



Earwigs

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Earwigs are one of the most readily recognized insects in the home and landscape. They are abundant throughout Texas and can be a nuisance when they invade homes.

Although earwigs are rarely harmful to people, the insects' large, pincher-like abdominal appendages, called forceps, can present a formidable appearance. Because of their flattened bodies, earwigs can enter homes through very small cracks. However, they are accidental invaders and generally do not reproduce indoors.

A few earwig species cause some damage by feeding on crops and ornamental plants, but most play a beneficial role by feeding on other insects. Some species emit a foul-smelling, yellowish-brown liquid from their scent glands. However, the most common complaint against the earwig is its mere presence in homes and apartments.

The earwig's name comes from a European superstition that the insect would enter the ear of a sleeping person and bore into the brain.

Biology and habits

Earwigs are medium-sized insects ranging from $\frac{1}{4}$ to $1\frac{1}{4}$ inches (5 to 31 mm) long and are flattened from top to bottom. Their color ranges from brown to black; some species have yellow or buff-colored stripes or a reddish coloring on the head, body and legs.

All earwigs have a pair of hardened forceps that protrude backward as a tail. Used for defense, the appendages vary among species and from male to female.

Adult earwigs also have a short, leathery pair of wings. A second pair of membranous wings may be folded underneath the first pair.

Earwigs have chewing mouthparts, which they use to catch and eat insects. Earwigs feed at night,

and their diet is highly variable. Most species prey on other insects — dead and living — and supplement their diet with various forms of decaying organic matter. They may also feed on mosses, lichens, algae, fungi and more. Indoors, they may feed on houseplants or sweet, oily or greasy foods.

Earwigs are considered temporary pests in landscapes and gardens even though they sometimes occur in high populations. They may feed on foliage of various landscape and garden plants and other plants in the area. If populations are high, they can cause serious damage by feeding on flowers, fruits, vegetables and other plants, giving the leaves a ragged appearance with many small, irregular holes.

Earwigs develop with a simple metamorphosis from egg to nymph to adult. The immature forms look much like the adults but are grayish and lack wings and large forceps.

Females lay from 20 to 300 eggs, usually in a chamber in the soil. The female guards the eggs and newly hatched young. Two generations are produced each year.

Earwigs prefer high moisture and migrate indoors during periods of prolonged heat and drought to seek cool, moist hiding places. During the winter they can dig into the ground as deep as 6 feet to escape freezing temperatures.

About 20 species of earwigs live in the United States. Of those, about 10 occur in Texas, although only three or four are an occasional problem in homes. They are the ringlegged earwig, *Euborellia annulipes* (Lucas) (Fig. 1); the riparian earwig, *Labidura riparia* (Pallas); the linear earwig, *Doru lineare* (Eschscholtz); and the brown-winged earwig, *Vostox brunneipennis* (Serville).

Management

Three types of control methods are used to manage earwigs in the home or landscape: sanitation, mechanical means and chemical control methods.

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Figure 1. Ring-legged earwig, *Euborellia annulipes* (Lucas) (Dermaptera: Carcinophoridae). Photo by Bart Drees

Sanitation: Consider modifying the habitat immediately around the house to reduce hiding places for earwigs. Options include:

- Remove ornamental stone or excessive mulch (mulch should be 2 to 3 inches deep).
- Keep grass and weeds cut short around structural foundations.
- Eliminate damp conditions in crawl spaces under homes and outside faucets, near air conditioning units and in other places. Rain gutters and spouts should carry water away from the house's foundation.
- Indoors, seek out and eliminate harborage areas attractive to earwigs, such as leaky plumbing or other high-humidity areas.

Mechanical methods: If only an occasional earwig is found indoors, remove it with a broom, dustpan or vacuum. If you often encounter earwigs indoors, inspect the area to determine how they are entering the structure, and seal up cracks and entry points. Use caulking and weatherstripping around doors, windows, pipes and other places to exclude insects. Because earwigs generally enter the home at the ground level, pay particular attention to low areas.

Trapping can also be used to reduce populations outside the home. Traps such as rolled-up newspa-

per, corrugated cardboard, bamboo tube or a short piece of hose should be placed on the soil near plants or other sites suspected of hiding earwigs. Check the traps the next morning and shake out any accumulated earwigs into a pail of soapy water. Continue trapping until earwigs are no longer being caught.

Chemical control: Earwigs are easily killed by residual insecticide treatments. Focus your chemical control efforts on the outdoors because that is where the problem originates.

Use insecticides outdoors in a 3- to 5-foot band around the structure next to the foundation (perimeter treatment) to stop or limit earwigs from getting indoors. Areas to treat should include flower beds and sub-floor crawl spaces. Although sprays and granules are effective, you need to wash them into the soil with water, as earwigs can move far into the ground.

You can make these residual insecticides more effective against earwigs by applying them in the early evening, which is just before the time of day that earwigs become active. Also, applying residual insecticides in late spring and/or early summer may reduce populations that would otherwise develop through the summer and into fall. Products such as insecticidal soaps or treatments containing carbaryl, cyfluthrin, permethrin or tralomethrin are effective outdoors.

Using chemicals indoors will not solve the problem of earwigs entering the building and should be used only as a supplement to outdoor efforts. Boric acid or aerosol insecticides labeled for indoor use are effective when used around baseboards, carpet edges, door and window frames and other hiding places.

Regulations change often regarding insecticide use, and changes may have occurred since this publication was written. The pesticide **users** are responsible for the effects of pesticides on their own plants or household goods as well as problems caused by drift from their property to other properties or plants. Always read and follow carefully the instructions on the container label.

To view photographs of an earwig and many other insects, see <http://insects.tamu.edu/>.

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