

another small group moving to A. Ten days later all the colony with the prey brood assembled there.

Several of these nest relocations were directly witnessed. As was earlier described for *Cerapachys*, (Hölldobler, 1982), *Sphinctomyrmex* workers carry their own larvae or pupae as well as prey brood longitudinally under their bodies, between the legs, like true army ants (Fig. 4).

A final observation refers to a rudimentary construction behavior. In all the compartments of the maze a layer of fine sand had been strewn over the plaster of Paris bottom. Some of this sand was carried and piled up by *Sphinctomyrmex* workers, e.g. in front of the entrance to chamber X (Fig. 3), or at the entrance of the tube connecting the large compartment with A. Also a lot of sand was carried into the tubes often filling them up so much that the passage with booty became difficult.

DISCUSSION AND CONCLUSIONS

An important result of this study is the demonstration of true polygyny occurring in multiple-female colonies of *Sphinctomyrmex*. Since we also have dissected the four resp. two dealate females of two *Cerapachys sp.* colonies and found them to be inseminated and fertile, we may conclude that the often-reported multiple-female colonies in Cerapachyini in fact are usually polygynous.

The study further revealed that in *Sphinctomyrmex* workers have simple ovaries consisting of only two ovarioles, and they lack a spermatheca as in many ants of higher subfamilies. This is remarkable because in a variety of ponerine genera workers usually have 3–4 ovarioles/ovary, and often all individuals have a spermatheca (Peeters, 1987).

As in the *Cerapachys* species investigated by Hölldobler (1982), prey storage was also observed in *Sphinctomyrmex*, though only for shorter periods. In contrast to *Cerapachys*, the *Sphinctomyrmex* colony did not stop raiding when sufficient prey was in the nest. All prey colonies were attacked soon after access was gained to the respective compartment. Recruitment for raids, or during nest relocation, was not directly observed, but evidence suggests that a recruitment communication similar to that in *Cerapachys* exists also in *Sphinctomyrmex*.