

## Springtails and Snowfleas



**Fig. 1.** A springtail. Note the the forked appendage on the at the end (underside) of the abdomen that is used by the insect to spring or “jump” into the air. (Susan Ellis, [www.Bugwood.org](http://www.Bugwood.org))

**Description of springtails:** Springtails, scientifically known as Collembola, are very small insects, often less than 2 mm in length (0.04 to 0.1 inches) that are very common and abundant, with nearly universal distribution in moist soil. Because of their small size and somewhat concealed habits, they are seldom seen. The name springtail refers to the fact that these insects have a forked appendage (**Fig. 1**) on the underside of the back of the abdomen that can be moved quickly away from the body usually causing the insect to spring into the air appearing to “jump.” Springtails vary in color, but many are whitish or gray, allowing them to blend in with their surroundings.

**Problem:** Springtails are occasional invaders or nuisance pests. They are normally found out of doors, especially in woodlands, in moist habitats often in soil or leaf litter, on moist stones, patio blocks or sidewalks, and sometimes are found floating on water. They feed on algae, fungi, and

decayed vegetation. When springtails do get into buildings they may be found in damp places such as kitchens, basements, bathrooms, around drains, on the floor near patio doors, wet walls, or in the soil of potted plants (**Fig. 2**). Moisture is critical for the survival of these insects.

**Management:** The moist habitat springtails require is a key consideration for the management of these insects. Lower humidity will make the habitat undesirable for the insects. Eliminating moisture in the areas where

springtails are found will greatly reduce populations. Airing a room on dry days on a regular basis may be sufficient in some situations, but if needed, a fan may be used to keep air moving or a dehumidifier may be used to help reduce humidity. Keep ground-level entrances and window wells free of decaying leaves and debris. Damp leaves, mulches, or other moisture retaining materials near the foundation walls of homes or buildings may need to be pulled back or removed if springtails persist. It is often suggested that one leave a border of 12 to 18 inches around the foundation of homes with no vegetation or mulch, so that it stays dry.

Houseplants should not be allowed to stand in water (empty saucers if water stands in them) and may be repotted in sterile soil if the insects persist. Allowing the soil to dry out usually eliminates them.



**Fig. 2.** A springtail on the lower stem/roots of a plant. (Joseph Berger, [www.Bugwood.org](http://www.Bugwood.org))

**Description of snowfleas:** The insect nicknamed the “snow-flea” is not a flea at all, but instead is a species of springtail that may occur in very large numbers on the snow. In some instances they can be so numerous as to

color the snow black. In British Columbia there is a minute yellow springtail that is said to cover the snow with a "carpet of gold."

The snow-flea *Achorutes nivicola* Fitch was written about as early as 1847 by Asa Fitch. He wrote of it:

"This is an abundant species in our forests in the winter and fore part of spring. At any time in the winter, whenever a few days of mild weather occur, the surface of the snow, often, over whole acres of woodland, may be sprinkled more or less thickly with these minute fleas, looking at first sight, as though gunpowder had been there scattered. Hollows and holes in the snow, out of which the insects are unable to throw themselves readily, are often black with multitudes which here become imprisoned. The fine meal-like powder with which their bodies are coated, enables them to float buoyantly upon the surface of water, without becoming wet. When the snow is melting so as to produce small rivulets coursing along the tracks of the lumberman's sleigh, these snow-fleas are often observed, floating passively in its current, in such numbers as to form continuous strings; whilst the eddies and still pools gather them in such myriads as to wholly hide the element beneath them."

Later he included an additional note:

"In the early spring the buckets and troughs of the manufacturer of maple sugar are often thronged with these insects."

Although springtails are very common insects and often very abundant, they are seldom observed. Their small size and the fact that they are often found in concealed situations keeps them out of view for most of us. Springtails occur in leaf mold, damp soil, under bark, in decaying logs and in fungi. A few are found on water. Most species are believed to feed on organic debris.

The "snow-fleas" need not be of concern to homeowners, as they do not cause any damage. Their abundance and habit of crawling or "jumping" all over the place attracts attention, especially when they are contrasted against the white background of the snow. This is one of the few insects that occur in the adult stage during the wintertime. It is a curiosity more than anything else and is of interest to the naturalist as well as the scientist.

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