BOOK REVIEW

Beckmann, Karl-Heinz (with contributions by H.D. Boeters, J. Conde de Saro, G. Falkner, P. Glöer, C. Groh, H. Groh, J. Quintana, E. Rolán, Y. Terryn, A. Wiktor and M.L. Zettler): Die Land-und Süßwassermolluscen der Balearischen Inseln. 255 pp. with numerous coloured figures in the text and on 12 plates. Conchbooks (Hackenheim, Germany). ISBN 978-3-939767-05-3. Price: Euro 48.00.

It is perhaps surprising such a book had not been written much earlier, given the variety, zoogeographic interest and endangered status of the Balearic non-marine mollusc fauna, and the status of the Balearic Islands as a favourite holiday destination of many Europeans. Malacological research in the last few decades has resulted in a fair number of publications, but in Spanish, on subjects of restricted scope, and in not widely distributed periodicals. This book provides a much welcome overview of the entire fauna.

The introductory chapters treat the general climatic, geological, topographical and biological characteristics of the Balearic Islands, provide a summary of the history of malacological research and discuss various aspects of selected groups. The acknowledgment pages reflect the degree of cooperation the author enjoyed with professionals and amateurs alike.

The taxonomic part is organized as an 'annotated checklist' of all species by the principal author, followed by a collection of smaller papers by the contributing authors. The annotated checklist contains for each species a synonymy list of references dealing with material from the Balearic Islands, data about the distribution and comments on nomenclatural matters as deemed necessary. Most species are illustrated by good colour photographs of their shells, and in some cases also of the animal, particularly the slugs. Species only known as Pleistocene fossils are included in the list. The checklist does not contain descriptions or diagnoses, and anatomical features are not illustrated either. The text figures are repeated in the plates, in which the taxa are arranged using purely practical criteria, viz. size and shape. An effort was made to illustrate shells of similar size side by side with the same scale. This results in odd combinations, e.g. Melanopsis praemorsa siding with pomatiids (pl. 10), but in most cases related taxa are assembled, which should be welcome for comparisons. The smaller papers contain descriptions of new species (here also with some anatomical data) in the genera *Bithynia*, *Pseudamnicola*, *Islamia*, *Radix* and *Oxychilus*, summaries in English and Spanish, a name register and a CV of K.-H. Beckmann, from which we learn that he is seriously ill. In fact he died on October 2nd 2007 at the age of just 59. The reader may share a sense of loss with the satisfaction that Beckmann succeeded in completing this work.

The work of F. Giusti et al. on a similar subject, viz. the non-marine molluscs of Malta (1995), serves as a benchmark for the standard of investigation of an entire local mollusc fauna. With reference to this work, it would be easy to level a fair amount of criticism on Beckmann's book. However, it would do the author and his achievement no justice to measure the quality of his work by objectives which the author did not intend to attain. The work is intended as a 'snapshot in time' of the status of knowledge of the Balearic non-marine molluscs with respect to taxonomy and faunistics. It serves as a guide to the literature, as an overview of biogeographical data, and as an aid for determination of the illustrated species; it saves the student of Balearic non-marine molluscs a lot of time searching and procuring widely disseminated literature. The book will have fulfilled its purpose, if it increases the appreciation of the uniqueness of the Balearic mollusc fauna and its vulnerability; and triggers further research into the many unresolved taxonomic issues which become apparent in a compilation like this.

The author worked in close cooperation with the CLECOM project participants. Consequently the supraspecific nomenclature is up to date. On the species and subspecies level, the author follows the CLECOM approach to express the morphological differences between related populations by accepting a fair amount of named subspecies. In the most extreme example, every rock off the coast of Ibiza is attributed with an endemic subspecies in the genus *Xerocrassa* (p.116). Clearly, this could be a subject of critical research. Mercifully the author refrained from proposing vernacular names or utilizing the names already proposed in the German literature.

I would like to raise a few points of critique, relating to items which would have improved the book without fresh in-depth research:

- 1. The geological history is lumped together with the present-day climate in one chapter (pp.5-8) and is too brief to provide a meaningful summary of the processes which resulted in the existence of the Balearic Islands of today. Evidently the author stepped on unfamiliar terrain here, as he was not even aware of the grammatical genders of the nouns Jurassic and Triassic in the German language. More appropriate for the understanding of the present day mollusc fauna would have been an account of the youngest episode of geological history, viz. since the Mediterranean salinity crisis, and the changes in the mollusc faunas since that time.
- 2. The large majority of low-spired (helicoid) shells is illustrated only in apical view. This renders the illustrations in most cases of very limited use for determination purposes. It should have gone without saying that an apertural and umbilical view are indispensable to characterize these shells.
- 3. Some names are misspelt: *Vitrionides* instead of *Vitrinoides* (p.85), *Xerotrichia* instead of *Xerotricha* (p. 120).
- 4. The synonymy lists contain various inconsistencies, viz.: inclusion of names not referring to the taxon listed (e.g. Helix barbula Rossmässler 1838 under Darderia bellverica Altaba 2007, p.91; Helix boissyi Terver 1839 under Xerocrassa frater frater (Dohrn & Heynemnann 1862), p. 96); declaration of available names as nomina nuda (e.g. Helix boissyi, p. 96; Helix grateloupi Graells 1846, p. 128); omission of references to Balearic material, including the proposal of new nominal taxa (e.g. in Cernuella (C.) cisalpina (Rossmässler 1837), p. 121; and in Otala lactea lactea (Müller 1774), p. 126). The synonymy lists would have been more valuable if all Balearic references had been consistently included. Some Balearic references are missing from the literature list, e.g. Companyo (1837).

- 5. The inclusion of the marginally marine Hydrobiidae: Hydrobiinae, Assimineidae and Truncatellidae may be justifiable, but the inclusion of the marine species *Smaragdia viridis* is not. The genus *Cerastoderma* could be included with better justification, as it may co-occur with *Hydrobia* and *Ecrobia*.
- 6. Doubtful reports are listed together with valid ones, although circumstances suggest the improbability of the occurrences of *Valvata piscinalis*, *Gyraulus laevis*, *Anisus spirorbis*, *Solatopupa similis*, *Abida polyodon*, *Jaminia quadridens*, *Limax maximus*, *Arion* cf. *lusitanicus*, *Monacha cemenelea* and *Xerosecta explanata*. Exclusion of these taxa and of the marine *Smaragdia* reduces the recent taxa count (i.e. species and subspecies) to 172.
- 7. Beckmann himself collected only on Mallorca and Menorca. As a result many endemic species of the other islands, most notable the many *Xerocrassa* taxa, are not illustrated. Should it not have been possible to procure at least part of the material?
- 8. The habitats of the species are in most cases not mentioned. Having collected himself in some 270 localities, Beckmann should have been able to characterize them at least summarily. Notes on the conservation status are also omitted.

Despite these points, the book is an indispensable guide to any student of Balearic non-marine molluscs. It is printed on solid paper and is bound in a sturdy cover, suitable to be taken into the field, and it comes at a very reasonable price.

GIUSTI, F., MANGANELLI, G. & SCHEMBRI, P. J. 1995. The non-marine molluscs of the Maltese Islands. Museo regionale de Scienze naturali. Monografie **15**, 608 pp. Torino.

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