



# African big-headed ant/Big-Headed ant

## Taxonomy

Order: Hymenoptera

Family: Formicidae

Species: *Pheidole megacephala* (Fabricius)

## Summary

A highly invasive, aggressive, tramp species, thought to have originated in Africa. It forms super colonies which can devastate native ants and other arthropod species. On islands, colonies can lack the normal pheromone-based boundaries and inter-colony aggression, and thus take over indefinitely. The common name "big-headed ant" refers to the Major workers of this dimorphic species where the major and minor workers differ dramatically in appearance.



Profile view of a minor worker of *Pheidole megacephala* © April Nobile / AntWeb.org

## Biology

It tends to be more ubiquitous in open, disturbed habitats with low-lying, weedy shrub layers rich with phytophagous Hemiptera which the ants tend for honeydew. They are omnivorous and voracious feeders. They feed on sweet exudates such as honeydews, dead insects, and soil invertebrates.

## Distribution in Caribbean

Common throughout the Caribbean region, including Anguilla and TCI in disturbed and natural habitats. First found in Anguilla in 2006 (J.K. Wetterer, MCZ): Meads Bay. First found in Turks & Caicos in 2010 (J.K. Wetterer, MCZ): Grace Bay, Providenciales.

## Pathway of Entry

Natural dispersal: via winged reproductives dispersing or "budding" where a newly inseminated queen, accompanied by some workers, establishes a new satellite colony.

Intentional/Anthropogenic dispersal: transported in plant and soil material, passenger luggage, sea containers, timber, fresh produce, vehicles etc.

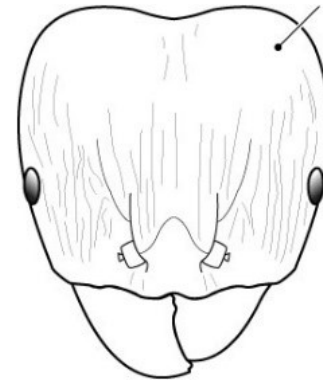
## Impact

Outcompetes native insects reducing biodiversity. Small vertebrate populations are also adversely affected like birds (particularly nestlings). Workers can be agricultural pests by feeding on seeds protecting pests. It may also affect electrical wires, cables and irrigation in urban areas.

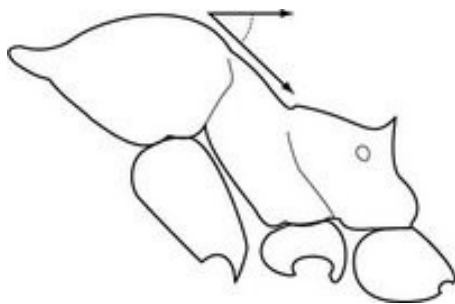




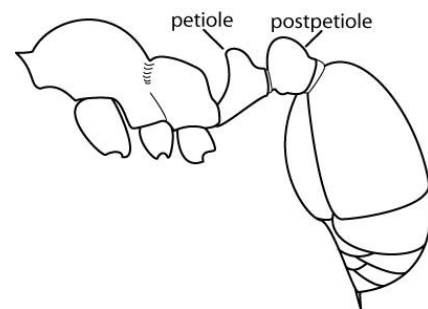
Anterior view of a minor worker of *Pheidole megacephala* © April Nobile / AntWeb.org



Anterior view of a major worker *Pheidole megacephala* showing the heart-shaped head and smooth upper half of head © Eli Sarnat / PIAkey



Profile view of *Pheidole megacephala* showing the sloping mesonotum and propodeal spines © Eli Sarnat / PIAkey



Profile view of *Pheidole megacephala* showing the round mesonotum, petiole and swollen postpetiole © Eli Sarnat / PIAkey

### Field Description

The major workers are vital for identification of *P. megacephala*. Major workers have heart-shaped heads with a shiny, smooth posterior half, a circular mesonotum and a swollen, oval postpetiole (see pictures).

Specimens range in colour from pale yellow to red and dark brown, have a waist comprising two segments (petiole & postpetiole), spines on the propodeum, a sloping mesosoma, absence of a circular fringe of setae (acidopore) at the apex of the gaster (end of the abdomen), and 12-segmented antenna with a distinct 3-segmented club.

### Similar Species

Other *Pheidole* spp. are similar in appearance but may be distinguished from *P. megacephala* as the majors with sculpturing that continues to the posterior part of the head and antennal scrobes are present. The minor workers of other *Pheidole* species do not have the swollen postpetiole and their antennal scapes are ~1.5X the width of the head (see pictures for morphological characters).

### Further Information:

ANTWIKI: [https://www.antwiki.org/wiki/Pheidole\\_megacephala](https://www.antwiki.org/wiki/Pheidole_megacephala)

CABI 2020: <https://www.cabi.org/isc/datasheet/40133>