

SCAMIT CODE: None

Date Examined: 5 April 2005

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SYNONYMY: None

LITERATURE: Scheltema 1998

DIAGNOSTIC CHARACTERS:

1. Anterium bent at 90° angle to neck, wider than neck (Figure A)
2. Animal very long and slender (Figure A), BLI 20-23; anterior trunk very long, around twice the length of posterior trunk; anterior trunk shaggy, with short spicules attached at large angles to body axis; posterior trunk smooth, with short spicules nearly parallel to body axis
3. Posterium small, barely set off from posterior trunk by slight constriction; spicular fringe flaring slightly; fringe spicules of intermediate length, extending part way along the convex peribranchial plate; peribranchial plate with adpressed spicules in roughly radial array (Figure C)
4. Oral shield deeply incised, somewhat wider than high, with small dorsal lobes (Figure B)
5. Radula with well developed denticles; radula cone tapering evenly towards denticles in anterior view, broader in lateral than in anterior view; slightly convex anteriorly in lateral view (Figure D)
6. Mid-anterior trunk spicules with well defined carina and numerous lateral ridges of several sizes; most of intermediate length and tapering more rapidly in distal ¼; some spicules about 30% longer than average and tapering more evenly throughout length; thickest medially (Figure E)

RELATED SPECIES AND CHARACTER DIFFERENCES:

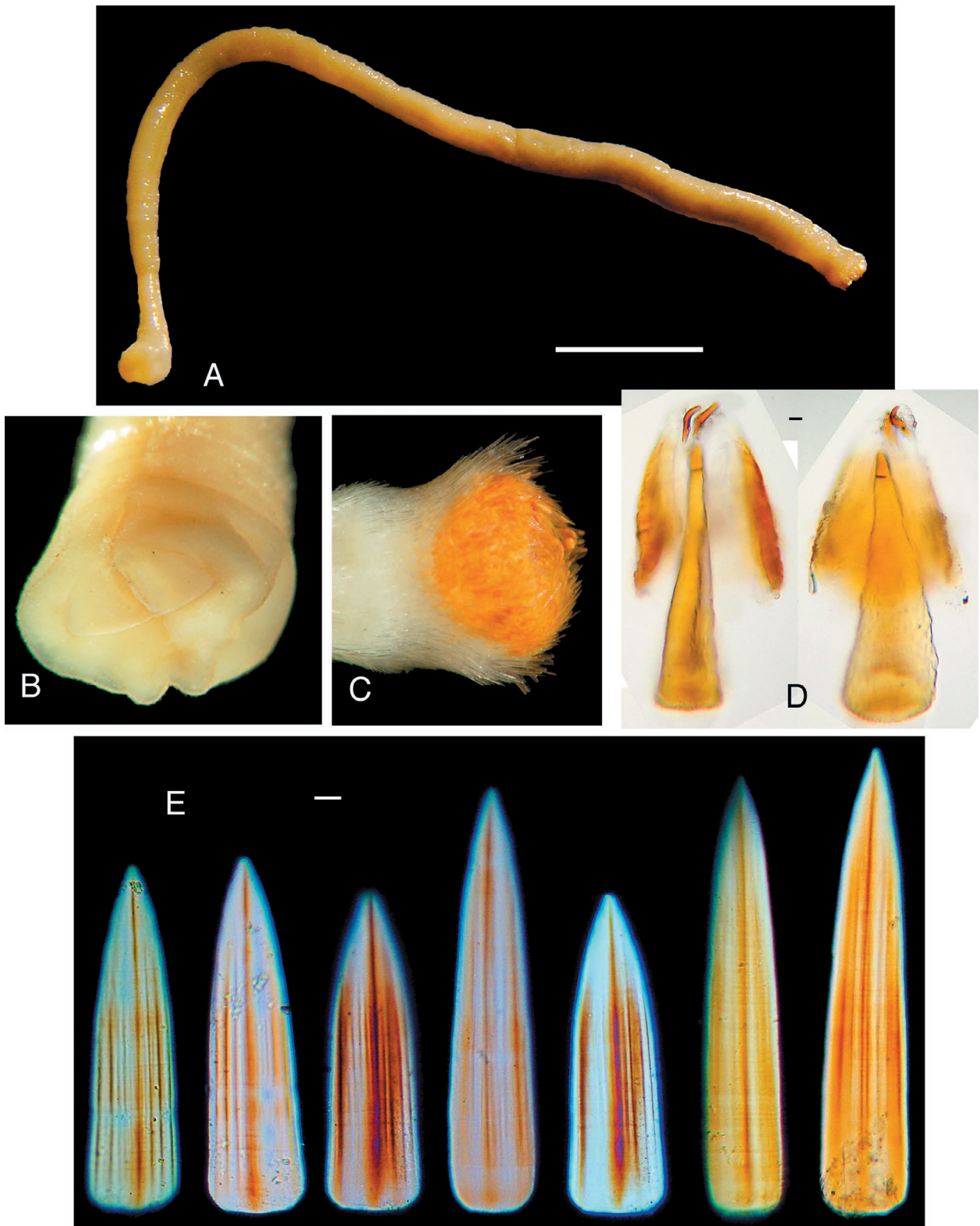
1. No other NEP Chaetoderma is as elongate as *C. elegans*, and none has a right angle turn to the somewhat inflated anterium. The most similar form would be *C. hancocki*, which is much less elongate (but BLI can reach 17 in particularly long adult specimens), but also has an inflated anterium which can be held at a small angle to the body axis. The latter species also differs from *C. elegans* in having large dorsal lobes on the oral shield, in having a spicule-free skirt around the peribranchial plate; in having a barbell shaped branchial aperture; and in having a very short spicular fringe on the posterium. It also has spicules that lack lateral ridges or a carina.
2. *Furcillidens incrassatus*, while very inflated anteriorly, has a BLI of only 3-4, far from that of *C. elegans*. Of the three *Falcidens* species, *F. hartmanae* (BLI to 13) is clearly differentiated by its inflated anterior trunk and slender posterior trunk. *Falcidens longus*, despite its name, has a BLI ranging from 5-9, and *F. macracanthos* has its notably long fringe of perpendicular anterior trunk spicules. All are clearly very different from *C. elegans*.

DEPTH RANGE: 49- 1808m

DISTRIBUTION: San Diego to Santa Maria Basin

DISCUSSION: The BLI listed above is measured from the holotype and the specimen illustrated in Figure A. The paratype from the Santa Maria Basin listed by Scheltema (1998), the holotype, and the specimen in Figure A are the only known specimens of this species. The animal in

Figure A has been confirmed as *C. elegans* by Amélie Scheltema (personal communication 3 Nov. 2003). Given the bathymetric and geographic ranges of this animal, it is likely to be relatively uncommon, or more specimens would have been taken in regular monitoring by SCAMIT agencies.



*Chaetoderma elegans* Scheltema 1998: A. Whole animal, lateral view (scale bar 5mm) B. Anterior view C. Lateral posterior view D. Radula frontal and lateral views E. Spicules from mid-anterior trunk (scale bars 0.01mm) (CSD Sta. E2(2), 8JUL03, 97m)