

Update

NPMA LIBRARY UPDATE

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Common Ants: A Pull-Out Guide for Use in the Field

This Library Update is designed to assist technicians in identification and control of ants while servicing accounts. This update is not designed for instruction in basic ant biology, nomenclature of the anatomy of the ant, or to be used as a key. For more detailed information on those topics, refer to the *Field Guide* or other technical materials. In the field, a great aid to identification is the use of a hand lens. Many of these ants are small and positive identification is not easy without a hand lens. This article focuses on common, non-wood-destroying ants, including: acrobat, white-footed, odorous house, pavement, pharaoh, Argentine, and red imported fire ants. As always, when selecting a control method, read, understand, and follow the label.

Acrobat Ants: *Crematogaster* spp.

Acrobat ants are small ants and all workers are roughly the same size (monomorphic). There are several species

of acrobat ants. Workers are 1/16" to 1/8" in length and are normally brown to black in color. The pedicel, or front joint of the abdomen has two nodes or segments. Looking down on the ant under hand lens magnification, one pair of spines is found on the thorax. Various species of acrobat ants are found throughout the United States.

Acrobat ants are named for their tendency to raise their abdomens in the air when disturbed. As the abdomen is heart shaped and is frequently black and shiny, the acrobat motion is readily observable.

Acrobat ants frequently nest in damp mulch areas, under stones, in tree stumps and under dirt filled porches. It is common to see an Acrobat ant trail moving from flower beds up the side of a dirt filled stoop where they might disappear into the stoop and resurface inside a structure.

These ants prefer honeydew excreted from aphids and other insects. They will also feed on small insects and, inside houses, will feed on sweets. Acrobat ants will give off a pungent odor when disturbed. These ants will bite under the right conditions, but are not usually known as a stinging insect.

The first step to control is a thorough inspection and tracking activity to a source. Sometimes tracking is best done



Acrobat ant



Left: Acrobat ant

at night. Drying of an area may help. A spot treatment can be performed, and a perimeter treatment of a residual also works well. If ants are getting into a structure, holes and cracks should be sealed prior to any application.

White-Footed Ant: *Technomyrmex albipes* (Fr. Smith)

The white-footed ant is currently found in Florida and is slowly spreading north. As the name implies, the ant has whitish coloring on its lower legs to the tarsi. The other parts of the anatomy are dark brownish to black. Chances are that the white-footed ant was accidentally imported, perhaps through landscaping materials. The white-footed ant is primarily a nuisance pest and can have a colony size of up to several million. The average worker ant length is approximately 1/10" to 1/8".

White-footed ants can reproduce quickly and in large numbers since up to half of the population are fertile females. The colonies will also readily bud into satellite colonies. The preferred food is honeydew and they will protect some of the insects that produce honeydew. These ants have no real defense mechanism, so sheer population accounts for its survival.

These pest ants will readily invade structures, following lines to gain entry.

They will nest in areas similar to those preferred by acrobat ants.

Some baits, dusts, granules, and residuals have been effective against this ant. It is best to use several control strategies after reducing moisture, including finding nesting sites and sealing entrances into structures.



White-footed ant



Odorous house ant

Odorous House Ant: *Tapinoma sessile* (Say)

Odorous house ants are common throughout the U.S. and parts of Canada. It is perhaps the most challenging type of ant to control, since it readily infests buildings. The common name originates due to the pungent, coconut-type odor emitted when crushed.

Odorous house ants are small, 1/16"-1/8" long, with dark bodies. There is a small node on the pedicel, but it is usually hidden. Colonies are not huge, with a typical colony numbering not more than about 100,000.

Odorous house ants have a tendency to nest in structures around pipes, cupboards and cabinets, in walls, and between insulation and subflooring in crawlspaces. Commonly, several nests may be found in one structure. Recently, nine nests were removed from a small house crawlspace. They may also nest outside under stones or other obstructions, in dirt-filled porches, and mulch areas.

Odorous house ants will forage great distances, with one recent observation being a foraging distance of more than 100 feet from the nest; however, typically the foraging distance is less. These ants prefer sweet materials such as honey, sugar, and baked goods. Some areas of the country call these ants "sweet ants" or "sugar ants." They will, however, feed on fats such as bacon grease found in containers under kitchen sinks.

Odorous house ant control requires thorough inspection to find the source. It may take several trips to find all nests. Baiting works well, but may not work quickly for full control and may be best suited to help find the source. Bait preference varies from time to time and



Odorous house ant



Pavement ant



Pharaoh ants

from colony to colony so several types may be used. Residual sprays and aerosols can help gain control. Remove insulation infested by the ants, as it is impossible to gain full control of the ants in insulation.

Pavement Ants: *Tetramorium caespitum* (L.)

Pavement ants are commonly first observed by finding piles of granular excavated soil from between cracks on sidewalks and driveways. Pavement ants are found in the eastern U.S. and on much of the west coast.

These ants look similar to odorous house ants but can be distinguished from odorous house ants by a hand lens. The pavement ant has grooves on the "face" and has two nodes on the pedicel. These ants are also small, 1/16"-1/8" long, with flying reproductives about three times the length of the workers. Reproductives may emerge any time of the year. The thorax of workers has one pair of spines.

Habits of pavement ants are similar to those of odorous house ants, although pavement ants are opportunistic feeders. These ants will eat insects, honeydew and sweets, but prefer protein and fats. If pavement ants invade a structure, they usually prefer food spills found near easy access to pathways back to nesting sites.

Inspection of entry points should include foundations and weep holes in brick veneer.

Baiting using several types of baits may be effective or at least will aid in tracking a nest site. Residual flushes, aerosols, and dusts may be used successfully.

Pharaoh Ants: *Monomorium pharaonis* (L.)

These small ants are found throughout the U.S. These ants go beyond being a nuisance; they have been implicated in pathogen transfer. The ant got its name by the mistaken thought that this ant was one of the plagues of ancient Egypt. Native to Africa, this ant has done well in the United States.

This ant is strikingly small (1/16" for workers) and is typically light brown or tan. Workers are monomorphic, and there are many fertile females in the nest. While sometimes winged, reproductives do not fly and reproduce inside the nest. The workers have two nodes that can be seen using a hand lens.

Nesting sites preferred by these ants include walls and ceilings where a suitable humidity and temperature may be found. Other common sites include electrical boxes, phone boxes and dead spaces behind decorative wood trim. Pharaoh ants prefer sweet and fatty foods. It is common to find pharaoh ants feeding on baked and fried pastries.

At one time, pharaoh ants were very difficult to control. With the advance of baits, control has become much more achievable. Residual pesticides, repellents, and dusts will have a negative effect by encouraging the colony to split into several populations that require control. Baits should be placed adjacent to foraging lines of ants. Using properly placed baits will allow effective control without the use of other products.



Above:
Pavement ants

Argentine ants
***Linepithema humile* (Mayr)**

Argentine ants were imported from South America just over a hundred years ago. They are found in the south and west with spotty infestations in northern states.

The coloring of the Argentine ant is brownish. The workers are about the size of pharaoh ants (1/16"). There is one node visible with a hand lens. In late fall, outside colonies may unite to form a large colony to overwinter indoors. Workers are aggressive and will not readily cohabitate with other insect species.

Argentine ants usually nest near a food and water source. Their food preference is honeydew or similar sweets, but they will feed on protein and fats if necessary. These ants can spread pathogens due to their habit of crawling over any obstacle rather than going around. These ants, if living outside, will invade structures during drought.

Argentine ants can be controlled using non-repellent dusts and baits.



Red imported fire ant

Fire Ants: *Solenopsis* spp.

Fire ants are found primarily in the southern half of the U.S. The fire ant's bites and stings can be very painful and even fatal. The most common fire ants in the U.S. are the red imported fire ant and the southern fire ant.

Fire ant workers are polymorphic, meaning that the workers are not all the same size. The fire ant worker typical size is 1/4" to 1/16", and the head and thorax are yellowish red with a black abdomen. The coloring is the most distinguishing characteristic. There are two nodes on the pedicel visible with a hand lens. Stingers will be exposed on ants placed in alcohol.



Red imported fire ant

These ants will frequently build mounds, but can be found in excavated areas under slabs. Commonly the excavated soil will be piled up to a foot high on a slab or in a garage corner. The ants also inhabit the excavated soil. These ants will also infest voids in buildings near soil and will infest electrical meters and boxes, and cable boxes.

Workers forage in trails and prefer proteins but will feed on sweets, vegetation and seeds.

Fire ants are particularly dangerous to children and small animals. In May 2003, a child died in the southwest after being attacked by fire ants.

Baits and residual liquid applications are effective controls. In a structure, a one-time application of a residual works well. Insect growth regulators are also available and require several applications timed to expose several generations to the IGR. ●