



Earwigs in Virginia

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Introduction

Earwigs belong to the order Dermaptera. The name earwig is from a European superstition that these insects enter the ears of a sleeping person and burrow into the brain to lay their eggs. This belief is totally unfounded. The most common earwig in Virginia is the European earwig, *Forficula auricularia* (Fig. 1).



Figure 1. European earwig (Joseph Berger, Bugwood.org).

Description

Adult earwigs are flattened insects and can measure up to 25-32 mm (1-1.25 inches) long. Most are reddish-brown to black in color, and some have areas of light brown on their bodies (Fig. 1). Their flattened bodies allow them to hide inside cracks and under debris.

Some species are wingless, but others have a pair of short, leathery forewings that cover only a few segments of the abdomen and the membranous hind wings, with the wing tips protruding. Only a few of the winged species are good fliers. They are often transported great distances in plant materials and occasionally in other freight.

The intimidating forceps-like appendages at the end of the abdomen are strongly curved in the male.

(Fig. 1). The female's appendages are smaller and straighter. The forceps are used primarily for defense and during courtship, but are not strong enough to really pinch people. Earwigs are primarily scavengers on dead insects and rotting plant materials. Some species are predators of other insects. Sometimes earwigs feed on tender vegetation of ornamental and vegetable plants.

Habitat

Earwigs are most commonly associated with mulch and leaf litter as they prefer moist locations with high amounts of organic matter. Unfortunately, these conditions are the same as those recommended for good plant growth. Earwigs are active at night and some species are attracted to lights in large numbers. They usually shelter beneath stones, boards, sidewalks, or debris during the day. Some hide in the leaf axils of plants. Some tunnel as deeply as six feet into the ground to escape the cold. When disturbed, earwigs are active runners, covering short distances.

Life Cycle

The life cycle of an earwig consists of the egg, nymphal, and adult stages. Eggs are laid in small batches or clutches in a chamber two to three inches beneath the soil surface. Maternal care is unusual in insects, but the female earwig guards the eggs and the newly hatched young. After their first molt, the young leave the nest and fend for themselves. They differ from the adults in color pattern, shape and size of forceps, lack of wings, and body size. The young usually mature in one season. Most species in this country have one generation per year, overwintering as eggs or adults in the soil. Earwig eggs and the young insects require humidity for survival, but heavy rains and rapid temperature changes produce high mortality.

Damage

Although most are scavengers, some feed on living plants and often become pests in greenhouses and field crops. Sometimes earwigs begin feeding on injured plant tissue and then move over to live, healthy tissue.

Earwigs may wander indoors, where many people find their presence objectionable. However, they do not bite humans or feed on stored foods.



Figure 2. An immature earwig feeding on a leaf (Whitney Cranshaw, Colorado State University, Bugwood.org).

Control

Problems with earwigs in homes originate outside the home. A chemical application made as a perimeter spray 1.5-3 m (5-10 feet) from the foundation will reduce earwigs entering the home. Apply insecticides around the building foundation and to flower beds and turf within this perimeter. Mulches in flower beds should be treated thoroughly using the insecticide rate recommended on the label, but with sufficient water so that the toxicant is carried down to the zone where the earwigs are active. Earwigs are protected during the day when they are beneath mulch or below the soil surface. If possible, apply sprays in the late afternoon so that residues are fresh when the earwigs become active in the evening.

Removing debris that shelters earwigs from around the foundation will also help. Rake out and reduce mulch into a thinner layer that dries out quicker. Weatherstripping around windows and doors should be intact to keep earwigs outside. Seal any cracks or holes in the foundation to limit entry.

If earwigs are found inside, an indoor treatment may be desirable. However, most homes are too dry to allow earwigs to establish indoors. Single earwigs found indoors on occasion can be treated with an aerosol insecticide registered for indoor use or with a fly swatter.

Chemical treatment indoors will not solve the problem of large numbers of earwigs entering the home, and should only be a supplement to outdoor treatments. Indoor treatment generally consists of residual sprays applied to baseboards, beneath cabinets, and other hiding places at floor level. For most earwig treatment indoors, insecticides used for cockroaches are effective. If clusters of earwigs are seen indoors, kill the earwigs and wash the area with soap and water to remove the pheromone chemicals that attract earwigs to cluster together.

Revised

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