to be sure, are still morphologically distinguishable from the workers. In *Leptogenys, sens. str.,* however, in some species of *Rhytidoponera,* and in *Diacamma, Streblognathus,* and *Dinoponera,* no caste morphologically distinguishable from the worker has ever been reported, though normal males, in some cases evidently well adapted to secure outbreeding within the species, are the rule. A number of years ago Wheeler and Chapman (1922) described a male of a Philippine species of *Diacamma in copula* with an individual morphologically indistinguishable from a typical worker, suggesting the lack even of an identifiable ergatogyne in this species, the "workers" differing only in the presence or absence of a functional spermatheca and perhaps in the degree of ovariole development — a situation well known in several species of *Rhytidoponera* (Haskins and Whelden, 1965). It became of interest, therefore, to learn whether such workerlike individuals form the normal reproductive caste in *Dinoponera.* That this situation, if real, could typify a rather ancient evolutionary condition is hinted by earlier findings of F. M. Carpenter. Carpenter suggested some years ago (1930) that a fairly close fossil relative of both *Dinoponera* and *Streblognathus* may be *Archiponera wheeleri,* described by him in 1930 from the Miocene Florissant shales of Colorado. The absence of described morphologically differentiable females in either *Dinoponera* or *Streblognathus* (1929; 1930) gave special emphasis to a search for such a caste among the fossils of *Archiponera.* No examples were discovered, though typical winged males were described.

The observations to be presented confirm the production of workers by one or more wild-collected females of *Dinoponera grandis,* indistinguishable from workers in external morphology, in the artificial nest.

Material

The monotypic ponerine genus *Dinoponera* has been known since 1830, when its single species, *D. grandis* was described by Guérin from Pará and Bahia, Brazil (1830). Carpenter noted (1930) that apparent morphological affinities of both it and the South African monotypic form *Streblognathus aethiopicus* to fossils of the Miocene *Archiponera wheeleri* in the Florissant shales could suggest that the two modern species are ancient relicts of an archaic ponerine complex which originally had a much wider distribution.

The range of *D. grandis* given by Carlos Emery (1911) is "Middle American tropics as far as Paraguay," and collecting localities for various described subspecies recorded up to that time