Book Review

The Mollusks: A Guide to Their Study, Collection, and Preservation


Organizers and editors of books with many contributors will attest that it is not always easy to bring such projects to fruition. This may happen for distinct reasons. Different contributors will be inclined to allocate different levels of effort into the preparation of their chapters. Such unevenness may be enhanced when the book in question does not deal with cutting-edge research or alluring scientific breakthroughs. As a result of dissimilar levels of commitment from contributors, completion time and the depth at which subjects are treated may end up varying between the different chapters of the book.

Successful editors will be patient but persuasive, and must have a knack for inviting consistency and adding balance as one chapter flows into the next. In addition, as I know to be the case with the volume at hand, the budget for production and distribution may be very limited from the onset. If all these desiderata and parameters are brought into the equation, it is clear that Sturm, Pearce, and Valdés did a remarkable job in pulling together “The Mollusks”, as I will try to show in this review.

The Mollusks aims to replace “How to Study & Collect Shells,” a guide published in four editions between 1942 and 1974 by the American Malacological Union (AMU; now American Malacological Society, AMS). The concept for this new version of the AMS guide was to assemble a strong and diverse group of museum professionals, research malacologists, and serious collectors to contribute in different areas. As stated in the preface, the target audience will consist of “amateur and professional malacologists,” and the book shall “promote the educational mission of the American Malacological Society.”

Editor Sturm received the green light from the AMS council to proceed with the organization of the book during the 2000 annual meeting in San Francisco. In the few years that passed, some of the original contributors have left, new techniques in molluscan systematics were adopted, in particular those for sequencing and analyzing molecular data; the web, database technology, and digital photography grew by orders of magnitude and saw their status solidified as bonafide research tools. The resulting volume more than replaces the 1974 AMU guide. It consists of 445 pages (in contrast to 107 pages in 1974) of malacological information that may not be found in any other single publication. Twenty-nine contributors prepared 31 chapters covering topics from “Snorkeling and SCUBA Diving” to “Rearing Terrestrial Gastropoda,” passing through “Donating Amateur Collections to Museums” and “Organizations, Meetings, and Malacology”.

In addition to chapters on methods and techniques, the reader will find specific treatments of the seven main molluscan clades. There are chapters on “Aplacophora” (Amélie H. Scheltema), “Monoplacophora” (Clement L. Counts, III), “Polyplacophora” (Enrico Schwabe and Andreas Wanninger), “Scaphopoda: The Tusk Shells” (Patrick D. Reynolds), and “Cephalopoda” (Frank E. Anderson). Gastropods are treated in four chapters, “Freshwater Gastropoda” (Robert T. Dillon, Jr.), “Terrestrial Gastropoda” (Timothy A. Pearce and Aydin Örstan), “Rearing Terrestrial Gastropoda” (Aydin Örstan), and “Marine Gastropoda” (Daniel L. Geiger), and bivalves in three (“Unionoida: Freshwater Mussels” (Kevin S. Cummings and Arthur E. Bogan), “Non-Unionoid Bivalvia” (Alexei V. Korniushin), and “Marine Bivalvia” (Eugene V. Coan and Paul Valentiich-Scott).

Some contributions may be particularly valuable to collectors, collection managers, and biologists in general. “Archival and Curatorial Methods” (Charlie F. Sturm) discusses a plethora of data on problems that may arise when inadequate materials and preparations are involved in the curation of dry and preserved specimens. Sturm
provided a list of materials and suppliers that will prove handy both to amateur collectors and institutional collection managers. Two chapters on photography, “Digital Imaging: Flatbed Scanners and Digital Cameras” (Fabio Moretzsohn) and “Applied Film Photography in Systematic Malacology” (Daniel L. Geiger), better than adequately cover the topics with examples drawn from the authors’ obvious experiences. “The Molluscan Literature: Geographic and Taxonomical Works” (Sturm and collaborators) offers a brief overview of the malacological literature in which the main types of taxonomic works are discussed and a valuable list of regional publications provided. Other well-researched articles dealing with recent conceptual and methodological advances are “Computerizing Shell Collections” (Gary Rosenberg), “Cladistics and Molecular Techniques: A Primer” (David Campbell), and “Issues in Marine Conservation” (Patrick Baker).

Are there any gaffes or omissions? Certainly, as one could expect from such a bold project. The resolution of halftone illustrations (known as “ruling” in typographical lingo) is very coarse, with evident loss of detail. In my copy of the book, a typo lingers in the title of Daniel Geiger’s article on “Applied [sic] photography . . .”; I read “Monoplacophora” on page 118, and “Xenoporidae” on page 120. I miss having access to a subject index at the end of the volume. Although I realize that the book is aimed at a very broad audience, I would have loved to see chapters on applications of electronic microscopy and georeferencing. At least some of these deficiencies and absences result from the need to keep production costs within budget, and I can appreciate that.

I am not proposing that this is the definitive tome on malacological techniques and methods because, now more than ever, techniques and methods change fast, rendering this type of guide obsolete at the blink of an eye (think digital imagery and techniques in molecular systematics, to cite only two examples). However, in preparation for inevitable obsolescence, the editors have assembled the book in a format that will easily lend itself to updates. If the editors, contributors, AMS, and the audience are willing to keep the project alive as demanded in fast-evolving times, then this will be the dynamic, definitive guide. Until then, log onto the publishers site, get your copy, and encourage your colleagues, collecting buddies, librarians, and bookstore acquaintances to acquire and promote this great-value guide.

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