

Silverfish and Firebrats

Silverfish and firebrats belong to one of the most primitive groups of insects. They have been identified from fossils dating back over 400 million years. They are often encountered by the homeowner when opening a cupboard, or moving some object under which they were hiding. Most silverfish and firebrats are found outdoors, but indoors they can become pests because they feed on starchy substances as well as book bindings, dry foods, flour, bits of cloth or paper.

Description and Life Cycle

Silverfish and firebrats are very similar in appearance and are therefore best distinguished by their differences in habitat. Silverfish prefer damp, cool places such as basements, laundry rooms and under sinks. Firebrats, as their name would imply thrive best in very warm, moist places. They are found around ovens, heating units, fireplaces, hot water pipes, the attic in the summer and near the furnace in winter. Both will readily travel at night throughout the house to sites that suit them best.

Silverfish and firebrats have a distinctive fish-like appearance. Their bodies are flat, tapered at both ends, and is covered by overlapping scales. They are wingless and small, about 1/2 inch (12.5 mm) in length or less. The antennae are threadlike and very long. They also have three long, thin, tail-like appendages at the end of the abdomen. The maximum life-span in good conditions is 2 to 3 years.

Damage

Silverfish will eat both carbohydrates and proteins. They may eat such things as dried beef, flour, starch, and stored products such as breakfast cereal. They may also cause serious damage to paper products. They may eat holes in



Firebrat

wallpaper, or eat the paste from under it. They generally will only eat starch-based pastes. They often feed on the starch in book bindings, and will eat papers such as onionskin and cleansing tissues. They seldom attack newsprint, cardboard, and brown wrapping paper. They will occasionally attack fabrics. Their preferred fabric is linen, but they may also feed on silks, rayon, and cottons. Damage to fabrics may be recognized by the presence of feces, scales, irregular feeding marks on individual fibers, and in the case of linens, yellowish stains.

Control

Clean up any outside hiding source for these pests such as lumber piles, debris, etc. All holes or spaces around pipes should be sealed. Sources of dampness, such as leaky plumbing, or condensation should be eliminated. These provide moisture for the silverfish and firebrats. Kitchens and pantry areas should be thoroughly cleaned and food stored in containers with tight fitting lids.

There are a variety of chemical based controls for silverfish and firebrats. There are commercially available aerosol

sprays which list these pests on the label. The insecticide sprays should be applied directly to cracks and crevices where the insects enter the home such as door and window casings. They should also be applied under baseboards and sinks where the insects hide during the day. There are also silica gel based dusts and boric acid powders. The dusts and powders should be applied with plastic squeeze bottles to leave a fine layer of material where they are needed.

Adapted in part from:

Silverfish and Firebrats in: *Source Book of Urban Pest Management*. Compiled by G. Loughner and D. Weaver. 1981. California Department of Food and Agriculture, Division of Pest Management and Worker Safety, Unit of Environmental Monitoring and Pest Management, 1220 N Street, Sacramento, CA 95814

References:

Olkowski, W., S. Daar, and H. Olkowski. 1991. *Common-Sense Pest Control*. Newtown, CT: The Taunton Press. 715 pp.

Protect the Bay Use Pesticides and Fertilizers Wisely

ALWAYS READ THE PESTICIDE LABEL AND FOLLOW ALL DIRECTIONS AND SAFETY PRECAUTIONS.

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