

A PRELIMINARY NOTE ON THE BIOLOGY OF *CATAGLYPHIS SABULOSA*
KUGLER (HYMENOPTERA: FORMICIDAE) IN THE SOUTHERN ARAVA
VALLEY, ISRAEL

BENJAMIN SHALMON
Eilat Field School, P.O.B. 204, Eilat, Israel

Cataglyphis sabulosa Kugler (1981, *Israel Journal of Entomology*, Vol. XV, p. 83) is a yellow-orange ant that inhabits sand dunes in the Southern Coastal Plain of Israel, Northern Sinai and the edge of sand dunes which are rich in fine grained clay in the southern Arava Valley. In the latter habitat the dunes proper are occupied by the larger, more aggressive, *C. bombycina* (Roger).

The foragers of *C. sabulosa* are thermophilic and are active mainly from February to November, when soil surface temperature vary from 18°C — 64°C. Their food consist of dead arthropod fragments or alternatively living or dead, whole small insects, mainly aphids. The nests of *C. sabulosa* contain two compartments; an upper one, located 5 to 20 cm under the surface, contains cells which serve as food storage or garbage dumps. The lower compartment is located in humid soil, sometimes as deep as 1.5 m, and consists of the queen and brood cells.

Nuptial flights occur in the mornings of March until May. Males and females of the same nest do not fly at the same time. The males fly some distance, land and look for a female, with which they mate on the surface or inside alien nests. Mated queens have a separate nuptial flight, after which they land, shed their wings and start digging a new nest.

Workers of *C. sabulosa* exhibit three subcastes: Minor workers that participate mainly in foraging and attending eggs. Media that in addition to foraging and attending eggs, attend also microlarvae and participate in mutual carrying of other adults. The major workers take part mainly in digging, guarding the nest entrance and attending bigger larvae and pupae.

The foragers of *C. sabulosa* avoid the bigger foragers of other species of *Cataglyphis* namely, *C. bombycina* Roger, *C. bicolor nigra* AndrS, *C. livida* Andre and *C. albicans* Roger which coinhabit the same area. When they encounter another worker they usually run away or sometimes hide under a stone. Their general reaction to alarm is to run and hide in their nest.