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FIRST RECORD OF RHIPICERIDAE (COLEOPTERA: POLYPHAGA: DASCILLOIDEA) FROM WISCONSIN

Daniel K. Young¹ and Kerry Katovich²

ABSTRACT

The Cedar beetle family, Rhipiceridae, is recorded from Wisconsin for the first time. A single adult female of *Sandalus niger* was collected on a walkway along a forested path in south-central Wisconsin on 7 October 2000. This discovery represents not only the first record of Rhipiceridae from Wisconsin, but also the first record of the entire superfamily Dascilloidea, a relatively basal lineage of Elateriformia.

The small and poorly known dascilloid beetle family Rhipiceridae includes six genera and 57 species, widely distributed in all major zoogeographic regions (Lawrence et al. 1999). *Sandalus* Knoch (25 species) occurs in North and South America, Africa, Southeast Asia, China, India, and Japan; *Rhipicera* Latreille (15 species) occurs in Australia, New Caledonia and Brazil;

Chameorhipis Latreille (6 species) occurs in Africa; *Ptiocerus* Castelaney (4 species) is restricted to South Africa; *Arrhaphipterus* Kraatz (6 species) occurs in southeastern Europe, North Africa and central Asia; the monotypic *Polymerius marmoratus* Philippi is endemic to Chile (Katovich, unpubl. notes). Nearctic rhipicerid species, all in *Sandalus*, include *S. californicus* LeConte (California, Idaho, and Nevada), *S. cribricollis* Van Dyke (California), *S. niger* Knoch (southern Ontario south and west into Texas), *S. petrophyus* Knoch (north-central United States), and *S. porosus* LeConte (Arizona, Colorado, New Mexico, and Texas). At least some Neotropical and Nearctic species are known to be attracted to lights.

On 7 October 2000, a single adult female of *S. niger* was captured on a sidewalk in Stewart Park, in the city of Mount Horeb. The collection site is largely a semi-open, mesic forested habitat located in central Dane County, in south-central Wisconsin. The single specimen upon which this **new state record** is based, is housed in the Insect Research Collection of the Department of Entomology, University of Wisconsin-Madison. This discovery represents not only the first record of Rhipiceridae from Wisconsin, but also the first record of the entire superfamily Dascilloidea, a relatively basal lineage of Elateriformia. Dascillidae, the only other family of Dascilloidea in the United States is known from a meager fauna in the western states.

Sandalus niger is a hypermetamorphic species, with a triangulinoid first instar and subsequent ectoparasitoid instars developing on cicada nymphs (Craighead 1921, Hicks 1942, and Young 1956). During the summer of 2000, adult cicadas were quite abundant locally, perhaps correlating with the discovery of the adult *S. niger*.

Elzinga (1977) confirmed the cicada-host relationship, recording the life history of *S. niger* in Kansas. Adult emergence from soil occurred in late fall, with males frequently flying during warm afternoons, primarily around trees where a female was present. Large numbers of males were often seen attempting to mate with a single female; mating took place on the surface of the tree

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trunk. Rings (1942) recorded 16,846 eggs from a single female *S. niger*. Eggs were easily washed off plant materials during rain storms (as often appears to be the case with cicada eggs, as well); egg eclosion occurred in the following spring, producing a triungulin. Adults have not been observed to feed.

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