IDENTIFICATION OF FORMICIDAE ANTS FROM WADALI GARDEN AND HUMAN HABITAT OF AMRAVATI, M.S. (INDIA)

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Abstract:

In the present study we identified three species of formicidae ants in Wadali garden and Human habitats of Amravati area. This study tried to know the variety of ants in Wadali garden and human habitats of Amravati city. In this study, three species of ants were identified with their genetic and species names, Tapinoma sessile, Oecophylla smaragdina, Campotonus pennsylvanicus. These three species presently known by their common names: odorous ant. Weaver ant and carpenter ant respectively. Odorous and carpenter ants recorded at both places of studied area but weaver ant only identified at Wadali garden.

Keywords:

Ants, Wadali garden, Human habitat,

Introduction:

Ants are one of the most abundant and diverse animal groups in tropical ecosystems (Stork, 1987, 1991), and they function at many levels in these ecosystems - as predators and prey, as detritivores, mutualists, and herbivores (Holldobler and Wilson, 1990). Thus, ants have the potential to yield more meaningful biodiversity data than many other organisms, such as plants, birds, and butterflies. Moreover, since most species have stationary, perennial nests with fairly restricted foraging ranges, ants have a potential role as indicators of environmental change. Because of the potential usefulness, inventory of ants has been viewed as an important task in tropical biodiversity and conservation studies (Agosti et al., 2000). Ants are a dominant group in a wide array of modern terrestrial settings (Hölldobler & Wilson 1990). Ants are a conspicuous component of terrestrial biodiversity. With more than 12,000 described species (Bolton et al. 2006) and many others awaiting description, ants are the most species-rich of all social insects. They display a remarkable

range of social behaviors, foraging habits and associations with other organisms (Hölldobler & Wilson 1990), which has generated intense scientific and public interest. Almost anywhere in the state one travels, ants will be the most common insects that can be found in yards, gardens, fields and forests. Tremendous numbers of ants normally reside in a typical house lot, although most lead unobserved lives underground or otherwise out of sight. Often it is only when they occur indoors or produce their periodic mating swarms that they come to human attention. Overall, the activities of ants are quite beneficial. Many feed on other insects, including pest insects. Ant scavenging helps to recycle organic matter and their tunneling is useful in aerating and mixing soils.

Material and Methods:

Collection of Ant: The ant samples were collected from Wadali garden and Human habitat of Amravati city. Samples were collected randomly from the selected habitats. In the present study sharp forceps between 10 and 30 cm was used for collection. 500 to 1000 ml wide mouthed jars with killing agent (70% alcohol) were used as collecting jars. Before collection, 70 % alcohol (5 to 10 ml) was added as a preservative. Identification of Ant: The collected ants were identified by using Stemi DV4 stereo microscope based on identification key (Mathew R. N. and Tiwari, 2000; Bolton B,1994; Bingham C. T.,1903; Holldobler B. and Wilson E.D,1990 and Krebs C.J.,1999).

Odorous ant (Tapinoma sessile, Say, 1971): We observed Odorous house ants; sometimes it is called odorous ants, stink ant, and coconut ant. These ants (Fig.1) we have identified on the basis of their morphological characters. These ants were found in wa

Fig.1 Odorous Ant (*Tapinoma sessile*)

Fig.2 Weaver Ant (*Oecophylla smaragdina*)

Fig. 3 Carpenter ant (*Campotonus pennsylvanicus*)

Conclusion:

in the present study, we conclude that out of three ants two ants Odorous and carpenter ants found at both places of studied area but weaver ant only identified at Wadali garden. Habitats of ants depends on availability of food. due to availability of food on trees, Weaver ant only found on trees of Garden. other two ants prefers variety of foods therefore, they are found on both habitats.

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