

2. "Attack intruder" refers to workers using their mandibles to strike arthropods entering the nest. "Remove intruder" refers to an ant picking up or dragging such an intruder out of the nest (see the section on nest defense). A variety of small soil invertebrates were kept in the observation box.
3. Workers in the nest occasionally held each other's mandibles in a brief tug-of-war, then released their grip and moved apart. This is referred to as "grapple with nestmate" in *table I*, and was observed altogether 11 times.

The repertory of *M. toro* was apparently similar to that of *M. barbouri*. However, the workers were not observed grappling with nestmates or feeding on prey away from the nest. Also, the queen of this colony did not participate in brood care and did not allogroom workers.

Nesting behavior

M. toro ants congregated together in the observation box, preferring sites beneath a leaf fragment or other sheltered location. The nest site often shifted, usually following disturbances. The *M. barbouri* colony preferred the artificial nest chambers, although disturbances sometimes caused a temporary shift in colony location.

The brood of both species were scattered or laid side by side, except for small clumps of eggs and microlarvae. Even in an undisturbed colony, most *M. toro* larvae and pupae were held in place by workers, gently gripped between the worker's mandibles or immobilized with the forelegs. When the *M. toro* colony was collected, most workers had been holding a larva or pupa, even at the moment the ants had first been exposed. *M. barbouri* workers only occasionally held immatures in place.

The long mandibles present a problem in picking up brood. Smaller immatures were held far from the body, gently gripped between the distal mandibular teeth. Even the small, oblong eggs were carried this way (*fig. 1*). Pupae were gripped by the teeth all along the mandibular borders.

Emigrations

Emigrations, at least over short distances within the plastic nest container, seemed to depend on individual worker initiative; if recruitment occurred I did not recognize it. In three documented *M. toro* emigrations the queen moved first, running out of the nest area in response to some disturbance (such as tapping the box repeatedly). The workers were not disturbed as readily. However, they showed increased searching behavior within 15 minutes of the queen's departure. After finding the queen, some of the workers began transferring brood to her new location.

The gynes of *M. barbouri* were not as easily disturbed as the *M. toro*