

## Community Horticulture Fact Sheet #87 Silverfish and Firebrats

### SILVERFISH AND FIREBRATS

**Description:** Silverfish and firebrats are slender, wingless insects, one-third to one-half inch long with three long bristletails at the end of their body. Silverfish are shiny and silver or pearl gray. Firebrats are mottled gray or tan. Both are extremely fast runners and are often seen only when trapped in wash basins or bath tubs, where they are unable to climb the smooth vertical surface to escape. They hide during the day and feed at night.

**Life cycle:** A single silverfish female will lay less than 100 eggs during her lifetime. She deposits them in cracks and crevices or behind baseboards in damp and warm locations. The eggs are elliptical and 1 mm long. They take between two weeks and two months to hatch depending upon conditions.

Firebrat females lay only about 50 eggs in a lifetime and firebrats require a humidity of fifty percent or higher. Firebrat eggs fail to hatch below 70° F. and prefer temperatures above 90° F.

The silverfish life span can be three to four months if the house is warm and humidity high or as long as two to three years under less favorable conditions.

**Foods preferred:** Silverfish and firebrats will eat any of the foods humans eat and also starch, glue, paste, sizing in fabrics, and dead animals--even to the extent of

cannibalizing dead or injured members of their own species or their castoff skins.

**Damage:** These insects will damage starched cotton, linen, and silk, as well as bookbindings, wallpaper, or rayon drapes. The damage often appears as irregular patches of glaze removed from wallpaper or irregular and notched edges on wallpaper or other paper products. Scales, excrement, or yellowish stains on paper or fabric can also indicate the presence of silverfish or firebrats. They seldom damage fibers of animal origin such as wool or hair.

**Where found:** Silverfish can be found anywhere in the house--in attics, between walls, under floors, under sinks, in cupboards, and along pipes. They can also be found between rayon drapes and the lining. Firebrats prefer much warmer areas in the house, such as warm attics in the summer, furnaces, hot water heaters, stove and oven areas, fireplaces and hot water pipes--places where it is very warm and possibly damp.

These insects and their eggs are often brought into the home in cardboard cartons, books, papers, starched and rayon fabrics, and other carbohydrate materials.

**Prevention and control:** Clean up areas where wood, cardboard boxes, old papers or books are stored, and where these insects are noticed. Spray areas where silverfish or firebrats are seen--usually around closets,

shelves, under and around sinks, around steam pipes, baseboards, window casings, and places where pipes go through the walls and, in the case of firebrats, near heat pipes or stove or furnace areas.

There are many pesticides under many brands. Select one labeled for use against silverfish or firebrats with directions for the situation in which they have been found. Dusts are frequently more desirable than sprays. Be careful not to use oil-based sprays around electric motors, gas pilot flames, or other places where they might start fires. If you are troubled with firebrats and not silverfish, you may need to apply insecticide only to warm parts of the house. A light mist of residual insecticide spray can be applied to corners and both sides of infested draperies. Results may not be immediate but, if the insecticide is properly and thoroughly applied, it will leave a residue that should be effective within a few weeks. If satisfactory control is not achieved in two or three weeks, make an additional application.

**Trapping:** Where application of pesticides is undesirable, silverfish and firebrats can be trapped by covering the outer surface of a small jar (like a one-ounce ointment jar) with masking tape and allowing the insect to climb up the outside. No bait is needed. The insects fall into the jar and can't climb out of the smooth inside walls. The traps should be placed in paths normally used by silverfish, such as intersections and corners of kitchen cupboards or bookcases or next to the baseboard on the floor.

#### **Additional References:**

Urban Entomology by Walter Ebeling

The Scientific Guide to Pest Control by Dr. Gary Bennett Ed.

Prepared by Ann L. Haldeman, Master Gardener Volunteer and Sharon J. Collman, County Extension Agent.

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