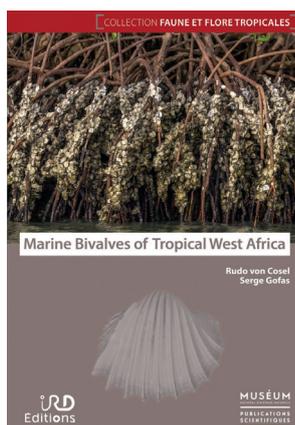


Book review

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COSEL, R. von & GOFAS, S., 2019. Marine bivalves of tropical West Africa from Rio de Oro to southern Angola. Faune et Flore tropicales, volume 48: 1-1104. Publications scientifiques du Muséum / IRD Éditions, Paris / Marseille. ISBN MNHN 978-2-85653-888-3; ISBN IRD 978-2-7099-2789-5. Hardcover, 165 × 240 mm, € 69 net.

Identification manuals elaborately treating the marine bivalves of tropical West Africa are scarce. Nevertheless, the exploration of the marine malacofauna of this faunal province dates back to at least the mid 18th century, when the naturalist Michel Adanson published his well-known *Histoire naturelle du Sénégal. Coquillages*, based on a stay of more than four years in Senegal (Adanson, 1757). Although his nomenclatural system was pre-Linnean, he carefully considered and figured not only the shell but also the animal of the species he had collected alive. Some of his specific names were validated by workers after him and many of this generic names have survived in a latinised form. Almost two centuries later, based on samplings off the coast of tropical West Africa by the Danish *Atlantide* vessel and the Royal Belgium Institute of Natural Sciences of Brussels, several reports and another identification guide on the marine molluscs were published by Maurice Nicklès. The latter has become a classic work too (Nicklès, 1950) and fully includes the bivalves. Obviously, it is long out of print and outdated. The present book represents the first comprehensive overview of the marine bivalves of tropical West Africa since the work of Nicklès 70 years ago.

The post World War II period showed an enormous increase in malacological research with many sampling programs carried out on West African coasts. Rudo von Cosel started collecting in West Africa in 1969 and Serge Gofas in 1980. Over several decades, they accumulated a huge amount of material, all of which is deposited in the

Muséum national d'Histoire naturelle in Paris. Together with important samplings consulted in other institutions, it formed the basis of the present work. In fact, this long awaited book was already reaching a near-complete stage thanks to the work of the first author that, in the early 1990s, accumulated to 467 species being illustrated with line drawings and with greyscale plates using analogue photography. Unfortunately, final completion was not taken care of and with the many changes in bivalve taxonomy of the past decades, the manuscript gradually became more and more outdated. Moreover, both photography and offset printing techniques have much evolved with the digital era. As a consequence, it became obvious that a book fully illustrated in black and white was no longer of age. At this stage (early 2017), the second author was asked for considerable editorial help to bridge the gap. As a result, the “colourful families” (about half of the total) were re-photographed, mounted on hundreds of colour plates and the manuscript was revised and updated.

The book covers the area from Cape Bojador (26°N, Río de Oro, southern part of the Western Sahara region) up to southern Angola. The oceanic islands included are: Cape Verde Islands, São Tomé, Ilha do Príncipe, Annobon, Ascension and St. Helena. In the taxonomic part 462 species, occurring down to 200 m depth, are fully covered; an additional 150 deep sea species (generally taken in bathyal and abyssal depths) are listed but not treated. Apart from a concise description, notes on distribution, biotope and remarks, each species is figured by a series of specimens (generally 3-10), showing different views and regularly also containing type material. The remarks include the morphological variation, comparisons with related species and considerations on the classification. The lay-out of the shells on the plates is consistently arranged from the North at the top to the South at the bottom of the plate: a smart solution, as possible geographic variations in the shell become easily visible. In addition to the brief locality data in the captions, supplementary data can be downloaded by scanning the QR code on the contents page. Stippled line drawings of the shell interior – unfortunately of many different sources and therefore not of a uniform artistic standard – clearly depict essential details like hinge and pallial sinus. A small schematic map indicates the dis-

tribution within the study area and adjacent regions. The introductory chapters address the history of the research, the hydrography and zoogeography of the tropical eastern Atlantic. It explains why many species have non-continuous distributions. Besides, an estimate of the sampling effort for the countries that encompass the study area is given. An extensive bibliography, glossary and index make the book very complete.

The result is an impressive 1104 pages, lavishly illustrated and based on a sound knowledge of the local bivalve fauna – resulting from decades of research. The number of supporting figures that accompany each species is quite unique for an identification manual. Admittedly, this book also has some shortcomings. Regrettably, the amount of attention paid to the biology is limited; living animals are hardly figured, the focus is exclusively on shell characters. The reason for inclusion or exclusion of several species is unclear. For instance, why is *Pecten turtoni* E.A. Smith, 1890 treated, whereas *Americardia speciosa* (A. Adams & Reeve, 1850) is not even listed? Both are sublittoral macro molluscs endemic to St. Helena. Why is *Mimachlamys varia* (Linnaeus, 1758) treated, whereas “*Papillicardium*” *minimum* (Philippi, 1836) is not listed? Both continental shelf species occur up to Mauritania (southernmost record 20°47'N for *M. varia* and 18°46'N for *P. minimum*). Likewise, *Parvicardium scabrum* (Philippi, 1844) is lacking, although it has been found in abundance in shallow water in Mauritania (both: CANCAP and Tyro Mauritania Expeditions, material in Naturalis).

While black and white images are provided for whitish or less colourful shells, it is unfortunate that, for instance, *Nucula* (distinctive yellowish, olive-green or brown periostracum), *Corbula* (shell often partly pinkish) or *Keletistes aberrans* (Dautzenberg, 1910) (shell dirty white to pale olive green or light brown; periostracum light greyish to olive) are figured in black and white. The extensively coloured *Corbula* shell depicted on page 944 (no caption given) at the introduction of the superfamily is a

good example. Occasionally, some of the species within a given genus (i.e. *Sinupharus*) are figured in full colour, whereas others are in black and white, which is rather confusing. The line drawings are not uncommonly taken from the same specimen as presented by a photo on the opposite page but this is not obvious from the numbering system or from the captions. In some cases, the distribution as shown by the maps shows discrepancies with the distribution as given in the text. For instance *Lamellolucina reyrei* (Nicklès, 1955): São Tomé and Ilha do Principe are indicated in the text but not in the map; *Myrtea spinifera* (Montagu, 1803): Azores is indicated in the map but not in the text; *Tellina (Serratina) serrata* Brocchi, 1814: Canary Islands are indicated in the map but not in the text; *Gastrana matadua* (Gmelin, 1791): South Africa is indicated in the text but not in the map and *Rocellaria dubia* (Pennant, 1777): Ascension Island is indicated in the map but not in the text.

Also with these minor shortcomings, this voluminous manual, with its comprehensive and detailed treatment, in text, images and maps, sets a new standard for identification guides. Moreover, the fine lay-out, with coloured tabs separating the superfamilies, makes the book easily accessible, also to the non-specialised reader. A highly recommended monumental work for amateur conchologists, professional malacologists, marine biologists and zoologists. Quoting a wish of the authors: Hopefully it inspires young malacologists to prepare a companion volume on the gastropods.

References

- ADANSON, M., 1757. Histoire naturelle du Sénégal. Coquillages. Avec la relation abrégée d'un voyage fait en ce pays, pendant les années 1749, 50, 51, 52 & 53: 1-190, i-xcvi, 1-275, pls 1-19. C.-J.-B. Bauche, Paris.
- NICKLÈS, M., 1950. Mollusques testacés marins de la côte occidentale d'Afrique. *Manuels Ouest-Africains* 2: 1-269. Paris.