



# Pest Press



"IPM - IT'S THE RIGHT THING TO DO."

## COMMON COCKROACHES

Cockroaches are common all over the world. Alabama has its fair share. Different kinds of cockroaches prefer certain types of environment. In an IPM program it is important to identify what type of cockroach you have so that you can better understand if a control method should be used.

There are thousands of species of cockroaches in the world. However, only very few are problems in schools here in Alabama. These include the German, American, Oriental, Brown-banded, Asian, and Smokybrown.

Cockroaches in homes & school systems can cause many problems. Certain cockroaches carry germs that cause human diseases such as diarrhea, dysentery, food poisoning and salmonella. The transmission of these diseases can be caused by the roaches' habit of wandering through organic wastes and then traveling over countertops, cooking utensils, food, plates, and silverware.

Another major problem caused by roaches is allergies. A roach allergen can cause an allergic response and can be ingested with contaminated food or inhaled when dried fecal particles and fragments of ground up bodies of dead roaches are mixed together with dust. Severe bronchial problems in sensitive individuals and children may be triggered by these roach allergens. This problem is a serious one and should not be taken lightly.

Prevention is the best way to address cockroach problems. Tactics include preventing entry by sealing cracks and crevices, using good sanitation practices, storing food in air-tight containers, and tightly covering trash bins.

If following a strict policy of cleaning isn't enough to avoid attracting roaches, you may have a problem with hitchhiking roaches. Roaches can hide in cardboard boxes, a sack of potatoes and many other things. Adult roaches have the ability to squeeze into places the thickness of a quarter.

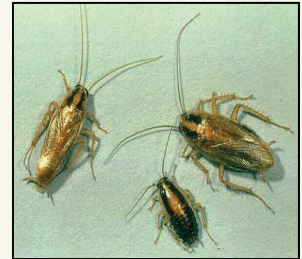
It is critical that pest vulnerable areas such as kitchens, pantries, teacher lounges, custodial closets, booster concession areas, biology, and home economics classrooms be monitored for the potential infestation of roaches using monitoring traps.

Only once infestations are identified and located should pesticides be applied only by the schools' IPM expert.

### German cockroach

#### *Blattella germanica*

Adult German cockroaches are usually brown and about 5/8 of an inch long. They have two bands that run lengthwise on the head shield (aka pronotum). The wings cover the entire abdomen. They do not fly and they usually live indoors. The thorax of early nymphal instars is dark brown to black and has a pale area in the center that extends down the back of the abdomen. The egg case (aka ootheca) is yellowish-brown and is 1/4 inch to 3/8 inch long and more than twice as long as wide. It contains 15-20 eggs per side. They prefer warm, moist areas with nearby food. They are generally found in bathrooms, kitchens, crevices near food and water, electrical equipment, paper and wood materials (especially cardboard). Most commonly, they are introduced into buildings in food, paper products or secondhand appliances and furniture. They are rarely found outside.



### American cockroach

#### *Periplaneta americana*

Adult American cockroaches are brown to reddish-brown with a pale border around the outside of the top of the pronotum and the wings cover the entire abdomen. They are 1 3/8 to 2 1/8 inches long. The early nymphal instars are grayish-brown with the later instars being reddish-brown. The ootheca are



dark reddish-brown to brownish-black and about 3/8 of an inch long. They usually have eight eggs on each side. The ootheca can be confused with rodent droppings, but they are not pinched. Indoors, they are found in warm areas with high humidity-boiler rooms, basements, sewers, or around

drains and pipes. They are more common in large commercial buildings infesting food storage and preparation areas. Outdoors, they are found in moist, shady areas in yards, hollow trees, wood piles and mulch. They are frequent inhabitants of storm drains and sewers.

**Smokybrown cockroach**

*Periplaneta fuliginosa*

Adult smokybrown cockroaches are mahogany brown, uniform in color, shiny and are about 1 inch to 1 1/2 inches long. The wings cover the abdomen.

Early nymphs are dark brown to black with a pale white stripe on the thorax. Later instars are reddish-brown and have darker margins. The oothecae are dark brown to black and about 3/8 of an inch long. Its length is more than twice its width.

There are 10-14 eggs per side.

Smokybrowns are an outdoor species and are common in the South. They lose moisture more easily than other cockroaches which makes them favor warm, humid, areas that are not exposed to air currents. They are found in mulch, trees holes, sewers, eaves/soffits, attics and voids in walls and under sidewalks and concrete pads where there is moisture buildup.

They usually enter buildings at night through cracks and are attracted to light.



**Asian cockroach**

*Blattella asahinai*

Asian cockroaches are very similar in size, shape and color to the German cockroach. Adult Asian cockroaches are brown to tan, and about 5/8 of an inch long and 3/16 of an inch wide. Two dark bands run lengthwise on the pronotum. They are good fliers and prefer to live outside but can enter buildings. Outside they are found in grassy areas, mulch and leaf litter and in shady areas of gardens, pastures, dense ground cover, mulched ornamentals, etc.

They become active at night and are attracted to lights in structures and can become established indoors if there is an opening with a light source in the early evening hours.



**Brown-banded cockroach**

*Supella longipalpa*

Adult brown-banded cockroaches are brown to tan and about 1/2 of an inch long. The pronotum has light borders and a black bell-shaped pattern. There are two light, sideways bands on the abdomen, which gives the brown-banded its name. Females are darker than males and the males' wings cover the entire abdomen while the females' wings only cover two-thirds. The younger nymphs are brown to black with two light bands; older nymphs have a bell-shaped pattern on the pronotum. The ootheca is light brown and 1/4 inch long, its length is less than twice the width. They prefer high places such as cupboards, pantries and shelves in closets. They prefer warm areas like motors and stoves, but they do not have to have high moisture areas like the German cockroach.

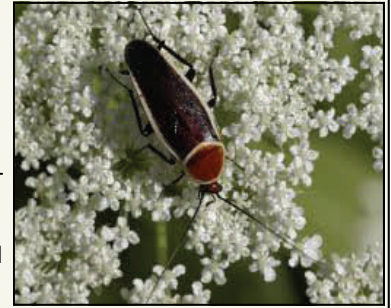


**Pale-bordered cockroach**

*Pseudomops septentrionalis*

Adult pale-bordered cockroach is a very different looking cockroach compared to others here in Alabama. They are about 5/8 of an inch long and have an orange to red colored pronotum with a dark brown to black body. They are sensitive to desiccation and are found primarily in humid areas.

Adults have been observed outdoors on foliage and in ground litter. The pale-bordered cockroach is not attracted to light and probably would not fly into a home at night when a porch light is on. These cockroaches very rarely become indoor pests.



**Oriental cockroach**

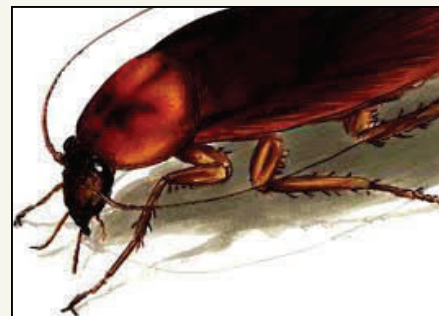
*Blatta orientalis*

Adult oriental cockroaches are dark brown to shiny black. Males are about 1 inch long and females are about 1 1/4 inch long. The pronotum is black and shiny. The wings of the male cover two-thirds of the abdomen.



The wings of the female are reduced to small pads. Early nymphs are shiny reddish-brown. Later instars are dark reddish-brown to black. The ootheca is reddish-brown to black and about 3/8 of an inch long and is one and a half

as long as wide. Oriental cockroaches prefer cooler temperatures in comparison to other cockroaches. They like damp, cool areas (68-84 degrees F), wall and porch voids, sewers, drains, basements, around pipes, in crawl spaces, under stones and leaf litter.



For further information about Alabama's IPM program, Please contact:

**Dr. L.C. "Fudd" Graham**

(334) 844-2563

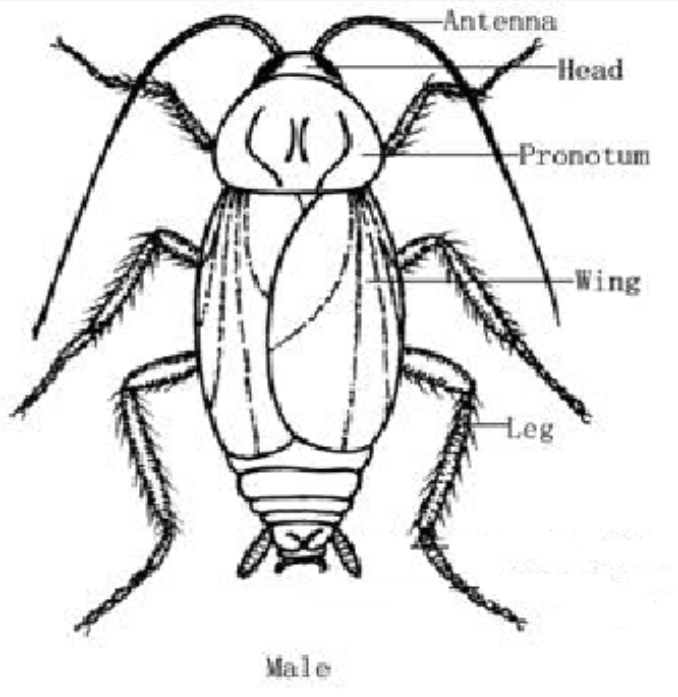
grahalc@auburn.edu

**Kim Pope**

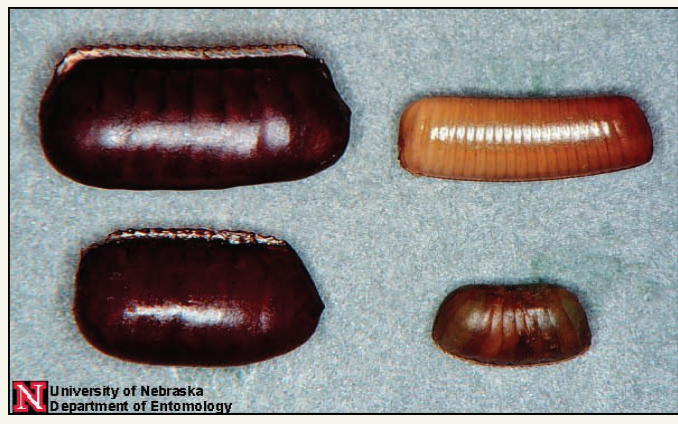
(334) 844-2786

popekim@auburn.edu





An Ootheca is an egg case for a cockroach and can be very helpful in determining what kind cockroach infestation there is in a given area. Pictured below are some of the most common cockroach oothecas.



Top: Oriental, German

Bottom: American, Brownbanded



Above: Smokey brown

To help better understand how to identify cockroaches here is a diagram of a male cockroach. The pronotum is the head shield and the wings cover the abdomen.

Pictured to the right:

**Cockroach lifecycle**

The cockroach lifecycle has three development stages. These stages are egg, nymph, and adult. Once the eggs hatch the cockroaches are known as nymphs and they must go through several molts before reaching the adult stage. Once reaching the adult stage the cockroach will not molt anymore. One of the easiest ways to tell what stage the roach is in is by looking at the wings. Most cockroaches develop wings once they become adults.

