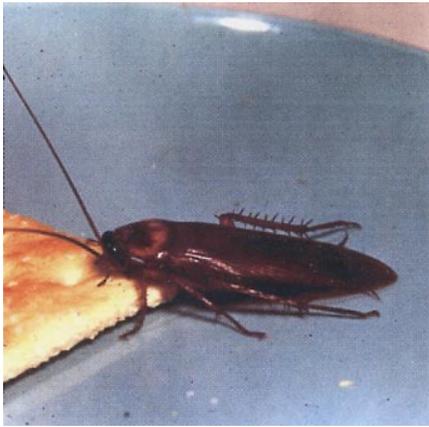
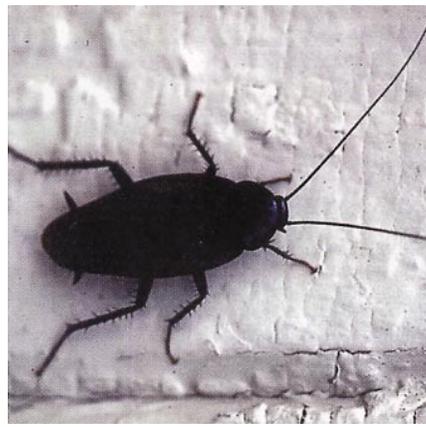


HOUSEHOLD INSECTS

An Aid to Identification



1. AMERICAN COCKROACH



2. SMOKYBROWN COCKROACH



3. ORIENTAL COCKROACH



4. GERMAN COCKROACH-Upper
5. BROWN-BANDED COCKROACH-
Lower



6. TERMITE WORKERS



7. HOUSEFLY
Adult-Right, Larvae-Bottom Left
Pupae-Top Left, Eggs-Top Center



8. CARPENTER ANT



9. FIREBRAT-Upper



10. SILVERFISH-Lower



11. EARWIG

Photo Description And Life History Information

1. American Cockroach. *Periplaneta americana* (L.).

This is one of the largest of the common cockroaches found in the United States. It often obtains a length of 1½ inches.

The American cockroach can fly, and both sexes have fully developed wings. Food storage and preparation areas, such as restaurants, grocery stores, bakeries, and houses, are often infested.

The female cockroach can produce 6 to 14 egg cases in one mating season. These cases contain from 10 to 16 eggs each. Incubation for the eggs varies from 38 to 49 days, after which the young nymphs hatch.

2. Smokybrown Cockroach. *Periplaneta fuliginosa*

(Serville). This cockroach has become a major pest in many parts of the United States, especially in the Southeast. The adults are usually 1¼ to 1½ inches long with uniform mahogany brown coloration. Both sexes have wings and can fly.

These cockroaches like to live in moist, protected areas which are relatively warm. These areas include loose mulches, tree holes, block walls, and moist attic areas.

Females can produce 2 to 32 eggs cases. Egg cases average 22 eggs each. Egg incubation usually averages 45 days. Depending on conditions adults can live 1 to 2 years.

3. Oriental Cockroach. *Blatta orientalis* (L.).

This cockroach is often referred to as the sewer roach, as it is found in sewers and in buildings with damp basements. It often climbs water pipes and enters upper floors of buildings.

Females may deposit up to 18 egg cases usually containing 16 eggs. After an incubation period of about 60 days, the nymphs hatch. The oriental cockroach may live nearly 2 years as an immature nymph and adult.

4. German Cockroach. *Blattella germanica* (L.).

This small, light-colored cockroach with the two prominent dark streaks on the thorax is the main household pest today. The German cockroach is more active, produces more eggs, and grows faster than other common cockroaches. The female German cockroach may produce four or five egg cases containing up to 50 eggs each. The eggs hatch in about 2 weeks. The nymphs mature into adults in 60 to 65 days. The life cycle can be completed in 3 months or less.

5. The Brownbanded Cockroach. *Supella longipalpa*

(Serville). The photo compares the brownbanded with the German cockroach. The lack of the two dark lateral stripes on the brownbanded is one difference between the two species. The female brownbanded is larger and more colorful than the male shown in the photo.

The brownbanded is often found in furniture, shelves, and upstairs in houses.

The egg cases contain an average of 18 eggs, which require about 70 days' incubation. The brownbanded cockroach requires about 5 months to develop to maturity. Temperatures below 75 °F seem to retard the development of this cockroach.

6. Subterranean Termite. *Reticulitermes* sp.

The termite workers pictured are the most common form of the termite.

Subterranean termites are present over the entire U.S. but especially in the Southern states.

The termite colony contains a primary queen and king, large-headed soldier termites, and worker termites. Sometimes a colony will also have secondary queens and kings.

Winged reproductives swarm to initiate new colonies.

Termites usually swarm in the spring. The main difference between swarming termites and flying ants is the wide body of the termite as opposed to the constricted or pinched body of the ant.

7. Housefly. *Musca domestica* (L.).

The complete life cycle of the housefly is shown. Flies are a nuisance around the home, and their filthy habits can contribute to the spread of certain disease organisms.

The female housefly may lay up to 600 eggs in her lifetime, which may last for several weeks. The eggs hatch in 12 to 24 hours into tiny larvae. A complete cycle may be accomplished in 7 to 9 days, but actual duration depends directly on weather conditions.

8. Carpenter Ant. *Camponotus* sp.

Carpenter ants may establish colonies in wood dwellings and cause structural damage, or they can be a pest by foraging in the house. They are capable of inflicting painful bites when handled. Normally carpenter ants are more noticeable when homes are located near large trees or near forests.

Winged reproductive forms swarm in late spring to early summer and establish new colonies. The entire life cycle usually requires about 65 days from egg to adult, but this varies with weather conditions.

9. Firebrat. *Thermobia domestica* (Pack).

The photo contrasts the firebrat with its close kin, the silverfish. The main difference in the two species is the firebrat's preference for higher temperatures, 90 °F or higher. At 1½ to 4½ months of age the female firebrat begins laying eggs in warm areas (90 to 106 °F). Females may lay from 1 to 195 eggs in a lifetime. After incubation (12 to 13 days), the nymphs hatch. The complete life cycle may be completed in 2 to 4 months; thus several generations may result each year.

Paper and paper products are especially subject to injury from this insect.

10. Silverfish. *Lepisma saccharina* (L.).

Unlike the firebrat, this bright silvery cousin prefers cooler, moist areas. Its diet is similar to the firebrat's. Since it does not like dryness or heat, it is less likely to be found in heated homes. At the optimum temperatures of 72 to 80 °F, females may lay up to 100 eggs in a lifetime. The life cycle may be completed in 3 to 4 months, but usually longer periods are required.

11. Earwig.

The European earwig is probably the most well-known pest of this group. Many other species are found also, but generally they all bear a close resemblance.

Earwigs produce a foul odor when crushed. They can be a problem in the winter since they like to enter warm houses. Temperature influences the duration of the egg and nymphal stages. Normally there are two broods of offspring, but only one generation each year.

Note: Since controls change often, consult your county Extension agent or Clemson University Extension entomologists for specific details on controlling these pests.

