Taxonomic and Behavioral Notes on the African Ant, Aenictus eugenii Emery, with a Description of the Queen (Hymenoptera: Formicidae)

WILLIAM H. GOTWALD, JR.

Department of Biology, Utica College of Syracuse University, Utica, New York 13502

AND

G. R. CUNNINGHAM-VAN SOMEREN P.O. Box 24947, Karen, Nairobi, Kenya

RECEIVED FOR PUBLICATION NOVEMBER 12, 1975

Abstract: The East African army ant Aenictus eugenii Emery includes 1 subspecies and 3 varieties. One of these, A. kenyensis Santschi, is placed in synonymy, and a taxonomic history of the species is presented. The queen for the species is described for the first time and is compared with the 3 other known African Aenictus queens. Observations of A. eugenii foraging behavior show that it is a column raider and a specialized predator of ants, particularly the immature stages, that the workers move along the foraging trails in single file in small tandem groups and that they normally subdivide their prey only when it is larger than they.

Ants of the Old World genus Aenictus comprise the tribe Aenictini of the subfamily Dorylinae or "true army ants." The genus is represented by 34 species in the Indo-Australian region and by at least 15 species in Africa (Wilson 1964). Although Wilson (1964) taxonomically revised the genus for the Indo-Australian area, the known species in Africa are still spread among 60 nominal forms. Included in these are varietal and subspecies names that eventually must be dealt with if we are ever to appreciate the actual level of diversity achieved by this genus in Africa.

The Asian species are also better known behaviorly than their African congeners. Important biological studies of Asian species include those of Wheeler and Chapman (1925), Chapman (1964) and Schneirla and Reyes (1966, 1969). Biological observations of sub-Saharan species are limited to a recent study by Gotwald (1975) and to fragmentary reports by Brauns (1901), Arnold (1915), and Sudd (1959). Some biological information on African species can be gleaned from the original species descriptions, but much of the information is little more than anecdotal.

Acknowledgments: We are grateful to Dr. William L. Brown, Jr., Cornell University, for critically reading the manuscript. We also thank Dr. David H. Kistner, California State University, Chico, for kindly providing essential specimens and for identifying one of the myrmecophiles. The research was supported by National Science Foundation Grants GB-22856 and GB-39874 (W. H. Gotwald, Jr., Principal Investigator).

NEW YORK ENTOMOLOGICAL SOCIETY, LXXXIV: 182-188. September, 1976.