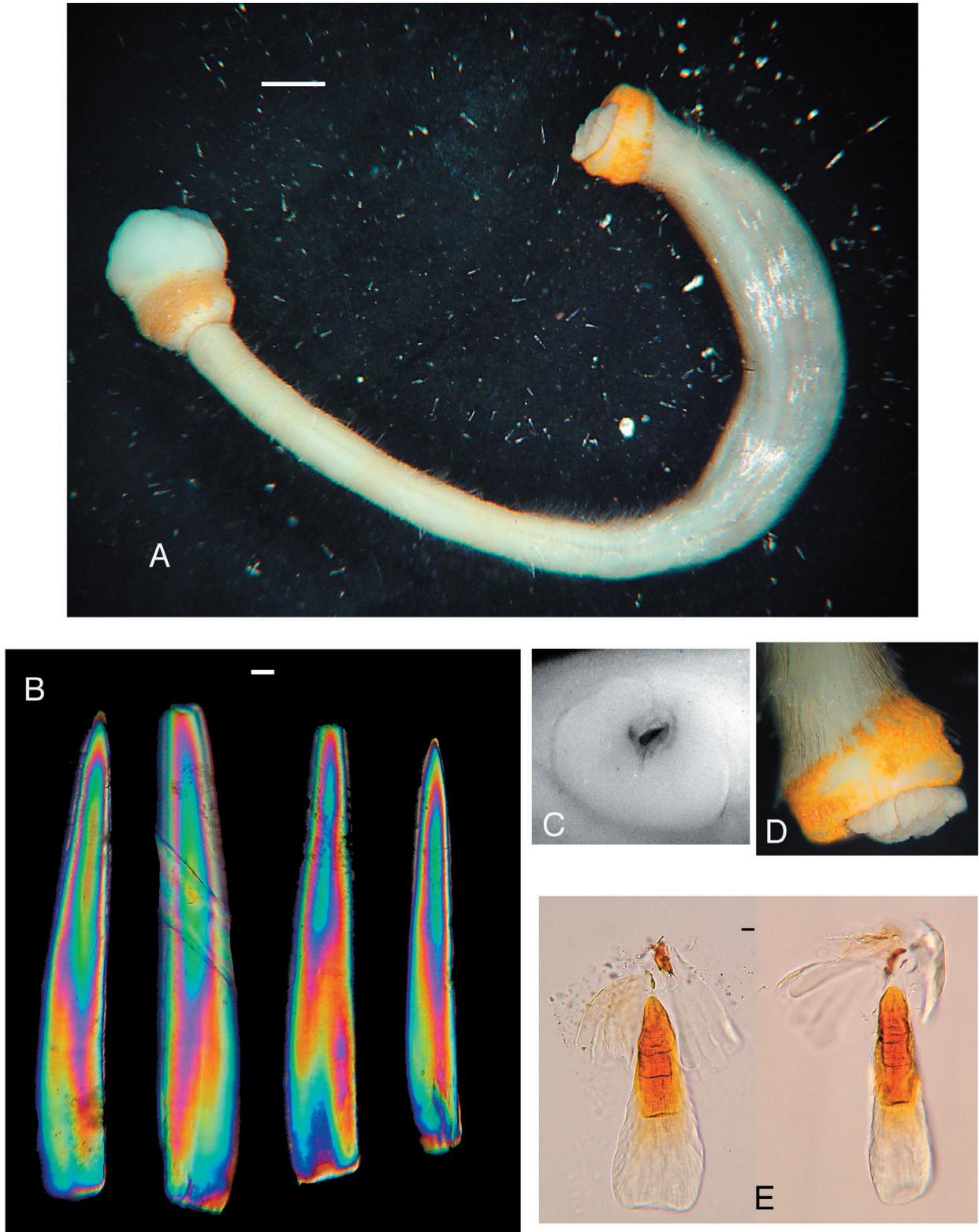
1. *Chaetoderma hancocki* belongs to the elongate group of NEP *Chaetoderma*, with BLIs of 10 or more, which includes also *C. elegans*, *C. marinelli*, and *C. pacificum*. It can be distinguished from these species by a combination of characters. *C. hancocki* is less attenuate (although larger) than *C. elegans* with BLIs of 7.4-17.1 rather than 20.6-22.9, and lacks the right angle orientation of the anterium found in that species. It also differs from *C. elegans* in having a spicule-free peribranchial skirt, and very short fringing spicules on the posterium.
2. Differentiating characters separating *C. hancocki* from *C. marinelli* are the inflated anterium, the spicule free peribranchial skirt, the short spicular fringe of the posterium, the strongly keeled and ridged spicules, the anterior trunk significantly (20% or more) longer than the posterior trunk, and *C. marinelli*'s basally inflated (anterior view) and strongly tapering radular cone
3. *Chaetoderma pacificum* and *C. hancocki* are quite similar in external appearance but can be separated by (in *C. hancocki*) presence of a well defined constriction between the anterium and neck, anterior trunk significantly longer than posterior trunk, oral shield about as high as wide, shorter posterium spicular fringe, flatter spicules with keel and ridges reduced, and larger radular denticles

4. While *Falcidens longus* can also be confused with *C. hancocki*, it typically has a lower BLI although the two species overlap in BLI range (5.5-8.9 vs. 7.4-17.1). *C. hancocki* differs from it in having large well-defined dorsal lobes on the oral shield, a more inflated anterium, a short spicular fringe on the posterium, a spicule free peribranchial skirt, a convex peribranchial plate, a barbell shaped branchial aperture, less sculptured spicules, smaller radular denticles which are not sickle-shaped, and in lacking a triangular plate in the radula

DEPTH RANGE: 480 - 1830m

DISTRIBUTION: Southern California Bight continental slope

DISCUSSION: Among local *Chaetoderma* species, *C. hancocki* is particularly large, with specimens of 4cm or more not uncommon. Scheltema (1998) lists its length up to 45mm, but larger specimens also occur. One giant taken at 830m off Palos Verdes was 73mm in length, and had lost nearly all of its spicules. As a true slope species, *C. hancocki* is usually found in silty and/or clayey sediments. Synonymy of several of Schwabl's (1963) new species with *C. hancocki* was based on reexamination of type material, or by inference from similarity of description where type material was no longer extant (Scheltema 1998).



Chaetoderma hancocki (Schwabl 1963). A. Whole animal, lateral view (scale bar 1mm) B. Spicules from mid-anterior trunk C. Anterior view D. Lateral posterior view E. Radula lateral and frontal views (scale bars 0.01mm) (Bight 2003 Sta. 4249 23JUL03, 630m)