

nests require no biologically expensive materials and are completely flexible as to plan and extremely efficient in that, they afford a wide range of temperature and moisture conditions from which the ants can choose and benefit. However, they are as plastic in their nest building as in other aspects of their behaviour. They can readily alter the typical plan to fit anything unusual in their nesting sites. They may normally use typical material, but can change readily to some other, if the supply is inconvenient, inadequate or even entirely lacking. A species may occupy the nest abandoned by another or even a colony can be evicted by another. thus, it may not be always easy to correctly identify a species from the nest it occupies.

Majority of ants are omnivorous. Primitive species are predators. Many have become more versatile and in addition to animal food, gather plant juices, fruits or seeds. Honeydew obtained from Homopterans is an important component in the ants' diet.

Ants are of great importance in the ecosystem, considering their diversity and abundance in the tropics. They play a major role in aerating the soil. Certain species help in the pollination of plants, the predator species play an important role in biological control of pests. However, some of them are directly or indirectly harmful as agricultural pests. Some species are house-hold pests.

Analysing the phylogeny of aculeate superfamilies of Hymenoptera, it is found that family Formicidae has originated from superfamily Bethyloidea, passing through Vespoidea (Brothers, 1975). Until recently the search for the ancestry of ants, always ended in frustration. Wilson et al. (1967a,b) obtained the first ant remains of Cretaceous age, in the fossil form of *Sphecomyra freyi*. Jell and Duncan (1986) described *Cretacoformica explicita* from lower cretaceous bed in victoria, Australia.

George Alexander James Rothneyi (1889) worked on Indian ants and later on A. Forel (1900a,b,c) published a comprehensive work on the Formicidae of India and Ceylon. Bingham (1903) published his valuable work on ants fauna of British India including Burma and Ceylon and gave details about the distribution of the species.

Successive workers like Jerdon (1851), Mukherjee (1927), Karwajew (1926, '27, '28), Menozzi (1935), Donisthorpe 1942a, b), Smith (1948) Chapman and Capco (1951), Brown Jr. (1954, '57, '59a), Wilson (1964), Taylor (1965, '66, '68), Collingwood (1970), Baroni Urbani (1977a, b), Bolton (1977), Tiwari et al. (1977a, b, c, '86a, b '94, a,b,'96,'97,'98) and Imai et al. (1984) have made valuable contribution on Indian fauna of Formicidae. Aphidicolous ants of North-East India are studied by Datta et al. (1983) and Devi and Singh (1987). The present work is based on the material collected and deposited at the Zoological Survey of India, Eastern Regional Station, Shillong, and the Headquarters at Calcutta.

Meghalaya comprises of an area of 22,549 sq. km. and is bounded by Bangladesh on the south and west and by Assam on the north and east. Originally it consisted of Garo hills, Khasi hills and Jaintia hills, which have been further divided into seven districts viz. West Garo-Hills, East Garo-Hills, South Garo Hills, West Khasi Hills, East Khasi Hills, Ri-Bhoi and Jaintia Hills.

The state merges almost to the sea-level in the plains of Bangladesh and Assam on all sides, except in the east, where it extends to the main ranges of the eastern Himalayas by a continuous hill