Harvard University
Environmental Health & Safety
Pest Control Office:Fact Sheet

Earwigs: Identification; Biology; and Control

European earwig (*Forficula auricularia* Linnaeus) male

Earwigs belong to the insect order Dermaptera (=leather + wings) and are found all over the world with the greatest diversity in the tropics. Some of the rarest species in this order are blind and live on giant rats in Africa and others feed on the surface of bats in the Philippines. Most species live in moist cracks in the ground and feed on decaying vegetation.

Interesting Earwig Facts

- Earwigs are mistakenly thought to enter the ears of sleeping persons and burrow into their brains. This is an urban myth that has no basis in fact. These insects are menacing looking but totally harmless in reality.
- There about 1800 earwig species in the world, 22 species of earwigs in the United States, about 12 of which are introduced from other countries, and about 4 to 5 of which are pests in homes.
- Most female earwigs show maternal care for their eggs and for their early nymphs.

Identification

The European earwig looks like a moving pincher. It runs quickly, holding its pinchers or forceps elevated as it runs toward concealment. It is a little more than one inch long, with very long slender antennae and a long pincher at the rear. The dark brown body has wing covers, and the legs are a lighter brown color. This earwig has compound eyes. They readily use their pinchers if alarmed or if grasped by an enemy.

The male has strongly curved pincers.

The female has straight pinchers

Found in wet damp places throughout the United States, earwigs are especially common in wet basements, potted plants that are over watered and in bathrooms. Their pinchers are not able to break human skin and are not a danger.

Biology

European earwigs are highly predaceous arthropods, nocturnal in activity and disturbing when found indoors. Their preferred habitat is under ground, under stones and in decomposing wood. Occasionally they enter homes along with plants or through cracks in the foundation.

Female earwigs may deposit from 50 to 90 eggs into the ground in the fall and then hibernate during the winter. The males die off before the winter and the young earwigs which resemble the adults, develop during the summer months.

Control

Getting rid of earwigs can be very difficult. They breed under foundations and in moist leaf litter where it is not easy to reach. Adults can move up into buildings via small cracks in the foundation as they search for a humid habitat. Once exposed inside a building they must quickly return to a humid habitat to avoid desiccation. Since they feed on decaying vegetation, they are not likely to feed on baits.

This means that setting out sticky traps is probably a good line of defense. These traps

will not only capture earwigs but will strongly indicate population levels and potential routes of access. Experience shows that traps placed at floor level in moist areas do best. Traps should be kept fresh because it takes a good sticky trap to hold earwigs.

The use of pesticides as either an outside perimeter spray or as an interior perimeter spray will have minimal effect. The earwigs will still travel for a time and the sight of a dead earwig on the floor is not much better than seeing one crawl to safety at night. Dead earwigs that accumulate inside a building will serve as a food source for carpet beetles and other urban pests. Therefore it is best to capture specimens, reduce moisture and seal out routes of entry.

Reducing moisture under and around the foundation will help to control earwigs. Make sure that water accumulated from roof top areas is drained well away from the building foundation. For the same reason keep leaves, wood, compost and other organic material away from the side of the building.

Occasionally earwigs are carried directly into a facility along with the delivery of potted plants and other material. As the soil dries out, the earwigs are forced out into the building looking for a humid habitat. In this case it is important to screen and identify temporary sources of infestation so that control can be focused on the source.