more sensitive to light than the workers. They reacted violently every time we illuminated the main chamber for observation.

Colony population

The population of Colony 1 grew, from January 1990 (collecting date) to July 1990, from 76 to 123 workers. We were also able to follow the immature population. Their number grew to a peak around March. An egg takes 28–30 days to hatch, the larvae 34–36 days to pupate, and the pupae 25–27 days to eclose. Callow workers remain inside the chambers for about 10 months prior to foraging in the arena.

In April the queen discontinued egg-laying. By mid-May there was a shortage of diplopod eggs, as we were not able to find them in the field or in our rearing boxes, and the ant workers started to cannibalize their own larvae and pupae. In July we found no immatures and the nest entrance was kept closed with a plug of earth previously carried to the first chamber. After this, the ants closed also the tunnel leading to this chamber in several places. We believe that in the field the nest may be closed with a plug as well, because we marked the first nest found, but could never find it again. The workers then piled themselves in the main chamber, where they spent the winter. At the beginning of October the workers cleaned the tunnel and opened the nest entrance. In fact, we never collected *Stegomyrmex* between July and October.

We kept Colony 1 from January 1990 to July 1991, observing two peaks of egg production between October and July, the first around November and the second around February. In the second season the ants again collected all diplopod eggs offered at the arena (2679 eggs). Although the worker population reached 193 at the end of the second season, we believe that it was still immature, as it never produced sexuals. Summing up our observations in artificial nests with data found on labels on museum specimens, we believe that alates fly from February to April, differing from most ant species in south eastern Brazil, which release sexuals from October to January.

Discussion

Although we studied live colonies of only one of the three known species of *Stegomyrmex*, the similar sculpturing and pilosity patterns and the presence of a conspicuous modification of the gular region in all species (see Figures in Diniz, 1990 and Fig. 2), lead us to hypothesize that the habits we have described for *S. vizottoi* are common to all *Stegomyrmex*.

Colony 2, which was evidently mature when collected, was collected only in part and had more than 300 workers and several alate and apparent recently dealated queens. Thus our data suggest that a colony reaches maturity after producing some 300–400 workers.

Our observations indicate that millipedes do not lay eggs year round, but concentrate oviposition from October to April, corresponding to the wet season in