THE OHIO STATE UNIVERSITY EXTENSION

FACT SHEET

Agriculture and Natural Resources

HYG-2097-08

Oriental Cockroach

Susan C. Jones, Ph.D.
Associate Professor of Entomology
Extension Specialist, Household and Structural Pests

The oriental cockroach, sometimes commonly called a "waterbug," is more closely associated with damp areas than the other common cockroaches.

Identification

Adult oriental cockroaches are shiny black to dark reddish brown. The males are approximately 1 inch long, whereas the females are slightly larger, about 1.25 inches long. The male's wings extend 3/4 the length of the abdomen. The female's wings are very reduced (somewhat resembling wing stubs), pointed, and do not meet in the center. Males and females do not fly. These cockroaches have a somewhat flattened oval shape, spiny legs, and long filamentous antennae.

Nymphs (immature stages) resemble the adults, but they are smaller and lack wings. Nymphal early instars (the stage between molts) are shiny reddish brown. Older nymphs are dark reddish brown to black.

The egg case (ootheca) is reddish brown when deposited, then changing to black. It is approximately 3/8 inch long. There typically are 16 eggs in each egg case.

Common Name	***Scientific Name***
oriental cockroach	*Blatta orientalis*

Adult oriental cockroach: male (left), female (right).

Life Cycle

On average, a female oriental cockroach produces eight oothecae during her lifetime. The female carries her egg case for a few hours or days after it is formed, then she drops or glues it in a sheltered site, often a crack or crevice, near a food source. Eggs hatch in about 60 days (range 42–81 days). There are seven to ten nymphal instars. The oriental cockroach may require several years to complete its development, especially in northern regions. The life span of the adult may be up to six months. Oriental cockroach females are more numerous than males.

Habits

The oriental cockroach favors sites with high humidity. Large populations of this species are common in basements, crawl spaces, cellars, sewers, garbage chutes, porch voids, etc.

The oriental cockroach prefers temperatures of 68 to 84 degrees F — somewhat lower than the preferred temperatures of other cockroach species. Hence, the oriental cockroach may be the most common species found in cooler basements and cellars. It can withstand extended periods of subfreezing weather.

The oriental cockroach is gregarious, with nymphs and adults often occurring in close proximity to each other. These cockroaches remain near preferred harborage sites during the day, coming out to forage for food and water at night.

The oriental cockroach is a scavenger that feeds on decaying organic matter and a variety of other foods. It is particularly fond of starchy foods.

Damage and Injury

Cockroaches typically are not tolerated by humans, and the mere presence of these insects is considered a nuisance. Oriental cockroaches also have a strong, unpleasant odor. Because these insects often travel through sewer pipes and live on filth, they are among the most despised of the house-infesting cockroaches.

The oriental cockroach can harbor numerous bacterial and viral pathogens in its feces or on its body. It can contaminate food and food-preparation items and surfaces with disease organisms that result in food poisoning, dysentery, or diarrhea.

Integrated Pest Management (IPM)

IPM is a systems approach that combines nonchemical strategies (e.g., exclusion techniques, alteration of harborage sites, and proper sanitation) and the targeted placement of pesticides with preference for products that are least harmful to human health and the environment. IPM consists of routine inspection and monitoring, with chemical treatment only when pests are actually present. Ongoing monitoring indicates whether cockroaches are present and if control practices are working.

Inspection

A thorough inspection using a flashlight and flushing agent is critical to determine which species are present and where the pests occur. Monitoring may involve using sticky traps or glue boards, which are placed where the cockroach species is likely to be found.

In warm weather, an indoor problem with oriental cockroaches should always trigger an outdoor inspection. These cockroaches may be hiding in the sewer system, in the landscape, on the building, etc. The best time to inspect the building exterior is 1 to 2 hours after sunset — prime time for these large cockroaches to begin searching for food. Be on the lookout for cockroaches emerging from cracks and crevices. Note all of the locations so that you can target a residual insecticide treatment (see below).

Exclusion Techniques and Habitat Modification

Ongoing indoor problems with oriental cockroaches often can be reduced or even eliminated by pest-proofing the building or modifying the cockroaches' outdoor habitat.

Oriental cockroaches can move from one building to the next during the summer, entering through cracks in foundations, around loose-fitting doors and windows, and along plumbing and pipes. Hence, to eliminate entry points used by oriental cockroaches, it is advisable to employ pest-proofing measures:

- Install door sweeps, thresholds, and weatherproofing seals on exterior doors and garage doors.
- Screen and weatherproof windows.
- Screen attic vents.
- Caulk and seal cracks and holes on the building exterior.

- Caulk and seal plumbing, cable, and utility penetrations into the building.

Numerous measures can be taken to eliminate the cockroaches' outdoor harborages including:

- Move firewood, lumber, and trash cans away from the structure.
- Avoid thick layers (> 2 inches) of mulch.
- Mow weedy vegetation near the structure.
- Increase ventilation around the structure by removing excess vegetation and pruning so that branches do not touch the building.
- Properly ventilate basements and crawl spaces, and keep these areas free of clutter.
- Keep gutters clean and otherwise well maintained.

Sanitation

Sanitation is a critical aspect in the management of cockroaches. It is important to employ a variety of sanitation measures including:

- Properly store food.
- Maintain a regular cleaning schedule (especially in the kitchen and bathroom).
- Regularly dispose of garbage.
- Promptly repair water leaks.

Insecticides

Numerous insecticides are registered for use against cockroaches. These include a variety of insecticide classes, such as botanicals, inorganics, insect growth regulators, and pyrethroids. Some of these insecticides are labeled "general use" for homeowner application, and others are labeled "restricted use" for licensed, certified pesticide applicators only. Before using any insecticide, always **Read the Label** and follow directions and safety precautions.

In cockroach management, commonly used formulations include liquids, aerosols, baits, dusts, emulsifiable concentrates, microcapsules, and wettable powders. [The formulation refers to the preparation containing the insecticide(s) in a form suitable for practical use].

Indoor insecticide treatments are most effective when applied to cracks and crevices and other cockroach harborage sites. Dusts may be applied to voids. Botanicals such as pyrethrum and pyrethrins have short-term effects and are useful for flushing cockroaches out of harborage areas onto surfaces treated with another insecticide with more long-lasting (residual) effects.

Oriental cockroaches can be controlled outdoors with liquid insecticides or baits if you spend the time to find and target the infested sites. Persistent residual pesticides may be applied around the foundation and points of entry such as windows, doors, and utility penetrations. Microencapsulated or wettable powder formulations are best for outside barrier treatments. Once the chemical has been applied, it is best to seal cracks, crevices, and holes on the building to enhance long-term control.

Bait formulations of a variety of slow-acting chemicals are widely used for cockroach control indoors and outdoors. Bait formulations include liquids, pastes, gels, and granules; often the bait is housed in a station. Baits can provide effective control, but the cockroaches must preferentially feed on the baits rather than existing food sources. Hence, it is particularly important to employ sanitation measures (see above) when using cockroach baits.