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Angela D. Pierce
Missouri Department of Conservation, Cape Girardeau, Missouri

Diane L. Wood
Southern Missouri State University, dwood@semo.edu

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State Record for *Stenamma foveolocephalum* (Hymenoptera: Formicidae) in Missouri

Cover Page Footnote

Angela D. Pierce¹ Missouri Department of Conservation, Cape Girardeau, Missouri 63701 Diane L. Wood² Department of Biology, Southeast Missouri State University, Cape Girardeau, MO 63701. *Corresponding author: (e-mail: dwood@semo.edu). Acknowledgments We would like to thank Dr. James Trager, Shaw Nature Reserve and Joe MacGown for confirmation of identifications. Dr. Mike Taylor for assistance with maps. The authors are much appreciative to the reviewers for their helpful comments.

State Record for *Stenamma foveolocephalum* (Hymenoptera: Formicidae) in Missouri

Angela D. Pierce¹, Diane L. Wood^{2*}

¹Missouri Department of Conservation, Cape Girardeau, Missouri 63701

²Department of Biology, Southeast Missouri State University, Cape Girardeau, MO 63701

Abstract

We report the first known collection of *Stenamma foveolocephalum* Smith (Hymenoptera: Formicidae) from Missouri. Two specimens were collected in pitfall traps during a field study at Sand Prairie Conservation Area, Scott County, Missouri.

The genus *Stenamma* Westwood (Hymenoptera: Formicidae) contains 84 extant species (Bolton 2018), and is found within the Nearctic, Palearctic and Neotropical Regions (Branstetter 2012). *Stenamma foveolocephalum* Smith is the only Nearctic species with a reported distribution limited to the southeastern United States (Fig. 1) (Smith 1930, 1951; Dubois and Davis 1998). The species' known ecology is limited (DuBois and Davis 1998). Based on the literature, it appears that *S. foveolocephalum* nesting sites are found in sparsely vegetated, sandy soils (Smith 1930, 1951; DuBois and Davis 1998). This species appears to be active earlier in the year (e.g., Alabama in February—Dubois and Davis 1998; Florida in January and February—Dubois and Davis 1998; Mississippi in February—Smith 1930, Dubois and Davis 1998, and MacGown et al. 2008; North Carolina in February—Smith 1951).

During a study conducted from March to October 2014 at Sand Prairie Conservation Area (SPCA), Scott County, Missouri, two *S. foveolocephalum* workers (Fig. 2) were collected from pitfall traps in the grassland portion of the SPCA. These sand prairies only occur in the southeastern region of the state and are a result of sand deposition during flooding events by the Mississippi and Ohio rivers (Nelson 2005). Of the two individuals collected, one was collected on 31 March when the maximum air temperature was 22°C and a second individual was collected on 27 October when the maximum air temperature was 28°C. The soil type and timing of the worker's foraging activity fits the expected ecological pattern of previous collections of *S. foveolocephalum*. The specimens will be housed in the Enns Entomological Collection, University of Missouri–Columbia.

This is the first known recorded collection of *S. foveolocephalum* from Missouri

*Corresponding author: (e-mail: dwood@semo.edu).

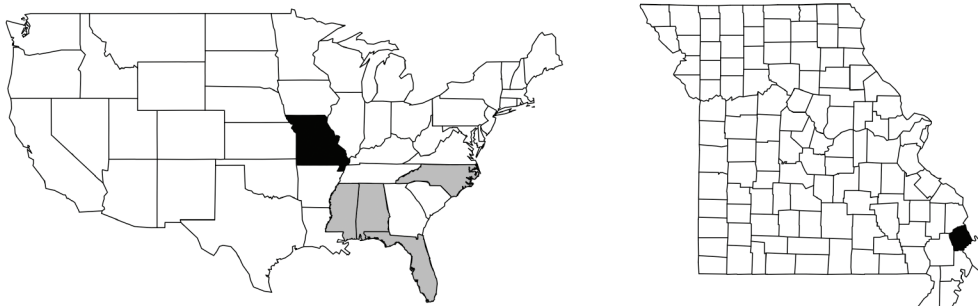


Figure 1. Known distribution of *Stenamma foveolocephalum* Smith within the U.S.A. with former state records (grey) and new state record (black) (left) and county where specimens were collected in Missouri (right).

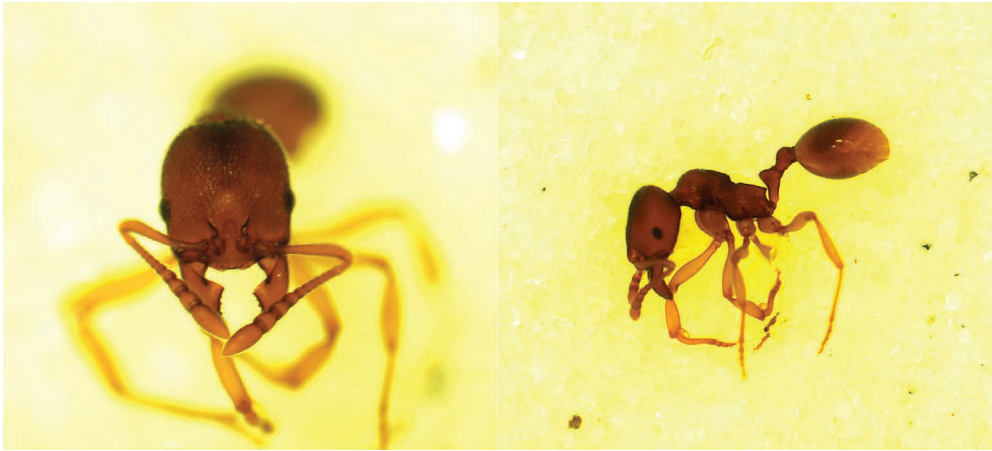


Figure 2. Digital images, Frontal view of head (left) Lateral view (right), of *Stenamma foveolocephalum* Smith individual collected from the grassland area at Sand Prairie Conservation Area, Scott County, Missouri.

and extends its known range significantly (Fig. 1). Based on this range extension, it is not unreasonable to assume that this species might occur in the intervening states between Missouri and the other states recorded to have *S. foveolocephalum*.

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We would like to thank Dr. James Trager, Shaw Nature Reserve and Joe MacGown for confirmation of identifications. Dr. Mike Taylor for assistance with maps. The authors are much appreciative to the reviewers for their helpful comments.

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