it prefers open, partially xerophytic woodland habitats, but ranges much further, to South Australia and probably New South Wales and Victoria as well. It is an unusually hardy species and its colonies can be maintained in laboratory culture for many years. The primary reason for choosing it for this investigation, however, was that, in the populations from which nests were selected for both field and laboratory work, even mature colonies are typically quite small.[1] This and other characteristics suggest that the species is one of the socially less-evolved members of the genus and thus lend particular interest both to the reactions of its workers to necrophoric substances and to pheromones of higher ants.

Laboratory Tests

Reactions of workers of *Myrmecia vindex* to Oleic Acid

A portion of a colony of *M. vindex* consisting of approximately 30 workers, 20 cocoons, and 25 larvae, collected at Kings Park, Perth, West Australia, on December 28, 1961, and long established in the laboratory in an earth-containing Lubbock type glass nest of dimensions 7″ × 12″ and ¾″ in depth, was set up in a foraging arena consisting of a rectangular plastic box, 48″ × 24″ × 6.5″ in inside dimensions, to which the ants had free access. The bottom of the arena was covered with clean brown paper.

After the colony had become thoroughly conditioned to the environment, piles of brood which had been impregnated with 1 to 2 drops of various substances were placed on cardboard sheets, 6″ × 8″, at some distance from the nest entrance. There was early indi-

[1]Counts of four completely excavated apparently mature colonies from this population were made in January, 1964, with the following results:

Colony 1	1	typical brood female
	21	callow subalates (apparent female-worker intermediates)
	211	workers
Colony 4	1	typical brood female
	176	workers
Colony 6	1	typical brood female
	187	workers
Colony 7	1	typical brood female
	149	workers

This compares with a population count of a study nest of *M. vindex* reported by Douglas and McKenna (1970) as follows:

1	typical brood female
38	alate virgin females
38	dealate virgin females
210	workers
224	males