

Brood collected in 19 raids in 1964 averaged 120 (98 pupae and 22 larvae) a raid. If an estimated 40 successful raids took place during the season, the *Polyergus* captured approximately 4,800 young ants (3,920 pupae and 880 larvae). Since there were probably not more than one-and-a-half times that number of adult *Formica* in the mixed colony, and since many workers live for a number of years, it would seem that a fair proportion of the brood brought in is used for food. The success of the 1965 season was similar. Twenty-eight raids brought in a mean of 116 young ants consisting of a mean of 90 pupae and 26 larvae.

Ants counted as they reached the home nest fell into three categories: those with pupae, those with larvae, and those with nothing. The proportion varied greatly from an extreme of a successful raid in which 438 carried brood and only 18 did not, to an unsuccessful one in which 32 carried brood and 410 returned without. In 1964, 48% of the ants returned without brood, while in 1965 the unsuccessful ones constituted 66%. The second season may have been simply a bad year; or perhaps after a *Polyergus* colony reaches a certain size, the number of brood captured depends not on the strength of the raiding force but upon the number of *F. p. nitidiventris* larvae and pupae available.

An unusual method of collecting brood was seen in 1967 when a *Polyergus* colony raided another *Polyergus-Formica p. nitidiventris* colony at least twice. On the raid seen on August 15, the timing was perfect. Ants from nest "a" traveled for 28 minutes to nest "b," reaching it 8 minutes after all of its *Polyergus* had started on a raid. There was no barricade, and no fighting, and the 76 ants from nest "a" made off with 68 pupae and two larvae. The last ant, carrying a pupa, left just as the nest "b" *Polyergus* returned. They had also made a successful raid, in which 98 ants returned with 97 pupae (and many ants started off immediately over the same trail to bring in more pupae).

Nest "a" had been discovered in 1966, and it seems possible that it is the old Lawn Colony which remained in one place from 1956 to 1965. If this is true, it had moved 61 feet late in 1965 or early in 1966.

RELATIONSHIP WITH OTHER ANTS

The O-26 colony raided only *F. p. nitidiventris*. The Lawn Colony raided *F. p. nitidiventris*, *F. lasioides* Emery, and *F. neogagates* Emery; but only the first species were seen at the home nest.