

1. The frequent parabiosis of *Crematogaster parabiotica* and *Camponotus femoratus* shows that Ule's distinction of gardens inhabited by large and small ants does not hold in British Guiana. Moreover, though the same plants do not occur in all gardens, no preference of certain ants for certain plants could be detected.

2. All the species of ants involved in the ant-garden biocoenose may also nest elsewhere. Even the *Camponotus* and *Crematogaster* are occasionally found nesting in very different situations, though it must be admitted that the former shows a very decided preference for the garden nest. The fact that Ule found this same insect so frequently in the same structures in Brazil, shows that there is here a very regular and intimate ethological relationship between an ant and certain epiphytes. *Anochetus emarginatus* is less frequently found in gardens than in the rotting cores of tree-trunks, stumps or branches, or accumulations of woody detritus under loose bark or the bases of palm leaves. Nevertheless, the plants growing in gardens inhabited by *Anochetus* are as abundant and of the same species as those on the nests of *C. femoratus*. I may add that in the cases examined there was nothing to indicate that the *Anochetus* had appropriated *femoratus* nests.

3. Ule has given us no account of the growth or ontogeny of one of his ant-gardens based on actual observation. He implies that the ants either put seeds into crevices or accumulate a certain amount of humus at some spot on a tree or bush, especially at the junction of the branches, and then collect and plant the seeds in the mass. I feel confident that the gardens arise in a different manner. I occasionally found single ant epiphytes, especially *Peperomia* and one of the Gesneriaceae, growing in very small accumulations of earth or detritus in the crevices of tree-trunks or branches, and in many such cases no ants were present. In others incipient colonies of *Azteca*, *Crematogaster parabiotica* or *Camponotus femoratus* were found in similar situations, even about the roots of a single plant. I believe we have here one of the earliest stages in the development of the garden. That the amount of humus is gradually increased by the ants as the colony grows, admits of no doubt, and it is possible that as the accumulation becomes more voluminous, it may be seeded by seeds falling from the original plant. The frequent presence on a single nest of many plantlets of the same species and in approximately the same stage of growth may be as readily explained on this supposition as on that of the intentional garnering and sowing of seeds by the ants.

4. It is practically certain, from what we know of the habits of ants, that new gardens cannot be seeded from old ones, as Ule maintains. In Kartabo and its vicinity, the gardens are rarely close together. Once only did I find three strung along the trunk of a sapling only a few inches apart (Fig. 1). They are more frequently on different trees often separated by a hundred-yards or more. Furthermore, the colonies of all the species of ants known