

was not observed, we did see the eclosion of a worker from the cocoon. This completely pigmented worker cut with its mandibles a lateral, semicircular trap door a little before the apex of the cocoon. The cocoon is otherwise left intact. The worker leaves the cocoon unassisted, as Wheeler (1900) and Haskins and Haskins (1951) have already indicated for the genus. This behavior pattern distinguishes them from *Myrmecia*, where the workers assist incompletely pigmented workers to emerge from the cocoon.

The following observational events present a nutritional sequence for the larvae. a, The larvae are carried by the workers to the prey and are placed on or beside it within the brood chamber. b, The larva, as a result of its thoracic flexibility, thrusts its head into the interior of the prey in the area of the inter-segmental membrane and feeds within. c, When the feeding of the different castes is completed, the prey is discarded regardless of its degree of depletion. d, The workers never deposit prey on the bodies of the larvae.

DISCUSSION AND CONCLUSION

The observations we now have in hand strengthen our conception of the genus *Amblyopone* as an extremely primitive stock among living ants. In *A. pluto* we are dealing with a narrowly specialized subterranean form whose behavior and prey specificity place it bionomically closer to the nearctic *A. pallipes* than to the Australo-Pacific *A. australis*. Apparently its diet remains the same the year round, and is the same for larvae and adults.

Numerous features of *Amblyopone* colony life are held in common with other formicid genera. However, several behavior patterns reflect primitive social organization. For instance, some inter-individual relationships widespread among ants occur only rarely in an *Amblyopone* society, and others are manifested in only a very simple form. Thus, although the prey are captured and brought paralyzed to the nest by the adults (a social act), the larvae are virtually autonomous in feeding activities once the prey is placed near them. Such a pattern contrasts with the behavior of other ant larvae, even including those of most ponerines, which are more totally dependent on the adults around them. These larvae show evidence of cannibalism, a behavior not so common among higher ants. The adult worker ecloses from the cocoon unassisted. Coordination among workers during foraging is nonexistent, and trophallactic exchange is rare. The workers, at least of *A. pluto*, do not cut up the prey as do those of most other genera. There seems to be an overall weaker dependence of the brood on the workers than in other genera studied, save perhaps in *Myrmecia*. The characteristics listed apparently link *Amblyopone* to the solitary aculeate wasps, and they seem to justify the placement of *Amblyopone* near the base of the major branch of Formicidae represented at present by the Ponerinae, Myrmicinae, and Dorylinae.

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