



## Pavement Ant

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### Introduction

The pavement ant is native to Europe but has spread throughout much of the United States. Their common name reflects their tendency to build nests in cracks of sidewalks and driveways. Pavement ants frequently make characteristic small craters of soil or sand at the entrance of their colony between pavers or rocks, or in cracks through concrete and asphalt. They often attract interest when neighboring unrelated colonies attack each other in massive battles on sidewalks and other paved surfaces (Fig. 1). Pavement ants (*Tetramorium immigrans*) belong to the family Formicidae in the order Hymenoptera. Originally this ant was identified as *T. caespitum* and some sources may still use this species name.



Figure 1. A battle between two pavement ant colonies (Joseph Berger, Bugwood.org).

### Description

Pavement ant workers are small, 2-3 mm (0.1-0.2 inch) in size, and brownish-black in color (Fig. 2). Like all ants, pavement ants have a distinctly constricted “waist” between the thorax and the abdomen. They have two nodes in the “waist” between their abdomen and the rest of their body. There are two small spines on the thorax in front of the “waist.” The head is sculptured with longitudinal

grooves while the abdomen is shiny. Their legs and antennae tend to be lighter colored than the darker abdomen.



Figure 2. Pavement ant worker (Joseph Berger, Bugwood.org).

### Habitat

Pavement ants are common in developed areas or places with bare disturbed soil, such as parks, waste ground or vacant lots, and roadsides. They are also found in exposed soil around more natural areas along waterways, in fields, and around rock outcroppings. Pavement ants are commonly found under stones, concrete slabs, and sidewalks; around patios; and in crevices found in woodwork and masonry inside homes. Pavement ants often enter houses while searching for food. They feed on a variety of materials, including live and dead insects, honeydew from aphids, meats, grease, and similar materials. They often enter houses looking for food and will eat almost anything consumed by humans. They may become numerous in a short period of time in a kitchen or outside on a patio.

### Life Cycle

Pavement ants have a complete life cycle of egg, larva, pupa, and adult stages. The immature stages

(eggs, larvae, and pupae) require significant brood care by adult worker ants.

Like other ants, pavement ant colonies have a complex social structure of sterile workers and a fertile queen, with winged reproductives produced for establishing new colonies. The worker ants raise the ant brood, gather food, maintain the nest, and take care of the queen. Soldier ants defend and protect the colony. The queen ant, which founded the colony, lays eggs that develop into workers, soldiers, and reproductive ants. When colonies are mature and the environmental conditions of temperature and humidity are right, the winged reproductive males and females leave the nest on mating flights. Mated queen ants will disperse to start their own colonies in suitable locations.

## Distribution

Pavement ants are very common in Virginia and across much of the United States.

## Damage

Pavement ants can be found around the foundations of homes and buildings. They become a nuisance pest when they forage indoors in search of food, or when their noticeable presence on hard surfaces around the house is objectionable (Fig. 1). They are particularly attracted to greasy foods but also seek sources of sugar. Pavement ants use pheromone trails to attract nestmates to rich sources of food, often resulting in large numbers of ants seemingly appearing out of nowhere. Homeowners are often alarmed at large numbers of pavement ants suddenly appearing from cracks in concrete around the home, or by numerous worker ants invading the home looking for food sources.

## Control

Pavement ant nests can be difficult to locate, so direct control efforts against the scavenging workers. Use baits designed to be carried back to the colony by the foraging workers so that the insecticide can be shared among the colony and kill the queen. Pavement ants are attracted to pet foods, grease, seeds, and other foods high in fat, but they also feed on sugar. Sometimes pavement ants are more attracted to protein/grease-based baits, while at other times of the year they may prefer sweet-based baits.

If the ants aren't attracted to a protein/grease-based bait, try using a sweet-based or a dual-choice bait instead. Foraging ants lay scent trails to mark paths for foods; placing the baits where workers are foraging will result in more workers discovering the bait. Several baiting sessions may be necessary to reduce the number of foraging workers. Keep baits available until foraging ants are no longer seen.

Good home maintenance can limit pavement ants from invading a house by reducing the places the ants can enter the house. Seal any exterior cracks and crevices around windows and doors, or in the foundation or attic spaces. Be sure to seal gaps around places where wiring and pipes enter homes. Placed bagged garbage, especially any containing food scraps, in tight-sealing bins and empty regularly. Promptly wipe or vacuum food spills to remove any food residues or crumbs that might attract ants.

## Revised

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