Social Behaviour in Ants

Social life in insects finds its highest expression among the ants. Some ants construct their nests in the soil in the form of galleries and chambers excavated in the underground, while the others from mound, nests composed of excavated soil and the masses of leaves, twigs e.t.c. Indian ant, Oecophylla, constructs a nest out of leaves binding them with silk.

CASTE SYSTEM

Four types of castes in the ant colony:—

(1) Males or amers (2) Female or gynes
(3) Workers or ergates (4) Soldiers or dimergates.

(1) Males or amers:—

These are winged forms with a slender body. These are characterised by a small head, reduced mandibles, well developed sense organs and fully developed genitalia. The larger amers are called macroamers while the

smaller ones are known as micramers.

Females or gynes:-

These are fertile females possessing well developed reproductive organs. These are bigger in size because of enlarged abdomen. The antennae and the legs are short and stout and the mandibles well developed. These are winglless. The queens are also of two sizes. The larger ones are termed macrogynes while the smaller one microgynes. The life span is of more than 15 years in certain species.

Workers or ergates:-

The workers are normally sterile females. They are small in size, with reduced thorax, apterous and with small eyes. They are either dimorphic. The larger ones are known as macergates and the smaller ones as micergates.

(4) Soldiers or dinergates :-

These are modified workers which are characterised by apterous nature, large and powerful mandibles. Their main function is protection of the colony. They serve to ward off the enemies attacking the nests.

Formation of New Ant Colonies

The ant colonies vary in the number of individuals ranging from a few dozens to several thousands. New colony is developed by a migrant queen. During July or August, swarms of males and females leave their nest. Males and female fly and mate. The male dies after the nuptial flight. Female loses her wings and starts laying eggs. The larvae hatching out of the eggs are fed by the saliva of the queen. In the early stages of the colony only sterile workers are produced. The winged males and females are produced later and disperse after they are mature and proceed to establish new colonies.