

extent in brood care. It is possible that the repertoire of majors is normally more restricted, but that high minor worker mortality in the captive colony and the resulting altered caste ratios led to an expansion of the major worker repertoire. The relationship between worker caste ratios and major repertoires for dimorphic ants is only beginning to be explored (see Wilson 1984, 1986).

Observations on a *Oligomyrmex* cf. *solidaris* colony collected in a rotten log from Bako National Park in Sarawak indicates that the majors of this species also are semi-replete and are crucial to colony defense. *O.* cf. *sodalis* majors were quick to attack *Pheidologeton silenus* and *Pheidole megacephala* workers dropped into the nest areas, and were much more efficient than minor workers in inflicting damage on the enemy. The importance of rapid and effective response to workers of these ant species was dramatized when the artificial nest container housing the *O.* cf. *sodalis* colony was raided by *Pheidole megacephala* ants. Within a four hour period the *Pheidole* had completely destroyed the *Oligomyrmex* colony of several hundred individuals and emigrated into their nest container.

Minor workers of *O. overbecki* show a pattern of temporal polyethism common for ants (Wilson, 1971), caring for immatures (particularly smaller immatures) as callows and shifting towards foraging activities as they age. Probably only younger workers are semi-repletes, with the ants losing their replete condition at about the time they begin to forage.

Oligomyrmex overbecki (as well as *O.* cf. *sodalis*, pers. obser.) forms trunk trail foraging routes, as do a variety of other pheidologetine ants: *Erebomyrma nevermanni* (Wilson, 1986); *Pheidologeton diversus* (Moffett, 1984) and all other *Pheidologeton* species (pers. obser.); and *Lophomyrmex bedoti* (Moffett, 1986).

ACKNOWLEDGEMENTS

I thank E. O. Wilson and D. H. Murphy for encouragement and advice. The research was supported by grants from the National Geographic Society and Harvard University.

LITERATURE CITED

BHATKAR, A. AND W. H. WHITCOMB.

1970. Artificial diet for rearing various species of ants. Fla. Entomol. 53: 229-232.