

ORIENTAL COCKROACHES

Blatta orientalis L.



INTRODUCTION

Cockroaches are among the most common of insects. Fossil evidence indicates that cockroaches have been on earth for over 300 million years. They are considered one of the most successful groups of animals. Because cockroaches are so adaptable, they have successfully adjusted to living with humans. About 3,500 species of cockroaches exist worldwide, with 55 species found in the United States. Only four species are common pests in Pennsylvania structures. These are the German, brown-banded, Oriental, and American cockroaches. A fifth species, the Pennsylvania wood cockroach is an occasional nuisance pest in some locations.

DESCRIPTION

Oriental cockroaches are often called water bugs because of their preference for dark, damp, and cool areas such as those under sinks and washing machines, and in damp basements. This species, which is less wary and more sluggish than the others, of concern because it often travels through sewer pipes and lives on filth.

Adult Oriental cockroaches are about one inch in length. Both male and female adults are very dark brown, nearly black; their bodies usually have a somewhat greasy sheen. Females have small, functionless, rudimentary wing pads and broader, heavier

bodies. Males have wings that cover only about three-quarters of their abdomen. Males are apparently unable to fly.

Nymphs and adults have similar habits and are found with decaying organic matter indoors and out. Indoors, Oriental cockroaches prefer dark, moist areas such as under porches, sewers, drains, crawl spaces, dark, damp basements, and floor drains. They can be found outdoors in abandoned cisterns and water valve pits; in yards; beneath leaves; in bark mulch around shrubs, flowers, and foundations; in dumps, stone walls, and crawl spaces; and in garbage and trash dumps and trash chutes. Both nymphs and adults are sluggish and are usually situated at or below ground level indoors. They are seldom found on walls, in high cupboards, or in the upper floors of buildings. At times large numbers occur in one great mass around leaks in the basement or crawl space areas of homes. Oriental cockroaches are generally found outdoors during warm weather, but in periods of drought there may be considerable movement into structures, apparently in search of higher humidity. They may enter the home in food packages and laundry, or merely come in under the door or through air ducts, garbage chutes, or ventilators.

LIFE HISTORY

The Oriental cockroach has three developmental stages: egg, nymph, and adult. Eggs are laid in capsules, which the female carries for about 30 hours and then drops onto a protected surface near a food supply. The female does not glue the egg capsule to the surface.

Females produce an average of eight capsules, each containing 16 eggs that hatch in about 60 days under room temperature conditions. Nymphs molt from seven to ten times; nymphal stages usually take 24 to 130 weeks to complete. The life span of an adult female is 5 to 26 weeks with approximately 200 offspring. Unlike the other house-infesting species, the Oriental cockroach generally has a seasonal developmental cycle. The peak number of adults usually appears in late spring or early summer. By late summer and early fall, this number has become quite low, owing to natural mortality and the hatching of nymphs.

INJURY/ DAMAGES

Oriental cockroaches feed on all kinds of filth, rubbish, and other decaying organic matter. They seem especially fond of garbage and the contents of discarded tin cans. If water is available, they can

live for a month without food; without water they die within two weeks. The most important aspect of cockroach damage derives from their habit of feeding and harboring in damp and unsanitary places such as sewers, garbage disposals, kitchens, bathrooms, and indoor storage areas. Filth from these sources is spread by cockroaches to food supplies, food preparation surfaces, dishes, utensils, and other surfaces. Cockroaches contaminate far more food than they are able to eat.

Cockroaches in general produce odorous secretions from various points in their bodies. Such secretions can affect the flavors of various foods. When cockroach populations are high, these secretions may result in a characteristic odor in the general region of the infestation. Disease-producing organisms such as bacteria, protozoa, and viruses have been found in their bodies.

Different forms of gastroenteritis (food poisoning, dysentery, diarrhea, etc.) appear to be the principal diseases transmitted by Oriental cockroaches. The insects carry these disease-causing organisms on their legs and bodies and deposit the organisms on food and utensils as they forage. Cockroach excrement and cast skins also contain a number of allergens, to which many people exhibit allergic responses such as skin rashes, watery eyes, congestion of nasal passages, asthma, and sneezing.

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