DISTRIBUTION AND HABITAT OF *DYSCHIRIUS CAMPICOLA* LINDROTH (COLEOPTERA: CARABIDAE) WITH NEW STATE RECORDS FOR OHIO AND ILLINOIS, FIRST RECORDS EAST OF THE MISSISSIPPI RIVER

ROBERT L. DAVIDSON AND HARRY J. LEE, JR.

(RLD) Section of Invertebrate Zoology, Carnegie Museum of Natural History, 4400 Forbes Avenue, Pittsburgh, Pennsylvania 15213; (HJL) 22646 MacBeth Avenue, Fairview Park, Ohio 44126.

Abstract.—*Dyschirius campicola* Lindroth (Coleoptera: Carabidae) is recorded from Ohio and Illinois, first records east of the Mississippi River. The habitat is described and all known locality records are assembled and presented in a range map.

Key Words: habitat, distribution

In 1981, Harry Lee collected a specimen of Dychirius campicola Lindroth at a very interesting salt flat habitat in northeastern Ohio. He had learned about this locality through the kindness of James Bissell, Curator of Botany at the Cleveland Museum of Natural History. Lindroth (1961) described this beetle from three widely separated localities in the Great Plains (Manitoba, New Mexico, Texas). At the time of its discovery in Ohio, it was still known only from these three original localities (Erwin et al. 1977). We have subsequently become aware of many more localities for this species based on museum specimens we have seen and on scattered records in recent publications. All of these localities are west of the Mississippi River. Our records from Illinois and Ohio are the first east of the Mississippi. The Ohio specimens represent a considerable eastward extension of the known range of the species. It is our purpose here to discuss briefly the habitat of D. campicola and to gather in one place all records in order to give a more complete picture of the known range.

We have seen many specimens of *D. campicola* in the American Museum of Natural History collected by Dr. Lee H. Herman in the course of his studies on the genus *Bledius* (Coleoptera: Staphylinidae). These locality records were recently published (Herman 1986), but only in a table of *Bledius-Dyschirius* associations where they may be overlooked by carabid workers. We thought it prudent to repeat them here and are indebted to Dr. Herman for allowing us to do so. Further records were discovered by Dr. Yves Bousquet and published in a couple of recent papers on *Dyschirius* and other carabids (Bousquet 1987, 1988).

Readers are referred to Herman's work for a more detailed discussion of *Bledius*-*Dyschirius* associations. We note here only that Herman found *Dyschirius campicola* in association with twelve species of *Bledius*, at least five of which are known to occur in saline habitats. Lindroth (1961, p. 143) mentions the habitat of *D. campicola* as "probably on alkaline places." Our specimens from Painesville, Ohio, were taken on a large salt flat. Dominant plants there, ac-



Fig. 1. Distribution of *Dyschirius campicola* Lindroth. Circles represent specific localities; stars represent state records without further locality.

cording to James Bissell, are Solidago sempervirens (Seaside Goldenrod), Kochia scoparia (Summer Cyprus), Suaeda calceoliformis (Western Sea Blite), Atriplex patula (Spearscale) and Phragmites australis (Phragmites). The carabid Bembidion viridicolle (LaFerte), a member of a group which favors salt and alkaline habitats, was also quite abundant there.

There follows a detailed list of all localities known to us for *Dyschirius campicola*. In parentheses after each locality and date is given the number of specimens (if known) and a collection acronym or a literature reference upon which the record is based. The following acronyms are used: American Museum of Natural History (AMNH), California Academy of Sciences (CAS), Carnegie Museum of Natural History (CMNH), Harry J. Lee, Jr., Collection (HJL), and United States National Museum (USNM).

- ALBERTA. South Saskatchewan R. x Highway 41, 25–31.VI.1980 (1, Bousquet 1987).
- ARIZONA. Cochise Co.: 16.5 mi. N. Douglas, 4700' (1, Bousquet 1987); Maricopa Co.: Tempe (3, Bousquet 1987).
- ARKANSAS. Conway Co.: 7 mi. S. Morrilton (10, Bousquet 1987).
- COLORADO. Larimer Co.: 6 mi. N. Loveland, Sept. 10, 1970 (1, AMNH). Pueblo Co.: 20 mi. E. Pueblo, Huerfano R., Sept. 15, 1970 (2, AMNH).
- ILLINOIS. Without further locality (1, CMNH).

- MANITOBA. Aweme (Lindroth 1961). This is the location of the farm of the entomologist Norman Criddle and is situated about 25 miles southeast of Brandon in the southwest corner of Manitoba near the North Dakota border (Gurney 1977).
- NEBRASKA. Garden Co.: Oshkosh near N. Platte R., Sept. 7, 1970 (1, AMNH).
- NEW MEXICO. Without further locality (1, CMNH). Bernalillo Co.: Albuquerque (Lindroth 1961).
- OHIO. Lake Co.: Painesville, salt flat, u-v light, July 18, 1981 (1, HJL), July 8, 1982 (7, CMNH, HJL).
- OKLAHOMA. Alfalfa Co.: 8 mi. N. Jet, Salt Fork of Arkansas River, Great Salt Plains St. Pk., dug from burrows, June 8, 1968 (1, AMNH). Choctaw Co.: Hugo, Red R. (5, AMNH). Kay Co.: 1 mi. E. Ponca City, Arkansas River, burrows in sand, June 17, 1968 (1, AMNH). Logan Co.: Cimarron River, near Coyle (3, Bousquet 1987).
- TEXAS. Oldham Co.: 42 mi. S. Dalhart, Canadian River, Sept. 17, 1970 (2, AMNH). Val Verde Co.: Del Rio (Lindroth 1961). Webb Co.: Laredo (USNM).
- UTAH. Weber Co.: Roy, 13-VII-1957 (1, CAS).

LITERATURE CITED

- Bousquet, Yves. 1987. The carabid fauna of Canada and Alaska: range extensions, additions and descriptions of two new species of *Dyschirius* (Coleoptera: Carabidae). Coleopterists Bulletin 41: 111–135.
- —. 1988. Dyschirius of America north of Mexico: descriptions of new species with keys to species groups and species (Coleoptera: Carabidae). Canadian Entomologist 120: 361–387.
- Erwin, T. L., D. R. Whitehead, and G. E. Ball. 1977. Family 4. Carabidae, The Ground Beetles, pp. 4.1– 4.68. In Blackwelder, R. E. and R. H. Arnett. Checklist of the Beetles of Canada, United States, Mexico, Central America, and the West Indies. World Digest Publications, Oxycopis Pond, Wallace Road, Kinderhook, New York.
- Gurney, Ashley B. 1977. Criddle-De-Diddle-Ensis. Proceedings of the Entomological Society of Washington 79: 13.
- Herman, Lee H. 1986. Revision of *Bledius*. Part IV. Classification of species groups, phylogeny, natural history, and catalogue (Coleoptera, Staphylinidae, Oxytelinae). Bulletin of the American Museum of Natural History 184: 1–368.
- Lindroth, Carl H. 1961. The ground-beetles (Carabidae, excl. Cicindelinae) of Canada and Alaska. Part 2. Opuscula Entomologica, Supplementum 20: 1–200.



Davidson, Robert L. and Lee, H J. 1990. "Distribution and habitat of Dyschirius campicola Lindroth (Coleoptera : Carabidae) with new state records for Ohio and Illinois, first records east of the Mississipi River." *Proceedings of the Entomological Society of Washington* 92, 205–207.

View This Item Online: <u>https://www.biodiversitylibrary.org/item/84617</u> Permalink: <u>https://www.biodiversitylibrary.org/partpdf/63928</u>

Holding Institution Smithsonian Libraries and Archives

Sponsored by Smithsonian

Copyright & Reuse

Copyright Status: In copyright. Digitized with the permission of the rights holder. Rights Holder: Entomological Society of Washington License: <u>http://creativecommons.org/licenses/by-nc-sa/3.0/</u> Rights: <u>https://biodiversitylibrary.org/permissions</u>

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.