

utes. The last ant reached home anywhere from 3 to 40 minutes later, the mean being 17 minutes.

The outgoing group of raiding ants moved at a fast pace, in spite of the fact that individuals were constantly running backward and to the side as well as forward. The mean speed of travel to raided nests was 3.1 feet a minute, and the extremes varied from 1.1 foot to 4.9 feet. The ants speeded up when they crossed bare spots at very high temperatures, but the terrain also influenced speed. Travel up-hill or through rough areas with large grass clumps slowed speed; and sometimes, in places with leaf cover, the group spread out a bit and explored under leaves as they moved along. It was not surprising that individual ants made better time returning to the home nest, even when burdened with brood. The mean speed was 4.7 feet a minute, with individual records varying from 2 to 6.5 feet.

NUMBER OF ANTS TAKING PART IN A RAID

For 47 raids ants were counted as they returned to the home nest. Not all of the *Polyergus* workers went on each raid, and the number varied considerably from day to day. However, in both years the force reached a peak in early July and dwindled in August. In 1964, the largest number seen on a raid was 370 (on July 10); and in 1965, it was 536 (on July 3). The smallest were 47 (Sept. 3, 1964) and 63 (Sept. 3, 1965). Nineteen raids counted in 1964 gave a mean raiding force of 231, while 28 raids in 1965 averaged 307 workers. It would seem that 0-26 is a vigorous and growing colony, perhaps one of the largest on the Reserve. Counts at other colonies (made for comparison in June and July of several years) gave raiding groups consisting of 272, 258, 194, 112, 54, 31, and 13 ants.

AMOUNT OF BROOD COLLECTED

The success of a raid was unpredictable and until late summer bore no correlation to the number of ants participating in it. One raiding party of 313 ants brought in only 8 pupae and 5 larvae, while another of 310 ants returned with 184 pupae and 32 larvae. The most successful raid took place on July 10, 1965, when 505 ants brought back 446 pupae and 34 larvae. The colony had not been raided before that season.

A raid did not necessarily wipe out the brood in a *F. p. nitidiventris* colony. On June 20 a group of 338 raiding ants secured 235 pupae and 78 larvae. Fifteen minutes after all were back in the home nest they organized another raid, with 284 ants, to the same colony and took 73 pupae and 19 larvae.