University of Nebraska - Lincoln
DigitalCommons@University of Nebraska - Lincoln

Entomology Papers from Other Sources | Entomology Collections, Miscellaneous

1-1-2009

Book review: RATCLIFFE, B. C AND M. J. PAULSEN. 2008. *The Scarabaeoid Beetles of Nebraska*. Bulletin of the University of Nebraska State Museum 22, 570 p.

Donald B. Thomas
USDA-ARS Kika de la Garza SARC (Weslaco, Texas)

Follow this and additional works at: http://digitalcommons.unl.edu/entomologyother

Part of the Biodiversity Commons, and the Entomology Commons

Thomas, Donald B., "Book review: RATCLIFFE, B. C AND M. J. PAULSEN. 2008. *The Scarabaeoid Beetles of Nebraska*. Bulletin of the University of Nebraska State Museum 22, 570 p." (2009). *Entomology Papers from Other Sources.* Paper 115.
http://digitalcommons.unl.edu/entomologyother/115

This Article is brought to you for free and open access by the Entomology Collections, Miscellaneous at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Entomology Papers from Other Sources by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

This article is a U.S. government work, and is not subject to copyright in the United States.

Thomas, "Book review," in Coleopterists Bulletin (2009) 63(1). Copyright 2009, Coleopterists Society. Used by permission.

The Coleopterists Bulletin, 63(1):31–32. 2009.

BOOK REVIEW

RATCLIFFE, B. C AND M. J. PAULSEN. 2008. **The Scarabaeoid Beetles of Nebraska.** Bulletin of the University of Nebraska State Museum 22: 1–570. Price: $50 USD plus postage. Available from: www.museum.unl.edu/research/entomology/NebraskaBook.htm.

Who could have known that the treeless plains of Nebraska, much of which is now corn desert, could be home to 256 species of scarabaeoid beetles? Yes, 52 of those are in the genus *Aphodius* and another 36 are in the genus *Phyllophaga* (both *sensu lato*). Still, even a former Nebraska resident beetle collector such as myself had no idea that a species as marvelous as *Odontaeus thoracicornis* could be found there, as is reported for the first time by Brett Ratcliffe and M. J. Paulsen in their new book entitled simply "The Scarabaeoid Beetles of Nebraska." It could be argued that the more spectacular beetles, such as *Lucanus elephas* (which adorns the book cover), known only from the two southeasternmost counties of the state, are actually spill-overs from comparatively tropical Iowa. Nonetheless, it is still remarkable that a state which would have no topography at all were it not for the highway overpasses would have such a diverse beetle fauna. A chunk of Wyoming (shown in their Figure 14) extends into Dawes County in the northwestern corner of the state, but the Rocky Mountain element contributes only about one percent to Nebraska's scarabaeoid fauna. In a section on biogeography, the authors explain that much of the diversity can be attributed to the gallery forests that extend along the Missouri and Platte Rivers, although the latter may not strictly fit the dictionary definition of a river, which usually includes something about water. The book's Figure 13 gives testament to the local farmers' complaint that even in the wet stage the Platte is too thin to plow and too thick to drink. A colored-key vegetation map of the state on page 9 gives the impression of considerable floristic diversity until one reads the legend and realizes that 99% of the area is covered in biotopes that end with the descriptors "-grass prairie." An example of what passes for unique habitat in Nebraska, and a significant contributor (around 13%) to the scarab diversity is the Sand Hills, described by the authors as a "treeless landscape of grass-covered dunes." And while it is not true that the state tree of Nebraska is the telephone pole, their description would apply to what I remember of a summer spent in Clay County where the humpless buffalo now roam, and a significant dung beetle fauna along with them. Needless to say, the word "endemic" does not appear in this book except in the glossary. Rather it appears that Nebraska is simply in the middle of everything and thus draws from all directions particularly (25%) from the southeast. The authors state that "Nebraska is a pivotal state for scarab beetles because, eastern and western faunas as well as northern and southern faunas converge here as in no other state." The authors might also have mentioned that the Nebraskan fauna converges as well with Lithuania, due to the significant number of European adventives. Therein lies the value of the book in that its coverage easily extends to the other prairie states.

The book is organized into a format which provides a description, diagnosis, geographic range, brief notes on the biology, and a Nebraska distribution map for each species. A habitus figure, either a high quality black and white photograph, or an excellent hand drawn illustration, is provided for about 90% of the species. Line drawings of the genitalia are provided to supplement the keys where they are necessary for species identification. Those for *Phyllophaga* are particularly well executed. In fact, there is hardly a page of the book that does not have an illustration of some kind. Moreover, there are keys not just for the adults, but for most of the larval forms. Then, as a special bonus, there are color plates scattered at points in the book including life paintings by Mark Marcuson. Adobe photoshopping was evident only on the back cover. The text has a double column format with large font (thank you) and, with my compliments to the proofreader, is devoid of typos.

The checklist, the last entry in the book, cites 65 genera of scarabaeoids for Nebraska; however, the approach is taxonomically conservative. *Stephanuca* is formally synonymized under *Euphoria, Trichesthes* is subsumed under *Phyllophaga*, and the authors dismiss the heroic efforts by Gordon and Skelley (2007) to wrestle the gargantuan genus *Aphodius* to the mat. Had they chosen to follow the latter's classification there would be 14 genera of Aphodiini (instead of three) in Nebraska; *Aphodius* not among them.

The book is one of a series of excellent monographs on scarabaeoids published through the University of Nebraska State Museum. These are available on-line at www.museum.unl.edu/pubs/bulletins.html.

Literature cited

Gordon, R. D., and P. E. Skelley. 2007. A monograph of the Aphodiini inhabiting the United States and Canada (Coleoptera: Scarabaeidae: Aphodiinae). Memoirs of the American Entomological Institute 79:1–580.

Donald B. Thomas, *USDA-ARS Kika de la Garza SARC, 2413 E. Hwy 83., Bldg. 200, Weslaco, TX 78596, USA.*

(Received 1 September 2008; accepted 3 September 2008. Publication date 22 April 2009.)