

Trap-jaw ants spreading in southeastern United States

June 18 2014, by Magdalena Sorger



Odontomachus relictus is a trap-jaw ant species that is found only in endangered scrub habitat on central Florida's ancient sand ridges. Researchers now suspect that different groups of *O. relictus* may have evolved into separate species, which would make the new species the rarest ant in North America. Credit: Magdalena Sorger

Trap-jaw ant species are active hunters with venomous stings and jaws powerful enough to fling themselves through the air. According to new research, they are also spreading into new territory in the southeastern

United States. The research was done by scientists at North Carolina State University, the Mississippi Entomological Museum, the University of California, Davis and Archbold Biological Station.

"The fact that some of these species are spreading is interesting, in part, because these giant [ants](#) have managed to expand their territory without anyone noticing," says Magdalena Sorger, a Ph.D. candidate at NC State and co-author of a paper describing the ant species. "We know very little about these ants, including how they interact with native ant species in the areas they're invading."

The new paper offers a broad overview of trap-jaw [ant species](#) – all of which are in the genus *Odontomachus* – in the United States. The paper is designed to help scientists identify which species of trap-jaw ants they're dealing with. While the paper draws on previously published research, it also includes new findings.

The paper is the first scientific article establishing the presence of the species *O. haematodus* in the United States. Native to South America, *haematodus* was first unofficially recorded in Alabama in 1956. But the researchers found that the species has now spread across the Gulf Coast, at least as far east as Pensacola, Florida.

"*Haematodus* is particularly interesting because it is larger and more aggressive than other trap-jaw ants in the United States," Sorger says.

The researchers also found that *O. ruginodis* has been expanding its territory.

As recently as a few years ago, *ruginodis* was thought to be confined to the Orlando region, and points south. "I found *ruginodis* in landscaped areas near buildings – outside a mall, outside my hotel – usually in the mulch underneath hedges," Sorger says. But now Sorger has confirmed a

record of ruginodis more than a hundred miles north of Orlando, in Gainesville. "The species could have traveled even farther than Gainesville, but no one has looked for it."

But not all of the trap-jaw species are on the move. Sorger also studies *O. relictus*, a species that is found only in endangered scrub habitat on central Florida's ancient sand ridges.

Sorger found that *relictus* ants on separate ridges displayed different behaviors and had distinct genetic profiles – indicating that they may have evolved into separate species.

"If these two *O. relictus* populations are, in fact, distinct species, it would make them the rarest ants in North America," Sorger says. "I'm hoping to resolve this question soon, via more genetic analyses."

More information: The paper, "A review of the Nearctic *Odontomachus* (Hymenoptera: Formicidae: Ponerinae) with a treatment of the males," was published online May 28 in *Zootaxa*.

[biotaxa.org/Zootaxa/article/view/zootaxa.3802.4.7](https://www.biotaxa.org/Zootaxa/article/view/zootaxa.3802.4.7)

Provided by North Carolina State University

Citation: Trap-jaw ants spreading in southeastern United States (2014, June 18) retrieved 27 April 2024 from <https://phys.org/news/2014-06-trap-jaw-ants-southeastern-states.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.