Midsouth Entomologist 8: 76-80

ISSN: 1936-6019

www.midsouthentomologist.org.msstate.edu

Report

The Tramp Ant *Cardiocondyla venustula* (Hymenoptera: Formicidae) reported from Alabama

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Received: 18-XI-2015 Accepted: 18-XI-2015

The Old World genus *Cardiocondyla* (Hymenoptera: Formicidae: Myrmicinae) (native to Africa and Asia) includes several common tramp species that have been spread by human commerce throughout various temperate regions of the world. In the United States, this genus is represented by six species: *C. emeryi* Forel (Florida, Hawaii), *C. mauritanica* Forel (Arizona, California), *C. minutior* Forel (Florida), *C. obscurior* Wheeler (Florida), *C. venustula* Wheeler (Arkansas, Florida, Hawaii, Louisiana), and *C. wroughtonii* (Forel) (Florida, Georgia, Louisiana) (Dash 2005, Fisher 2011, MacGown et al. 2011, Seifert 2003, Smith 1979). Another species, *C. nuda* (Mayr), was reported from Alabama (Mackay 1995), Georgia (Smith 1979) and Louisiana (Dash 2005), but these records were likely based on misidentifications and should not be considered reliable. In a revision of the Holarctic *Cardiocondyla,* Seifert (2003) did not include *C. nuda* as occurring in the United States. Records of *C. nuda* from the United States likely represent either *C. minutior*, or *C. venustula,* which are both similar in appearance to *C. nuda.* Here, we report *C. venustula* for Alabama.

Workers of Cardiocondyla found in the United States have the following characteristics: minute (~1.5–2.0 mm in total length), yellowish brown to dark brown in color, 12-segmented antenna terminating in a 3-segmented club, clypeus flattened and projecting laterally, no distinct promesonotal suture, propodeal spines denticle-like to small spines, a prominent sting present, and little to no pilosity present on the dorsum of the body. The only genus in the US that might be confused with Cardiocondyla is Temnothorax, which differs by having distinct pilosity on the dorsum of the body. Cardiocondyla venustula (Figs 1 and 2) can be differentiated from the other four species of Cardiocondyla reported from the southeastern United States by its dark brown to bicolored reddish brown and black coloration; head being slightly longer than wide (in full face view), metanotal groove being weakly impressed; antennal scapes almost reaching occipital border; and short, denticle-like propodeal spines.

Figure 1. *Cardiocondyla venustula*, profile view of worker.

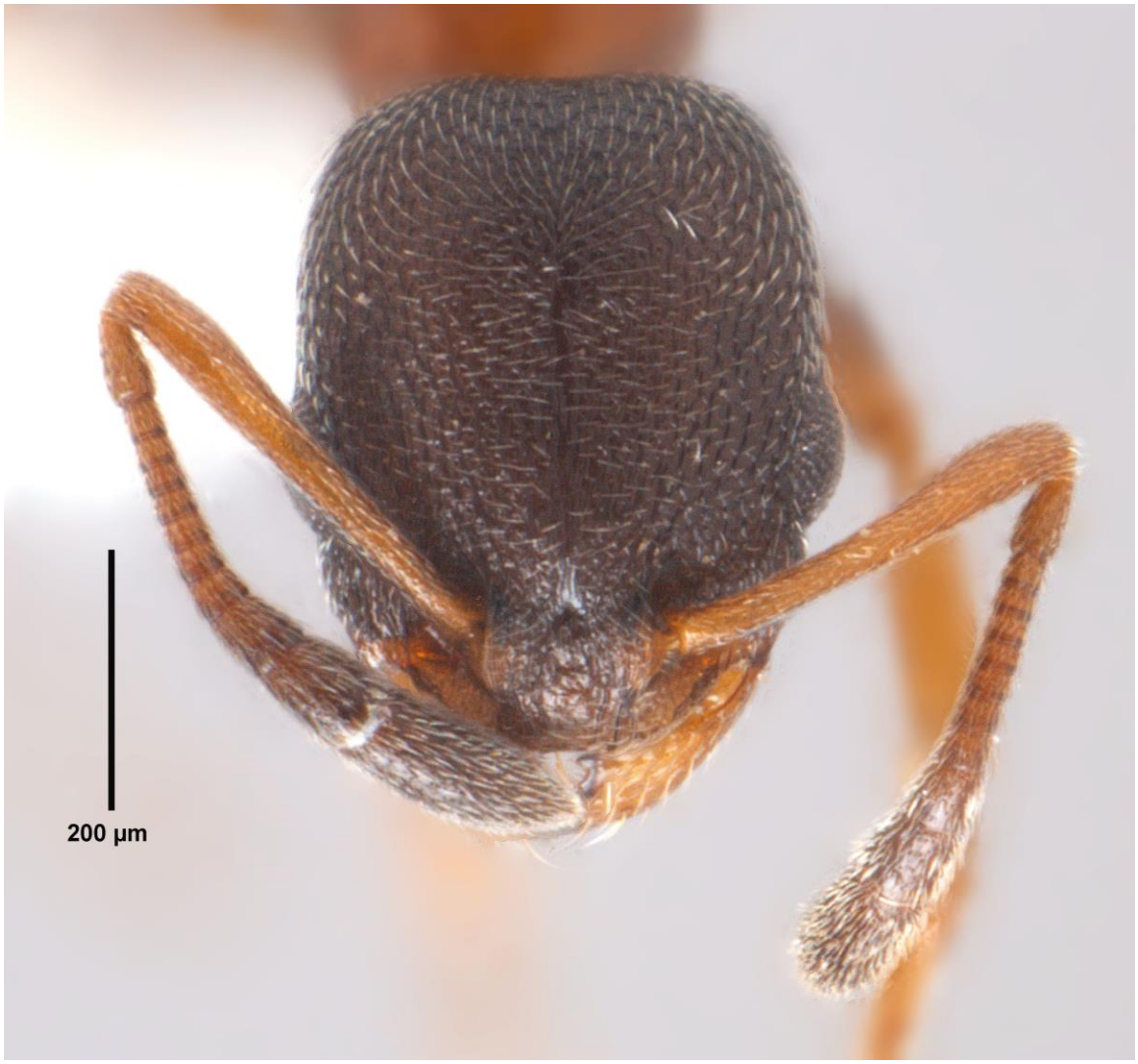

Figure 2. *Cardiocondyla venustula*, full face view of worker.

Although *C. venustula* was described from specimens collected in Puerto Rico, it is considered have been introduced to the New World by human commerce from Old World tropics (Wilson 1959). Colonies of *Cardiocondyla* are reported to be small, often with less than 500 workers (Seifert 2003), and colonies of *C. venustula* are noted to typically have less than 200 workers (Wheeler 1908). Most species nest in in soil, often in disturbed, open habitats near rivers, roads, forest edges, or other similar areas, and a few species also nest above ground in plant cavities (Seifert 2003). Wheeler (1908) wrote that in Puerto Rico, *C. venustula* was common in sandy and gravelly habitats, especially near beaches.

At approximately 10 AM on 3 October 2015, Richter collected a single worker of *C. venustula* as it was foraging on a dirt/gravel mix driveway in a suburban neighborhood in Theodore, Mobile County, Alabama at 30°28'03"N 88°06'50"W. The driveway was bordered by a mown lawn and was in a neighborhood that was mostly surrounded by maritime hardwood forest habitat adjacent to the Fowl River. The temperature at the time of the collection was 24°–25°C (75°–78°F) with high humidity.

Cardiocondyla venustula has been collected rarely in the continental United States with isolated records from Florida, Louisiana, and Arkansas (Dash 2005, Fisher 2011, MacGown et al. 2011, Seifert 2003, Smith 1979), and the current collection reported here from Alabama. This species has not been reported to spread in large numbers and has small colonies. Thus, *C. venustula*

currently poses no current or imminent ecological or pest threat to the southeastern United States. Workers and queens possess a sting, and theoretically could sting humans, but due to its minute size and apparent rarity (currently), this is not of great concern. However, even a diminutive species such as *C. venustula* has potential to become a serious pest in introduced regions. It is not unusual for invasive species to suddenly exhibit markedly different patterns of spread and behavior after being introduced into new regions. In numerous cases, invasive ant species have been reported as being present in small numbers for many years before suddenly, and seemingly inexplicably, having explosive population growth and spread (MacGown and Richter 2013). In these cases, reproductive periods were often extended as well. When this occurs, small, seemingly innocuous species may suddenly become huge problems, both from a pest standpoint and by having negative impacts on native species. For example, another minute stinging species, *Hypoponera punctatissima* (Roger), is now considered to be a serious stinging pest of humans and has been reported to have negative effects on native species of ants in Florida (Deyrup et al. 2000). In these cases, stings have been typically received from reproductive queens from huge mating flights that alighted upon human skin before then stinging them. Two other notable species that have also shown this pattern of having small, apparently rare, populations for many years that later exploded are the dark rover ant, *Brachymyrmex patagonicus* Mayr and the Asian needle ant, *Brachyponera chinensis* Emery (MacGown and Richter 2013).

Acknowledgments

This article is approved for publication as Journal Article No. J-12747 of the Mississippi Agricultural and Forestry Experiment Station. This research was supported in part by the National Institute of Food and Agriculture, United States Department of Agriculture, under Project No. MIS-012040 and the USDA-ARS Areawide Management of Imported Fire Ant Project (Richard L. Brown, Principal Investigator).

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