



European Earwig *Forficula auricularia* Linnaeus

The European earwig was known only from a few localities east of the Mississippi River in 1940. These sites were in the coastal areas of Massachusetts and Rhode Island and in upstate New York near the Great Lakes -- a total of 12 observations. By 1970, only a few scattered counties in New York had not been reported as having serious infestations. The insect is also reported in neighboring counties of Pennsylvania, New Jersey, Connecticut, Massachusetts and Vermont. Reports of annoyance and damage increase each year. The European earwig has been known widely on the West Coast since the early 1900's and has moved eastward to the Plains states.

Injury: European earwigs generally feed as scavengers on dead insects and rotting plant material, but they are also reported as feeding on flower blossoms, lettuce, and other succulent garden plants, especially when populations are numerous. A few cases of earwigs feeding on aphids or other insects have been reported.

In addition to their feeding activities, earwigs often occur in close proximity to people, even getting into houses and garages, especially during periods of warm wet weather. Once indoors they seek out moist areas and thus may be found in basements, kitchens, and occasionally in bathrooms. Inside they are nuisance pests, and they may feed on stored paper or fiber products especially if they are stored in moist situations. The earwigs are nocturnal and during the day they rest in dark, moist places.



Fig. 1. A European earwig. Note the pair of forceps on the tip of the abdomen. (Tom Murray www.pbase.com/tmurray74)

Description: The most distinctive feature of earwigs (**Fig. 1**) is the pair of forceps on the tip of the abdomen. On the male the forceps are strongly curved, in the female they are nearly straight. The adult is about 18 mm (5/8") long, a somewhat flattened elongated insect, dark red-brown in color, with short wing covers. It seldom flies. The young (nymphs) are similar to the adults, gray-brown in color and lacking wings.

Life History: The female earwig deposits 20 to 60 white, nearly spherical eggs in a cell in the soil at a depth of 15 mm. Depending on temperature, incubation lasts from 12 to 85 days, eggs produced early in the spring requiring the longest to hatch. The female guards the eggs and newly hatched young, sometimes for a year or longer. A

year or more is required for development, and there is one generation per year. Both eggs and young require moisture although heavy rains are not tolerated. The adults can survive extended periods of dryness.

Management: If a sudden invasion occurs, earwigs can be vacuumed up or swept up and disposed of. Infestation of the home can be limited by removing damp articles and debris and by taking measures to dry out moist areas. Physically block openings through which earwigs may enter with screening or caulk. Moist leaf mold and mulches should be kept at least 3 feet away from the foundation, window wells and doorways.

For long-term management look for sources of moisture and correct them. Trim back vegetation that shades and contributes to moisture retention around the foundation or other parts of the structure. Ground covers may need to be removed from along foundation walls. Clean gutters and repair broken downspouts as needed. Move log piles away from the structure. Grade the property so that water drains away from the foundation, not toward it. Be sure crawl spaces are well ventilated to remove moisture.

People have successfully made traps of rolled newspaper or other tubular containers. Traps are placed outside prior to darkness, and checked the following morning, emptying out and disposing of any earwigs trapped. Traps may also be useful as monitoring devices to help you determine where control efforts should be focused.

When earwigs are numerous outdoors, invasions of the home or of buildings can be expected. If vacuuming is not enough, household formulations of boric acid powder, bifenthrin, cyfluthrin, diatomaceous earth, lambda-cyhalothrin, or d-limonene are registered in New York State in 2009 for use indoors. Crack and crevice treatments can be made in difficult to reach harborages. Pesticides, however, only provide temporary control, and if the conditions conducive to infestation are not corrected, reinfestation may occur.

Outdoor harborages may need to be addressed. Correcting situations that provide hiding places should be stressed. Insecticides registered for earwig control outdoors can be used around foundation walls as a spot or perimeter treatment. Remember that the insecticide treatment is only a temporary measure.

Reprinted from *European Earwig* by Carolyn Klass, Sr. Extension Associate, Department of Entomology, Cornell University and Edgar M. Raffensperger, Professor, Department of Entomology, Cornell University, 8/73. 2/03, Revised by: Carolyn Klass. Updated 12/2009.

The Pesticide Management Education Program (PMEP), in cooperation with the New York State Department of Environmental Conservation (NYSDEC), maintains a web site with a searchable database for pesticide products currently registered in New York State. Individuals who have Internet access can locate currently registered products containing the active ingredients suggested above at <http://pims.psur.cornell.edu/> (NYS PIMS).

This publication contains pesticide recommendations. Changes in pesticide regulations occur constantly and human errors are still possible. Some materials mentioned may no longer be available and some uses may no longer be legal. All pesticides distributed, sold or applied in New York State must be registered with the New York State Department of Environmental Conservation (DEC). Questions concerning the legality and/or registration status for pesticide use in New York State should be directed to the appropriate Cornell Cooperative Extension Specialist or your regional DEC office. READ THE LABEL BEFORE APPLYING ANY PESTICIDE.

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