Midsouth Entomologist **5**: 9–10
ISSN: 1936-6019
www.midsouthentomologist.org.msstate.edu

Report

First Record of the Tramp Ant *Cardiocondyla obscurior* (Hymenoptera: Formicidae) for Mississippi

MacGown, Joe A.[1]

[1]Mississippi Entomological Museum, Mississippi State University, Mississippi State, MS, 39762, jmacgown@entomology.msstate.edu

Received: 2-XI-2011 Accepted: 4-XI-2011

Cardiocondyla (Hymenoptera: Formicidae: Myrmicinae) is an old world genus of omnivorous ants native to Africa and Asia. A single alate female *C. obscurior* was collected in 2005 by J. M. Strong in Pearl River County, Mississippi. The genus *Cardiocondyla* includes several common tramp species that have spread globally with human commerce. Colonies of most species are small (<500 workers) and are typically located in soil, especially in disturbed, open habitats near rivers, roads, forest margins, or other similar areas, although, some species also nest above ground in plant structures (Seifert 2003). Due to their small size and the infrequency in which colonies are detected, members of this genus are not generally considered to be pest species.

Sixty-nine valid species and subspecies of *Cardiocondyla* are currently recognized worldwide (Bolton et al. 2007). Historical records from the United States included only four tramp species, *C. emeryi* (Forel), *C. nuda* (Mayr), *C. venustula* Wheeler, and *C. wroughtonii* (Forel). However, a recent revision of the Holarctic *Cardiocondyla* (Seifert 2003) did not list *C. nuda* as occurring in the United States. Based on Seifert's revision (2003), specimens from the U.S. identified as *C. nuda* are likely *C. minutior* Forel or *C. mauritanica* Forel, and most specimens of *C. wroughtonii* are likely *C. obscurior* Wheeler. Current distributions of *Cardiocondyla* species in the U.S. are: *C. mauritanica* (Arizona, California), *C. emeryi* (Florida, Hawaii), *C. minutior* (Florida), *C. obscurior* (Florida), *C. venustula* (Arkansas, Florida, Hawaii, Louisiana), and *C. wroughtonii* (Florida, Georgia, Louisiana) (Dash 2005, Fisher 2011, MacGown et al. 2011, Seifert 2003, Smith 1979). Records of *C. nuda* from Alabama (Mackay 1995), Georgia (Smith 1979) and Louisiana (Dash 2005) are likely *C. minutior*, although they could represent *C. venustula*, which is somewhat similar in appearance.

Cardiocondyla workers can be recognized by their small to medium size (1.5 to 3.5 mm), yellow to dark brown coloration, 11 or 12-segmented antennae with 3-segmented club, flattened clypeus with lateral portions projecting, lack of a promesonotal suture, propodeal spines distinct or absent, relatively large sting, and sparse to entire absence of pilosity on dorsum of body. In the southeastern United States, *Temnothorax* is the only genus that would be likely confused with *Cardiocondyla,* but differs by having distinct pilosity present on the dorsum of the body. *Cardiocondyla obscurior* can be differentiated from the other four species of *Cardiocondyla* reported from the southeastern United States by its color, which is predominately yellowish brown except for the dark brown gaster, distinct metanotal groove, relatively short antennal scapes, and relatively long propodeal spines.

A single alate female *C. obscurior* was collected in a Lindgren funnel trap baited with Typosan and alpha-pinene that was run from 13 to 26 May 2005 by J. M. Strong in Pearl River County, Mississippi. Thus far, no colonies have been detected in Mississippi, and it is not known whether this species is established in the state. This is the first record of the genus *Cardiocondyla* for Mississippi and represents only the second state in the United States where this species has been reported.

Acknowledgments

This research was supported by Mississippi Agricultural and Forestry Experiment Station State Project MIS-311080 and the USDA-ARS Areawide Management of Imported Fire Ant Project (Richard L. Brown, Principal Investigator). Approved for publication as Journal Article No J-12076 of the Mississippi Agricultural and Forestry Experiment Station, Mississippi State University.

References

Bolton. B, G. Alpert, P. S. Ward, P. Naskrecki. 2007. [CD-ROM] Bolton's Catalogue of the Ants of the World. Harvard University Press.

Dash, S. T. 2005. Species Diversity and Biogeography of Ants (Hymenoptera: Formicidae) in Louisiana, with Notes on their Ecology. Master Thesis, Louisiana State University, 290 pp.

Fisher, B. L. 2011. AntWeb: Ants of the World. Available online at: http://www.antweb.org. Accessed on 14 April 2011.

MacGown, J. A., J. G. Hill, and M. Skvarla. 2011. New records of ants (Hymenoptera: Formicidae) for Arkansas with a synopsis of previous records. Midsouth Entomologist 4 (2): 29-38. Available online at: http://midsouthentomologist.org.msstate.edu/Volume4/Vol4_2_html_files/Vol4_2_001.html. Accessed on 3 November 2011.

MacKay, W. P. 1995. New distributional records for the ant genus *Cardiocondyla* in the New World (Hymenoptera: Formicidae). Pan-Pacific Entomologist 71: 169-172.

Seifert, B. 2003. The ant genus *Cardiocondyla* (Insecta: Hymenoptera: Formicidae)—a taxonomic revision of the *C. elegans, C. bulgarica, C. batesii, C. nuda, C. shuckardi, C. stambuloffii, C. wroughtonii, C. emeryi,* and *C. minutior* species groups. Annalen des Naturhistorischen Museums in Wien. Serie B. Botonik und Zoologie. 104 (B): 203-338.

Smith, D. R. 1979. Superfamily Formicoidea. *In*: K.V. Krombein, P. D. Hurd, Jr., D. R. Smith, and B. D. Burks (eds.), Catalog of Hymenoptera in America North of Mexico, Vol. 2: Apocrita (Aculeata). Smithsonian Institution Press, Washington, D. C. pp. 1323-1467.