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The Eastern Boxelder Bug, *Boisea trivittata* (Hemiptera: Rhopalidae): Confirmation in Arkansas

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Running Title: The Eastern Boxelder Bug in Arkansas

The documented hemipteran fauna of Arkansas has grown tremendously since taxa listed in Henry and Froeschner (1988). Several more recent reports have documented new records for the state (see Chordas et al. 2014). Although common and widespread, Chordas et al. (2005) pointed out that the eastern boxelder bug, *Boisea trivittata* (Say, 1825) was not included in the Arkansas list by Henry and Froeschner (1988). Although surprising, given the commonality of this bug, our literature search did not contradict the notion of the lack of a refereed published report of this species for Arkansas. Here, we document *B. trivittata*, with deposited voucher specimens, for the state.

On 19 March 2014, CTM collected numerous plant bugs from a terrestrial habitat at Flint Creek, SW of Gentry off county road 10, in Benton County (36°14'23.23"N, 94°30'00.03"W, elevation 330 m). Bugs were collected with a standard insect sweep net, placed in 70% ethanol and forwarded to SWC for identification. Voucher specimens were deposited into the C.A. Triplehorn Insect Collection (The Ohio State University, Columbus, Ohio). Brimley (1938), Henry and Froeschner (1988), Maw et al. (2000), Grimnes et al. (2003), Palazzo and Setzer (2009) and a WorldCat literature search were used for published distribution references.

Bugs were identified as males, females and nymphs of *B. trivittata*. Numerous specimens were collected along a cobble and sandy habitat from near the shore of Flint Creek (Fig. 1). We estimate an aggregation of over 500 bugs were in and among this habitat.

Boisea trivittata is a scentless plant bug that feeds mainly on the seeds of maple (*Acer* spp.) and soapberry (*Sapindus saponaria*) trees and are occasionally an urban nuisance pest around homes. An on-line image search for "*Boisea trivittata*" will yield multiple and very nice color photos of the species; thus, we do not include an image here.

In North America, *B. trivittata* is native to most of

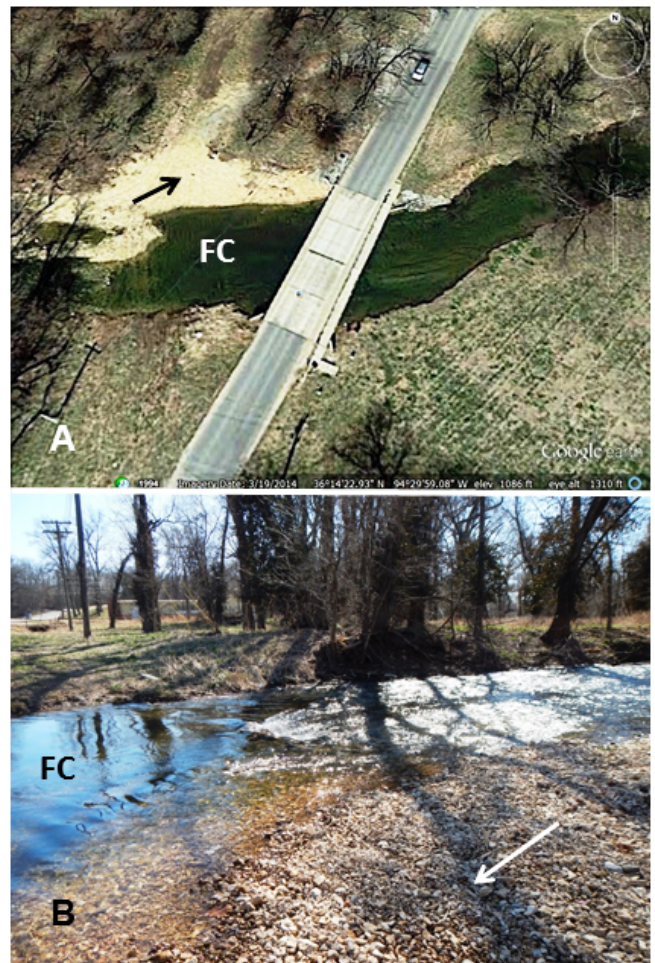


Figure 1. Collection site at Flint Creek (FC) where a large aggregate of *Boisea trivittata* was encountered. A. GoogleEarth aerial view of shoreline (arrow). B. Ground view of site looking southwest showing cobble and sand on shoreline (arrow).

the continental United States and Canada, excluding the very western parts (Fig. 2). Although a photograph and note about this species is posted on the University of Arkansas Arthropod Museum website (see <http://www.uark.edu/ua/arthemuse/boxbug.html>), insofar as we were able to determine, we provide the first literature record for *B. trivittata* in Arkansas.

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A tabulation of literature geographic distribution records for *B. trivittata* (Fig. 2) includes 39 records, 35 in the USA and four records in Canada as follows: Alabama, Arizona, **Arkansas (Confirmation Record)**, Colorado, Connecticut, Florida, Illinois, Indiana, Iowa, Kansas, Minnesota, Nebraska, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Maryland, Massachusetts, Michigan, Mississippi, Missouri, Montana, Pennsylvania, Rhode Island, South Dakota, Tennessee, Texas, Utah, Virginia, West Virginia, Wisconsin. *Canada*: Alberta, Manitoba, Ontario, Saskatchewan.

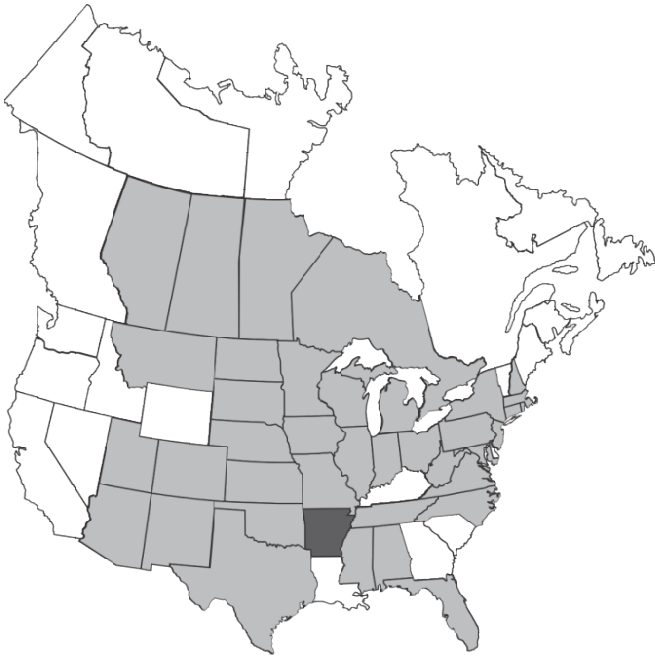


Figure 2. Distribution map of *Boisea trivittata* north of Mexico. Light shading (previous records); dark shading (confirmation record).

Acknowledgments

The Arkansas Game and Fish Commission issued a Scientific Collecting Permit to CTM.

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