SCAMIT CODE: None

Date Examined: 05 April 2005
Voucher By: K. Barwick/D. Cadien

SYNONYMY: Neomeniomorpha sp SD2 Barwick 2003§

LITERATURE: Salvini-Plawen 1978

DIAGNOSTIC CHARACTERS:

1. Body un-regionated, with ventral pedal groove (indicated by arrows in Figure A); animal small, bent into a shallow C shape with anterior and posterior ends clearly differentiated; cloacal chamber well defined and fringed by long spicules (Figure A)
2. Spicules attached in two ways, a surface tangential layer, and a second upright array which penetrates through the surface layer; spicules hollow needles (Figure B)
3. Radula, if present, unknown

RELATED SPECIES AND CHARACTER DIFFERENCES:

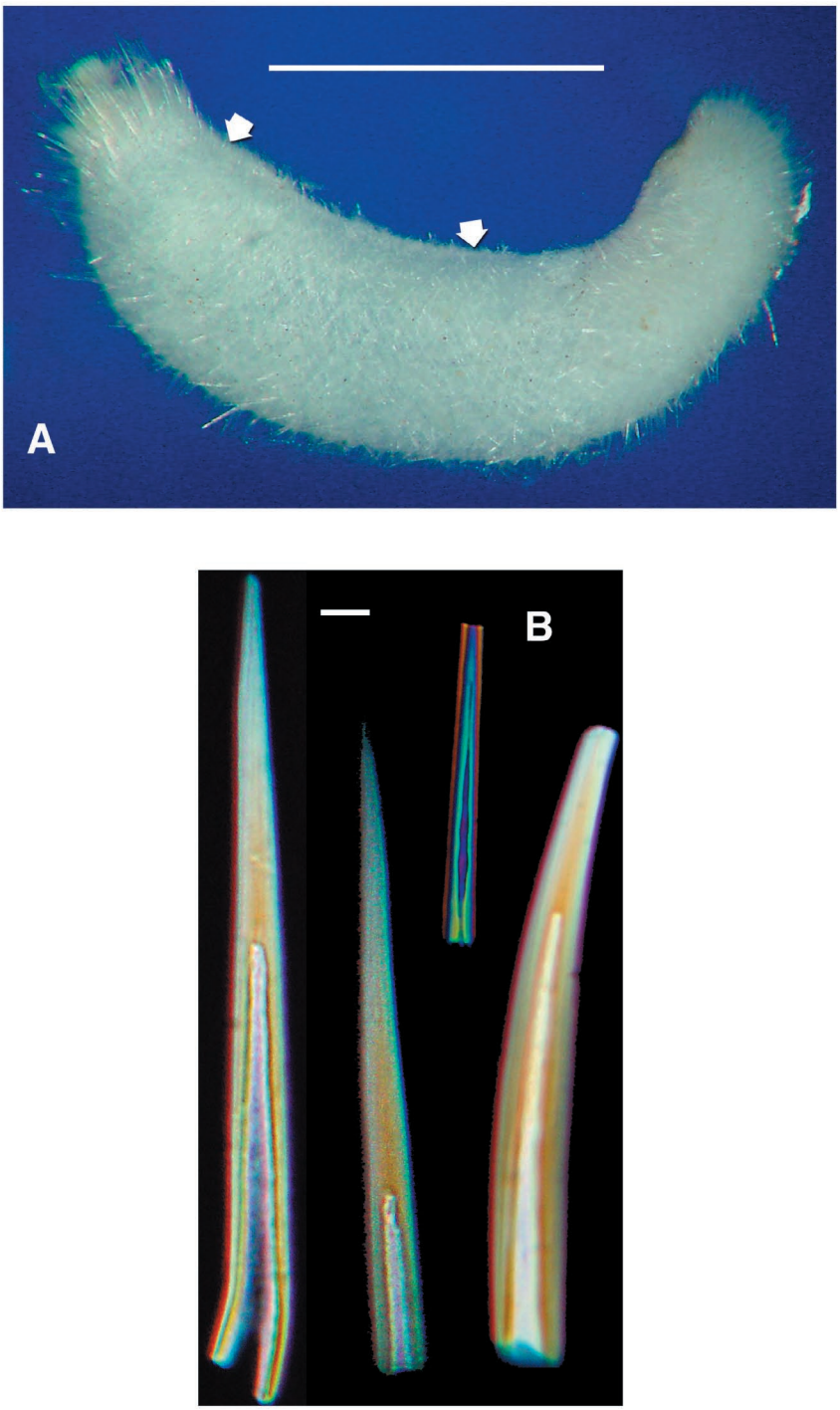
1. Neomeniomorpha sp B can be separated from Neomeniomorpha sp A, *Heathia porosa*, *Gymnomenia minuta*, *Genitoconia mariensis*, *Nematomenia* sp, and Neomeniomorpha sp C in having needle-like rather than plate-like spicules, which are not adpressed to the epidermis.
2. It can be differentiated from *Dondersia californica* by being much smaller; in not having a crenulated carina dorsally; and in having a fringe of spicules around the cloacal chamber.
3. It differs from *Dorymenia acuta* in having a single surface layer of tangential spicules supplemented with upright spicules rather than multiple layers of tangential spicules only, and in having a relatively blunt posterior end rather than a finger-like ventrally concave posterior extension of the body.
4. Neomeniomorpha sp B can be separated from *Plathymenia branchiosa* by being round rather than dorsoventrally flattened; in having a larger BLI; and in having both a surface layer of tangential spicules and an upright layer of long hollow needle-like spicules.

DEPTH RANGE: known from a single specimen taken from 508 m

DISTRIBUTION: Upper Continental Slope, off San Diego

DISCUSSION: This tiny animal was taken by CSDMWWD during preparations for Bight '03 sampling, in their screen size comparison sampling. It was taken in the same grab as Neomeniomorpha sp A. The animal is very small, and may easily escape a 1.0mm screen, so is not likely to be reported by a survey using our standard processing methods. The present specimen may also be a juvenile, in which case the adult may be of a size which would more routinely be retained on a 1.0mm screen.

The hollow needle-like spines clearly place this species in the Cavebelonia, all of which share the same sort of spicules. There are several somewhat similar species from the Oregon Slope, but whether the specimens belong to the same species awaits examination of radula and perhaps internal anatomy of the anterior digestive system.



Neomeniomorpha sp B SCAMIT 2005§A. Whole animal, lateral view (arrows indicate ventral furrow) (scale bar 1mm) B. Spicules (scale bar 0.01mm) (CSD Sta. DS1, 25APR03, 500m, 0.5mm screen size)