

recorded from cocoon spinning to pupal maturity for 2 individuals were respectively 50-51 and 52 days. As suggested by the data of Table 1, some ecological deficiency (perhaps too low a temperature) may have been responsible for the premature abandonment of all but 2 of the cocoons by the nurses, and may have prolonged times to eclosion abnormally in those that hatched.

It was clearly evident that at least 1 adult fertile brood female, morphologically indistinguishable from a worker but capable of producing female progeny, had been included in the original wild collection.

The history of brood production in the second group of workers was quite different. Here, despite intensive care, egg production was poor, and the brood total low. Only 2 cocoons were produced, both of male size and form (at about 20.0 mm \times 6.0 mm, fairly reliably distinguishable by inspection from those of workers). One of these was opened artificially, disclosing a nearly mature male pupa. The second eclosed naturally, revealing a perfect male. No worker brood was produced. It thus appears that a fertilized ergatogyne was lacking in the second fraction of the colony.

B. Mating Pattern

In *Dinoponera*, as in *Streblognathus* and *Archponera*, the males are decidedly smaller than the workers (see Figures 1, 2, and 3). They are much more lightly pigmented at maturity, and are relatively fragile. The compound eyes are large and the ocelli unusually prominent, conspicuously reflecting low incident light. The wings are well developed, and adults once emerged from the nest fly actively. Within the parent colony, however, they are surprisingly inert. At least until full maturity they assume the pupal posture when disturbed and are carried by the workers as though they were brood, as the authors have frequently observed both under natural conditions and in the artificial nest. In the latter situation, males are often held in the mandibles of immobile workers as though they were brood, even when the colony is slightly stimulated. The males may well be night fliers of somewhat restricted range. We have not yet witnessed mating flights under natural conditions, nor determined the precise mode of formation of new colonies.

Note on the Ethology of *D. grandis*

Ever since Henry Walter Bates (1892) almost eighty years ago described columns of *D. grandis* "marching through jungle thickets" the implication has been widely assumed and reiterated that the