



# Entomological Notes

Department of Entomology

## PINE NEEDLE SCALE

*Chionaspis pinifoliae* (Fitch)

The pine needle scale is considered a key pest of pines in landscapes, nurseries, and Christmas tree plantations in Pennsylvania. This native insect attacks mugo pine, *P. mugo*; Austrian pine, *Pinus nigra*; red pine, *P. resinosa*; Scots pine, *P. sylvestris*; eastern white pine, *P. strobus*; Douglas-fir, *Pseudotsuga menziensis*; most spruces, *Picea* spp.; and cedars, *Cedrus* spp.

### DESCRIPTION

Crimson red eggs are apparent in early spring beneath the female's white waxy cover. The waxy cover of the female is about 3 mm long, white with a yellow tip at the narrowed front end (Fig. 1). The waxy cover of the male is white and only 2 mm long. Adult males are small winged insects that resemble tiny parasitic wasps, but they only have one pair of wings with very few veins. The crawler stage of this armored scale insect is reddish.

### LIFE HISTORY

This pest overwinters as females and eggs beneath the waxy cover of the female. As many as 40 eggs may be found under each scale. In mid-to late May these hatch into crawlers which move over the needles for a few days and then settle down to feed. After settling down, they secrete the characteristic waxy covering over their bodies. These scales usually reach maturity by early July. Males emerge, mate with the females, and then die. A second generation of eggs is laid in mid-July; these scales mature in September.

### DAMAGE

This species removes plant fluids from needles with their piercing-sucking mouthparts, causing them to turn yellowish brown. A severe infestation may cause a reduction in plant health, sparse foliage, and death of infested twigs. The foliage of severely infested trees may take on a white-washed appearance.

### MANAGEMENT

Ornamental pines should be monitored during April and July to detect infestations. Registered insecticides may be applied according to label directions against newly hatched first generation crawlers in May and again from mid-July through August to manage second generation crawlers. Several species of lady beetles and wasp parasitoids feed on life stages of this scale insect.

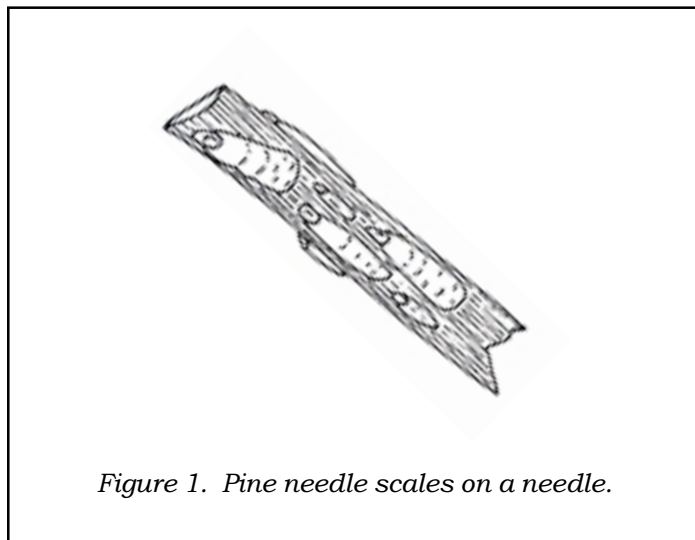


Figure 1. Pine needle scales on a needle.

### WARNING

Pesticides are poisonous. Read and follow directions and safety precautions on labels. Handle carefully and store in original labeled containers out of the reach of children, pets, and livestock. Dispose of empty containers right away, in a safe manner and place. Do not contaminate forage, streams, or ponds.

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