



***Crematogaster pygmaea* (Hymenoptera: Formicidae: Myrmicinae), a highly polygynous and polydomous *Crematogaster* from northeastern Brazil**

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Abstract

Crematogaster pygmaea is revived from synonymy under *C. abstinens* and newly characterized as a ground-nesting ant from northeastern Brazil. It is a habitat specialist in coastal and tabuleiro zones, where it forms extensive polydomous and polygynous colonies that nest in the soil. Workers forage extensively on honeydew and extrafloral nectar, and foraging continues day and night, although it is depressed at ground temperatures above 32°C. Gyne production occurs at the beginning of the rainy season, while male production starts in the dry season, some months before gyne production.

Key words: Brazil, Ceará, Formicidae, Myrmicinae, *Crematogaster*, polygyny, polydomy

Introduction

The genus *Crematogaster* occurs throughout the tropical and subtropical regions of the world, and it is particularly diverse and abundant in the Neotropics. The diversity and complexity of the genus make global revisions unlikely, and progress on this genus is being made through smaller, geographically delimited studies (e.g. Buren 1959, 1968, Longino 2003). Longino (2003) improved understanding of the Neotropical fauna through a treatment of the Costa Rican species, many of which have broad ranges beyond Costa Rica. But further study in other Neotropical regions will continue to refine and revise these initial efforts. In this report we remove from synonymy and characterize a distinctive species from the coastal area of Ceará state, Brazil.

Crematogaster species that extend into the temperate zone are typically ground-nesting, while tropical species are typically arboreal or, in a few cases, nesting in dead wood in forest floor leaf litter. The species we report on here is unusual in being from a tropical latitude yet being a ground-nesting species, excavating nests in clay soil or sand in open areas. Here we redescribe this species and provide observations on habitat specificity, nest architecture, colony structure, and foraging behavior.

Taxonomy

***Crematogaster pygmaea* Revised Status**

Fig. 1 (A–E)

Crematogaster pygmaea Forel, 1904:37. Syntype worker: Brazil, Ceará (Diaz da Rocha) [MHNG] (examined). Emery,