

Pest control technical note - Silverfish

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Silverfish

Silverfish are small, agile, fast-running, wingless insects that constitute the Order Thysanura.



Approximately 28 species of silverfish are found in Australia and five of these species are commonly found in buildings and homes across the nation.

Silverfish get their name from their silvery-grey colour and their fish-like appearance. They are typically 13 – 25 mm long, with a flattened scale covered body, long slender antennae and a tapered abdomen. They also have three long appendages (two cerci, which have a sensory function, and one appendix dorsalis, the dorsal anal appendage) at the rear of the abdomen.

Newly hatched or moulted silverfish are generally white in colour, but develop their namesake silvery-grey hue as their skin hardens.

Life Cycle

The male silverfish lays a sperm capsule which the female takes into her body to fertilise her eggs. The eggs are white and oval shaped, and approximately 0.8 mm in length. The small batch of eggs (approximately 50) laid by the female silverfish usually hatch within 2 to 8 weeks. Newly hatched nymphs look similar in shape to adults, but are smaller and translucent/white in colour. Nymphs develop their silver colour as they moult, reaching sexual maturity anywhere between 3 months and 2 years. Silverfish generally live up to 4 years and continue to moult throughout adulthood.

Feeding and habits

Silverfish are nocturnal insects that are extremely agile. Their natural habitat is under bark, soil, rotting logs and leaf litter. However, silverfish can frequently be found in commercial and domestic premises. They can be found in roof and wall voids; and prefer dark, damp and rarely disturbed places such as cupboards, wardrobes and bookshelves with a high humidity level.

Silverfish can also be found caught in bathtubs and sinks due to their inability to climb smooth surfaces. Silverfish feed on most types of human food but prefer to feed on starchy materials such as books and book bindings, glue, paper, photographs, carpet, clothes, cotton and wallpaper.

Silverfish are considered a pest as they can cause extensive damage to valuable



items such as photographs, books and other records that can't easily be replaced.

Silverfish Control

A thorough inspection is a prerequisite to treatment. This should involve moving and opening stored items to ascertain the extent of the infestation. It may also be useful to use insect sticky traps or looped sticky tape to find the extent of the infestation.

Non-chemical control

Basic methods can be employed to prevent and control an infestation of silverfish.

- Ensure that items such as books, papers and photographs are secured in dry conditions, sealed in bags or tight-lidded boxes.

- Maintain thorough hygiene and sanitation ensuring that dust and skin flakes are regularly vacuumed.
- Scraps and crumbs should be cleared away and food containers kept tightly closed.
- If the room is damp, open windows, use heating or a dehumidifier to dry it out

It is also important to check for infestation when bringing in items that may harbour silverfish e.g. second-hand books, boxes from storage, used furniture as this may allow unwanted pests into the home via the transportation of goods.

Chemical control

As silverfish can often be widely distributed throughout a premises, it is necessary to consider multiple methods of pest control using pesticides to ensure the effectiveness of the treatment. Cleaning up before an application of pesticide is also beneficial and can increase the effectiveness of various pesticides reaching the target area.

Surface sprays Crack and crevice surface sprays may control most silverfish infestations, though it is sometimes necessary to apply residual surface sprays to areas where silverfish will pass through, such as along skirting boards. Using surface sprays on delicate surfaces that silverfish frequent, such as books, can affect the integrity of the paper, so caution must be taken not to create more damage.

Dusts are dry formulations that can be useful in silverfish control. Pyrethroid dusts are used in areas where wet surface sprays are not suitable for use e.g. in archives or within libraries. These dusts leave a layer of residual insecticide. The inclusion of an insect growth regulator in the dust product may allow for the control of silverfish for an extended period of time after the pyrethroid has broken down.

Baits may be used to control silverfish however they are not common. Consideration regarding the placement of these baits is important, as other food sources can be in competition with the baits and in turn attract the silverfish to the other food source instead.

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