species is a typical column termite-raider, foraging in the general pattern of Termitopone in the New World or Megaponera in the Old. This conception has most recently been alluded to by Sudd (1967). All our observations, however, including those made both in the artificial nest and under natural conditions, seem contrary to this. Foraging workers of Dinoponera may indeed follow one another in tenuous, ill-defined columns. But all those that we have observed under natural conditions have been extremely loose formations — so diffuse as hardly to merit the name. Moreover, we have never seen termite raiding under natural conditions. In the artificial nest, the species proved a general and uncritical feeder on a wide range of arthropod prey, including the larvae and pupae of other ants when offered. Workers of Termes flavipes, when presented in debris outside the nest, were indeed sought out, captured, and carried in: but with no detectably greater readiness than other insect prev. If Dinoponera is specialized to termite feeding at all, it is to a very slight degree. As with other members of the Ponerini, sugary substances are readily accepted — and, indeed, probably required — by the adults.

Summary

The failure to discover a morphologically distinct female caste among members of the archaic ponerine genera Dinoponera or Streblognathus, or in the fossil genus Archiponera, has long led to the suspicion that, as in Diacamma and species of Leptogenys and Rhytidoponera, such a caste may in fact be lacking and may be replaced by a reproductive form morphologically very similar if not identical to the worker but physiologically and structurally capable of fertilization and the production of worker brood. This suspicion has now been experimentally verified in Dinoponera grandis in the artificial nest.

Notes are appended on certain features of the breeding pattern and ethology of the species.

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