

BOOK REVIEW

NIEHUIS, M. 2004. **Die Prachtkäfer in Rheinland-Pfalz und im Saarland. Beiheft 31 der Schriftenreihe “Fauna und Flora in Rheinland-Pfalz.”** Gesellschaft für Naturschutz und Ornithologie Rheinland-Pfalz e. V., Mainz, 713 pp. Available from the publisher: Gnor, Osteinstraße 7-9, 55118 Mainz, Germany: www.gnor.de, for €39,90 + shipping.

This hard cover volume (size: 17 × 22 cm) is an incredibly detailed faunistic presentation of 83 species and subspecies that are known to occur in the Rheinland-Pfalz and Saarland region of southwestern Germany. This volume joins recent buprestid faunistic volumes from Bulgaria (Sakalian 2003), Greece (Mühle *et al.* 2000), Hungary (Muskovits and Hegyessy 2002), the Iberian peninsula (Verdugo 2005) and Italy (Curlletti 1994) and together these volumes have likely contributed, more or less, to the anticipated new catalogue of Palaearctic Coleoptera (Kubán *et al.* in press).

The text is in German, which immediately made me wish that my four years of German language study in high school (way back when) could be redeployed into modern service. Major sections of the book provide an impressive wealth of information (roughly translated): 1. General (pp. 15–121): 1.1 Introduction; 1.2 Goals, Materials, Methods, Collaborators, Acknowledgments; 1.3 Regional characterization; 1.4 Jewel beetle investigations in the region; 2. Historical investigations and species (pp. 122–492): 2.1 Historical level of investigations; 2.2 Systematic species list of region; 2.3 Species chapters; 3. Discussion (pp. 493–609): 3.1 Selected ecological guilds; 3.2 Jewel beetle fauna of regional subsections; 3.3 Species list of selected areas (tabular summary of 3.2; 3.4 Biogeographic elements and relicts; 3.5 Recent changes in jewel beetle fauna (extinctions and invasions); 3.6 Origins of distribution; 4. Nature and species protection (pp. 610–634): 4.1 Comments on German government protections laws; 4.2 Remarks on the Bern Convention (Central European wildlife conservation laws); 4.3 Remarks on initiatives to protect jewel beetles; 4.4 Red data list of extinct/ endangered jewel beetles in the region; 5. Literature (pp. 635–658); 6. Specimen examined data (pp. 659–697); and 7. Index (pp. 698–711). A single page of Addenda/Corrigenda is found on p. 713.

Within those sections are discussions about buprestids: as indicator species; in art and culture (including three color plates illustrating most of the world’s postage stamps featuring buprestids); in advertising and trade; and in the media. There are incredibly detailed accounts of the historical studies of buprestids within the study area, including maps that show examined specimens in four chronological categories (before 1850, 1851–1900, 1901–1950, post 1951) as well as more general European and German maps indicating the country and state occurrence respectively. In nearly every species chapter, there is at least one *in situ* color photo (if not, then dorsal habitus of museum specimens), photos of hosts and habitats and in many cases larval damage and habitus of larvae and pupae. There is literally nothing that I can think of that the author has not included.

The volume is well-appointed, with a nice layout; I found no typos but since it is in German, I doubt that I am discerning enough. Simply put, this volume should serve as a model for all faunistic works. The amount of detail both in introducing the subject and setting the stage through summarizing what is known about each discussed taxon widely in the Palaearctic and critically within the focal part of Germany seems virtually complete. All in all, this is a superlative contribution and belongs on the shelves of the specialist, coleopterists from the region, and those interested in the entomofauna and/or natural history of Germany or Europe.

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- Mühle, H., P. Brandl, and M. Niehuis. 2000.** *Catalogus Faunae Graeciae, Coleoptera: Buprestidae*. Published by H. Mühle. 254 pp., 8 color plates.
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- Sakalian, V. P. 2003.** *A catalogue of the jewel beetles of Bulgaria (Coleoptera, Buprestidae)*. *Zoocartographia Balcanica* 2:1–246. Pensoft *Series Faunistica* number 30.
- Verdugo, A. 2005.** *Fauna de Buprestidae de la Península Ibérica y Baleares (Coleoptera)*. Argania Editio, Barcelona. 372 pp., 84 plates.

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VERDUGO, A. 2005. **Fauna de Buprestidae de la Península Ibérica y Baleares (Coleoptera)**, 372 pp., 84 plates (60 color, 24 black & white). Available from the publisher, Argania Editio: www.entomopraxis.com/argania, email: argania@entomopraxis.com for 86 Euros + VAT/shipping.

This new hard cover volume (size: 17 × 24 cm) is the first revision of the 191 species and subspecies that are known to occur in Portugal, Spain, and the Balearic Islands since the work of Cobos (1986). This volume joins the modern faunistic volumes on buprestids from Bulgaria (Sakalian 2003), Greece (Mühle *et al.* 2000), Hungary (Muskovits and Hegyessy 2002), Italy (Curlletti 1994), and parts of Germany (*e.g.*, Niehuis 2004) and together these volumes will contribute to the anticipated new catalogue of Palaearctic Coleoptera (Kubán *et al.* in press). However, these regional volumes differ in a number of areas and some may actually require correction before their true value is ascertained; this present volume is broadly lacking in comparison to others, especially the very fine work of Niehuis (2004).

The text is in Spanish, with an English prologue by Manfred Niehuis, followed by a brief introduction addressing the placement in the higher classification and a lengthy discussion of important adult and larval characters. Thereafter larval keys to the tribes and genera followed by sections on ethology and biology, including both adult and larval habits, life cycles, enemies and parasites, a general faunistic summary, and acknowledgments. A page defining the botanical icons used for each species and subspecies precedes a brief “catalogue” (actually no more than a checklist) of the included taxa. The catalogue is prefaced by 12 taxonomic changes, which will need to be studied and either confirmed or refuted by other specialists from the Palaearctic region. A key to the tribes introduces the main systematic section (pp. 38–247). All taxa discussed therein have complete descriptions and dichotomous keys to genera, subgenera, and species. The biology and the geographic distribution of all species and subspecies are also included, with the use of botanical icons to summarize the host plants, one linear bar graph shows the emergence period and a distribution map for each taxon in the subject area. A complete bibliography and taxon index concludes the text. The black and white plates follows with the first 60 figures for larvae, both dorsal habitus and specific structure, figures 61–73 are adult structures, and figures 74–152 are of genitalia. The color plates on pages 289–350 complete the volume: pages 289–338 present four species per plate in dorsal habitus; page 339 has one larva and two pupae within their tunnels or cells; page 340 shows three adults photographed *in situ*, and pages 341–350 show 10 species in 10 genera each magnified to fill the single page.

The volume is well-appointed, with a nice layout, and it is printed on good paper. Outside of the scientific names and those of other authors/specialists, I found no typos; but admit that since it is in Spanish, I did not read it thoroughly from cover to cover. My concerns about the volume are not insignificant. Firstly, the proposed taxonomic changes introduced on page 29, and later discussed under the respective taxa, are ill-advised in such a work. The recognition or reduction of higher taxa that have not been widely accepted or used requires more than a one or two-line statement of

opinion. Indeed there are discussions about these proposals or reversals within the text, however in the context of a regional faunistic work, it makes no sense to make such fundamental alterations to the classification which otherwise seems to be stabilizing (e.g., Volkovitsh 2001; Bellamy 2003). In particular reference to Verdugo's resurrection of Sphenopterinae and Trachydinae at the subfamily rank, it seems particularly ill-considered as Holyński (1988, 1993) considered these higher taxa as Sphenopterina and Trachydinae, while Volkovitsh (2001) and Bellamy (2003) considered both at the tribal rank (Sphenopterini, Trachydini). In fact, on page 29, Verdugo presents Sphenopterinae as a "new subfamily"! Additionally, the reduction of *Yamina* Kerremans to a subgenus of *Buprestis* Linnaeus does not discuss such a shift in context to the significant work by Kurosawa (1988). The other proposals are within the species group nomenclature and will be debated by the community and probably should have been vetted and/or coordinated in context to the recent work of Arnáiz *et al.* (2002) and the other recent regional faunistic treatments listed above. Since the work neither lists type species for the higher taxa nor discusses type specimens, it seems apparent that mistakes of interpretation were waiting to happen. Typical faunistic volumes provide detailed distribution information, via data from examined specimens, which provides a vouchering of the data and from which distribution maps are created. The distributions suggested by maps in this volume seem to be rather by whim, as the shaded areas in most of the maps are of regular polygons, or with the entire region shaded, and there are no specific specimen/locality data presented.

My second concern is that while some of the taxa illustrated in the color plates are presented at good resolution and color reproduction, most of the photos of smaller taxa (*Agrilus*, *Anthaxia*, *Cylindromorphus*, *Habroloma*, *Trachys*, etc.) shown are either too dark or out of focus, or both (specifically some on pages 334–338). While the checklist (pages 30–36) seems clean enough, the reduced synonymies under each discussed taxon do not present a full synonymy, neither for those synonyms within the Iberian fauna nor wider in the Palaearctic region. In fact, what appears to be an abbreviated list of synonyms, is in most cases a mixed list of original descriptions and subspecific taxa, while true synonyms are prefaced with the "=" sign. There is no immediate way to refer to the abbreviated references in the subspecies/synonym lists, because while the "bibliography" lists multiple publications by the same author in the same year in the conventional manner, e.g., 1952a, 1952b, etc., the synonymy references lack anything but the year date and then an abbreviation of the journal, e.g., "Cobos, 1954. *Arch. Inst. Aclim. Almería*, III: 29–39." This all seems redundant when the more typical system widely in use would simply present author, year date: page number so that Cobos 1954b:283 would easily refer to "Cobos, A. 1954b" in full in the bibliography and reduce the verbiage in the synonymy lists. Following each taxon discussion is a listing of "Referencias", but these are restricted to the author name and the date; it would be much more utilitarian to include the specific pagination. The following are examples of specific omissions or mistakes I found in the text:

1. The use of *Habroloma geranii* Silfverberg, 1977 ignores ICZN (1985) Opinion 1322 which conserved *H. namum* (Paykull, 1799) and negated Silfverberg's replacement name.
2. *Acmæodera rubromaculata malacensis* Cobos, 1954 is listed below the nominate species. In the bibliography there are four "Cobos, A. 1954" citations, none of which is the correct reference to the original description, which is listed earlier, and correctly, as Cobos, A. 1952b.
3. The original combination for *Cyphosoma lawsoniae* (Chevrolat, 1838) is given as *Caeculus lawsoniae* Chevrolat, 1838:55, when in fact it should be *Buprestis (Cyphosoma) lausoniae* Chevrolat, 1838:56. The misspelling of the specific epithet is a common error, but it does not appear that the original literature was checked by the author.
4. The alignment of *Agrilus* species into subgenera is not in keeping with the developing subgeneric system and modern systematics of this enormous genus, e.g., Bellamy 1996; Curletti 1998; Jendek 2002a, b, etc.
5. There are misspellings/typos that may be the result of Spanish grammar, e.g., the name of Holyński is instead spelled "Holynsky" although all other author surnames containing diacritical marks are presented correctly; Géné is misspelled as Gené. There are taxon names with diacritical marks, even though the International Code of Zoological Nomenclature forbids it, e.g., "Psiloptérides" (page 73).

All in all, this is a nice-looking contribution, but is vastly overpriced considering the limited number of taxa included, the systematic lapses or *lapsus*, and the overall poor quality of many of

the color images. While this volume is written firstly for the specialist, the other possible clients for this volume (e.g., coleopterists from the region) and those interested in the entomofauna and/or natural history of the Iberian peninsula, will be misled by a false classification due to the number of misapplied decisions or simply erroneous conclusions.

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