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## A Treatise on the Western Hemisphere Caraboidea (Coleoptera). Their classification, distributions, and ways of life. Volume II (Carabidae-Nebriiformes 2-Cicindelitae)

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## BOOK REVIEW

A Treatise on the Western Hemisphere Caraboidea (Coleoptera). Their classification, distributions, and ways of life. Volume II (Carabidae-Nebriiformes 2-Cicindelitae). By Terry L. Erwin & David L. Pearson. Published by: Pensoft Publishers, Pensoft Series Faunistica 84, 2008. 365 pages with 33 color plates. Size 16.5 × 24 cm, hard cover. Available from: Pensoft Publishers., Sofia based Scientific Publishers and Booksellers, Geo Milev Str., No 13a, 1111 Sofia, BULGARIA, Tel: +359-2-8704281, Fax: +359-2-8704282, E-mail: info@pensoft.net, WWW: <http://www.pensoft.net>. Price 95 Euro (about 140 USD).

Tiger beetles have long enjoyed a popularity that is disproportionate to their diversity, abundance, and economic importance relative to other groups of beetles. This seems as much due to their charismatic behavior – toothy jawed predators in extreme habitats – as it is to their brilliant colors, dazzling designs, and penchant for polytopism. Never before has this popularity been more evident than in the past decade, during which time there has been a veritable explosion of popular and semi-popular tiger beetle books. Barry Knisley and Tom Schulz (1997) got things going with their regional guide to species occurring in the southeastern U.S., followed closely by a similar guide to the northeastern U.S. (Leonard and Bell 1998). Both of these books featured color photographs of all species treated and supplemented species treatments with sections on biology, natural history, rearing, and conservation. No longer were avocational or professional entomologists forced to consult dry, technical treatments in primary journals for information on these anything-but-dry, boring beetles. These two books were, in turn, followed by several smaller regional treatments, including John Acorn's (2001) eccentric and highly entertaining *Tiger Beetles of Alberta* and Paul Choate's (2003) alternative treatment of Florida species, as well as a comprehensive summary of the group's ecology and evolution by David Pearson and Alfred Vogler (2001). The granddaddy of all tiger beetle books – at least for U.S. cicindelophiles – appeared a few years later in the form of *A Field Guide to the Tiger Beetles of the United States and Canada*, by Dave Pearson and colleagues (2006). At long last, keys, photographs, and discussions of habitats, biology, and variation of every species and subspecies known from the U.S. and Canada could be found in a single source.

The latest contribution to this growing body of literature is the most comprehensive yet. In it, Dave Pearson has teamed up with ground beetle expert and lead author Terry Erwin to provide a synthesis of every species of tiger beetle known to occur in the Western Hemisphere. Erwin and Pearson (2008) is a beautifully printed and handsomely bound treatise that elaborates the current classification, taxonomy, distribution at the country and/or state/provincial level, and way of life of each species and subspecies, including comments on habitats, flight and dispersal capabilities, seasonal occurrence, and behavior. References for each species and an extensive bibliography are also provided, as are notes on threatened and endangered species and subspecies.

There is much to like about this book. The scope of coverage to include the entire Western Hemisphere is unprecedented – few insect taxa, even popular ones, have

been treated so expansively. Those without access to comprehensive libraries of primary tiger beetle literature will appreciate having all of the available information in one book, while those with access to the literature will appreciate the references for individual species. Even those whose interest is restricted to the North American fauna will find the historical nomenclature handy – something lacking in Pearson et al. (2006). As a bonus, a full color plate is offered for each genus that offers a spectacular extended focus image of a representative species, along with additional photographs provided by a number of contributors of live beetles and their habitats (I myself had the privilege of providing photographs for the *Cylindera*, *Dromochorus*, and *Ellipsoptera* plates). Collectively, these images provide a comprehensive look at the diversity and habitats of New World tiger beetles that has until now not been available.

The book, however, is not without its criticisms. There has long been controversy within the Tiger Beetle Guild regarding the relationship of tiger beetles to ground beetles and whether/which of the many described subgenera of the genus *Cicindela* should be accorded generic status. Erwin and Pearson fall solidly in the camp that considers tiger beetles a subgroup of ground beetles, a position that is becoming increasingly easy to defend on the basis of molecular phylogenetic analyzes (e.g., Beutel et al. 2008). Nonetheless, I suspect many will be bothered by the decision to rank tiger beetles as a supertribe – “Cicindelitae” - in the subfamily Carabinae, rather than according the group sufamilial status. Unfortunately, no justification for such placement is offered (unless this appears in Volume 1, which I have not seen). Likewise with subgenera, Erwin and Pearson break ranks with the preponderance of recent North American literature (including Pearson’s own 2006 book) and accord full generic rank to most of the former subgenera of the genus *Cicindela*, including such familiar North American taxa as *Cylindera*, *Dromochorus*, *Ellipsoptera*, *Eunota*, and *Habroscelimorpha* (*Tribonia*, on the other hand, is synonymized under *Cicindela*, leaving *Cicindelidia* as the only non-nominate subgenus of *Cicindela*). Certain of these taxonomic acts (e.g., the elevation of *Dromochorus* to full genus) will likely confront little opposition; however, again no justification is provided, leaving the reader with the impression – rightly or wrongly – that the new rankings are the result of personal preference rather than considered analysis. I was also a bit puzzled by the treatment of some subspecies as valid that Pearson himself had previously synonymized (e.g., *Cicindela tranquebarica* subspecies *rogensis* and *lassenica*).

Pensoft Publishers has established a reputation for quality with their previous offerings, and this book appears to continue that tradition. However, at a price of EURO 95, this book will probably not be highly sought after by the casual North American tiger beetle collector. Nevertheless, I think any serious student of the group will want this in their library, regardless of how complete their literature collection on the group is.

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