

Springtails

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Fast Facts

- Springtails are small arthropods that get their name from their ability to jump.
- While springtail infestations can cause annoyance, springtails do not bite or sting humans or animals, and there is no evidence suggesting that springtails will form parasitic relationships or transmit disease.
- Springtails can be found in areas that are damp or moist, such as under leaf litter. They may be found indoors in basements, greenhouses, or inside the moist soil of potted plants.
- Infestations can be controlled by limiting dampness within or around the home, such as by improving ventilation, drying out potting soil, reducing mulch depth, or by physically removing springtails from the home via cleaning and sweeping.

Introduction

Technically, springtails are not insects as they are not members of the class Insecta. However, they are terrestrial arthropods that make up the order Collembola. Springtails are very small, with body sizes ranging from 0.02 inches to 0.4 inches in length¹. Springtails can be found in a variety of climates and ecosystems, with some species being adapted to survive in arctic and subarctic environments¹. Within their ideal habitat and environmental conditions, springtails are able to rapidly reproduce. In indoor environments such as homes and greenhouses, this rapid reproduction can lead to infestations.



Figure 1: Close-up image of a springtail. Photo by Susan Ellis, Bugwood.org.

Identification

A feature that distinguishes springtails from other arthropods is a small body part known as a furcula. The furcula clasps underneath the springtail's abdomen, and when it is released, the built up energy causes the springtail to spring into the air¹. This is why the name "springtails" was given to these small arthropods.

One insect group that springtails can potentially be confused with are fleas. This is because both springtails and fleas can be found indoors, and both are seen as small jumping insects. However, there are visual differences between the two. Fleas are always a dark, reddish-brown color, with laterally flattened (side-to-side) hard bodies. In contrast, springtails can be found in a variety of colors, appearing gray at first glance, and have softer bodies. Fleas are typically around 1/8 inch long, about half the size of a grain of rice, while springtails are typically the size of a mustard seed or smaller. Springtails feed on decaying organic material and do

not bite humans, however, fleas will feed on human blood, leaving small red bite marks along the legs and ankles.



Figure 2: Many springtails have tubular bodies, as seen in Figure 1, but others may have a more “globular” or rounded appearance. Photo by Joseph Berger, Bugwood.org.

Where Springtails are Commonly Found

While there are many species of springtails that are found in a variety of habitats throughout the world, people living in the U.S. are most likely to see springtails outdoors inhabiting moist, dark areas, such as underneath leaf litter or fallen logs. This is because a springtail’s diet consists of mainly algae, fungi, and decaying organic matter, and they are also highly dependent on a consistent water source¹. Indoors, springtails are often found in damp areas such as basements, surrounding leaking pipes, in sinks and bathtubs, surrounding drains, or in newly constructed homes with wet plaster¹. They can also be found living in damp soil in house plants and greenhouses.

While springtails tend to aggregate in areas of standing water, such as drains, they often move to these areas after entry into the home via another route. Common places of entry include through gaps around the windows, doors, and garage doors. Springtails may also be brought into the home with damp soil for indoor potted plants.

Relationship Between Springtails and Humans

To date, there have been no verified reports of springtails causing bodily harm to humans or animals, such as by biting or stinging. While there

have been a few reported cases of skin irritation from direct handling of springtails², this is very uncommon, and there have been no reported incidences of skin irritation from passive contact of springtail hairs or scales in the home.

In the outdoor environment, springtails are primarily considered to be beneficial organisms as they play an important role in decomposition of decaying plant matter, breaking down detritus into fertile soil. There is one species of springtail, *Sminthurus viridis*, that is currently considered an agricultural pest species in Australia due to the damage they cause to crops³. However, there are no species of springtail that are currently considered to be a major agricultural pest in the United States, although they can be an issue with commercial mushroom production.



Figure 3: An aggregation of springtails in a puddle of water appears grey at a distance. Photo by Joseph O'Brien, USDA Forest Service, Bugwood.org.

Springtail Management

Habitat manipulation is typically the best course of action for removing springtails from structures⁴. Controlling dampness in and around the home is the first course of action for preventing and controlling springtail infestations¹. Dampness control can include repairing water leaks, removing wet or moldy items, increasing ventilation via a fan or dehumidifier, and setting house plants outside to dry the soil between watering.

Perimeter maintenance is another element that should be implemented to prevent springtails from entering the home. This includes identifying and sealing any cracks around doors and windows.

It is also beneficial to keep mulch and wood piles that will attract springtails at least a foot away from the exterior walls of the home^{1,4}.

If recurring infestations occur, it may be necessary to apply an insecticide spray perimeter around the foundation of the building⁴. However, applying insecticides inside will only provide temporary relief as springtails will continue to enter the home as long as outside conditions remain ideal and the interior of the home can still be accessed. This is why blocking off entry into the home and removing favorable habitat, such as standing water, from in and around the home are the primary defense strategies against springtail infestations.

Sources

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3. Shaw, M. W., & Haughs, G. M. (1983). Damage to potato foliage by *Sminthurus viridis* (L.). *Plant Pathology*, 32(4), 465–466. <https://doi.org/10.1111/j.1365-3059.1983.tb02864.x>
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