

SCAMIT CODE: None

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SYNONYMY: *Falcidens* sp B SCAMIT 1985§

LITERATURE: Scheltema, 1998

DIAGNOSTIC CHARACTERS:

1. Body regionated (Figure A), BLI 5.5-8.9; anterium somewhat inflated, separated from neck by a constriction; neck short, separated from anterior trunk by constriction; anterior trunk significantly longer than posterior trunk; posterior trunk larger in diameter than any other region except anterium.
2. Posterium slightly expanded, not set off from posterior trunk by a narrowing; spicular fringe of posterium long, extending well beyond peribranchial plate (Figure C); plate flat to very slightly convex, covered with radiating spicules; no peribranchial skirt evident
3. Oral shield dorsally incised, wider than tall (Figure B), with small, poorly defined dorsal lobes; about ½ as wide as anterium.
4. Radular denticles large, sickle-shaped, and meeting at the top of the radular cone; triangular plate present (can be lost); radular cone barely tapering in frontal view (Figure D), normally tapering in lateral view; cone much narrower in frontal than in lateral view.
5. Mid-anterior trunk spicules centrally keeled, with thickened edges; a few lateral ridges may be present. Under birefringence mid-anterior spicule colors, typically are white with yellowish brown ridges with the central keel being darkest. (Figures F)

RELATED SPECIES AND CHARACTER DIFFERENCES:

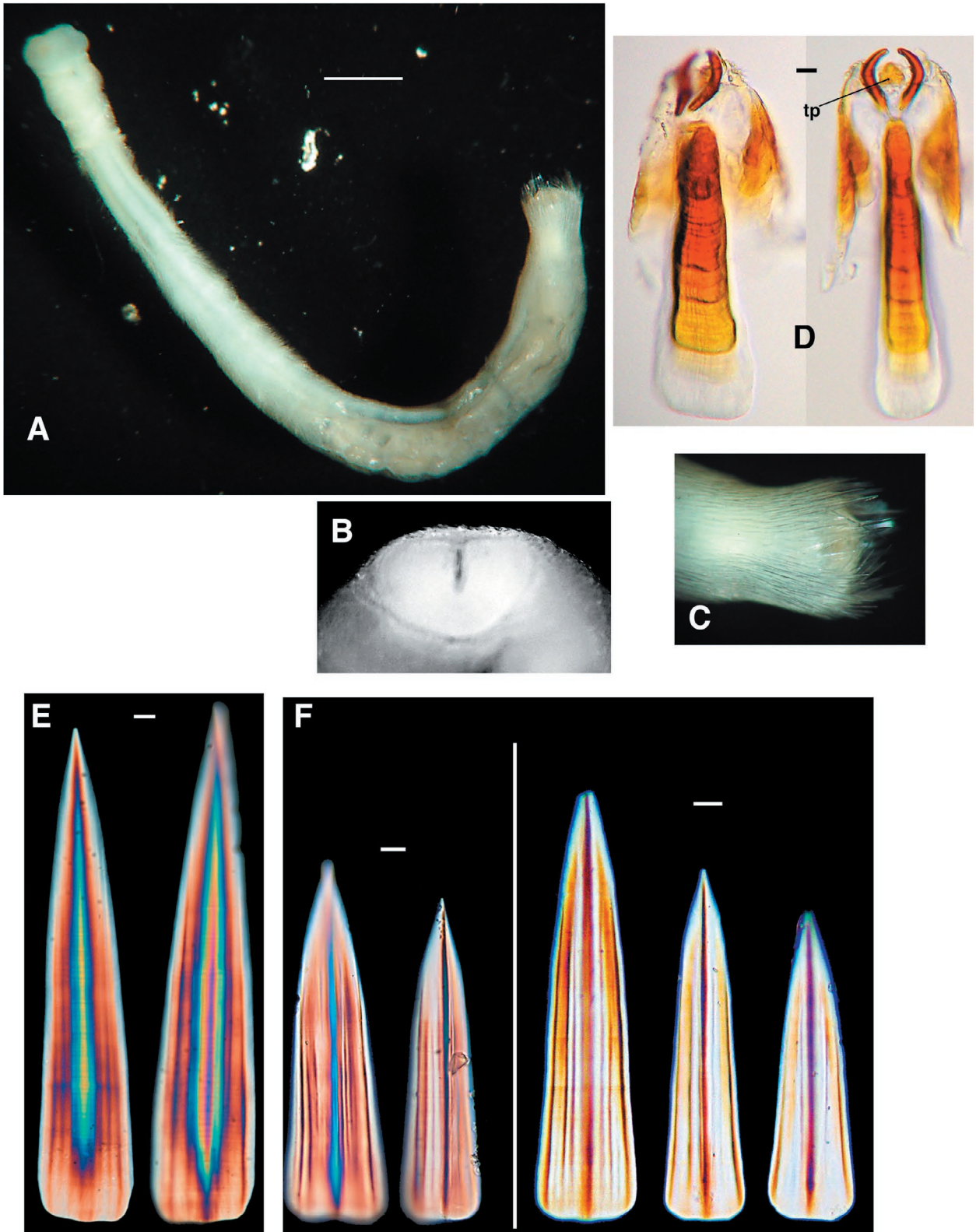
1. Despite its name, *Falcidens longus* has a BLI which places it among the short group of chaetodermomorph species in the NEP. Other members of this group are *Chaetoderma californicum*, *C. nanulum*, *C. recisum*, *C. scabrum*, *C. sp A*, and *Falcidens macracanthos*. These species can be distinguished using several characters. The birefringence images shown on figure F are typical for *F. longus*.
2. *Chaetoderma recisum*, *C. scabrum*, and *C. sp A* all have an entire oral shield which lacks the dorsal incision. They can be quickly separated from *F. longus* on this basis.
3. *Chaetoderma californicum* can be separated from *F. longus* by having: the anterior trunk shorter than the posterior trunk; anterium no wider than the neck; no constriction separating the anterium and neck; by the long spicular fringe of the posterium; by spicules with a weak central keel restricted to the distal 1/2 of spicule length; by very small radular denticles which are not sickle-shaped, and in lacking a triangular plate (can be lost in some *F. longus* however).
4. *Chaetoderma nanulum* can be separated from *F. longus* by having: anterior and posterior trunk subequal (either may be somewhat longer); no constriction separating anterium from neck; a shorter spicular fringe on the posterium; spicules that are not as strongly centrally keeled; anterior trunk spicules that are attached at large angles to body axis (but not perpendicular); radular denticles that are not large and sickle-shaped; and in lacking a triangular plate (can also be lost in some *F. longus* however).

5. *Falcidens macracanthos* can be separated from *F. longus* by: anterior trunk shorter than posterior trunk; no constriction separating anterium from neck; oral shield as tall as wide and very deeply incised; anterior trunk spicules that are attached perpendicular to the body axis and very long, extending beyond the neck diameter; radular denticles which are large, but with poorly developed handles (curved but not very sickle-shaped); a radular cone which is much broader in lateral view than in frontal view.

DEPTH RANGE: 21.5 - 1812m

DISTRIBUTION: Continental Shelf and Upper to mid Continental Slope; Southern California Bight to Vancouver Island, Canada

DISCUSSION: This sheet replaces an earlier one by Jay Shrake published in 1985 in the SCAMIT newsletter Volume 4 Number 8. The species was still undescribed at that time, and was then called *Falcidens* sp B SCAMIT 1985. While *F. longus* has a low BLI because it is both long and broad, it can be confused with members of the long group as well as members of the short group with which it was compared above. It co-occurs frequently with both *C. marinelli* and *C. pacificum* at shelf depths, and with *C. pacificum* on the upper slope. It was the most abundant species in the Bight '03 samples, and occurred at more sites than any other species of aplacophore. The fact that the triangular plate may be lacking in members of this species is troubling, but it can still be identified as a *Falcidens* by radular examination because of its large sickle-shaped radular denticles.



*Falcidens longus* Scheltema 1998 A. Whole animal, lateral view (scale bar 1mm) B. Anterior view C. Posterior lateral view D. Radula lateral and frontal views (tp, triangular plate) E. Spicules from mid-posterior trunk F. Spicules from mid-anterior trunk (horizontal scale bars 0.01mm)