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Tapinoma melanocephalum (Fabricius)

(Hymenoptera: Formicidae)[1]

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INTRODUCTION: Tapinoma melanocephalum (Fabricius) is a nuisance ant that is occasionally important as a house pest. Established field populations of the ant appear to be limited to south Florida, but active colonies have been reported as far north as Gainesville (Bloomcamp and Bieman, pers. comm.). In northerly climes, infestations are confined to greenhouses or other buildings that provide conditions necessary for survival. The ant is a tropical species either of African or Oriental origin (Wheeler, 1910); however, this introduced ant species has been so widely distributed by commerce that it is impossible to determine it's original home (Smith, 1965).

DESCRIPTION: Abdominal pedicel consists of one segment. Cloacal orifice slit-like with the hairs not forming an encircling fringe. Antennal scapes surpass the occipital border. Head and thorax are a deep dark brown with gaster and legs opaque or milky white. Workers are extremely small, 1.3-1.5 mm. long (Creighton 1950). When crushed, the workers emit an odor similar to that of rotten coconuts (Smith, 1965).

DISTRIBUTION: Tapinoma melanocephalum is associated with a complex of ant species known as "tramp ants" that have been widely distributed in tropical and subtropical latitudes worldwide. Colonies of T. melanocephalum have been reported from such locations as the Galapagos Islands (Clark et al. 1982). In temperate latitudes, it has been reported to be established in greenhouses and other buildings with favorable conditions, and has been found as far north as Winnipeg, Manitoba, Canada, where a colony was found nesting in an apartment block on the Assiniboine River (Ayre, 1977).

BIOLOGY AND BEHAVIOR: Tapinoma melanocephalum is highly adaptable in its nesting habits. It nests readily outdoors or indoors. Colonies may be moderate to large in size containing numerous reproducing females (polygyny). Generally, the colonies occupy local sites that are too small or unstable to support entire large colonies. The sites include tufts of dead but temporarily moist grass, plant stems, and cavities beneath detritus in open, rapidly changing habitats. Thus, the colonies are broken into subunits that occupy different nest sites and exchange individuals back and forth along odor trails (Oster and Wilson, 1978). In Costa Rica, jumping spiders (Araneae: Salticidae) were found living within nests of T. melanocephalum located on the undersides of leaves. The basis of this relationship appears to be symbiotic. The spiders provide the ants with protection from predators and parasites, while the ant nest is used as a foundation for web construction (Shepard and Gibson 1972).

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Workers have the habit of running rapidly and erratically. They are fond of honeydew and tend honeydew-excreting insects. They also feed on both dead and live insects (Smith, 1965).

ECONOMIC IMPORTANCE: The species is a household pest; not only can the ant invade houses from outside, they can nest in the house as well. Although the ant feeds upon many household foods, it seems to show a preference for sweets, having been observed feeding on sugar, cakes, and syrups (Smith, 1965).

The ant is established in the quarantine greenhouses in Gainesville, Florida where they have proven impossible to control due to the restrictions imposed on the use of toxicants in these greenhouses. The ant preys upon small beetle lar-larvae and lepidopterous larvae from the cultures of insects in quarantine.

In coastal Venezuela, T. melanocephalum was found to be the primary predator of the eggs of Rhodnius prolixus, the vector of Chagas' disease. This effective predaceous activity on R. prolixus populations by T. melanocephalum may account for the absence of R. prolixus associated diseases from this area of Venezuela (Gomez-Nunez, 1971).

DETECTION and CONTROL: The ant is easily recognized due to its peculiar color markings and small size.

Generally, control is not necessary except where it becomes a nuisance in the home or in greenhouses. If control is necessary, the ant is susceptible to a number of pesticides used in baits or as contact poisons. Consult your local County Agricultural Extension Agent for approved insecticides for ant control. Read and follow label instructions before using any insecticide.

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