



## **BEETLES**

Let's face it when many of us first come in contact with a beetle, the last thing we want to do is to study its habits in order to figure out what kind it is. So it's important to hire a qualified Chemical Control Company professional to help determine the kinds of beetles you may have in your home, as well as what you can do to get rid of those beetles.

### **Varied Carpet Beetles**

Varied carpet beetles look like a piece of multi-colored carpet. And the 1/16" round varied carpet beetles don't just resemble carpeting – they also like to dine on it, along with wood, dead insects, fur feathers, horns, silks, and bones. Naturally varied carpet beetle control is a valid concern for a homeowner. Despite their small size, varied carpet beetles have a long development period. It can take between 249 days to three years for carpet beetles to grow from an egg to an adult. Carpet beetles damage the materials they feed on, and they can cause significant damage to upholstery and clothing. For carpet beetle prevention, store your clothing in plastic containers and make sure clothing is dry cleaned before it's stored for a long period of time.

**Prevention:** As with moths, to avoid varied carpet beetle infestations, store clothing in plastic containers. Dry clean clothing thoroughly before storing for long periods of time.

### **Powderpost Beetles**

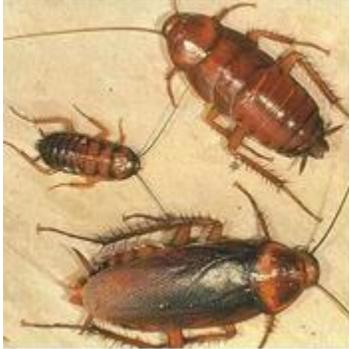
Named for the powder-like dust they leave behind when they attack wood surfaces, powderpost beetles are second only to termites in their wood destruction abilities, so beetle control is important. Reddish-brown powderpost beetles' bodies allow them to slide into wood areas. Powderpost beetles lay their eggs in cracks of wood and the larvae tunnel into the surface, filling it with a very fine powder-like dust. Adult powderpost beetles are very active at night, enjoy flying and are attracted to the light. Powderpost beetles often attack hardwoods, and can be found in hardwood floors, timbers and crates, antiques and other objects made of hardwood materials.

**Prevention:** Powderpost beetles can be prevented through vigilant inspection of wood sources in the home.

### **Saw Toothed Grain Beetles**

Saw toothed grain beetles can be found in grain – such as: cereals, cookies, macaroni and cake mixes – in all 50 states. The dark brown saw toothed grain beetles also love chocolate. Approximately 1/8” long, saw toothed grain beetles have six saw-like teeth on each side of their bodies, allowing them to chew through grain products. Saw toothed grain beetles can contaminate grain products and infest stored foods, so saw toothed grain beetle control is important. For saw toothed grain beetle prevention, discard all infested grain products and clean all spilled grain and other food products in your pantry.

**Prevention:** Discard infested packages. Clean spilled grain and food sources



**COCKROACHES**

Cockroaches and ants are the most common pests. Luckily, cockroaches don't cause any structural damage to your home, but they do spread germs and can be a trigger for children's asthma, so Northern Michigan cockroach control is important. If you see a cockroach in your house at night, don't panic – many types of cockroaches are very active at night and one may have just wandered into your home. If you see a cockroach in your house during the day however, you could have a severe cockroach infestation, and cockroach control from Chemical Control Co. is necessary.

For ultimate cockroach prevention and control, seal all the holes and cracks that may provide an inlet for a cockroach. Also, keep your house clean. Cockroaches feast on everything from garbage to wallpaper paste, so cockroach control can be tough. But keeping your home free of food particles will send cockroaches packing in search of a dirtier place.

Cockroaches have been reported to spread at least 33 kinds of bacteria, six kinds of parasitic worms, and at least seven other kinds of human pathogens. They can pick up germs on the spines of their legs and bodies as they crawl through decaying matter or sewage and then carry these into food or onto food surfaces. Germs that cockroaches eat from decaying matter or sewage are protected while in their bodies and may remain infective for several weeks longer than if they had been exposed to cleaning agents, rinse water, or just sunlight and air. Recent medical studies have shown that cockroach allergens cause lots of allergic reactions in inner city children. They were even shown to cause asthma in children. These allergens build up in deposits of droppings, secretions, cast skins, and dead bodies of roaches.

### **American Cockroach**

The American cockroach is the largest of the house-infesting cockroach.

American cockroaches are found in food processing areas and food storage areas, as well as other types of buildings. They are active when the temperature is 70 degrees or higher, but they can survive lower temperatures with the right conditions.

### **Brownbanded Cockroaches**

Brownbanded cockroaches get their name from the two lighter bands they have across their dark brownish bodies. In addition to the distinctive banding, males have full wings, which reach beyond the tip of their rather pointed abdomens, but females have underdeveloped wings, much shorter than their broad, rounded abdomens. The lighter band markings are much more distinct in nymphs than in adults of either sex. Male brownbanded cockroaches have been observed to fly indoors. Among cockroach species, brownbanded cockroaches have the most distinctions between sexes. Females have larger abdomen and shorter wings than males. Brownbanded cockroaches often hide their egg cases in or under furniture. Within a room, these roaches tend to prefer warmer, drier, and higher locations than do any of the other urban pest roaches. They are often found in upper cabinets or in other rooms than the kitchens (food preparation areas) or bathrooms.

### **Oriental Cockroach**

Oriental Cockroaches are large very dark (almost black, but sometimes dark reddish-brown), shiny cockroaches which live in sewers and similar wet, decaying organic matter. They are sometimes called “water bugs” because they come out of drains, and “black beetle cockroaches” because of their smooth, dark bodies. Males are about 1 inch long, with wings that cover only about 3/4 of their abdomen; females are about 1 1/4 inch long, and have only short stubs of wing pads. This species of cockroach often travels through sewer pipes. It survives on filth and enjoys temperatures from 68 to 84 degrees. This is a cooler temperature than that preferred by other cockroach species. Oriental cockroaches are often found in sewers and will enter structures through drains. They find indoor harborage in basements and crawl spaces. They can also be found in leaf piles and firewood outdoors.

**Prevention:** Good sanitation and habitat reduction, along with vacuuming, surveillance, a baiting program, and some sealing of cracks can usually quickly reduce or eliminate a cockroach population.



### **FLEAS**

Fleas are parasites that feed on the blood of any warm-blooded body. The most common species is the cat flea, which often feasts on cats, dogs and humans. Fleas transport themselves on rodents and other mammals. They infest both household pests and wild animals. Fleas use their powerful legs to jump as high as 8 inches vertically and 16

inches horizontally. Fleas usually remain on their warm-blooded hosts at all times. They can also be found on shoes, pant legs, or blankets, which can transfer the fleas to new environments. They are often found infesting opossums, raccoons, and skunks in urban settings. Fleas are the most common transmitter of the rare Bubonic Plague. They also transmit the bacterial disease murine typhus to humans through infected rats. Their saliva can cause serious Flea Allergy Dermatitis in pets, and their debris has been reported to cause similar allergic reactions in humans. Fleas can also transfer tapeworms and cause anemia in pets. Flea bites commonly cause painful, itchy red bumps.

**Prevention:** Clean and vacuum frequently to help remove flea populations and prevent the laying of eggs. Keep your lawn groomed to avoid rodent habitation. Protect pets by keeping them on a leash when outside, bathing and grooming pets regularly, visiting a veterinarian annually, and using flea treatments according to direction. It is important to hire a pest professional to rid your home of rodents and fleas.



## **FLIES**

Spring and summer bring carefree lazy days relaxing by the pool, festive barbeques with friends... and unfortunately, house and fruit flies. Yes, when summer arrives, often so does the fly. House and fruit flies can all put a damper on outdoor and indoor fun, so fly control is important.

### **House Flies**

House flies get their name from being the most common fly found around homes. Adult house flies can grow to one-quarter of an inch long and usually live between 15 and 25 days. They are only able to feed on liquids but have the ability to turn many solid foods into a liquid for them to eat. House flies taste with their feet, which are 10 million times more sensitive to sugar than the human tongue. House flies tend to stay within 1-2 miles of where they were born; however, they have been known to migrate up to 20 miles to find food. These insects have been known to carry over 100 different kinds of disease-causing germs, which make them very bad house guests.

**Prevention:** House flies can be controlled through vigilant sanitation. Remove trash regularly and use well-sealing garbage receptacles. Clean up pet waste immediately. Use fine mesh screens on doors and windows to prevent fly entry.

### **Fruit Flies**

Fruit flies feed on decaying fruits and vegetables. Fruit flies feed on decaying matter, especially fruits and vegetables. Fruit flies are small pests that are commonly found in homes, restaurants and other facilities where food is processed. They are found on moist, decaying matter that has been stationary for several days. Fruit flies are found in unsanitary conditions, so they are a potential health concern, especially when present in health facilities.

**Prevention:** Fruit flies are best prevented through vigilant sanitation practices. Remove kitchen trash daily, and keep counter surfaces clean.



## **MOTHS**

The indianmeal moth was given its name after an insect scientist found it feeding on corn meal, also known as Indian meal. From wing tip to wing tip, adult moths measure from five-eighths of an inch to three-fourths of an inch long. These moths like to feed on dried fruits, grains, seeds, nuts, chocolate, candies, bird seed, dog food, powdered milk, dried red peppers and candy. Attracted to the light, these bugs are found worldwide in areas where food is stored, such as grocery stores. Indian Meal Moths infest foods and can contaminate food products.

**Prevention:** Dried food products should be inspected thoroughly for signs of moth infestations. Discard infested foods in outdoor trash bins. Clean infested cupboards thoroughly with a vacuum and soap and water. Store food in sealed containers.



## **TERMITES**

### **Subterranean Termites**

Subterranean termites live in underground colonies or in moist secluded areas aboveground that can contain up to 2 million members. They build distinctive "mud tubes" to gain access to food sources and to protect themselves from open air. Termite colonies are organized into castes depending on tasks -- workers, soldiers and reproductives. The characteristics of a subterranean termite are dependent on the termite's role in the colony. Cream-colored Worker subterranean termites are 1/8 to 3/8's of an inch in length. Soldier subterranean termites are of a similar body length, but are distinguished by their powerful mandibles. Soldier termites have cream-colored bodies and brown heads. Reproductive subterranean termites are approximately one inch long. Subterranean termites live underground and build tunnels, referred to as mud tubes, to reach food sources. Like other termite species, they feed on products containing cellulose. Subterranean termites swarm in the spring -- groups of reproductive termites go off to start new colonies. Subterranean termites need contact with the soil to survive and live underground. They can build tunnels through cracks in concrete. Subterranean termites are by far the most destructive species. They can collapse a building entirely, meaning possible financial ruin for a homeowner. The hard, saw-

toothed jaws of termites work like shears and are able to bite off extremely small fragments of wood, one piece at a time.

**Prevention:** Avoid water accumulation near your home's foundation. Divert water away with properly functioning downspouts, gutters and splash blocks. Reduce humidity in crawl spaces with proper ventilation. Never bury wood scraps or waste lumber in the yard. Most importantly, eliminate wood contact with the soil. Maintain a one-inch gap between the soil and wood portions of the building.

### **Drywood Termites**

These social insects infest dry wood and do not require contact with the soil. They form colonies of up to 2,500 members. Unlike subterranean termite species, drywood termite colonies do not have a worker caste. The work is done by immature termites before they reach adulthood. Drywood termites infest dry wood, like that found in attic framings. Drywood termites can infest structures and cause significant damage.

**Prevention:** Drywood termites can be avoided by making sure firewood and scrap wood is stored at least 20 feet from the home. Because drywood termites form new colonies by gaining access to wood through small holes, seal all cracks and crevices in a structure.

### **Dampwood Termites**

As the name suggests, dampwood termites infest wood with high moisture content. Dampwood termites are normally larger in size than other termite species. Bodies of king and queen dampwood termites range in size from 1/2 inch to 5/8 inch long and have two pairs of wings that are equal in size and shape and extend beyond their abdomen. Nymphs range up to 5/8 inch and worker dampwood termites are up to 3/4 inch. Dampwood termite colonies, like drywood termites, have no worker caste. The nymph dampwood termites take care of the kings and queens of the colony and feed the soldier caste. Because of their need for excessive moisture, dampwood termites are not often found in structures. Dampwood termites do not usually infest structures because of the low moisture content of wood in structures. However, care must be taken to avoid attracting dampwood termites to a structure.

**Prevention:** To avoid dampwood termites, make sure downspouts and gutters are diverted well away from the structure, and avoid prolonged contact between a structure and large areas of moisture, such as ponds or snow drifts.



### **TICKS**

The blacklegged (deer) tick is named for its dark legs, which are a contrast to its pale body. Blacklegged ticks are sometimes called deer ticks. These ticks like to feed on the blood of white-tailed deer, which is why they are sometimes called deer ticks. Blacklegged ticks

prefer to hide in grass and shrubs. Blacklegged (deer) ticks can spread Lyme disease.

**Prevention:** When in an area where ticks are common, wear long sleeved shirts and pants, preferably light colored so ticks will be easy to detect. Tuck pants into socks. Use a tick repellent. When you return indoors, inspect clothing and skin thoroughly for ticks, including head. Wash clothes immediately.