

BOOK REVIEW

GUSSMANN, S., and E. HOLM. 2004. **The African Jewel Beetles (Buprestidae: Julodinae)**. Taita Publishers, Velké náměstí 135/19, 500 03 Hradec Králové, Czech Republic (phone/fax: 420 49 551 61 04; email: taita@taitapublishers.cz), 396 pp, 634 figs. ISBN: 80-902734-5-9. Available from the publisher (www.taitapublishers.cz) for 220 Euros plus 30 Euros shipping and handling (ca. US\$270 + \$37 S/H).

This new, large format (31.5 × 23.5 cm) hardbound volume is an exquisitely appointed amalgamation of data originally published by the two authors, individually and collectively, in a series of systematic papers detailing the African taxa of this primitive buprestid subfamily (*e.g.*, Gussmann 1995, 1997, 2000; Holm 1979*a, b*; Holm and Gussmann 1991, 1992). Although the original publications were well illustrated by the respective artistic talents of the authors (and at least one subcontracted artist), I was looking forward to seeing this volume to know if it might emerge as greater than the sum of its parts/roots; to that end, it is not disappointing. While the original publications were illustrated with color paintings of most of the adults, these paintings are all reproduced in the new volume and augmented by numerous color photographs of adults, to illustrate the variability of many of the species discussed therein. This variability led to the proportionally very high number of infrasubspecific names (*e.g.*, 16 species and 9 subspecies of African *Sternocera* are defined from no less than 243 nomina and 27 species and 12 subspecies of *Julodis* result from more than 100 nomina); these infrasubspecific names were officially deemed unavailable in the earlier papers. It is important to note that while there are no new taxa described in this work, there are new taxonomic acts proposed in this volume, *i.e.*, three infrasubspecific names are designated as unavailable and other data, as yet unpublished from the Ph.D. thesis of the senior author, are presented for the first time.

The volume is organized into 11 chapters. The introduction (Chapter 1) includes General Notes, Biology, Zoogeography, Morphology, and Phylogeny. Chapter 2 discusses the generalities and suspected relationships of the subfamily Julodinae. Chapters 3 through 7 discuss the genera *Sternocera*, *Julodis*, *Julodella*, *Amblysterna* and *Neojulodis*, respectively. Each of those five chapters includes sections: discussion, diagnosis, a key to species and subspecies (where such are defined) and the individual species/subspecies accounts which contain a short discussion, a bulleted diagnosis of key character states, line drawings, *e.g.*, male genitalia, ovipositor, key characters, followed by the original color painting, a distribution map and new color photographs, including photographs of typical habitats for many of the species as well and host plants, where possible. Chapter 8 includes a full systematic catalogue and Chapter 9 details a list of all types and specimens examined. Chapter 10 is an index of all included names and Chapter 11 is a complete bibliography. Both authors are introduced on the final two pages and these two brief bibliographies would have benefited from some careful editing.

I do, however, have a few comments to make about aspects that I view from a different perspective than probably intended by either the authors or publisher, or those that I see as confusing. To start with, the title is somewhat misrepresented since 'jewel beetles' is the general common name for the entire family Buprestidae, a common name used more widely than 'metallic woodboring beetles', and this volume is restricted to only one of the six subfamilies that occur in Africa. If this volume is intended to be the first of several on African buprestids, it might have been better to indicate that in the title as otherwise the title implies either of two incorrect ways, *i.e.*, 1) that the book covers all African jewel beetles, or 2) that only the members of the Julodinae are referred to as jewel beetles. Another interesting inconsistency is that the correct authorship of the volume is listed on the book's spine and the copyright assigned to Gussmann and Holm, but on the cover the author's names are in reversed order. Under Phylogeny (Chapter 1.5), three cladograms are presented, *e.g.*, one for genera of Julodinae and one each for African species of *Sternocera* and *Julodis*, each of which is preceded by a short discussion of the taxa, characters and character states; each cladogram is entitled "presumed cladogram of . . ." While I suspect that any presumption is not the actual illustrated tree itself, but in the relationships each purports to reconstruct. There is very little discussion about the phylogenetic method(s) used to generate these trees and the lack of character matrices precludes any attempt to test the conclusions by alternative methods or any of the modern software programs in use. Thus the implied 'presumption' exists not only for the authors and readers but for the accuracy of the putative phylogenies as well. Another minor concern is that while the discussion of biology (Chapter 1.2) clearly indicates that the plants listed

in the work are 'adult host plants', each host plant subsequently illustrated is captioned only as 'host plant', which will imply to those that read the book and follow the maps to collecting areas as 'the' guide to locating these species in nature. As is noted in the text, these beetles are external root feeders, a very divergent habit for a family of beetles mostly known as either wood-boring or leaf-mining. Much awaits discovery about julodine species' biologies including anything about larval host preferences, whether they are host-specific or enjoy a range of hosts as well as if the adult hosts are just a place to perch or if the adults feed on the foliage of the larval host plant(s). My last comment is about the presentation in the Index of Names (Chapter 10) because while it is helpful to identify each name by font and style (*e.g.*, valid species in bold, subspecies in italics), extending those style elements to the author names (*e.g.*, authors of subspecies names also in italics) suggests a little more care in editing the final version, or in the word-processor-generated index, could have resulted in a slightly cleaner, more traditional presentation. Otherwise, while I have found but a few minor typos here and there, the format, production of and reproduction in this volume are without flaw.

I have some reservations about giving an unconditional recommendation for a book with such a high cover price but considering the size of the volume, the large number of line drawings, color paintings and photographs and distribution maps, the production costs likely have required this price. This is a very well produced contribution and it will surely be required for the libraries of specialists, natural history museums, collectors of beetles, and also for those that have a love of many things African.

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