BOOK REVIEW

The Living Ovulidae – A Manual of the Families of Allied Cowries: Ovulidae, Pediculariidae and Eocypraeidae by Felix Lorenz and Dirk Fehse. Published by ConchBooks 2009. 651pp A4 Hardback. ISBN 978–3-939767-21-3. Price €120.

Apart from a few larger, more robust species for example Ovula ovum, Calpurnus verrucosus and Volva volva - ovulids have never been as popular with collectors or as well studies as their close relatives the cowries. Many ovulids are small, often fragile, and before the advent of scuba diving were seldom collected in good condition. While specimens have become more readily available in the last few decades, during which period many new species have been described, they have remained tricky to identify not helped by the fact that the last monograph on the group (C N Cate's Systematic Revision of *the Cypraeid Family Ovulidae*) was published back in 1973 and moreover was largely illustrated in black and white. Our knowledge and understanding of the group has increased greatly over recent years, and this new volume provides a welcome, up to date and comprehensive coverage of the Ovulidae.

After brief introductory sections covering, among other things; information on the animal, shell and radula, biological notes, notes on the fossil record, taxonomic notes and an illustrated guide to identifying the various genera, the book is divided into three main sections.

The first of these sections is a systematic account of the 254 species treated here as valid. For each genus we are given details of the original published reference, type species (though I would have welcomed notes on whether these were types by original designation or subsequent designation etc.), distribution, diagnosis of the genus, synonyms and a discussion which may range through taxonomy and synonyms, comparison with other genera etc. Within the genus each species, starting with the type species, has an account giving reference to the original description, size range and distribution, a description highlighting those features most significant for identification - not necessarily those which are most conspicuous – details of synonyms and a discussion. There is also an indication of rarity ranging from abundant to extremely rare, though

in the absence of an explanation 'very rare' and 'extremely rare' may be hard to separate and presumably these refer to rarity in collections rather than nature where for example a deep water species may occur commonly but be collected rarely. The distributions frequently include details of type localities, depth of habitat and notes on the host organisms which these, generally ectoparasitic, molluscs live upon. The whole systematic section is clearly set out, easy to use and full of helpful notes and fascinating insights. I was interested to read for example that "Dentiovula eizoi is sometimes observed on certain gorgonians tentatively identified as Muricella. These are of a purple colour with a yellow outer frame. Lighter coloured shells of D. eizoi will only be found among these paler outer areas, whereas the purple specimens prefer the dark areas of the host. This phenomenon suggests alimentary homochromy, but also that D. eizoi does not seem to move around much on its host".

Although the book is described as a 'manual', the systematic account is truly a revision of the Ovulidae. Some four new genera and nineteen new species are described herein while sixty taxa are treated in new combinations and eighty taxa are newly placed as synonyms. It would however have been useful for comparison with other literature to have given previous name combinations alongside synonyms when introducing a new combination. Without this it may not immediately be clear, for example, that the authors' Testudovolva pulchella (H Adams, 1874) is the same as Prionvolva pulchella (H Adams, 1873) as previously used by Schilder, Allan and Cate, especially given the apparent discrepancy in dates (Proc. Zool. Soc. London for 1873 but published 1874).

The largest section of the book consists of 203 full colour plates of shells, over 2,000 specimens are figured, each shown in at least dorsal and ventral view and many with side profiles as well. Altogether there are well in excess of 4,000 figures. Captions for the figures are conveniently shown opposite each plate. For each specimen figured in addition to scientific name we are given locality and size. The depiction of numerous specimens for all bar the rarest species truly allows a good understanding of intraspecific variation. Many type specimens are figured, and further illustrations mainly of type specimens or 'original' figures reproduced from earlier literature are added below the captions opposite the relevant plates, though the term 'original figure' may be confusing for these are not all from the original descriptions. The quality of the colour plates is excellent especially given that many of the specimens are greatly enlarged, however some of the additional figures have clearly been digitally manipulated losing detail or smoothness of outline in the process – the holotype of Pellasimnia haynesi on page 464 for example has a very 'blocky' outline. I wish that the captions to the plates had included a cross reference to the text, there is plenty of room to have included this and it would have made the book easier to use without continuous reference from plate to index and back to text. While the vast majority of specimens figured are positively identified some, atypical, specimens are captioned 'of' indicating 'untypical, may or may not be this species' or 'aff' indicating 'probably a new species resembling' unfortunately the explanation for this occurs early in the text (p. 31) when the plates start on p. 146 and some readers may miss the significance particularly where those shells captioned 'aff' are not fully discussed in the systematic account. Rotaovula hirohitoi for example is in the text as "an unmistakeable species and one of the most spectacular Ovulids" the plate figures six specimens from Pacific locations and two from Réunion captioned "Rotaovula aff hirohitoi" and the added comment to the plate caption "coarser dorsal tubercules and fewer denticles" yet there is no discussion of this within the text either as variation or possible new species.

The third section of the book consists of some 375 colour photographs of living ovulids

spread over 66 pages and depicting 115 species nearly half the known species and a very high proportion compared to books on other groups of mollusc. These photos will be revelatory to anyone used to seeing the empty shells only, especially as many living ovulids are highly cryptic, both colour and surface texture of the animal having evolved to resemble their host organisms. For these figures as well as scientific name we are given the locality and details of the host organisms. In many instances after photography the animal was collected and the shell is separately figured in the book. This has enabled both conchological features and animal characteristics to be considered when preparing the systematic arrangement, something lacking in many monographs.

The book has an extensive 21 page bibliography, though there are some surprising omissions, Donald Dan's article "A bit more on Sphaerocyprae incomparabilis (Briano, 1993)" from 'American Conchologist' is included but this was written in response to Peter Dance's "A shell from Mars" in the same journal which is not listed, and why list a book review but not the book being reviewed? Given the number of references to the host organisms I would have liked to have seen a separate basic reference list for their identification to encourage field collectors/underwater photographers to record additional information. Finally there is a comprehensive index covering both valid species and all synonyms, clearly differentiating between the two and indicating the current status of the latter.

This book can be highly recommended, and while the price may seem high it is not unreasonable given the large number of high quality colour plates. It will be the standard reference on the group for many years to come. The emphasis on living ovulids is a feature that could be emulated in other works.

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