

Article XX.—HONEY ANTS, WITH A REVISION OF THE
AMERICAN MYRMECOCYSTI.

BY WILLIAM MORTON WHEELER.

INTRODUCTION.

For several years specimens of our American species of *Myrmecocystus* have been accumulating in my collection, and at various times I have devoted considerable attention to the habits of these remarkable ants in the arid lands of Texas, New Mexico, Arizona and Colorado. This material and these observations prove not only that the accounts of previous writers are very fragmentary but that the problems suggested by our *Myrmecocysti* are much more complicated than has been supposed. Since I may be unable to continue my field work on this group for some time to come, and since the preparation of a chapter on the honey ants for a forthcoming book has compelled me to examine the pertinent literature and the specimens in my collection with some care, I have decided to publish the following account of the material in hand.

Our *Myrmecocysti* present both taxonomic and ethological difficulties. We seem to have only two species, and these are closely related, but each is represented by several still more closely related geographical races, or subspecies and varieties. Although in part recognized by European myrmecologists, these subspecies and varieties have not been accurately defined. Such definition, indeed, could hardly be expected, for this is impossible without extensive studies in the field, because the workers of the same colony sometimes vary greatly in size and color and in some cases even tend to become dimorphic. Another difficulty, which seems not to have occurred to previous observers, arises from the fact that the extraordinary habit of producing honey-storing repletes, rotunds, nurses, or plerergates, as they have been designated by different writers, seems to be entirely absent in certain forms of both species, and that even in the forms in which it has been observed, this habit may, perhaps, be manifested only in particular localities or during certain seasons. These considerations tend to complicate the matter of classification, since the question must arise as to the taxonomic value of the presence or absence of this particular habit.

The ants of the genus *Myrmecocystus* are confined to the warmer and more arid portions of Europe, North Africa, Central Asia and Southwestern North America (Fig. 1). In these xerothermic regions they may be