

Cockroach Biology

IMPORTANCE

Cockroaches are a nuisance and likely health hazard because:

1. They can mechanically spread disease organisms.
2. They can contaminate food with feces and their secretions.
3. In urban housing they cause allergic reactions in some people, that may lead to asthma.
4. They leave stains and bad odors wherever they congregate.
5. They may damage things such as cloth and books by chewing and soiling.
6. Their carcasses, old skins, and fecal wastes create a mess, and contain strong allergens that are difficult to get rid of.

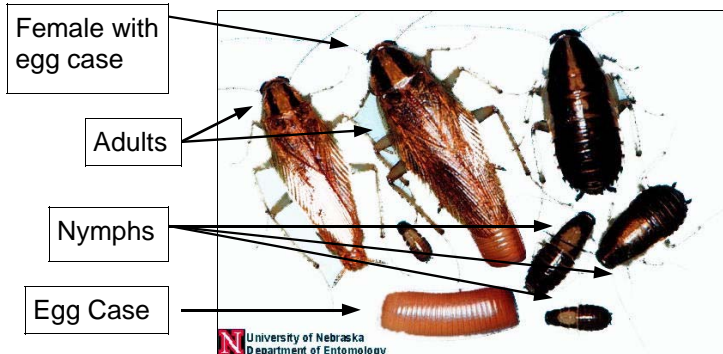
REMEMBER: Cockroaches are most active at night.

Common Species and Where They Are Found

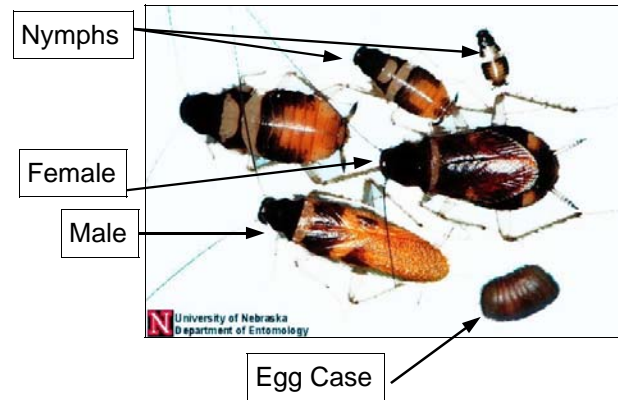
There are four pest species of cockroach found in Alameda County:

Two are small domestic cockroaches that are found in homes, stores and restaurants:

1. The German Cockroach is light brown, and up to 3/4" long. This is the most common cockroach, and it prefers damp, warm places such as kitchens and bathrooms.

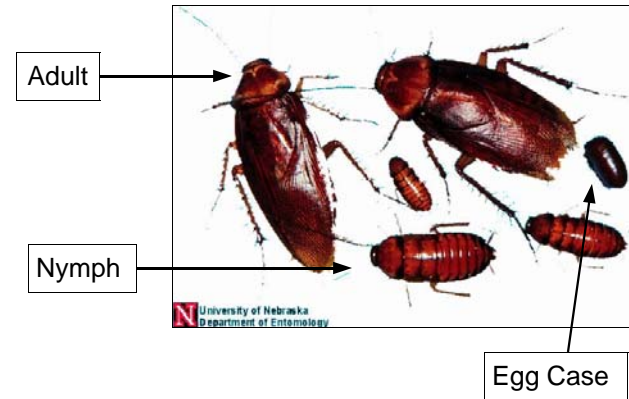


2. The Brownbanded Cockroach is light brown and up to 1/2" long. They prefer warmer and dryer places than German cockroaches. They can be found all over the house; in furniture, closets, and around the ceiling. They are less common in restaurants.

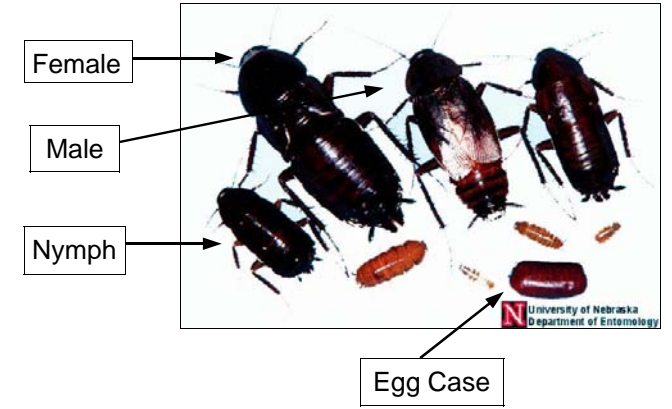


The other two cockroaches found in our area are larger and seldom found in homes.

3. American Cockroaches are reddish-brown and up to 1 1/2" long. They prefer warm, damp places such as sewers and basements (in our climatic region).



4. Oriental Cockroaches are black and up to 1 1/4" long. They prefer damp, cool places such as water-meter boxes, shrubbery and other protected outdoor areas. They can also be found in basements and garages.



Remember: Young cockroaches (nymphs) resemble adults, but are smaller and do not have wings

Cockroach Signs

1. Little leathery looking egg cases produced by the female cockroach. They vary in size depending on the cockroach species. The smallest are produced by the *Brownbanded cockroach* (1/4" long and light brown), the *German cockroach* (1/3" long and light brown), the *Oriental cockroach* (1/3" long and dark brown to black) and the *American Cockroach* are about 1/3" long, dark brown to black.
2. Old skins shed by the nymphal cockroaches as they grow larger and mature.
3. Fecal pellets along cockroach runways; they may look like coffee grounds or fly specks; brownish stains along cracks.
4. Their characteristic sour, distinctive "cockroachy" odor.
5. Dead cockroaches.
6. Cockroaches usually try to avoid light and are found to be active after dark, or in unlit areas. In homes they usually come out after the household lights have been subdued for the evening.
7. During heavy infestations cockroaches will be seen at most any time of day or night.

Remember: You may have to get down on your hands and knees with a flashlight to locate cockroach signs and breeding sites.

Cockroach Control

Control By Prevention

Exclusion and *sanitation* are the elements of preventive cockroach control:

1. *Exclusion* means “keep them out”
 - A. Check for cockroaches or their egg cases before bringing boxes, bags, furniture, or clothing into your home. Used appliances or furniture can be a source of cockroaches and their eggs.
 - B. If you live in an apartment or condominium (attached dwelling), cockroach-proof it by patching holes in walls, around pipes. A caulking gun is an ideal tool to seal cracks along baseboards and around cabinets.
 - C. Discourage entry of cockroaches which may live outside, but may forage for food inside. Use fly screening on foundation vents and windows. Special attention should be paid to weather-stripping around doors, because they are a wear item.
2. *Sanitation* means “do not feed them”
 - A Eliminate food by:
 - Keep rubbish and garbage in containers with tight-fitting lids. Seal garbage in plastic garbage bags.
 - Clean up food spills, grease, and dirty dishes promptly. Do not allow dirty dishes or cooking utensils to stand overnight.
 - Use vacuum cleaner on shelves and floors. Empty the bag on a regular basis because cockroaches, or their eggs may survive the trip and re-emerge.
 - B Eliminate available water
 - Repair leaky pipes and drippy faucets
 - Wrap sweating pipes
 - C Eliminate *Harborage*
 - *Remove* collections of empty boxes, bottles, newspapers, and other clutter around the home.
 - Repair holes and cracks in the structure.

Control By Insecticides and Bait

Control may be achieved with some insecticides:

1. *Contact sprays* will kill cockroaches on contact. They may last on surfaces for a few hours.
2. Residual insecticides may last a few weeks or months and come in different forms.
3. Crack and crevice baits are the most affective form of chemical control. They can be placed directly into the cracks and crevices where cockroaches congregate. The use of baits and good sanitation can eliminate cockroach infestations.
 - A. *Residual sprays* should be sprayed into cracks, crevices and other harborage, as well as along cockroach runways as the product label directs.
 - B. *Dusts* are used between walls or in harborage areas. Use only in dry void spaces under cabinets, stoves, refrigerators and where it will not be disturbed or contaminate food, cooking equipment, toys or clothing.
 - C. *Baits* come in two basic forms; bait stations and crack and crevice baits. Crack and crevice baits have shown the best effectiveness. By being placed in cracks and crevices the cockroaches encounter them before they come upon the household foods they traditionally feed upon. They are slow acting compared to sprays, but can result in population elimination.

REMEMBER: INSECTICIDE FORMULATIONS FOR COCKROACH CONTROL ARE SUBJECT TO FREQUENT CHANGES. ALWAYS READ THE LABEL CAREFULLY BEFORE BUYING TO BE SURE IT IS RECOMMENDED FOR COCKROACH CONTROL.

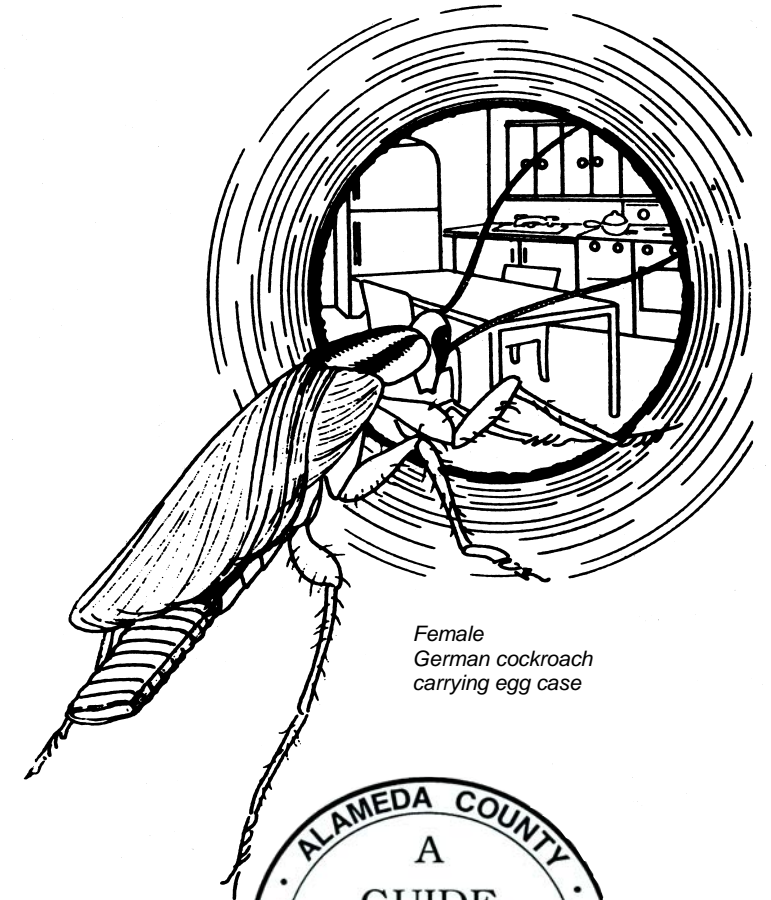
Safety

Read the pesticide label and follow the directions carefully. Keep insecticides out of the reach of children and pets!

For additional information contact:

Alameda County Vector Control Services District
1131 Harbor Bay Parkway, STE 166
Alameda, CA 94502
(510) 567-6800
Web Page: <http://www.acvcسد.org>

Cockroaches



Female
German cockroach
carrying egg case

