BioOne COMPLETE

THE EXOTIC ANT ANOCHETUS MAYRI IN FLORIDA (HYMENOPTERA: FORMICIDAE)

Author: Deyrup, Mark

Source: Florida Entomologist, 85(4) : 658-659

Published By: Florida Entomological Society

URL: https://doi.org/10.1653/0015-4040(2002)085[0658:TEAAMI]2.0.CO;2

BioOne Complete (complete.BioOne.org) is a full-text database of 200 subscribed and open-access titles in the biological, ecological, and environmental sciences published by nonprofit societies, associations, museums, institutions, and presses.

Your use of this PDF, the BioOne Complete website, and all posted and associated content indicates your acceptance of BioOne's Terms of Use, available at www.bioone.org/terms-of-use.

Usage of BioOne Complete content is strictly limited to personal, educational, and non - commercial use. Commercial inquiries or rights and permissions requests should be directed to the individual publisher as copyright holder.

BioOne sees sustainable scholarly publishing as an inherently collaborative enterprise connecting authors, nonprofit publishers, academic institutions, research libraries, and research funders in the common goal of maximizing access to critical research.

Downloaded From: https://complete.bioone.org/journals/Florida-Entomologist on 28 Mar 2024
Terms of Use: https://complete.bioone.org/terms-of-use

THE EXOTIC ANT *ANOCHETUS MAYRI* IN FLORIDA (HYMENOPTERA: FORMICIDAE)

MARK DEYRUP
Archbold Biological Station, P.O. Box 2057, Lake Placid, FL 33862-2057

The Neotropical ant *Anochetus mayri* Emery (Fig. 1), a member of the subfamily Ponerinae, was first found in Florida in 1987 (Deyrup et al. 2000). This species is distinguished from somewhat similar Florida *Odontomachus* species by double-pointed petiolar scale (single point in *Odontomachus* spp.) and small size: maximum head + body length 4 mm (minimum head + body length of *Odontomachus* spp. 9 mm). The 1987 record, based on a single dealate queen from Homestead (Dade Co.), was supplemented by two specimens from south Miami (Dade Co.) in 1991. During the last decade I failed in several attempts to find additional specimens. The original site in Homestead, a pine stand near a tropical plant nursery, was obliterated by Hurricane Andrew in 1992. I had begun to wonder whether *A. mayri* still occurred in Florida.

An ant survey at the Pine Jog Environmental Learning Center in West Palm Beach (Palm Beach Co.) shows that, as of January, 2002, *A. mayri* is thriving, at least in one site. Collections were made from deep litter at the bases of pines and oaks. Litter samples, each about 1 liter, were brought back to the Archbold Biological Station and extracted with Berlese funnels. Out of the 36 samples collected, 27 produced at least one specimen of *A. mayri*. This species occurred together with the following ant species (number in parentheses is the number of co-occurrences with *A. mayri*; asterisk (*) denotes an exotic species): *Brachymyrmex depilis* (Emery) (3), *Cyphomyrmex minutus* Mayr (1), *Hypoponera opacior* (Forel) (2), *Odontomachus brunneus* (Patton) (1), *Paratrechina guatemalensis* (Forel)* (6), *Pheidole floridana* Emery (1), *P. moerens* Wheeler* (10), *Pyramica eggersi* (Emery)* (11), *Solenopsis abdita* Thompson (14), *S. invicta* Buren* (1), *S. tennesseensis* M. R. Smith (10), *Strumigenys emmae* (Emery)* (2), *S. rogeri* Emery* (6), *Wasmannia auropunctata* (Roger)* (8). *Anochetus mayri* clearly fits in well with the de-

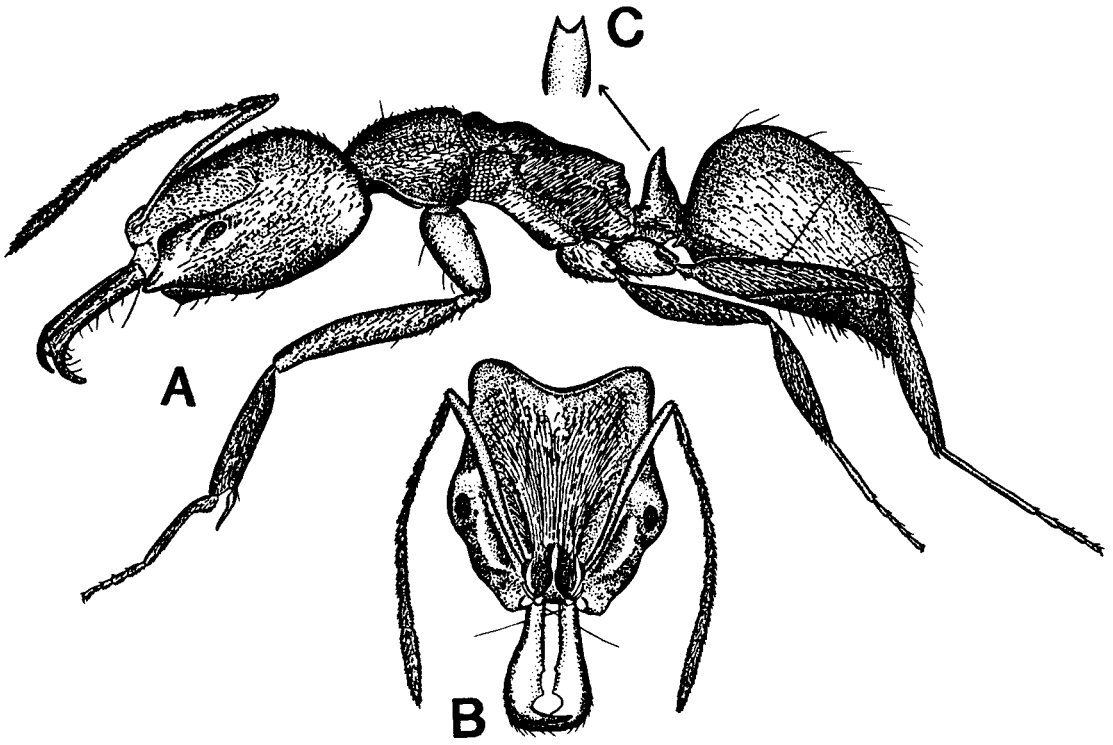


Fig. 1. *Anochetus mayri* Emery, worker: A: lateral habitus view; B: frontal view of head; C: frontal view of petiolar scale.

Downloaded From: https://complete.bioone.org/journals/Florida-Entomologist on 28 Mar 2024
Terms of Use: https://complete.bioone.org/terms-of-use

plorably rich fauna of exotic ants in south Florida; half the species and more than half the individual associations are fellow exotics.

The trajectory of *A. mayri* in Florida ecosystems is impossible to predict at this point. It is widespread in the Caribbean and in Central and South America, but, in my limited experience, it is not a dominant species. It cannot be considered a major threat to native species in Florida as long as the Florida population is confined to urban and suburban habitats that are already somewhat disturbed and perfused with many other exotics. *Anochetus mayri* is a predaceous species that is not likely to become an economic pest. Although it is possibly capable of stinging humans, it is not aggressive or strongly defensive; live individuals picked out of the leaf litter ran about in my hand without attempting to sting. Its subterranean habitat further reduces its chances of interacting with humans. There is probably little chance of eradicating *A. mayri* from Florida, as it is a cryptic subterranean species with at least one large established population. It would be reasonable to periodically monitor areas of southeast Florida to determine whether this, or other exotic ant species, are undergoing explosive expansion. Although *A. mayri* is an unwelcome exotic species, it is also an interesting species whose biology is poorly known. One reason for publishing this note is to inform North American myrmecologists of a convenient population of *A. mayri* for scientific study.

Summary

A robust population of the exotic Neotropical ant *Anochetus mayri* Emery has been found in Palm Beach Co., Florida. The accompanying illustration should serve to distinguish this species from other ants found in the U.S. It has not yet been found in undisturbed habitats in Florida and seems to have little potential for becoming an economic pest.

References Cited

Deyrup, M., L. Davis, and S. Cover. 2000. Exotic ants in Florida. Trans. Amer. Entomol. Soc. 126: 293-326.

Downloaded From: https://complete.bioone.org/journals/Florida-Entomologist on 28 Mar 2024
Terms of Use: https://complete.bioone.org/terms-of-use