

Book Review: Monograph of the Little Slit Shells

Monograph of the Little Slit Shells.

By: Daniel L. Geiger, 2012.

Published by: Santa Barbara Museum of Natural History, Santa Barbara, CA. Two volume set.

Monograph Number 7, 1291 pp., 1042 figs.

Price: \$80.00 US plus shipping.

The scissurellids, or little slit shells, are a group of exquisitely sculptured micro-mollusks that range in size from half a millimeter to a little over 11 millimeters. Were it not for their tiny size, I don't doubt that they would be as popular among collectors as muricids, abalones, cones or cowries.

Daniel Geiger has spent 12 years researching this very interesting group of basal marine snails (Vetigastropoda), and the only diminutive concept in his impressive two-volume production is the size of the specimens he has studied; all else is gargantuan, including the fact that he has examined some 73,000 specimens belonging to 9,800 lots. The two volumes treat all Recent and fossil taxa ever described as scissurellids, including 17 species described for the first time (Figure 1). In order to navigate through the contents of the 1291 pages the author provides edge markings to indicate the various parts, thus allowing the reader to find the desired section quickly.

Volume I has 728 pages and 589 figures, each figure comprised of multiple images. This volume provides a meticulous, 9-page Table of Contents for Volumes I and II, and includes a list by family and genus of the species treated in both volumes. The Table of Contents is followed by an in-depth, 120-page Introduction to Scissurellids. Some of the interesting topics presented in this section are history, taxon concepts, organization of the descriptions, collecting and curating, specimen preparation, photography and digital imaging, discussion of shell characters including radula and operculum, biology, diagrams of molecular phylogeny, and glossary of terms. To assist the user with the identification of specimens there is a "Thumbnail identification" section; the plates shown in this section are additionally provided as separate cards located as inserts at the end of Volume I. For further assistance, Geiger has provided a list of species by global region. The Introduction ends with four color plates showing the coloration of some shells and animals, as well as a Histology Plate.

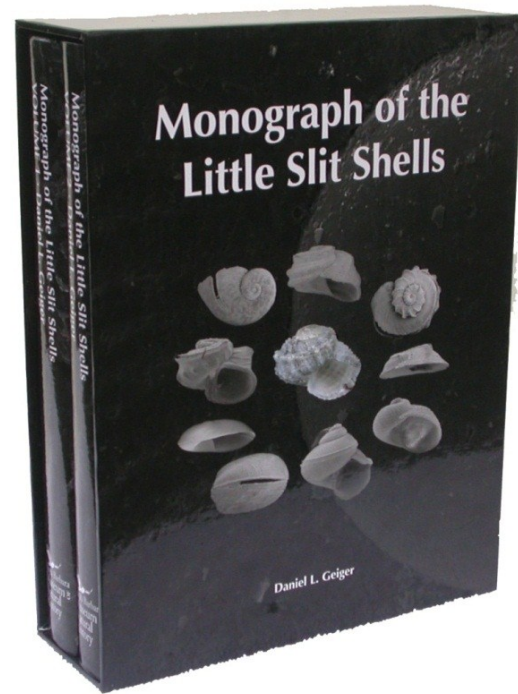


Figure 1. The slipcover of the *Monograph of the Little Slit Shells*.

The second part of Volume I addresses the family Scissurellidae and its genera: *Scissurella*, *Sinezona*, *Sukashitrochus*, *Satondella*, *Incisura* and *Coronadoa*. Once the supraspecific taxa are described (which includes animal characters, if known), the specific epithets are taken alphabetically by genus. The description of each species begins with what the author considers its valid name, followed by chresonomy (i.e. the application of a particular name or combination thereof), synonymy and misidentifications (if pertinent), type material, type species, type locality, etymology, description and comparisons, distribution (including geologic range), specimen and literature records, remarks, and distribution maps.

Each species is accompanied by superb multiple images using scanning electron micrographs (SEM). The very sharp, beautiful images, accompanied by very detailed descriptions and comparisons with similar taxa, make identification of these tiny shells as easy

as possible.

Volume II has an additional 562 pages (729 to 1291) and 453 figures with multiple images. It includes the other 5 families of scissurellids and their genera: Anatomidae (genera: *Anatoma*, *Sasakiconcha*); Larocheidae (genera: *Larochea*, *Larocheopsis*, *Trogloncha*); Depressizonidae (genus *Depressizona*); Sutilizonidae (genus *Sutilizona*); and Temnocinclidae (Recent genera: *Temnocinclis*, *Temnozaga*; fossil genus *Triassurella*). The volume has the same format, magnificent photography and attention to detail as volume I, and again provides the Thumbnail Identification figures in separate cards as inserts at the end of the volume. After the taxonomic section there are 42 pages of Literature cited, and 10 pages of general Index.

In spite of the superlatives I have used, I still feel like I have not done justice to this publication. For example, if one looks at the treatment of *Anatoma aspera* (Philippi, 1844)(p. 774) one finds 59 names in the Chresonymy section, 15 synonyms, 23 mis-identifications, about 3 pages of tightly packed

specimen records, 46 images of shells and radula, and one and a half pages of Remarks. Although not all species are as copiously described, the author does present all that is available at this time for each of them.

My acquaintance with “little slit shells” has been minimal, so I do not pretend to be knowledgeable enough to review this extraordinary publication from a taxonomic standpoint. If one looks to find a negative point, I suppose one may say that, stylistically, there will be rough edges here and there, but these will be almost unnoticeable as the reader encounters the overwhelming amount of data presented.

As one turns the pages of these volumes, it feels like one is looking through a huge magnifying glass at a nature full of hidden beauty and wonders. That is why I believe that, besides its intended purpose and its obvious use as a reference for marine biodiversity professionals, the numerous, exquisite images, the attention to details, and the scope of the work will make this publication very attractive to those who search for beauty in nature and for a better understanding of Mollusca in particular and of life on earth in general.

Emilio García, reviewer