

Damselfly Genera of the New World, an Illustrated and Annotated Key to the Zygoptera

Author: Paulson, Dennis

Source: Florida Entomologist, 93(4) : 666

Published By: Florida Entomological Society

URL: <https://doi.org/10.1653/024.093.0434>

BioOne Complete (complete.BioOne.org) is a full-text database of 200 subscribed and open-access titles in the biological, ecological, and environmental sciences published by nonprofit societies, associations, museums, institutions, and presses.

Your use of this PDF, the BioOne Complete website, and all posted and associated content indicates your acceptance of BioOne's Terms of Use, available at www.bioone.org/terms-of-use.

Usage of BioOne Complete content is strictly limited to personal, educational, and non - commercial use. Commercial inquiries or rights and permissions requests should be directed to the individual publisher as copyright holder.

BioOne sees sustainable scholarly publishing as an inherently collaborative enterprise connecting authors, nonprofit publishers, academic institutions, research libraries, and research funders in the common goal of maximizing access to critical research.

GARRISON, R. W., VON ELLENRIEDER, N., AND LOUTON, J. A. 2010. Damselfly Genera of the New World, an Illustrated and Annotated Key to the Zygoptera. The Johns Hopkins University Press, 490 pp., 2586 figs., 108 maps. ISBN 978-0-8018-9670-5. Hardback, \$84.37 (amazon.com).

This book follows by four years its companion volume on the Anisoptera of the New World by the same authors (Garrison et al. 2006, reviewed in Florida Entomologist 90: 290-291). Although about the same number of genera (124 Anisoptera, 118 Zygoptera) are treated in the two books, the dragonflies are treated in 368 pages with 1626 figures, the damselflies in 490 pages with 2586 figures. This points out the considerably greater degree of work and detail the authors put into the second volume.

In addition, while preparing to write and writing this volume, the first two authors have become the pre-eminent odonate taxonomists of the New World tropics, publishing no fewer than 17 papers (since 2000) to clarify the taxonomy of numerous groups, some of them large. Before this, the largest family, Coenagrionidae, was a taxonomic quagmire, and now a fair modicum of order has emerged from the chaos. How else to build a key to genera that actually works?

This book easily lives up to the expectations promised by the dragonfly volume, including comprehensive, extremely well illustrated keys; detailed morphological descriptions of each genus; and brief descriptions of natural history wherever known. The writing is clear, but its conciseness fails to convey how much work at the microscope must have gone into the keys and descriptions. And most of us will be unable to imagine the amount of time that went into producing the figures.

They are meticulous and superb, by the standards of any scientific illustrator. They are lavishly provided, often more than one species in a genus. I am constantly engaged by the morphological diversity of damselflies that one can see under magnification, and this book shows it all. Many of them were used before, in their recently published papers, but the majority appear uniquely in this book. Having worked with the authors on several genera, I can add that they are impeccably accurate. The three-dimensional rendering of medio-dorsal views of terminal appendages is so much more helpful than the old standard of dorsal and lateral views that one wonders why the excellent illustrators of a century ago didn't come up with it.

There are a lot more photos in this book than in the dragonfly book, 81 vs. 24, and the beauty

and variety of New World damselflies are shown off to the fullest. All the families are represented, and there was a real effort made to get all the genera. Many have not been photographed.

Everything about this volume invites the term "comprehensive." The maps of generic ranges are of great value to the biogeographer and might be used to point out poorly surveyed regions. The long list of references provides access to the taxonomic and biological literature of all New World damselflies, and to that all-important opportunity to identify specimens to species. The list that attributes a locality to every figure is a nice touch.

If there are mistakes in the volume, I did not find them with my level of scrutiny. The very timely Appendix lists additions and corrections to the Anisoptera volume, and such a list will doubtless be generated for this volume in a few years.

Like Philip Corbet's grand book on Odonata (Corbet 1999), the two superb volumes from these authors are perfectly placed to show us what still needs to be done: 1) databasing and georeferencing existing collections to give an even clearer picture of regional biodiversity; 2) many more surveys and much more collecting over neotropical regions that are still poorly known; 3) modern taxonomic revisions of genera that have not yet received that treatment; and 4) sets of keys to species, especially regional keys such as those by Lencioni (2005, 2006). Finally, regional photo-illustrated field guides to all species!

REFERENCES CITED

- CORBET, P. S. 1999. Dragonflies: Behavior and Ecology of Odonata. Cornell University Press, Ithaca, NY.
 GARRISON, R. W., VON ELLENRIEDER, N., AND LOUTON, J. A. 2006. Dragonfly Genera of the New World. Johns Hopkins University Press, Baltimore.
 LENCIONI, F. A. A. 2005. Damselflies of Brazil: An Illustrated identification guide. 1 - Non-Coenagrionidae families. All Print Editora, São Paulo.
 LENCIONI, F. A. A. 2006. Damselflies of Brazil: An Illustrated identification guide. 2 - Coenagrionidae. All Print Editora, São Paulo.

Dennis Paulson
 Slater Museum of Natural History
 University of Puget Sound
 Tacoma, WA 98416
 E-mail: dpaulson@pugetsound.edu