

Reprinted from *ECOLOGY*, Vol. 25, No. 1, January, 1944
Printed in U. S. A.

THE TREE ANTS (*DENDROMYRMEX*) OF SOUTH AND CENTRAL AMERICA

Dendromyrmex is one of the very few neotropical genera of Formicinae, the subfamily which includes those ants lacking a sting and with an anal cirlet of hairs such as *Formica* and *Camponotus*. The ants are rarely recorded and practically nothing has been published on their habits. Wheeler ('16) briefly notes that *Dendromyrmex fabricii* had a "small carton nest on the under side of a leaf." Emery ('25) notes that *D. chartifex* "construit un nid en carton sur les arbres." The nests, however, have never been figured.

The ants are of *Formica* size and distinguished by their strongly convex eyes, occipital region sometimes constricted behind as a "neck" and thorax almost evenly convex in profile. They resemble some medium-sized *Camponotus* workers but are not polymorphic and the eyes are much more strongly convex. The known range extends from Honduras to Bolivia and the ants are characteristic inhabitants of the tropical rain forests.

In Panama, British Guiana and Surinam I was fortunate in finding these ants a few times and examined their nests. They belonged to three species and represented three new subspecies which had to be described, (Weber, '43). These are all new records for the species and the ants had not previously been recorded from Surinam. Observations on the individual colonies are recorded below under the different subspecies but may be summarized as follows:

The ants are arboreal and form nests of carton. The female, after losing her wings, builds a small nest, sometimes like that of certain birds (*Icterus*), tubular with an opening on one side near the top, and making a crude carton in which large plant fibers may easily be distinguished (figure 1). The nests are built on the under side of leaves some feet above ground. The workers build a much larger nest of a finer carton on the under side of leaves. All nests found were at heights of five to six and one-half feet above the ground but the ants doubtless have a greater altitudinal range. The ants use a variety of leaves for the support of the nest, including palms, Mora, Greenheart, *Gugelia neglecta*, *Hirtella paniculata* and an unidentified vine. The ants exhibit plasticity in building habits. A female may build a nest by herself or cooperate with other females, probably colony mates. This initial nest is symmetrically formed and in several examples is barely large enough for the one ant. Upon the maturing of successive broods the workers form a new nest or enlarge the old and also develop a more finely comminuted carton. At least several species are nocturnal. The ants bite but are not aggressive. They may stand erect on their long legs when disturbed and hold the gaster (abdomen) at right angles to the rest of the body or they may beat the body against the carton nest, producing a sound like pattering rain.

Dendromyrmex chartifex F. Smith (figure 3).—