IDENTIFICATION AND CONTROL OF HOUSEHOLD ANTS

Richard “Bugman” Fagerlund

INTRODUCTION
This booklet is designed to help homeowners and the pest management professionals identify and control ants in and around a home or commercial business. The control methods are non-toxic and for homeowner use. The pest control professionals can use products labeled for the control of ants. Many of the ants covered are
common in homes, while others are rarely encountered but should be recognized so they can be treated if necessary. The ants belong to the insect family FORMICIDAE. The family is divided into 7 distinct subfamilies, but only 5 of them have species that may interact with people. In some cases, several distinct species in a genus will become pests, in other cases where there are many species in a genus, only a few will interact with people.

All the illustrations came from courtesy of www.antweb.org, which is the best website on the internet when it comes to information about ants. I also occasionally recommend a good cedar product to use in your home to control ants and other pests. It is Greenbug for Indoors and is available online from www.greenbugallnatural.com. In some cases Niban Bait is effective and can be ordered online from www.pestcontrolsupplies.com.

I have a book on my website that covers all household pests in the U. S. and includes a section on pest-proofing your home. This book is available as an e-book and can be obtained on my website at www.askthebugman.com. We also have a monthly publication called Bugman's Insider Newsletter, that talks about natural pest control methods and other healthy, natural living suggestions. You can subscribe to it on my website. You can also find a lot of good information on healthy, natural living at www.urbandewberry.com. It is a great website and very informative. You are also invited to follow me on Twitter @askthebugman and visit my profile on Linkedin and my Facebook page at Ask the Bugman.

ANT INFORMATION

Ants are the most common household pests in the country. They create more calls to pest control companies than most other pests combined. For being so noticeable and so persistent in your homes, they are not readily recognized beyond five generic group names: sugar ants, grease ants, piss ants, red ants and black ants. One supervisor with a very large pest control company narrowed it down to two groups; inside ants and outside ants. This is a little bit simplistic.

Ants are very successful social insects. They have small to large colonies which contain workers (sterile females), queens (one or many, secondary reproductives that take the place of queens when she passes on and winged reproductives (known as alates) whose sole responsibility is to start new colonies. When I say an ant species is monomorphic, it means all the workers are the same size. When they are dimorphic, they are two sizes, minor and major workers and when they are polymorphic, it means they come in several sizes. Carpenter ants are an example of ants that are polymorphic.

There are several things you can do to prevent ants from entering your home. The first step is exclusion. Go around the outside of your home and inspect it very carefully from an ant's point of view. Ants can sense cool air and aromatic odors emanating from your home and will try to gain access. Check around the house at ground level and look for cracks in the foundation, voids around pipes, areas under stucco, weep-holes in bricks and similar areas that ants can use to gain entrance. All these areas need to be sealed, caulked, screened or otherwise altered to prevent ants from using them to get into your home. Check around your windows and doors to make sure they close tightly. If the doors aren't tight, you may have to install doorsweeps on them. Check your bushes, shrubs and trees to make sure you don't have any branches touching the roof. Don't stack firewood, bricks or anything else next to your house or ants and other insects may find a good place to nest. If you have bushes or shrubs next to your house, periodically inspect them for
aphids, scales and similar bugs as ants are attracted to the honeydew they produce. The ants will get on the plants and eventually find their way into your home. Don't put flagstone or flat boards on the ground too close to your home or some species of ants will nest under them. On the other hand, mound-making ants will generally stay outside. They rarely leave their complicated and efficient home life in the mound to enter homes. If you don't want the ants making mounds in your yard, you can flood the nests with club soda or with white vinegar or food-grade diatomaceous earth (DE). If you use the DE, mix 4 tablespoons per gallon of water. You can also use 1 gallon of orange juice diluted with 2 gallons of water and a dash of soap. If you prefer, you can also spread dry instant grits on the mound. The ants will eat it and not be able to digest it and die.

You can repel ants with a wide variety of products, including cinnamon, baking soda, Comet Cleanser, cedar oil, medicated baby powder, Tide, talcum powder, chalk, coffee grounds, borax, garlic, broken egg shells, bone meal, black or red pepper, peppermint, paprika, chili powder and mint leaves. If you have ants going into your hummingbird feeder, you can put duct tape, sticky side out, on the wire holding the feeder, to deter them.

The best way to control them when they get in your home is with baits. Different species have different food preferences. Some species will take a wide variety of baits, while others are more fussy. You can use a bait containing half baking soda and half powdered sugar and place it where you see foraging ants. You can also use instant grits, which they can't digest or use 2 packets of Equal or Nutrasweet, which contains aspartame, wherever you see the ants.

If the ants have a preferred food in your home, such as apple sauce, peanut butter, canned cat food, Karo Syrup, jelly or similar products, you can mix in small amounts of boric acid or borax or aspartame. Mix about 2% of any of these products in the food. Make sure you keep these baits away from children and pets. If the ants are dying near the baits, you are making it too strong and need to make a fresh batch with less boric acid or borax.

Here is a recipe for effective, homemade ant baits/traps that use borax. It attracts ants looking for either moisture or food. You will need: 3 c. water, 1 c. sugar, 1 tsp. borax or 2 tsp. food-grade DE or aspartame, 6 small screw-top jars with lids, such as jelly jars covered with masking tape, which will enable the ants to climb up the side. Mix the sugar, water and borax (or food-grade DE or aspartame) in a bowl. Loosely half-fill the jars with cotton balls or pieces of sponge or wadded paper towels. Pour up to ½ cup of the sugary mixture over the cotton balls, saturating them. Make several small holes in the lid. Screw the lids on the jars tightly.

If you smoke, always wear plastic gloves when making ant baits or they will sense the tobacco smoke on the baits and not go to it. Ants do not like cigarette or cigar smoke.

When you identify the ants you find, you will probably need a good hand lens. If you catch ants alive, put them in the freezer for an hour or so and then you can examine them.
HOUSEHOLD ANTS

A. Ants with a distinct constriction between the first and second segments on the abdomen.
...................................................................................................................................PONERINAE
Ants without a constriction between first and second segment of abdomen.........................B

B. Ants have two nodes on pedicel. The pedicel is the section between the thorax (where the legs are attached) and the abdomen; Stinger present but not always visible...........................MYRMICINAE
Ants have a single node on the pedicel; Stinger lacking........................................................C

C. Eyes very small.............................................................................................................ECITONINAE
Eyes not very small.............................................................................................................D

D. Posterior tip of abdomen with a tuft of hairs................................................................FORMICINAE
Posterior tip of abdomen without tuft of hairs, orifice slit-shaped............................DOLICHODERINAE

Subfamily PONERINAE
Ponerine ants are very primitive in structure and habits. The workers are almost as large as the queen in size and the colonies are relatively small, usually numbering a few hundred individuals. They are carnivorous as they prey upon insects and other arthropods. They dismember the prey and feed them directly to the larvae. Regurgitation (trophylaxis) is not as important in this family as it is in more recent ants. They are mostly tropical. About 21 species inhabit the United States and a couple reach southern Canada.

Pachycondyla chinensis (Asian needle ants)

INFORMATION
The Asian needle ant is small, black and shiny, quite like many other species of ants. Needle ants have a distinct constriction between the first and second abdominal segments. They also have a very large node on the petiole, which is the section between the thorax and abdomen. Unlike other ants, these ants cannot climb up glass. Put some in a glass and if they climb out they are not Asian needle ants. If they can't climb out, they probably are not.

Needle ants are found in 9 states on the East Coast; Alabama, Florida, Georgia, North Carolina, South Carolina, Tennessee, Virginia and also in New York and Connecticut. The records from Florida and Alabama are old and no new sighting have occurred. In the other states, the needle ants are well established and seem to be expanding.

HABITS
They have very painful stings that can cause allergic reactions leading to anaphylaxis in humans. Needle ants prefer undisturbed areas like forests, but can be found in large numbers around homes.

CONTROL
Needle ants do not take baits readily. It is best to locate the nest, which is usually under an object such as railroad ties and ornamental stones and spray it with a good natural pesticide such as diatomaceous earth.

**Subfamily ECITONINAE**
This is a subfamily of legionary ants. There is only one genus that is common in the United States and it is easily recognized by its very small eyes. Legionary ants are nomadic and are constantly moving. They are entirely carnivorous and they are capable of stinging.

*Neivamyrmex nigrescens* (Legionary ants, driver ants, army ants)

**INFORMATION**
There are 23 species of legionary ants in the United States. One species, the black legionary ant, *Neivamyrmex nigrescens*, is found as far north as Illinois, Iowa and Nebraska. The others are found in southern states. This species is usually dark brown or black in color and very hairy.

**HABITS**
Legionary ants are nomadic and are always moving around looking for insects, which is their primary food. They are occasionally found in yards foraging for food and will come in homes under doors, although this is rare. They will not nest in homes and will eventually leave by themselves.

**CONTROL**
Normally, no control is necessary. If you have to control them in your house, spray them with a natural product such as Greenbug for Indoors, which is made from cedar. It is absolutely safe to use.

**Subfamily MYRMICINAE**
This is the largest subfamily of ants. They are distinguished from other subfamilies in that they have two petiolar nodes on the pedicel (the segment that separates the thorax from the abdomen). Most species have functional stingers. There are eight genera of this subfamily that may be encountered in or near homes. They are *Aphaenogaster*, *Crematogaster*, *Monomorium*, *Myrmica*, *Pheidole*, *Pogonomyrmex*, *Solenopsis* and *Tetramorium*.

*Aphaenogaster* spp. (No common name)

**INFORMATION**
These slender ants are very fast when running outside. Their head is longer than broad and they have large eyes. The antennal club is poorly defined and has four segments and there are spines on the thorax. This genus is widespread. *Aphaenogaster cockerelli* is common in the southwest. *Aphaenogaster lamellidens* is common in the southern states and will nest in wood. *Aphaenogaster rudis* is found in most of the eastern states from Massachusetts to Illinois south to Colorado and Florida. *Aphaenogaster tennesseensis* is found from South Dakota and Ontario, Canada, south to Oklahoma and Georgia.

**HABITS**
They make nests in the soil and the entrance to the nest is surrounded by pebbles. They feed on dead and
dying insects, parts of plants and seeds. They rarely go into homes but they may be found near buildings and they are very aggressive when they are disturbed. They cannot sting, but they will bite in large numbers.

**CONTROL**
If you find them inside, you can mix a bait with 2 tablespoons of peanut butter mixed with a teaspoon of boric acid or borax. Outside, you can use Niban Bait to control them by placing the bait around the entrance hole to their nests.

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*Crematogaster* spp. (Acrobat ants)

**INFORMATION**
Acrobat ants are found over most of the United States. There are many species of this interesting ant. If you look at the picture, you will see the abdomen (last segment) appears flat on top. It is spade-shaped when viewed from above. They have two little spines on the thorax. When they get excited they point their abdomen up in the air and run around on four legs, hence their name, “acrobat” ants. Acrobat ants are monomorphic. These ants will sting and bite when they are in large colonies. When they are in smaller colonies, they are not as inclined to sting or bite.

**HABITS**
Acrobat ants normally feed on the honeydew secretion of aphids and related insects that infest plants near your home. They may enter your home from the roof if there are any branches touching the house or from the ground. They will get between vigas and latillas in some homes and kick out a lot of loose sawdust. It looks like they are doing damage, but they aren't. They are simply making a mess.

**CONTROL**
They will readily take sweet baits. You can make a bait with two tablespoons of honey or Karo Syrup mixed with one teaspoon of boric acid or borax. Terro Ant Bait is also very good. You can deter acrobat ants by removing any firewood stacked near the house and by making sure none of the plants near the house are infested with aphids, scales or mealybugs. Also trim any branches that are touching the house, particularly on the roof.
**Monomorium minimum** (Little black ants)

**INFORMATION**
Little black ants (that is their name) are very small, shiny black ants that are monomorphic. They do not have spines on their thorax. These ants are found throughout the United States and southern Canada. *Monomorium cyaneum* is very similar in appearance. It has a series of small depressions on the side of the mid portion of the thorax. *Monomorium minimum* does not have these depressions. *Monomorium cyaneum* rarely enters homes. It is usually found nesting under rocks and other ground debris in arid areas. *Monomorium minimum* is a major household pest. A Florida species, *Monomorium destructor*, can also be a major pest in homes.

**HABITS**
Usually they nest outdoors where they can feed on the honeydew secretion of some insects, but occasionally they infest homes. In a home they will eat whatever is available, including bread, meats, sweets, fruits and vegetables. They will bite to protect themselves.

**CONTROL**
They can be controlled using a bait made from two tablespoons each of peanut butter and jelly mixed with one tablespoon of boric acid or borax. They have large colonies and the baiting process may take awhile before it is effective.

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**Monomorium pharaonis** (Pharaoh ants)

**INFORMATION**
Pharaoh ants are very small, yellowish ants that are monomorphic. They got their name because they were originally discovered and described in Egypt in 1758. They are found in many areas of the United States. They are especially common in hotels, apartment complexes, groceries and hospitals.

**HABITS**
They will nest in any small, dark voids such as old boxes, empty bags, stacked newspapers and even an unused salt shaker. Outdoors they will nest under objects on the ground, in potted plants, in stacked firewood or piles of bricks. They are primarily nocturnal and mainly come out to feed at night. They have very large colonies, often exceeding a quarter of a million ants and many queens. They do not swarm to reproduce as most ants do, but use a system called “budding.” This is where reproducives just crawl off and mate nearby. Colonies of pharaoh ants usually contain many nests and it is essential to control all
of them or you will never get rid of them. Pharaoh ants are a major pest in hospitals where they have been associated with over 20 disease causing pathogenic organisms and they often enter isolation wards, operating rooms and patient rooms where they feed on blood and blood products and then contaminate sterile areas.

CONTROL
Never use synthetic pesticides in trying to control these ants as all you will do is cause them to split up and you will make the problem worse. Place baits such as half and half fruit juice and aspartame in soda straws. Cut the straws into one inch segments and put the segments where you have seen the pharaoh ants foraging. You can even tape them to the underside of tables. You can change the baits periodically by mixing two tablespoons of peanut oil, sweet syrup, jelly or honey with one teaspoon of boric acid. Place the straw filled baits as close to the nests as possible. You can also put strained liver baby food, honey or peanut butter mixed with boric acid or borax in small cups. Treat any cracks and crevices around the outside of the home with Greenbug for Outdoors or diatomaceous earth.

Myrmica spp. (No common name)

INFORMATION
Ants in this group (genus) are small, dark-colored, have lots of groove-like indentations on the body and two well-defined spines on the thorax and the antennae has 12 segments. They differ from harvester ants (Pogonomyrmex) in that Myrmica lacks a psammophore (beard), which is present in pogos. These ants do have stingers but rarely if ever use them. The species in the photo is Myrmica latifrons.

HABITS
These ants rarely enter homes, but may be found in yards in mountainous areas, particularly in areas near pine forests. They will nest in soil, rotten wood or under debris on the ground. They feed on insects as well as the honeydew secretion of aphids and other Homopterans. The nests are very small.

CONTROL
Since the colonies are small and they won't invade a home, but may be found in a yard, no control is necessary, but you should be able to recognize them.

Pheidole spp. (Big-headed ants)

INFORMATION
Big-headed ants are very common. There are about 60 species found in the United States and many of them may enter homes. These include Pheidole bicarinata, P. ceres, P. coloradensis, P. desertorum, P. hyatti, P. senex, and P. sorites. They do not have large colonies and are not major pests. They have spines on the thorax.

HABITS
These ants are dimorphic. The smaller minor worker gathers seeds and the larger major worker with the enlarged head, breaks open the seeds. The majors also function as soldiers and help protect the colony.
There are many more minor workers in a colony than major workers, so you probably need to get a large number of specimens to properly identify these ants. Big-headed ants usually live outside during the warm months and move indoors in the winter.

CONTROL
Niban bait is a good product to use to control these ants outside. You can put some diatomaceous earth behind baseboards in areas where you see them as they often come into homes through an expansion joint between the slab and foundation.

\[ Pogonomyrmex \text{ spp. (Harvester ants, agricultural ants, pogos)} \]

INFORMATION
Harvester ants are comparatively large, 3/16” - 1/2” long, red to dark brown or black in color and, with one exception, they have a pair of spines on their thorax. They have a stinger and will use it if disturbed. Most harvester ants have a large psammophore, or beard, of coarse hairs under their head. This is used to carry fine sand during excavation of the nest. There are about 22 species of harvester ants in the United States. Only one species, \( Pogonomyrmex \text{ badius} \), is found east of the Mississippi River.

HABITS
They make large mounds covered in gravel which retains heat and helps incubate the eggs in the nest below. These ants feed on seeds, which they gather and store for the winter. When they swarm in the summer, they fly high and will often land on a roof to rest. In some cases the swarvers will come down chimneys and invade homes, or even elevator shafts on commercial buildings.

When making the nest, they clear large areas of vegetation. This allows the sun to warm the ground as their eggs are just below the surface during the summer. In the winter, they move the eggs deeper in the ground. Some species have colonies that may go 12 feet deep in the ground.

Harvester ants aren't aggressive, but they will sting intruders on their mounds and the stings can be painful.

CONTROL
The best product to use to control harvester ants is Niban Bait, a commercial grain-like bait that is made from boric acid. Place it around the entrance hole to their nest. Do not stick it in the hole or they will haul it off and not eat it.
**Solenopsis invicta (Imported fire ants)**

**INFORMATION**
The imported fire ant is a dark reddish-brown to black in color and they are polymorphic. They have severe stings that can cause blisters and allergic responses to the venom as well as anaphylactic shock. Over 30,000 people a year in this country seek medical attention from the sting of these ants. Their mounds can be 2 feet in diameter and a foot and a half high. A single colony can contain close to a quarter million ants. Fire ants have successfully invaded many southern states. They have been found in Florida, Georgia, South Carolina, North Carolina, Tennessee, Alabama, Arizona, New Mexico, Mississippi, California, Louisiana, Arkansas, Texas and Oklahoma. Their mounds can be 2 feet in diameter and a foot and a half high. A single colony can contain close to a quarter million ants.

**HABITS**
Fire ants will eat both plant and animal products including rodents and some reptiles. They will feed on a wide variety of plants, including strawberries, potatoes and corn. Queens in the colony will need proteins, so when you mix baits for these ants you have to make sure they are protein-based. These ants are attracted to magnetic fields and will get in transformers, air conditioners and other electrical equipment. One good thing about fire ants is that they like to feed on ticks. If you have fire ants in your yard, you won't have ticks. They will also feed on fleas, cockroaches and several species of flies.

**CONTROL**
When you control these ants, make sure you dust any electrical equipment outside with food-grade diatomaceous earth, Comet cleaner or talcum powder. This will keep the ants out of these area. For a bait, you can mix boric acid or aspartame with sugar, jelly, honey or pet food. Mix two tablespoons of the food with one teaspoon of boric acid or two packets of Equal (aspartame). You can flood their nests with one gallon of orange juice mixed with two gallons of water and a cup of dish soap. You can also pour a couple of 2-liter bottles of Coca Cola down the mounds.

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**Solenopsis xyloni (Southern fire ants)**

**INFORMATION**
Southern fire ants are usually dark colored, but sometimes they are bi-colored with a red head and thorax and black abdomen. These ants are polymorphic. They are found over much of the southwest United States.
HABITS
They are not as aggressive as the imported fire ant (*Solenopsis invicta*), but they will sting and it is painful. They cause considerable damage to seed banks, kill newly hatched birds, girdle agricultural plants, and get into electrical equipment where it is known to have remove the rubber insulation from wires. They will infest homes where they will feed on meats, grease, butter, seeds, grains and similar products. When they enter homes, they are attracted to laundry that needs to be cleaned.

CONTROL
Niban Bait is effective when you have access to the colony. Diatomaceous earth behind baseboards will help keep them out if they are coming in from expansion joints. In some severe cases, you may have to hire a competent pest management company.

*Solenopsis molesta* (Thief ants)

INFORMATION
Thief ants are very small ants that are related to fire ants, but resemble pharaoh ants. They are less than 1/16th of an inch long. The best way to tell them from pharaoh ants is to examine the antennae with a magnifying glass. The club on the end of the antennae has two segments in thief ants and three segments in pharaoh ants. Thief ants get their name from their habit of entering the colonies of other ant species and stealing their eggs and larvae for food. These ants are found throughout the United States but are more common in the east and south. They are monomorphic.

HABITS
Outside they nest under debris on the ground, or under rocks, boards or logs. In a home, they will nest in wall voids and behind baseboards. They will often make themselves known in a house when another species of ant is eradicated. The thief ants were probably feeding off the other ants and when they were controlled and they had to come out and look for food. They will also feed on dead rodents, so they may convey pathogens to human food.

CONTROL
Baits do not work well for these ants as they don't bring enough back to the colony for it to work. If you can find out where they are nesting, you can put some food-grade diatomaceous earth in the void. Cinnamon will repel them from areas you don't want them. You can also spray the ants with Greenbug for Indoors and use diatomaceous earth in all the cracks and crevices around the outside of your home.

*Tetramorium caespitum* (Pavement ants)

INFORMATION
Pavement ants are small, monomorphic, brown to black ants covered in small stiff hairs. The head and thorax are highly sculptured, with numerous parallel ridges running lengthwise. There are two small spines on the thorax and they are brown to black in color. Pavement ants are found in the New England area, south along...
the Atlantic seaboard. It is very common in Washington D. C. It is found sporadically in many other areas including parts of California and New Mexico.

**HABITS**
These ants frequently nest under concrete slabs as their name implies. They will also nest under the slab in homes and then enter the home through the expansion joints or where plumbing penetrates the slab. Once inside, they will nest inside of walls or other voids, often close to a heating source for the warmth. They can sting and bite to protect themselves. Pavement ants feed on the honeydew secretion of aphids and other insects as well as on seeds. They have very large colonies.

**CONTROL**
Pavement ants readily take baits. Mix two tablespoons of peanut butter and jelly or honey with a teaspoon of boric acid or borax. If you can find their nest, you can dust it with food-grade diatomaceous earth.

**Subfamily DOLICHODERINAE**
These ants can be recognized by the slit-like terminal orifice at the tip of the abdomen. They also do not possess a stinger and the pedicel consists of a single segment (petiole). The antennae of all the species have 12 segments and no club at the end of it. The workers are all monomorphic and they all have a characteristic disagreeable smell, which you can detect when holding an individual between the thumb and forefinger. Most species have small nests consisting of a few hundred workers. The Argentine ants and velvety tree ants are an exception as it as they have very large colonies.

*Dorymyrmex insanus* (Pyramid ants)

**INFORMATION**
Pyramid ants are reddish-brown or black in color. They have a distinct pyramid-shaped projection on the back of their thorax, hence their name. It is found from South Carolina to Oregon and south. There is also a bi-colored pyramid ant (*Dorymyrmex bicolor*) found in west Texas to California.

**HABITS**
These small ants rarely come into homes. They usually make many small mound around the yard and in cracks in sidewalks and on patios. They are often found in close association with harvester ants (*Pogonomyrmex* spp.)

**CONTROL**
They will readily take a sweet bait such as jelly or honey mixed with aspartame if they do come indoors. Terro bait is a good commercial bait. Outside pour a cup of baking soda on the mounds, wait about a half an hour and pour a cup of vinegar on the mounds. You can also pour a 2-liter bottle of Coca Cola or Club Soda down the mound. Push a stick into the mound entrance and move it around to make the hole larger before pouring in the Coca Cola or Club Soda.

*Forelius pruninosus* (No common name)
INFORMATION
Ants in this group don't have a common name. It is very similar to the Argentine ants, but have a pair of long hairs on the top of the thorax and four tooth-like projections on the mandibles. They have multiple queens. They are found throughout North America and south to Colombia.

HABITS
They feed on nectar from flowers and are very common in arid areas such as desert scrub, weedy areas, grama grasslands, creosote, mesquite, cholla, juniper, sagebrush and even in pine forests. They also feed on dead insects. They nest in soil, usually in open areas but may be found nesting under stones. The nest is usually a small mound with a small entrance hole in the center, similar to pyramid ant mounds. The workers forage in groups and will frequently forage for food in the hot afternoon when no other ants are active. They occasionally find their way into homes or commercial buildings where they can become serious pests.

CONTROL
Sweet baits are the best method of controlling them, but it may take time as they have multiple queens and can be quite difficult to eradicate. Many pest control people confuse these ants with Argentine ants. You can treat the mounds the same way as described in treating pyramid ant mounds.

Linepithema humile (Argentine ants)

INFORMATION
Argentine ants are small, monomorphic and brown in color. They are one of the most successful ants species on the planet. They have huge colonies and when they move into an urban area, they displace any native ant species. Unlike other ants who fight when they encounter other colonies of their same species, Argentine ants will merge and form super-colonies, and in some cases, mega-colonies. There is one mega-colony of Argentine ants in Europe that extends over 3,700 miles and encompasses parts of Spain, Portugal, France and Italy. This mega-colony is estimated to contain hundreds of billions of ants. They came to the United States in
1891, landing in New Orleans. Since then they have spread to several other states. They were first found in California in 1905 near Ontario. Three years later they were found in Alameda, East Oakland, San Francisco, San Jose, Los Angeles, Azusa and Upland. The Argentine ant is now found in almost all urban areas of California where it is a major household pest. Besides California and Louisiana, there are records of these ants in Utah, New Mexico, South Dakota, Arkansas, Illinois, Florida, Alabama and Hawaii.

These ants have enormous colonies that often merge with other colonies. They originally came from Brazil, moved to Argentina and now they are all over most of California and some other parts of the country as well. In New Mexico they have been documented from Albuquerque only. They have many queens in a colony and each one is capable of producing 60 eggs per day. Argentine ants are capable of transporting the causative organisms of dysentery, typhoid fever and tuberculosis because of the filthy places they may crawl through.

**HABITS**

Nests are often found in urban habitats and it does not live in arid areas. They are very persistent house pests. When two colonies of this ant meet, they form mega-colonies and can control very large areas. Outside it will nest in exposed soil and under stones as well as in rotten wood, refuse piles, bird nests, bee hives and in dead trees. They do not swarm as many other ants do, but the winged reproductives mate in the nest. Outside they will feed on a variety of foods, including certain plants, buds of fruit trees and even ripened fruit such as figs. They also feed on the honeydew secretions of aphids, scales and mealybugs. In a home they will eat almost anything edible, including sweets, meats, pastries, fruit, dairy products, eggs, animal fats and vegetable oils. They are particularly fond of sweets. They will crawl over everything in a house, including appliances, furniture, shelves and clothing. The good news is that they do not sting. However they can bite.

**CONTROL**

Outdoors I recommend using a very good cedar product called Greenbug for Outdoors. Cedar will repel most ants including Argentine ants. Spray this around your foundation every couple of days for awhile. After a couple of weeks, spray it once a week. Soon you can do it every two or three weeks. It doesn't have the residual power of a pesticide, but it isn't dangerous either. You can also use aromatic cedar mulch which will control them for several months. Also; Remove all mulch (other than aromatic cedar mulch) from around the foundation of the building. Seal all cracks and crevices. Do not let any branches touch the building. If you find the nests outdoors, flood them with orange juice in soapy water Argentinian ant workers have a sweet tooth, so indoors you can use sweet baits. Mix two tablespoons of honey or light Karo Syrup with a packet of Equal (aspartame) or a teaspoon of boric acid or borax. However, queens also have high protein requirements so you may want to make some peanut butter or fish meal baits with boric acid or borax at the same ratio. Keep all of these baits away from children and pets.

Populations indoors are usually smaller and less active. Find the most active areas and sprinkle the areas with baking soda, Comet, Tide laundry soap, talcum powder or food grade diatomaceous earth. You should also place any of these materials in any cracks and crevices, wall voids and electrical outlets. If you see trails of ants, you can spray them with bleach or vinegar. Never spray pesticides on the ants as all you will do is kill a few and the rest will go to other areas of the house.

If the infestation is severe, you may want to treat the perimeter of your house with Termidor, which is labeled for Argentine ants. Termidor is a General Use pesticide that is available to the public. You can get it online. One good supplier is [www.pestcontrolsupplies.com](http://www.pestcontrolsupplies.com). Mix the material as specified on the label, put it in a
one-gallon sprayer and spray around the foundation of your house. Don't spray more than six inches from the foundation as you don't want to kill beneficial insects in your yard.

**Liometopum apiculatum (Velvety tree ants)**

**INFORMATION**
These ants have large heads and a very pubescent abdomen, which gives them their name of velvety tree ants. They have enormous colonies, consisting of tens of thousands of individuals and they can be very aggressive. They can't sting, but they will bite. This ant is the dominant ants species in oak forests and if a home is in this area, it may get infested. They are found from Colorado and New Mexico west to California.

**HABITS**
They feed on dead insects and the honeydew secretion of aphids, scales and mealybugs. They will share their nests with other species of ants. When they are found in homes, their nests may be a couple of hundred feet away from the building, which makes control difficult. The nests can be under stones or in dead trees, particularly oaks, if they are available. They usually enter homes by climbing trees and gaining access to the roof from branches touching the house.

**CONTROL**
Controlling these ants is best accomplished by finding the nest. However, that is often not possible, so the next best thing to do is to pest proof your home so they can't find their way in. Seal or screen any openings, cracks, crevices, etc. and make sure there are no tree or shrub branches touching the house.

**Tapinoma sessile (Odorous house ants)**

**INFORMATION**
Odorous house ants are small dark reddish-brown to black ants. When crushed they give off a pungent odor similar to a rotten coconut or rancid butter, hence their names. While other species in the subfamily Dolichoderinae give off an odor, this species is much stronger. These ants are found in all of the continental United States and adjoining parts of Canada and Mexico. They are probably the most common ant found in homes, except in areas where Argentine ants live.

**HABITS**
They are found in a wide variety of habitats from grasslands to oak forests and into high elevation forests consisting of pines, pinyons, juniper and aspen. They do avoid very arid areas such as open desert. They have large colonies consisting of up to 5000 workers and the nests contain multiple queens. They feed on dead insects, juices of decaying fruits and vegetables and the honeydew secretion of aphids and related insects. They nest under objects such as rocks, boards, or any kind of debris. When they come into a home, they can nest in wall voids. If the house has a crawl space, they will nest in that area and come into the house to forage for food and water.

**CONTROL**
A good bait for controlling these ants indoors is two tablespoons each of peanut butter and jelly mixed with a teaspoon of boric acid or borax. A good commercial bait is Terro Ant Bait which is made from boric acid. Treat areas where they are entering your home around the outside with Greenbug for Outdoors, which is a cedar product.

*Tapinoma melanocephalum* (Ghost ants)

**INFORMATION**
Ghost ants are very small, have a black head and thorax and whitish abdomen and legs. They are monomorphic. They are common in Florida and Hawaii and are also found west to Texas. It is not known where they originated from, but they were described from Indonesia and have been found in many parts of the world, including Africa, Australia, New Zealand, Japan, and much of Polynesia.

**HABITS**
These ants are highly adaptable and can nest outside or in your home. They may have several sub-colonies in one structure. They will nest in walls, behind cabinets, behind baseboards and in potted plants. They are very fond of greenhouses. Indoors they prefer sweet foods such as syrups, sugar and cakes. Outside they will feed on dead insects and the honeydew secretion of aphids.

Ghost ants do not swarm. They reproduce by budding as does the pharaoh ants. Budding occurs when one or more reproductive females leave a colony with several workers and find a new location to establish a home.

**CONTROL**
A good bait is two tablespoons each of peanut butter and jelly or honey mixed with one teaspoon of boric acid or borax. You can put the layer of food grade diatomaceous earth on the soil of any potted plants. When you water it will mix in with the soil and remain effective.

*Technomyrmex difficilis* (White-footed ants)

**INFORMATION**
White-footed ants are small, black ants with white tarsi (end of legs). They are monomorphic. These ants are one of the hardest species to control. There are several reasons for this, but the primary reason is their reproductive habits seem to be designed to confuse people. Winged female white-footed ants only live a little over a year after starting a colony. When she passes on she is replaced by a wingless female who mates with a wingless male and who is capable of multiple matings. These wingless reproductive white-footed ants can comprise up to half the colony. In other words, they can reproduce faster than almost any other species of ants.
as they have so many queens laying eggs almost constantly. Because of their multiple queens constantly reproducing, some colonies can contain up to 3 million individual ants (and remember, half of these can be reproductives). The good news is that they don’t bite, sting or cause any damage. They are simply a nuisance by their numbers.

These ants are embedded in central Florida and have also been found in South Carolina, Louisiana, California in this country and in Montreal, Quebec, Canada.

**HABITS**
White-footed ants feed on the nectar of some plants and the honeydew secretion of aphids and similar insects. They will actually protect these insects from their natural predators. Outdoors, white-footed ants can be found under the bark of trees or even in the old galleries of termites in wooden structures. They can also live in compost piles, leaf litter, under rocks and in outdoor furniture. They can move into homes and nest in attics, under roof shingles, in walls, and similar areas. One colony can have several branches or “satellite” colonies in or around a single home.

**CONTROL**
Sweet baits will help but because of their numbers, it will take a very long time to get control. It is more important that you pest-proof your house to prevent them from getting in. Treating the perimeter with Termidor will also help.

**Subfamily FORMICINAE**
Ants in this subfamily have a circular orifice, surrounded by hairs, at the end of their abdomen. Some species will spray a formic acid mixture at their enemies from this orifice. The antennae have 12 segments and there is no antennal club. Some species are dimorphic or polymorphic. They prefer cooler, moister areas of the state. Workers of most species tend Homopteran insects such as aphids, for the honeydew secretion. These ants cannot sting although many of them will bite.

*Acanthomyops* spp. (Yellow ants, citronella ants)

**INFORMATION**
Yellow ants are medium size ants yellow in color. The eyes are fairly small. If you look at the antennae, you will see the first long segment (the scape) is shorter than the head. In other ants, the scape extends beyond the top of the head. They are monomorphic. When they are crushed, they give off a distinct lemon or citronella odor, hence one of their common names. These ants are found from Alberta, Canada to New England and in the southern states including Texas and New Mexico. There are approximately 15 species of yellow ants. As some species may cross-breed, that number is tentative. Four species, *Acanthomyops coloradensis*, *A. interjectus*, *A. latipes* and *A. occidentalis*, may be encountered by the homeowner.

**HABITS**
They feed on the honeydew secretion of aphids and similar insects. They will nest under debris on the ground around a house and in foundation walls but rarely forage in a home. They will nest under a slab in the home and push dirt up from cracks or expansion joints. Usually it is the swarmers that are found in homes and they
are often mistaken for termite swarmers.

**CONTROL**
If they come in the house, use a sweet bait mixed with aspartame to control them. If you can find their nest and reach it, you can dust the area with diatomaceous earth.

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**Camponotus spp. (Carpenter ants)**

**INFORMATION**
Carpenter ants are found throughout the United States comprised of about 43 species. Most of them are large, but there are several smaller species. They have a convex thorax which makes it easy to tell them apart from field ants, which have an indented thorax. Otherwise the two ants are very similar in appearance. Carpenter ants are polymorphic. Common species found in homes are *Camponotus herculeanus*, *Camponotus laevigatus*, *Camponotus modoc*, *Camponotus nearcticus*, *Camponotus pennsylvanicus* and *Camponotus vicinus*. The last species is illustrated and the most common one found in the Albuquerque area.

**HABITS**
Most species are active in the late afternoons and at night. They will nest under the slabs of homes and enter through expansion joints or around plumbing. They are also found in crawl spaces under homes that have them. They will be most common in areas where there is moisture. If there is damp wood available, they will make galleries to make their nests. The galleries will follow the grain of the wood. If left alone, they can hollow out and destroy structural wood. They don't eat the wood, they just carve out areas and create wood segments (frass). If they are in the house, they will forage for any foods available, including pet foods, candies, syrups, sugar and other sweet products. They will also feed on any fruits they encounter and will root through the garbage looking for grease, fat or meat scraps.

**CONTROL**
You can use a bait made from two tablespoons of honey or jelly mixed with a teaspoon of boric acid and place it where the ants are foraging (keep out of the reach of children and pets). You can also put out open
packets of Equal (aspartame), which they will take. You can use a commercial bait like Niban also.

To prevent carpenter ants from entering your home, you should remove or repair all damaged wood that has a moisture problem. Make sure your gutters are clean so water doesn't back up and damage the siding or the roof and that no branches are touching the house. Store all firewood off the ground and away from the house. Remove all dead stumps and logs. I also recommend dusting your crawl space, if you have one, with food-grade diatomaceous earth. This can be done with a power duster.

Formica spp. (Field ants)

INFORMATION
This is the largest group of ants in North America with about 78 species. They come in a variety of colors, including red and black, all brown, all black or all yellowish. Large species are similar to carpenter ants, but have an indented thorax instead of the evenly rounded thorax that carpenter ants have. You have to be an expert in the study of myrmecology (ant entomology) to properly identify many of them.

HABITS
Field ants are more common in the northern part of the state. They will nest in soil, thatched mounds or in logs and stumps. They feed on other insects as well as the honeydew secretion of aphids and scales. Many species are very aggressive. Although they can't sting, they will bite and then spray formic acid in the wound made by their mandibles. Repeated exposure to formic acid can cause the skin to peal. They are common pests at picnics in the mountains. Some species will enslave other species of ants. These ants rarely enter homes and are not normally a pest indoors.

CONTROL
The best method of controlling these ants if you live in an area where they are common, like Los Alamos or Santa Fe is to pest proof your home to keep them out. They won't take baits very well. If you have a crawl space, you may want to get it power dusted with diatomaceous earth.
Lasius spp. (Bosque ants, cornfield ants)

INFORMATION
These ants have a distinctive shaped thorax as it is flat and almost vertical on the posterior end, just before the node on the pedicel. They are normally light to dark brown. The cornfield ants (*Lasius alienus*) is widely distributed in the United States and is a common household pest in northern states. *Lasius neoniger* is an outside pest as it builds its mounds in open areas such as golf courses.

HABITS
Ants in this genus feed on the honeydew secretion of aphids and other Homopterans and also on small insects. Some species feed tend plant lice on the roots of plants, including corn and are named cornfield ants. These ants will store and care for aphid eggs in their nest during the winter. In the spring, when the aphids have hatched from the eggs, the ants will carry them to the roots of certain grasses where the aphids will remain until the corn is grown and can support them. The ants then carry them to the corn roots. The ants actually protect, care for and transport the aphids as necessary. They do the same thing with aphids of cotton.

CONTROL
Mix a bait with two tablespoons each of peanut butter and jelly with a teaspoon of boric acid and place that where you see the ants. If you can find a nest, you can dust it with diatomaceous earth.

Paratrechina longicornis (Crazy ants)

INFORMATION
Crazy ants are black or brown, appear thin and have very long legs. They run around erratically, giving them the name. They are monomorphic. These ants are found from Florida to Texas. They originally came from India. There is another species in the U.S. now, the Caribbean crazy ant (*Nylanderia fulva*). It is closely
related to Paratrechina. Caribbean crazy ants do not sting. The have large colonies like other species of crazy ants, but they are a nuisance, not a pest. They will take sweet / protein baits mixed with boric acid. Diatomaceous earth in their nesting areas will get them to move as it will other ants. Termidor around your house will help keep them away.

**HABITS**
They live in a variety of habitats, including areas that are very dry to areas that are wet. They will nest under wood, in tree cavities, in or under any debris left on the ground for a long time and even in potted plants. They feed on a variety of foods, including sweets and even other insects. They particularly like house flies when they can catch them. They will also feed on the honeydew secretion from aphids and scales.

**CONTROL**
Baits should consist of sweets or proteins mixed with about 5% boric acid. They love garbage, so make sure garbage storage areas are as clean as possible. It will help to put food grade diatomaceous earth around the house under any bushes or shrubs. If you can find the nest, spray it with a good natural pesticide such as Greenbug for Outdoors.

**Prenolepis imparis** (Small honey ants)

**INFORMATION**
Small honey ants (also called false honey ants) are monomorphic. They are light brown or dark brown to black and the body is smooth and shiny. The thorax is very constricted in the center so it appears to be divided into two parts. This is best viewed from above. They have small colonies, consisting of a few thousand workers. They are found throughout the United States.

**HABITS**
These ants are more cold tolerant than other species and may be active all winter, even when the ground is frozen. They usually come in homes from outside, but occasionally will come up from under a slab through an expansion joint. Entire colonies of these ants have been found in potted plants. When they infest a home they will feed on sugar, syrup, honey, cakes, breads and fruits. They prefer sweet foods. They will even raid beehives to get the honey. They also feed on the honeydew secretion of aphids and other Homopterans.

**CONTROL**
If you can find their nests outdoors, you can treat it with diatomaceous earth, or a liquid substance such as Coca Cola or Club Soda. Poke a stick into the nest and pour in the soda. Inside, diatomaceous earth can be injected into cracks and crevices in uncarpeted areas where the ants hide. In carpeted areas, you may have to pull back the carpet to get the diatomaceous earth behind and under baseboards. Sweet baits such as two tablespoons of peanut butter and jelly mixed with a teaspoon of boric acid will work. You can also mix boric acid in with tuna fish or rotten liver. If you want to use a commercial bait, Terro Bait is a good product.

**SUMMARY**

I hope you found this booklet helpful. If so, please feel free to share it with friends and family and anyone who may have ant problems in their home.