

SCAMIT CODE: None

Date Examined: 05 April 2005

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SYNONYMY: Neomeniomorpha sp SD3 Barwick & Cadien 2004§

LITERATURE: Salvini-Plawen, 1967; Salvini-Plawen, 1978; Scheltema 1998

DIAGNOSTIC CHARACTERS:

1. Body un-regionated, with ventral pedal groove (indicated by arrows in Figure A); edges of pedal groove closely appressed, not evaginated to form a sharply V-shaped furrow; body round to tall-oval in cross-section; anterior and posterior ends poorly differentiated (Figure A).
2. Spicules in single imbricated layer; adpressed basally, but with pointed distal extensions of the scale-like spicules protruding from surface (visible on right side of the specimen in Figure A).
3. Spicules shield or scale-like, all distally pointed, but some drawn out into a long spine-like distal prolongation (Figure B).
4. Radula, if present, unknown.

RELATED SPECIES AND CHARACTER DIFFERENCES:

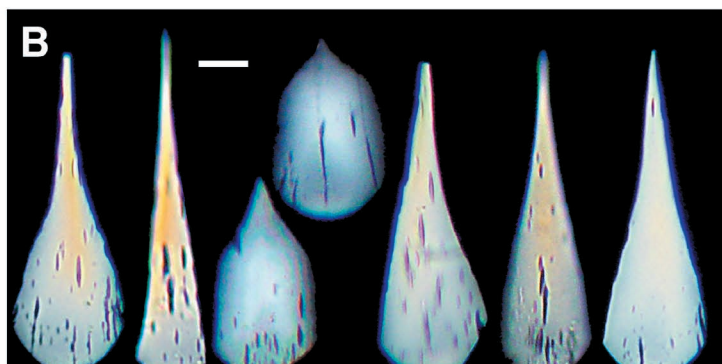
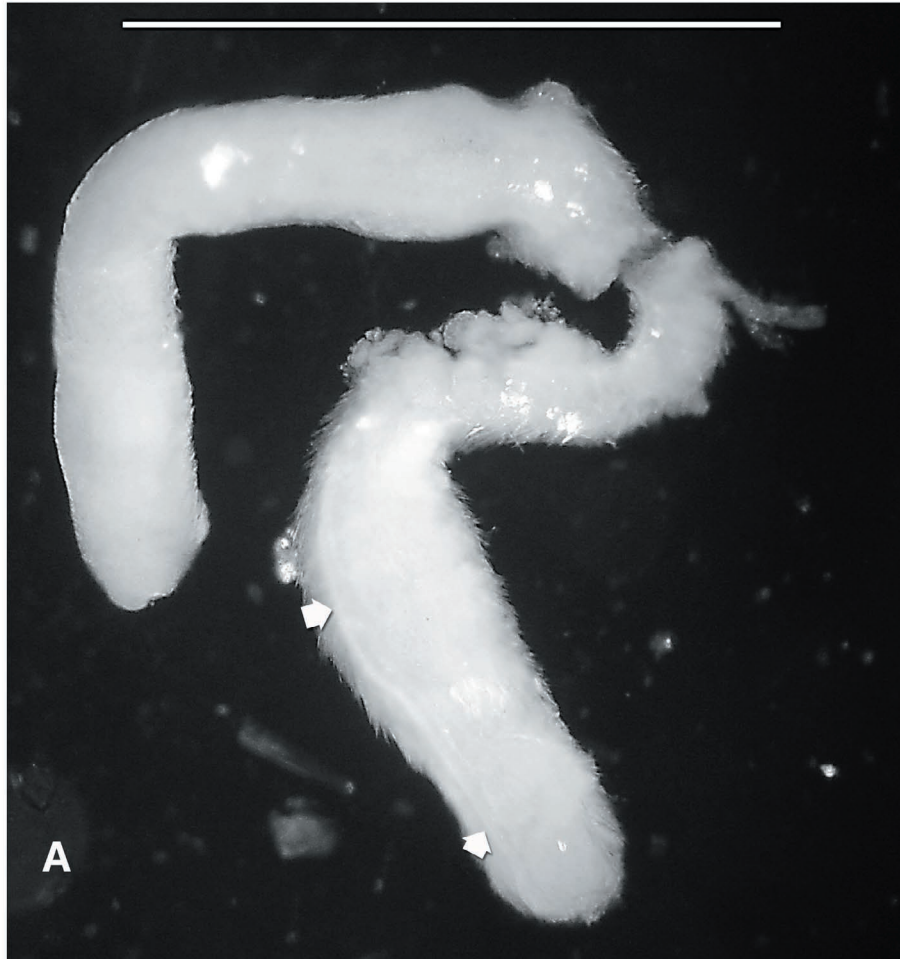
1. Neomeniomorpha sp C can be separated from Neomeniomorpha sp B, *Plathymenia branchiosa*, and *Dorymenia acuta* by having a single layer of shield-like spicules rather than hollow spine-like spicules in single or multiple layers in the epidermis.
2. It differs from Neomeniomorpha sp A and *Gymnomenia minuta* by having shield-shaped rather than tile-shaped spicules with thickened edges; and in having poorly differentiated anterior and posterior ends
3. *Nematomenia* sp (Scheltema 1998) and *Dondersia californica* both differ from Neomeniomorpha sp C by having a dorsal carina
4. Neomeniomorpha sp. (Scheltema 1998) differs from Neomeniomorpha sp C in spicule shape, with spicules shaped like long handled spoons rather than pointed scales.
5. *Heathia porosa* is similar, but can be separated by having drop shaped (rather than shield-shaped) spicules which bear longitudinal striations, and are not drawn out into elongate pointed extensions. The body of *Heathia* also has clearly distinguishable head and tail ends, the latter drawn into a finger-like pointed extremity.
6. It is very similar to *Genitoconia mariensis* and is currently distinguishable from that species only in having somewhat more attenuated spicules; tightly appressed rather than evaginated margins of the pedal groove; and in being smaller (about ½ the size).

DEPTH RANGE: 200-223m

DISTRIBUTION: Upper Continental Slope, Southern California Bight

COMMENTS: The great similarity of Neomeniomorpha sp C and *Genitoconia mariensis* will probably lead to their synonymy once both taxa are better defined. Scheltema's description provides some detail, but not enough to have a thorough appreciation of what her species represents. Since we only had two specimens taken in the Bight '03 program, both very small, no dissections or sectioning has been attempted on Neomeniomorpha sp C. Without knowledge

of the radula and copulatory spine configuration it would be premature to allot our two Bight '03 specimens to the existing species, and we retain them here as a separate provisional pending further investigations by ourselves or others. Only two specimens of *Genitoconia mariensis* (the holotype and a paratype) are known. Further material of both these forms is needed to clarify their relationship.



Neomeniomorpha sp C SCAMIT 2005 A. Whole animal, lateral view (arrows indicate ventral furrow) (scale bar 1mm) B. Spicules (scale bar 0.01mm) (Bight 2003 Sta. 4363, 27JUL03, 199m)