

frontal groove" (Wheeler 1930). Other Indo-Australian queens now known include *A. aratus* Forel, *A. binghami* Forel, *A. ceylonicus* (Mayr), and *A. currax* Emery, and these queens exhibit complex variation (Wilson 1964). In general, the African females have a simplified, reduced structure, particularly in the head and thorax, where few sutures or sclerites are evident. The subpetiolar process is the only exception, since it is well-developed in the African forms and virtually absent in the Indo-Australian queens.

The female functional reproductive cycle in African species is not known. Of the 4 queens, only the *A. congolensis* specimen was physogastric, indicating that it was gravid at the time of its capture. The intersegmental membranes of this specimen were greatly stretched and the sclerites widely separated (Santschi 1917). The other queen specimens, including *A. eugenii*, have unexpanded gasters that suggest a non-gravid phase for each.

#### BEHAVIOR OF THE SPECIES

The primary extra-nidal activities in which *Aenictus* workers are involved are foraging and colony emigration, but this investigation is restricted to foraging behavior. Observations of *A. eugenii* colonies were limited to columns of worker ants traveling to or from their nests, usually discovered crossing footpaths where the hard-packed soil and absence of litter forced their exposure. The 4 colonies studied were observed at Karen (nr. Nairobi), Kenya and were designated: KC-081 (26 July 1971), KC-111 (4 May 1972), KC-112 (19 Sept. 1972), and KC-113 (28 March 1973). All columns were presumed to be foraging, either because the workers carried prey or because in the absence of prey they were not engaged in carrying their own brood.

Workers of colony KC-081 (discovered at 0930 hrs) moved along several anastomosing trails in tandem groups of 2 to 10 or more individuals. The workers moved in single file, and the tandem groups on any one trail were often widely separated from one another. Because different groups used the same trails at different times, it was obvious that the trails were chemical.

Colony KC-111 was detected as a foraging column, several meters in length, raiding the nest of an ant of the genus *Pheidole*. Several small columns branched from the main trunk, and some of the *Aenictus* workers encountered termite workers, which they ignored. A single myrmecophile was collected and was tentatively identified as *Aenigmatopoeus sequax* Borgmeier, a phorid fly that is also a predator of the driver ant *Dorylus* (*Anomma*) *nigricans* var. *molestus* (Gerstaecker) (Kistner, personal communication).

Colony KC-112 was initially discovered at 0800 hrs (sky overcast, temperature 15.6°C) as a series of columns crossing a footpath and entering a flower garden. These columns branched from a base column of workers moving in single file, about 2 m long, that issued from a hole in the soil. At the end of each branch column, workers gathered, sometimes numbering in the hundreds, and proceeded to search an area approximately 30 cm square. The foraging workers moved swiftly in their search activity, and numerous workers returned along the original trail without evidence of booty. There were 5 to 7 such foraging groups which returned to the main column following completion of their