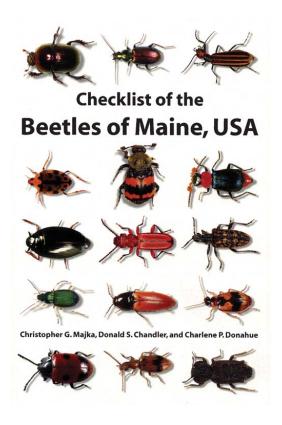
BOOK REVIEW

MAJKA, C. G., D. S. CHANDLER, AND C. P. DONAHUE. 2011. CHECKLIST OF THE BEETLES OF MAINE, USA. Empty Mirrors Press, Halifax, Nova Scotia, Canada. 328pp. ISBN: 978-0-9695104-4-4. Paperbound. Price: US\$62.00. Available at www.chebucto.ns.ca/~aa051/maine.html.



Few books comprehensively cover the beetle fauna of a region or state. Many authors only attempt to cover a select group of taxa, provide a basic listing of names, or simply present the more common species from a region. I am pleased to say this book is a refreshing change of pace. This paperbound tome presents an extensive and detailed checklist of the Coleoptera fauna of Maine, covering 2,871 species in 96 families. The book comprises four introductory sections, a checklist section with each familial account, an extensive literature cited and supraspecific index, acknowledgments, and a Maine state map.

The first introductory section begins with a brief history of beetle research in Maine that was initiated by John Randall (1838), wherein 53 new species were described. Randall was mentored by the legendary Thaddeus Harris whose son also studied tiger beetles from Maine. The section continues with an interesting array of famous entomologists (A. S. Packard, C. A. Frost, J. L. LeConte, T. L. Casey, and

others) who contributed to the state's beetle knowledge. If you are an aficionado of historical entomological figures and their influence, then you will enjoy this short romp through a menagerie of Maine beetlers, past and present. Another introductory section provides an explanation of how the checklist was compiled and the data sources that were consulted. Some records were retrieved from select reference collections, while many others were derived from published sources. To their credit, the authors were quite rigorous in their quest for publications that included Maine beetles and checked catalogues and monographs, as well as applied papers. Rather than blindly include each and every published record, the authors carefully examined the accuracy of these records. As a coleopterist interested in faunistic surveys, regional endemism, and broad geographic patterns, I commend them on their exclusion of dubious or likely erroneous records by authors without the requisite expertise to identify problematic species in difficult genera. The promulgation of misidentifications and erroneous records can cause misinterpretations by subsequent taxonomists, conservation biologists, ecologists, land-use managers, and other interested parties in both applied and basic fields. This checklist excludes 58 species previously recorded from the state.

The methods and conventions section details the design and organization of the checklist and the authors' intent to thoroughly document each species. The authors implement the higher-level systematic categorization of the two-volume "American Beetles" (Arnett and Thomas 2000; and Arnett et al. 2002). Although this provides consistency to the reader who may already be familiar with these other texts, there are a few changes that have been made since, most notably in the Handbook of Zoology series (Beutel and Leschen 2005; Leschen et al. 2010), as well as a more recently published family-group name catalogue (Bouchard et al. 2011); the latter may not have been available during the preparation of the checklist. Thus, although not a major detraction of the book, the familial and superfamilial classification is not completely up to date.

The heart of the book, *i.e.* the checklist, is beautifully laid out and well-crafted for the reader and is organized phylogenetically by family. Each familial account includes family name/family common name, background information on family members including biology, number of inclusive species, ecology, taxonomy and systematics, any other relevant information such as the distribution of species and the biogeographic origin of invasive species, species names, sources of names, distribution in northeastern North America, and new records when relevant. Endnotes are available at the end of some chapters to provide information regarding the validity of specific records, misidentifications, erroneous records, corrections to misspellings, as well as synonyms. Also, an image of one representative species is provided for each familial account. Although some of the images of smaller beetles are a bit rough and the shadow effect is sometimes confusing, there is no doubt that these images provide the reader with a frame of reference for understanding features of these often never photographed taxa. Additional records for Maine's beetles are also provided for surrounding states and Canadian provinces, including Connecticut, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont in the U.S., and Labrador, New Brunswick, Newfoundland, Nova Scotia, Ontario, Prince Edward Island, and Québec in Canada. Thus, the reader is supplied not only with a checklist of beetles from Maine, but also with a clear indication of their distribution throughout northeastern North America.

The book ends with an extensive references section containing more than 500 citations to the literature. Likewise, the almost 2,000 entries in the index will supply readers a convenient means for locating their taxon of interest. Finally, for those unfamiliar with the state of Maine, a line drawing will help provide useful landmarks for assessing the location of each species within the state.

Physically, the bookbinding is quite good and possesses laminated paper covers. The front cover depicts numerous color images of a diverse assemblage of beetles, and the back cover presents a brief summary of the book and a short biography of each author. The paper quality is high with minimal bleed through of adjacent pages. Overall, the book will wear well over the years, even with heavy use.

My copy of *Checklist of the Beetles of Maine*, USA will be placed beside copies of the *Beetle* Fauna of Rhode Island (Sikes 2004), American Beetles (Arnett and Thomas 2000; Arnett et al. 2002), and *The Beetles of Northeastern North America* (Downie and Arnett 1996) as a necessary text for understanding the rich diversity of beetles found in that area. The book's readership, however, will equally extend not only to coleopterists, but also to conservation biologists, ecologists, biogeographers, and other entomologists interested in faunistic surveys that thoroughly document a region by providing a robust assemblage of data on a large number of taxa. I highly recommend this book for all those that are interested in the beetle diversity of North America.

References Cited

- Arnett, R. H., and M. C. Thomas. 2000. American Beetles. Volume 1. Archostemata, Myxophaga, Adephaga, Polyphaga: Staphyliniformia. CRC Press, Boca Raton, FL.
- Arnett, R. H., M. C. Thomas, P. E. Skelley, and J. H. Frank (editors). 2002. American Beetles. Volume 2. Polyphaga: Scarabaeoidea through Curculionoidea. CRC Press, Boca Raton, FL.
- Beutel, R. G., and R. A. B. Leschen (editors). 2005. Handbook of Zoology: A Natural History of the Phyla of the Animal Kingdom. Volume IV Arthropoda: Insecta, Part 38. Coleoptera, Beetles. Volume 1: Morphology and Systematics (Archostemata, Adephaga, Myxophaga, Polyphaga partim). Walter de Gruyter, Berlin, Germany.
- Bouchard, P., Y. Bousquet, A. E. Davies, M. A. Alonso-Zarazaga, J. F. Lawrence, C. H. C. Lyal, A. F. Newton, C. A. M. Reid, M. Schmitt, S. A. Ślipiński, and A. B. T. Smith. 2011. Family-group names in Coleoptera (Insecta). ZooKeys 88: 1–972.
- **Downie, N. M., and R. H. Arnett. 1996.** The Beetles of Northeastern North America. Sandhill Crane Press, Gainesville, FL.
- Leschen, R. A. B., R. G. Beutel, J. F. Lawrence, and S. A. Ślipiński. 2010. Handbook of Zoology: A Natural History of the Phyla of the Animal Kingdom. Volume IV Arthropoda: Insecta, Part 38. Coleoptera, Beetles. Volume 2: Morphology and Systematics (Elateroidea, Bostrichiformia, Cucujiformia partim). Walter deGruyter, Berlin, Germany.
- Randall, S. W. 1838. Descriptions of new species of coleopterous insects inhabiting the state of Maine. Boston Journal of Natural History 2: 1–33.
- Sikes, D. S. 2004. The Beetle Fauna of Rhode Island: An Annotated Checklist. Volume 3 of The Biota of Rhode Island. The Rhode Island Natural History Survey, Kingston, RI.

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