



## Springtails<sup>1</sup>

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Springtails are minute insects without wings in the Order Collembola. They occur in large numbers in moist soil and are found in homes with high humidity, organic debris, or mold. Homeowners sometimes discover these insects in large numbers in swimming pools, potted plants, or in moist soil and mulch. They feed on decaying, damp vegetation causing organic material and other nutrients to return to the soil which are later used by plants. Occasionally, springtails attack young seedlings and may damage the roots and stems.

### Biology and Description

The Order Collembola has two suborders easily distinguished by their body shape. One appears linear (Figure 1) while the other appears globular (Figure 2). These suborders are further divided into families which contain the separate species. Only seven families include the 650 species in North America. Worldwide, 3600 species have been discovered.

Springtails range in length from 0.25 to 6 millimeters, but are normally about 1 millimeter long. Colors range from white to yellow, gray, or blue-gray. Attached to the tip of the abdomen is a forked appendage resembling a lever and called the

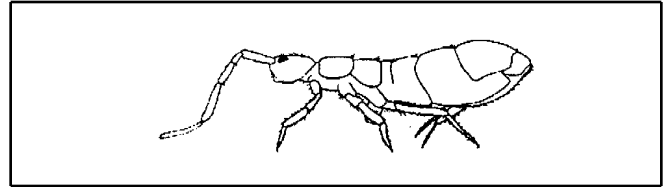


Figure 1 . A linear springtail.

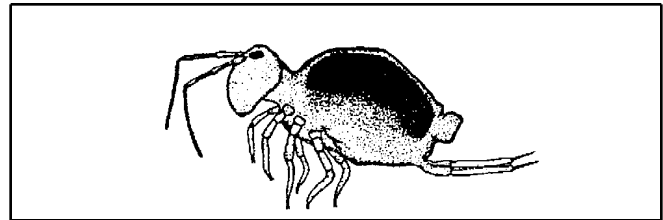


Figure 2 . A globular springtail.

furcula. At rest, a clasp, called the tenaculum, holds the furcula to the abdomen. When disturbed, the clasp releases the furcula, which strikes the ground, causing the insect to spring into the air. They are capable of springing up to 100 mm, or about 4 inches, into the air. The name "springtail" originated from this action.

Springtails range throughout the Arctic, temperate and tropical regions. Breeding can be year round. Time from egg to adult may take from five to 11 weeks. Springtails are ametabolous meaning, adults are wingless, and the only difference between

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<http://edis.ifas.ufl.edu>. Additional information on these organisms, including many color photographs, is available at the Entomology and Nematology Department WWW site located at <http://www.ifas.ufl.edu/~entweb/entomolo.htm>.

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them and the immature nymphs is body size. Both adults and nymphs live and feed in the same habitat.

## Problems

Springtails are pests due to their large numbers. They do not bite nor transmit diseases. They can easily climb the sides of houses and are attracted to lights. They can also be brought into homes in the soil of potted plants. Overwatering encourages springtail propagation.

Homeowners may first encounter springtails inside the home. The insects invade buildings in times of dry weather or heavy rains. They may also breed indoors with high levels of humidity that occur near leaks and cracks to the exterior. Because of their attraction to lights, they may enter homes lured by light shining through cracks under doors and windows.

Springtail populations have also been found floating in swimming pools. Normally, they live in surrounding soil and mulch and accidentally spring into the pool while in search of food. Leaving the pool lights on at night may also attract them to the pool.

Some species of springtails may damage plants by chewing on the roots and stems of healthy seedlings. The plants attacked normally are found in overly wet and acidic soil. The seedlings may appear wilted and, if too young, may die. Damage occurs as minute, rounded pits on young roots.

## Control

Check potted plants for springtail activity before bringing the plants indoors. Do not overwater.

Sealing cracks and crevices reduces the humidity within homes and provides an unsuitable environment for springtails. If moisture is still a problem, a dehumidifier will absorb the excess moisture. Filled cracks will also block out the light that attracts them.

If springtails enter swimming pools, they will drown because they cannot tolerate chlorinated water for long. Since they live in surrounding soil, preventing the soil from becoming overly moist and

reducing the acidity by liming controls the populations. Natural enemies, such as predaceous mites, may also control springtails without the application of pesticides.

Another solution is to treat areas with insecticides or insecticidal soap. Spraying the surface of the soil with most flying insect sprays will quickly kill the small insects. Do not over mulch or over water planting beds or lawns. Give these areas time to dry out, if possible. If insecticides are used, follow label directions.

**Table 1.** Pesticides Available

Trade Name (Formulation)		Common Name - %		
Site(s)	Pest(s)	Re-Entry Time	Preharvest Time	Retreatment Interval
<b>CB-38 Extra (Aerosol)</b>		<b>Pyrethrins - 0.30%</b>		
<b>Apartments/Houses/ Dwellings/Structures/ Garages</b>	Springtails	None	None	None
<b>Cytoc Crack and Crevice Pressurized Residual (Aerosol)</b>		<b>Cyfluthrin - 0.10%</b>		
<b>Structures</b>	Springtails	None	None	None
Use this product with supplied actuator and injection tubes. Inject product into cracks and crevices and void spaces where insects may be harboring, living, and breeding.				