

BOOK REVIEW

Welter-Schultes, F.W. (2012): European non-marine molluscs, a guide for species identification. Pages A1-A3, 1- 679, Q1-Q78, numerous coloured textfigs. Göttingen, Planet Poster Editions. ISBN-10 3-933922-75-5. ISBN-13 978-3-933922-75-5.

This monumental work closes a gap which has for a long time hampered non-marine malacologists, researchers and collectors alike, as the stated intention of the work is to facilitate the determination of all European non-marine mollusk species. The author provides diagnostic texts for all species occurring in Europe, the boundaries of which for the purpose of this work are drawn from North to South through the middle of European Russia and the middle of Turkey, and exclude the Canary Islands and the Azores. The majority of species are illustrated by colour photographs of several shells and in some cases also of the live animal; slugs are always illustrated by live animals. For all species a diagnosis is given. A total of some 2140 species is treated, of which about 1600 are illustrated. Where the author lacked specimens, in some cases a copy of the original figure is provided. For each species a distribution map is also given. Most astonishing is that the author completed the work in five years almost single-handedly!

The work comprises a short introduction, a huge descriptive section, a large reference list and an index, which lists species both in their current genus and species combination and also under the species name only. For a quick orientation, a separate part (paginated 675–679, Q1-Q78) containing photographs and distribution charts of the more frequent European species is included at the back. This part is bound separately and can be removed from the main book. This arrangement is a user-friendly gesture minimizing the amount of leafing through 674 pages for the first pass of an attempt to determine a specimen.

Apart from diagnoses or characteristics of the shell and often also the animal, the text contains information on some synonyms, nomenclatural problems, distribution, habitat, biology, conservation status and selected literature references. For the genera, type species and some synonyms with their type species are also given, and nomenclatural problems are briefly discussed.

The species are arranged alphabetically under their genera. These are arranged within their families although in many cases the family assignments are not given. Suprafamilial groupings are not mentioned. For families and genera no diagnoses are given. Anatomical characters are described in the text, but are not illustrated, despite their crucial role in differentiating species with similar shells, and slugs. Determination keys are not given, which is a pity for genera with many similar species. Ideally, these points should have been addressed in a work intended to facilitate species determinations.

The photographs are in colour and are usually of good quality, although at smaller scales some detail may have been lost, for example the details of the hinges of *Pisidium*. Comparisons would have been made easier if similar species had been assembled on plates and figured at the same scale, instead of being printed separately at the same size. The author seems to like oblique views of gastropod shells, which are not helpful for comparisons.

The material base of the book consists chiefly of the author's collections, the collections of Haus der Natur in Cismar (Schleswig-Holstein, Germany), data from www.animalbase.org, and from the natural history museums or institutions in Budapest, Innsbruck and Philadelphia. The author cites the refusal of other institutions to provide copyright-free pictures as the reason for not having examined the substantial collections currently in existence in most European countries. As a deplorable consequence, most or all type material had not been consulted, which would have hugely increased the importance of this work.

The contents of the book are necessarily a snapshot in time of the status of our knowledge of a species. The author acknowledges that errors and omissions may have occurred, but he considered it would be better to publish this work than trying to do a perfect job and never be able to finish it. Probably everybody who intended to publish

something had experienced the same dilemma! Doubtlessly a lot can be added or improved, and researchers may disagree with a number of taxonomic and nomenclatural conclusions of the author, but the work is a start. There can be no doubt that it will give a major stimulus to research on the many open taxonomic questions, improve the knowledge of the actual distribution of many species (most gaps where identified in eastern and in parts of southern Europe), and, hopefully, spur conservation efforts, as this synopsis summarizes painfully the decline of even common and widespread species, and the extreme threat to the many endemic species with very small areas of distribution.

Despite the necessity to conclude a work like this within a reasonable time frame, thus leaving gaps and open ends, I think a few corners should not have been cut. The most deplorable omission are most hydrobioids. This group is extremely diverse, but only a few selected and common species are treated. Even here not all species of a group are treated, viz. in Bithyniidae, *Hydrobia* (s.lat.), and *Lithoglyphus*. Nothing is mentioned about even widespread and often common and diverse groups such as *Pseudamnicola*, *Mercuria*, *Belgrandia*, *Globuliana* (syn. *Islamia*), *Bythiospeum*, etc. The author stated that inclusion of the hydrobioids would have delayed the publication by at least a year, hardly a convincing reason for omitting them. Likewise, time pressure is mentioned as the reason to omit a batch of photographs of species provided by the Academy of Natural Sciences of Philadelphia, which now remain unillustrated.

Another cut too much is that shells were photographed without cleaning. Further, the author, when screening malacological journals of the last 20–30 years, omitted the *Journal of Conchology* because it was apparently not easily available to him (!). Perhaps the simplification of taxonomy is another example, as subfamilies, subgenera and subspecies are not mentioned. Such practices unfortunately raise in a reader's mind the possibility that more, but less easily detectable omissions may be hidden in the detail of the descriptive work.

I should mention three points of methodology or conventions, on which the author takes a rather idiosyncratic approach.

In the foreword, a whole chapter is dedicated to comments about nomenclature and the

International Code of Zoological Nomenclature. Here the author discusses the correct interpretation of certain articles of the Code (i.e. on authorship, names first published in synonymy, type designations), which highlights the need for some articles of the Code to be less ambiguously worded. It is obvious that the author cares about the correct application of the Code and, consequently, about the use of the correct name. To this end, he had checked almost all original citations, which are provided with a full bibliographic reference, and he provides explanations or discussions of problematical cases. The data and reasoning provided allow the reader to better understand the reasons for name changes, which is commendable. But on the subject of grammatical gender agreement between a genus name and an adjectival species name, why argue the case to abandon it? The mere fact that errors have occurred, or that this (poor) practice is prevailing in lepidopterology, is hardly a valid argument in favour of institutionalizing it. The author took care to use the correct adjectival endings, which should increase the correct usages by those who refer to this book – and that should be every European malacologist. It is difficult to understand why the author argued against his own practice.

Concerning the availability of information printed on the wrappers of works published in parts, the author tends to regard them as unavailable for nomenclatural purposes, as they “were printed for the binders”. This cannot be generally correct, at least for the works of Haldeman (1842–1847) whose wrappers contain, i.a., diagnoses of new taxa which are obviously intended as advance publications and addressed to the reader, not the binder (see *Physella*, p. 56).

The third item of idiosyncrasies concerns decisions on the genus attribution of species. It is unavoidable that in cases where modern revisions do not exist, or where modern publications contain conflicting views or results, an author has to make a decision on classification without conducting the research necessary to back this conclusion up. Welter-Schulte's approach in such cases appears to be to conduct a poll by Google and Google Scholar and accepts the genus attribution scoring the highest number of citations. It should go without saying that a poll of prevailing opinions, practices or conventions is the antithesis of any scientific approach! A result of

this method is that taxonomic arguments are sometimes completely ignored (e.g. classification of *Cornu aspersum* in *Helix*), and classification in other cases may agree only by serendipity with the taxonomic argument (e.g. *Heleobia stagnorum*, where the anatomical data (e.g. Bank & Butot 1984, Giusti & Pezzoli 1984) make any discussion whether the species could be classified in *Hydrobia* (s.lat.) or *Ventrosia/Ecrobia*, redundant.). Disturbing is the author's statement in his justification of the inclusion of *Cornu aspersum* and *Cantareus apertus* in the genus *Helix* (p.608): "... the names *Helix aspersa* and *Helix aperta* are widely understood, and the main function of names is for communication". According to this principle, the second main function of binominal species names, viz. to express phylogenetic relationships between species, does no longer need to be considered, as any change of genus attribution would disturb the understanding of "widely understood" species names.

A work of this scope, which is very likely to be widely used by professionals and amateurs alike on an entire continent and beyond, should represent the current state of affairs and adhere to generally accepted conventions, if only not to mislead the less experienced users. It is not the place to introduce methodological or procedural changes. The author is keen to observe the Code of Zoological Nomenclature, which regulates formalities, but he tends to ignore the taxonomic

substance of the names, if Google shows that outdated classifications (presumably mostly in non-taxonomic works) have been used more often than up-to-date ones.

On the positive side it needs to be mentioned that the author refrained from using or proposing vernacular names. Although such names had become redundant by the binominal naming system introduced by Linnaeus (1758), which remains up to this day a mainstay of biological communication, parallel vernacular nomenclature has become fashionable again in the last decades for no good reasons. Hopefully this book will further the usage of proper nomenclature!

The layout of the book is user-friendly, although its size and paper quality preclude it to be taken out into the field. Good eyesight is required to read the nomenclatural comments, but then the small types used throughout is the price for keeping the physical size of the book down. The price is reasonable at 128 euros. I wish the book success and hope for the second edition will be a chance to correct errors, omissions and unnecessarily contentious statements; and, of course, incorporate the hydrobioids and new research results, which may very well have been spawned by this work pointing to the gaps in our knowledge of Europe's mollusks.

Dietrich Kadolsky