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First records of the fulgoroid planthoppers *Cixidia fusca* and *Synechdoche impunctata* (Hemiptera: Achilidae) from Missouri

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**Abstract.** *Cixidia fusca* and *Synechdoche impunctata* (Hemiptera: Achilidae) are reported from Missouri for the first time, **new state records**. Ecological and trapping information is also provided.

**Key Words.** New record.

## Introduction

The family Achilidae contains eight genera and 55 species in North America (Bartlett et al. 2014). Of these, two genera (*Cixidia* and *Catonia*) comprising seven species were known to occur in Missouri. Presented here are the first records of the species *Cixidia fusca* (Walker) and the genus and species *Synechdoche impunctata* (Fitch) from Missouri, extending their Midwestern ranges.

## Materials and Methods

All specimens were collected as bycatch in purple 12-unit Lindgren funnel traps baited with wood-boring beetle lures. Both traps were hung in young oak (*Quercus* spp.; Fagaceae) trees in Shannon County, Missouri. Traps were located near the peak of Southwest-facing slopes with canopies primarily composed of scarlet (*Q. coccinea* Muenchh.), black (*Q. velutina* Lam.), and white oak (*Q. alba* L.), hickories (*Carya* sp.; Juglandaceae), and shortleaf pine (*Pinus echinata* Mill.; Pinaceae). The understory canopy included sassafras (*Sassafras albidum* (Nutt.) Nees; Lauraceae), dogwood (*Cornus florida* L.; Cornaceae), red maple (*Acer rubrum* L.; Sapindaceae), black gum (*Nyssa sylvatica* Marshall; Cornaceae), and Carolina buckthorn (*Rhamnus caroliniana* Walter; Rhamnaceae).

Two specimens (1♂, 1♀) of *S. impunctata* were collected July 1, 2016 at 37.25381°N -91.38206°W from a trap hung on a white oak (*Q. alba*). A single female specimen of *C. fusca* was collected on May 21, 2016 at 37.25594°N -91.39143°W from a trap hung on a scarlet oak (*Q. coccinea*). All specimens were collected by the author (CMC) and stored in 100% ethanol until identification; they will be retained in the Pennsylvania Department of Agriculture's collection [PADA].

## Results

*Synechdoche impunctata* has a primarily eastern distribution that includes four states adjacent to Missouri: Iowa, Illinois, Oklahoma, and Tennessee. *Synechdoche impunctata* can be distinguished from other North American *Synechdoche* by its pale frons with large dark brown spots, tegmina without transverse veinlets, and features of the male genitalia (O'Brien 1971).

The known range of *C. fusca* is more disjointed, with no reported states adjacent to this Missouri record. It is currently reported from AL, CO, DC, DE, FL, GA, LA, MD, MN, MS, NC, NJ, NM, NY, PA, RI, TX, VA, and WI as well as from Ontario, Quebec, and Puerto Rico (Bartlett et al. 2014). *Cixidia fusca* can be distinguished from other North American *Cixidia* by its dark brown frons with a light brown band in the middle third (Bartlett 2017).

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