

## Phenetic studies of African army ant queens of the genus *Dorylus* (Hymenoptera: Formicidae)

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**ABSTRACT.** Multivariate analyses of queens of fourteen species of the Old World army ant genus *Dorylus* were undertaken to assist in clarifying the status of the six included subgenera. Results were compared with two similar studies based on major workers and males, respectively. Queens are phenetically less divergent than either of the other two phenae examined, although similar subgeneric relationships were observed. Taken together, these phenetic studies suggest that the subgenera *Rhogmus* and *Alaopone* are deserving of continued individual status, but that species of *Anomma* and *Dorylus* (s.s.) form one diverse taxon. A conservative classification would place *Dichthadia* and *Typhlopone* species together with the composite *Dorylus* (s.s.) – *Anomma* taxon.

### Introduction

Species of the subfamily Dorylinae constitute the Old World army ants and are placed in the genera *Dorylus* and *Aenictus*. These two genera are distinguished morphologically from the New World army ants, or Ecitoninae, by an array of characters and are considered to have arisen independently of the New World forms. That is, the New and Old World army ants have evolved convergently the complex of morphological and behavioural characteristics used to define the true army ants (Gotwald, 1982). *Dorylus* and *Aenictus*, however, are as distinct from one another as either is from the Ecitoninae, and they themselves may represent separate but convergent evolutionary lines (Gotwald, 1979).

The Indo-Australian species of army ants are reasonably well known taxonomically, especially those belonging to *Dorylus*, since

only four species of this genus are recorded from the region (Wilson, 1964). In Africa, however, these genera are poorly understood and were last treated taxonomically as a group by Emery (1910). In subsequent years, numerous descriptions of species, subspecies and varieties, most commonly of unassociated workers, males or queens, were added to the literature. As a result, each genus is a synonymic tangle of names. Both genera are being taxonomically revised by one of us (W.H.G.). This paper is a contribution to the revision of the genus *Dorylus*.

*Dorylus* is currently divided into six subgenera: *Alaopone*, *Anomma*, *Dichthadia*, *Dorylus*, *Rhogmus* and *Typhlopone*. The status of these subgenera must be determined within the context of the taxonomic revision, i.e. are these groups deserving of continued recognition, and if so, should they remain subgenera or be elevated to generic status? Although most of the subgenera can be distinguished easily from one another, there are no unambiguous characters that will

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