

Controlling earwigs

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Earwigs have large, pincers-like protrusions at the rear of the body, which give them an evil appearance, but they don't harm people directly. Still, they can cause people problems by feeding on flowers and vegetables outdoors, by crawling into the home, and by congregating under well caps.

The first American report of a European earwig (*Forficula auriculari*) came from Newport, Rhode Island in 1901. Until 1982 European earwig reports in Wisconsin were limited to the Lake Michigan shoreline. But in the years since, earwig infestations have spread fast across Wisconsin.

The name "earwig" derives from a false European superstition according to which these insects enter the ears of sleeping people and bore into the brain. In fact, earwigs rarely bite—usually when sat upon or handled—and their bite is only mildly painful.

Identification and life cycle

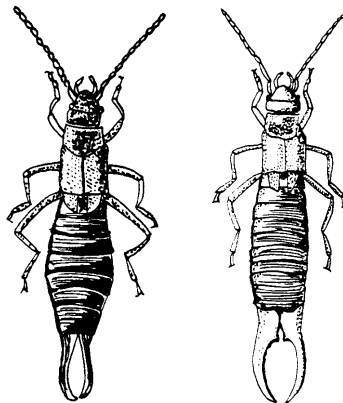
Adult European earwigs are reddish brown and about $\frac{3}{4}$ inch long. Their most distinctive feature is the prominent, pincers-like cerci (pronounced "sir-see") on the end of the abdomen. Earwigs use their cerci for defense, capturing prey, and sensing the environment. The cerci can pinch you if you stick a finger between them, but they can't break the skin. Male earwigs have curved cerci that are thicker at the base, while females have thin, straight cerci.

In Wisconsin, pairs of earwigs overwinter by digging 2–3 inches into the soil to hibernate. Sometime during the winter or early spring the

female lays 25–30 eggs. Males leave the hibernation sites first, and the females follow in late May. You may see your first earwig of the summer by mid-June. In some parts of the country the females enter the soil again to deposit a second set of eggs, but Wisconsin earwigs most likely produce just one generation per year. Unusually wet springs and summers often intensify earwig infestations.

Earwigs eat an omnivorous diet of other insects and plants. This diet can be beneficial: earwigs feed on aphids, mites, fleas, and insect eggs. Unfortunately, in gardens they munch on dahlias, marigolds, lettuce, potatoes, and hostas. They will also feed on mosses, lichens, and algae. Earwigs are active at night and hide during the day in almost any dark, confined space, particularly if it is moist.

Female earwigs exhibit an instinct that is very rare among insects: they care for eggs and young. The females turn, lick, and reposition their eggs. They also bring food to the newly hatched young and protect them in the nest. It takes about 2 months for nymphs to mature.



female earwig

male earwig

Earwigs' nocturnal activity, quick movements, size, and color often cause them to be mistaken for cockroaches. Although, like some cockroaches, earwigs have wings, they fly very badly. Earwigs spread largely by infested plant material, cut flowers, and other human activities.

Earwig problems

The earwigs' habit of hiding leads them into trouble with people. They often come indoors to hide, or they conceal themselves under outdoor furniture, hoses, garbage cans, or poor-fitting well caps. They do not breed indoors but simply hide, then become active at night.

Well problems

Loose-fitting well caps provide an ideal hiding place for earwigs: dark and damp during the day. Once inside a well cap, an earwig may fall into the water, die, and decay, thereby increasing bacterial contamination of the well. Earwigs are not considered a public health threat and are not associated with any disease; nevertheless, you should replace poor-fitting well caps with vermin-proof caps to prevent any insects from contaminating the water.

Plant damage

Earwigs eat small holes in plant leaves during the night. Earwig damage often appears small compared to the large pest populations present, and it can be confused with injuries caused by slugs, cutworms, or even rabbits. Larger plants will tolerate the feeding, but seedlings and flowering plants can be severely damaged or killed by dense populations.

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You should suspect earwig problems if you find damage during the day but can't find any insects on the plants. Confirm the presence of earwigs by checking the plants at night, or by looking for them congregated under boards, firewood, or tree bark next to your plants.

Control

Earwigs congregate in areas that are shaded or filled with lush plant material, boards, debris, or organic mulch. Exposed, sunny yards have fewer problems. Two species of parasitic fly, including *Digonichaeta setipennis*, have been introduced to help control earwigs naturally. In good years these parasites attack and kill over 1/3 of the earwig population.

You can trap earwigs in rolled up newspapers or in old tuna fish cans baited with fish oil or vegetable oil. Place traps near the problem areas and check them each morning. Shake live insects into a pail of soapy water to kill them.

Converting the backyard to a dry, sunny environment with few hiding places will also help control earwigs. Remove any shelter sites, prune low-growing bushes, avoid growing the earwigs' favored food plants, and destroy moss and algae. Avoid overwatering and don't use thick organic mulches.

Chemical

A variety of insecticides available to homeowners are labeled for earwig control. You can use the following materials as baits, liquids, sprays, granules, or dusts: carbaryl (Sevin), acephate (Orthene), bifenthrin, permethrin, cyfluthrin, esfenvalerate, and propoxur (Baygon). Products containing diazinon or chlorpyrifos (Dursban) are being phased out for homeowner use, but existing stocks can be used up. Read the label to determine the proper sites and usage restrictions. Insecticidal soaps kill earwigs on contact but do not have a residual effect on treated areas.

Applying insecticides to daytime hiding places will give more successful control. Mulched areas of flowerbeds are often the best sites to treat. Large volumes are often needed for adequate coverage so consider using a hose-end type sprayer or apply granules to the soil area and water them in. Insecticide applications made late in the day are most effective.

A common recommendation is to apply insecticides as a barrier treatment. Sprays or dust are applied to the exterior foundation walls and a 2–3 foot swath along the adjacent ground. Flower beds and mulches can also be treated. Many lawn insecticides could be used on grass, but that would be an extreme response to this problem.

Indoor

If earwigs are getting into your home, caulk cracks and crevices and weather-strip doors to prevent their entry. Check windows, the junction of the siding with the foundation, and all outdoor water faucets for openings that earwigs can squeeze through. Remove firewood, unneeded plant material, and organic mulches from the foundation area. Create a clean, dry border along the foundation and consider replacing wood chips or bark mulch with stones or other material that will be less attractive to earwigs. Clear debris and leaves from the troughs of eaves.

Individual earwigs found indoors may be vacuumed or killed by hand. Many indoor spray cleaners will kill individuals on contact, as will most ant and roach sprays. But sealing or caulking openings is a more effective and permanent approach. Earwigs will not breed indoors, so continual problems suggest constant migration from outside.

References to products in this publication are for your convenience and are not an endorsement of one product over other similar products. You are responsible for using chemicals according to the manufacturer's current label directions. Follow directions exactly to protect the environment and people from chemical exposure.



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