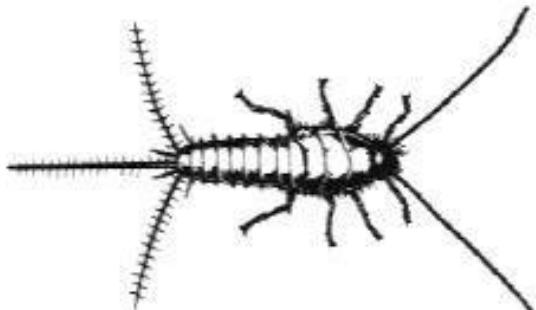


Silverfish and Firebrats

Order Thysanura

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Silverfish
[USDA]

Description Both firebrats and silverfish are soft, flattened insects without wings and measuring approximately 0.5 to 1 inch long (12.7 – 25.4 mm). Silverfish are silvery gray in color while firebrats are a darker gray with silver markings. Both insects have long antennae and three filaments extending broadly from the tip of the abdomen.

Damage Firebrats and silverfish are considered pests, or at least a nuisance, by homeowners. Outdoors these insects will eat vegetable matter with a high carbohydrate and protein content. Indoors they will feed on almost anything, including dried meats, flour, starch, paper, glue, cotton, linen, rayon, silk, sugar, cereals, and even molds in a damp bathroom. They can contaminate food and damage paper items and textiles, but mostly they are harmless.

Habitat/Distribution Silverfish and firebrats are cosmopolitan insects found worldwide. They normally live outdoors under rocks, bark and leaf mold; in the nests of birds and mammals; and in ant and termite nests. They are often found inside buildings, too. Both insects require humidity to survive, but firebrats prefer higher temperatures than silverfish. In buildings, firebrats are often found near boilers and furnaces while silverfish are commonly seen in attics, basements, garages, bathrooms, and other areas with lower temperatures. Both silverfish and firebrats are nocturnal insects and move swiftly. Homeowners may not be aware of the presence of these pests until they are found trapped in a bathtub, sink, or washbasin.

Control Decluttering the house by removing old papers, boxes, books, and clothes from the attic to basement will help remove food and hiding places. Sanitation alone will not eliminate an infestation, although it may prevent new ones from starting. Use an aerosol insecticide with residual activity to help control these pests. Spray all typical hiding places such as in cracks and crevices, in cupboards, and around water pipes. Moth crystals placed in boxes in the attic and basement will also help



Firebrat
[Clemson University - USDA Cooperative Extension Slide Series, Bugwood.org]

eliminate these insects. Consider using a dehumidifier for damp basements and keeping pantry items like flour and rice in storage containers with tight lids.

Life cycle Adult female silverfish lay small eggs in cracks and crevices in batches of up to 50 eggs at a time. Normally females lay fewer than 100 eggs during a lifespan of two to eight years. Under ideal conditions, eggs hatch in two weeks but can take up to two months to hatch. Young nymphs look very much like the adults, only smaller. Several years are required before they are sexually mature and they must mate after each molt if viable eggs are to be produced. Populations do not build up rapidly because of the small number of eggs produced by each female and their slow development rate. A large infestation of silverfish usually means a building has been infested for some time.

Female firebrats lay eggs only when the temperatures are above 90°F (32°C). Firebrat nymphs look very much like a small version of the adult. Nymphs cannot survive temperatures below freezing or above 112°F (44°C). A female firebrat usually lays fewer than 100 eggs in her lifespan of 1 to 1.5 years. Unlike silverfish, firebrats can develop from egg to sexually mature adult in 11 to 12 weeks under ideal conditions.

Interesting Facts Silverfish can live for almost a year without any food.