

## **Architecture of the ant nests of *Dinoponera gigantea* (Perty, 1833) (Hymenoptera: Formicidae)**

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*Dinoponera* is a genus of Ponerinae endemic to South America, with eight described species, all of large size. There is no morphologically differentiated gyne caste and reproduction is assumed by a worker (“gamergate”) which has becoming dominant through its physiology and behavior. Most species of this genus nest close to plant roots, including *D. gigantea*, whose ant nests from the population living in the state of Pará exhibit this pattern. The aim of our study was to characterize the nest structure of this ant in populations of the state of Maranhão. Fifteen *D. gigantea* ant nests were observed at Caxias and Chapadinha, during the months of July 2019, January and March 2020. After being located, the nests were characterized externally and internally. Number and diameter of entrance holes, number of chambers with and without immatures, and maximum depth of nests were measured. All nests were located at the base of trees or “babaçu” palms (*Attalea* sp., Arecaceae). Nests do not form aggregates, unlike what occurs with *D. lucida* in the Atlantic forest. We observed that *D. gigantea* nests have a single to four entries with their architecture relatively simple. When there was more than one entrance, these were located on the same mound of earth, connected by a single vertical axis that joined them to the set of chambers. The number of chambers ranged from 2 to 8 per nest and the maximum depth observed was 10 to 111 cm (mean: 57.5 cm). Further aspects related to the natural history of the species, such as the characterization and location of the associated fauna and population composition, are under study.

**Key-Words:** Giant ant, ant nest, Ponerinae

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