

- CHAMPION, G. C. 1910. *Biologia Centrali-Americana*, Insecta, Coleoptera (Curculionidae), 4(7):1-223.
- DUGES, E. 1881. Descripciones de coleópteros indiginas. *La Naturaleza* 5:103-125; pl. 3.
- DUGES, E. 1886. Métamorphoses de quelques Coléoptères mexicains. *Ann. Ent. Soc. Belgique* 30:27-45; pl. 1-3.
- GYLLENHAL, L. 1838. *In* Schoenherr, C. J., *Genera et species curculionidum*, 4(2):601-1121.
- HORN, G. H. 1873. Contributions to a knowledge of the Curculionidae of the United States. *Proc. Amer. Phil. Soc.* 13:407-447.
- LECONTE, J. L. 1857 [=1860]. Report upon insects collected on the survey. *In* Reports of explorations and surveys . . . 9(1):1-72. [Published as a preprint 1857].
- LECONTE, J. L. 1876. *In* LeConte, J. L., and G. H. Horn, *The Rhynchophora of America north of Mexico*. *Proc. Amer. Phil. Soc.* 15:1-455.
- MATERU, M. E. A., AND D. HOPKINSON. 1969. The control of the sisal weevil (*Scyphophorus interstitialis* Gyll.) in Tanzania. *E. African Agric. For. Jour.* 35:78-86.
- SCHOENHERR, C. J. 1838. *Genera et species curculionidum* 4(2):601-1121.
- SLEEPER, E. L. 1957. Notes on the Curculionoidea. *Ohio J. Sci.* 57(1):38-42.
- SWEZEY, O. H. 1927. The sisal borer in Hawaii. *Proc. Hawaiian Entomol. Soc.* 6(3):403-404.
- ZIMMERMAN, E. C. 1941. The Rhynchophorinae found in Hawaii. *Proc. Hawaiian Ent. Soc.* 11:96-102.

BOOK REVIEW

The Wasps by Howard E. Evans and Mary Jane West Eberhard. University of Michigan Press, Ann Arbor; 265 p., 122 fig.; 1970. Paperback, \$3.45; library edition, \$7.95.

No, we have not transferred wasps to the order Coleoptera. However, beetles play several important roles in the lives of wasps. Not only are many beetle larvae hosts for parasitic wasps of several groups, but there are beetles which are parasitic and predaceous on wasps.

Parasitic wasps of the families Scoliidae and Tiphidae are fairly well known as enemies of Coleoptera larvae found in soil and rotting wood, especially the white grubs (Scarabaeidae). Less well known is a subfamily of Tiphidae (the Methochinae) which attack larvae of Cicindelidae in their burrows, stinging them, laying their egg, and sealing off the burrow. Two of the 9 subfamilies of Sphecidae (Philanthinae & Crabroninae) also utilize Coleoptera as prey.

One of the chapters is entitled "Beetles as enemies of wasps," and it discusses representatives of 5 beetle families. Carabidae are mentioned as minor predators; Cicindelidae have been observed stealing prey; a species of Cleridae feeds on wasp larvae in cells in wood; but the most significant are the Rhipiphoridae and Stylopidae that are wasp parasites.

The book is well illustrated with line drawings and numerous photographs. This is another of the fine books from the pen of Howard Evans, an excellent entomologist as well as a prolific writer. I am sure that Fabre would be astounded with the amount of behavior studies now being conducted on the Hymenoptera. Surely beetles are equally interesting subjects and offer a nearly wide open field for investigation. It is lamentable that a good general biology, such as *The Wasps*, is not available for more orders of insects--especially the Coleoptera. (R. E. Woodruff)



Woodruff, Review By: R E. 1971. "The Wasps by Howard E. Evans, Mary Jane West Eberhard." *The Coleopterists' Bulletin* 25(1), 8-8.

View This Item Online: <https://www.biodiversitylibrary.org/item/271415>

Permalink: <https://www.biodiversitylibrary.org/partpdf/372516>

Holding Institution

University Library, University of Illinois Urbana Champaign

Sponsored by

University of Illinois Urbana-Champaign

Copyright & Reuse

Copyright Status: In copyright. Digitized with permission of the rights holder.

Rights Holder: The Coleopterists Society

License: <http://creativecommons.org/licenses/by-nc-sa/4.0/>

Rights: <https://www.biodiversitylibrary.org/permissions/>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.