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Author(s): Karl A. Roeder and Diane V. Roeder
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NEW RECORD OF THE ANT SUBFAMILY PSEUDOMYRMECINAE (HYMENOPTERA: FORMICIDAE) FROM OKLAHOMA

Karl A. Roeder* and Diane V. Roeder

Department of Biology, University of Oklahoma, Norman, OK 73019
**Correspondent: karoeder@ou.edu*

Abstract—We report the first record of the Pseudomyrmecinae subfamily of ants in Oklahoma. Eleven species have been recorded from the Nearctic region, primarily in southern or coastal areas. This collection increases the known distribution northward into the central United States for one of those species, *Pseudomyrmex pallidus*.

Resumen—Se presenta el primer registro de la subfamilia Pseudomyrmecinae de hormigas en Oklahoma. Once especies se han registrado en la región Neártica, sobre todo en el sur o las zonas costeras. Esta colección aumenta la distribución conocida hacia el norte en la parte central de los Estados Unidos para una de esas especies, *Pseudomyrmex pallidus*.

Ants of the Pseudomyrmecinae subfamily (Hymenoptera: Formicidae) are distinctly agile, large-eyed, and wasp-like with a well-developed sting (Ward, 1990). While most Pseudomyrmecinae nest in twigs and branches, others are found in herbaceous vegetation (Ward, 1985) or enter mutualistic relationships with particular plants (Wheeler, 1942; Janzen, 1966). Many species are polydomous with a small to moderate worker force of less than 500 individuals that forage diurnally (Fisher and Cover, 2007). Due to this variety in life history traits, members of the subfamily Pseudomyrmecinae are taxonomically diverse, albeit less-frequently encountered than are terrestrial species due to their arboreal preference (Agosti et al., 2000).

Of the 300 recognized Pseudomyrmecine species representing three genera—*Myrcidris*, *Pseudomyrmex*, and *Tetraponera* (Ward and Downie, 2005)—only 11 species from the largest genus, *Pseudomyrmex*, have been recorded from the Nearctic region (Ward, 1989). The known northern edge of the distributions for many of these species is Mexico and southern or coastal United States (Ward, 1985). However, it is unknown if current distribution records actually represent northern range boundaries or simply gaps in collection information.

Here we report the occurrence of *Pseudomyrmex pallidus* (F. Smith 1855) in Oklahoma. Morphologically, *P. pallidus* is an orange-brown, medium-sized ant with a broad head, contiguous frontal carinae, long eyes, and a postpetiole (Fig. 1; diagnosis in Ward, 1985). *Pseudomyrmex pallidus* is considered the most common and widespread member of the *pallidus* species group with records from Alabama, Arizona, California, Georgia, Louisiana, Mississippi, New Jersey, North Carolina, and Texas as well as Mexico, the Bahamas, Belize, Costa Rica, Cuba, El Salvador, Guatemala, and Honduras (Ward, 1985). The closest published record of *P. pallidus* to Oklahoma is approximately 100 km south in Dallas, Texas (Hess, 1958).

We collected six workers by hand on 3 March 2015 at the University of Oklahoma Biological Station on the northern border of Lake Texoma (33°52.93′N, 096°50.11′W, 208 m elevation). The ants were found foraging in the leaf litter of a deciduous forest that

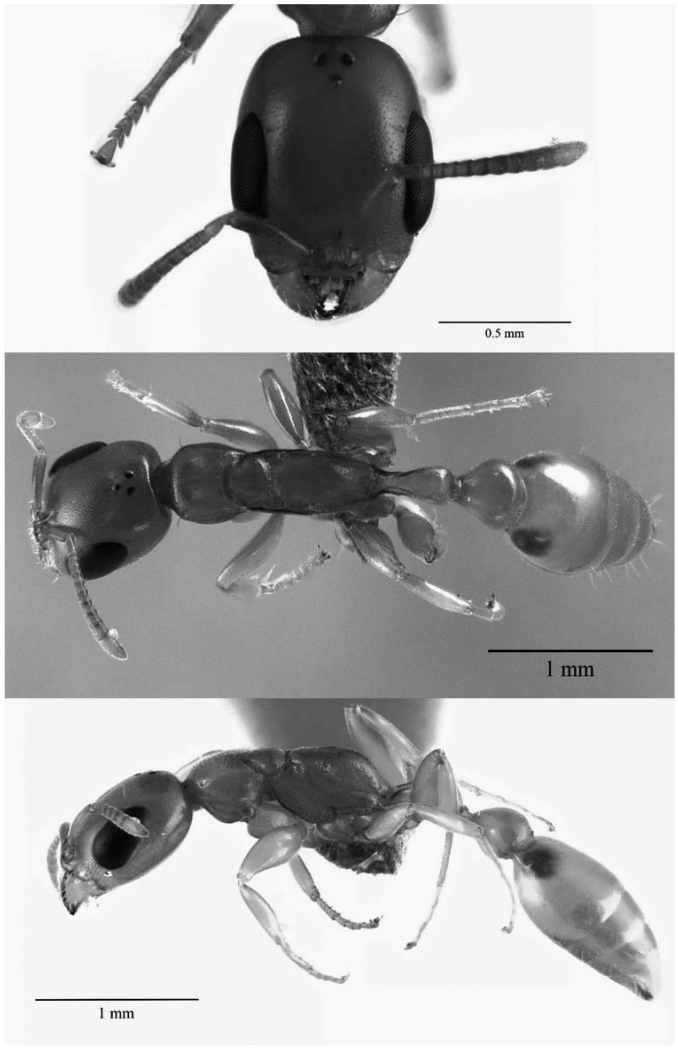

Fig. 1—Face, dorsal, and lateral views of a *Pseudomyrmex pallidus* worker collected 3 March 2015 at the University of Oklahoma Biological Station at Lake Texoma, Oklahoma (Specimen no. KAR1).

contained American Elm (*Ulmus americana*), Hackberry (*Celtis occidentalis*), and Pecan (*Carya illinoensis*). The presence of this species in Oklahoma is exciting as it represents a new locality record for the Pseudomyrmecinae subfamily and expands their known distribution northward into the central United States.

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