

Reprinted from *ECOLOGY*, Vol. 30, No. 3, July, 1949  
Printed in U. S. A.

#### THE FUNCTIONAL SIGNIFICANCE OF DIMORPHISM IN THE AFRICAN ANT, *OECOPHYLLA*

Among the common and notorious ants of tropical Africa, Indomalaya and Papua are those belonging to the genus *Oecophylla*. They are conspicuous because of their moderately large size, abundance on domesticated plants such as mango and coffee, and aggressive habits. Their propensity for tending scale and other insect pests renders them economically important. Their habit of swarming over the incautious person who brushes accidentally against a tree dominated by them and biting viciously, causes them to be ranked among the numerous tropical pests. Of general interest is their habit of using their own larvae as silk-producing

shuttles to bind together green leaves of which the nest is formed.

The variation in size of the workers was well known and they were therefore classified among the numerous polymorphic ants. The extent and significance of the variation had gone unnoticed. Upon measuring 100 workers from each of three colonies taken in the Anglo-Egyptian Sudan in 1939, however, a true dimorphic condition was revealed which had gone completely unrecognized. This dimorphism was not the usual type in ants where the maxima has a markedly larger head than the minima and is called a soldier caste. In an article ('46) show-