

Nature's Notebook Phenophase Photo Guide



**PEST PATROL
CAMPAIGN**

Chionaspis pinifoliae pine needle scale

Why Observe?

Native to North America, pine needle scale (*Chionaspis pinifoliae*) specializes on pine trees. They pierce pine needles and consume sap. Females overwinter with their eggs, under a waxy covering. Crawlers emerge from the eggs in late spring the following year.

We forecast crawler emergence based on growing degree days. Treatments are often applied when crawlers first emerge from their eggs and before they grow their protective waxy coating.



[Lorraine Graney, Bartlett Tree Experts, Bugwood.org.](#)
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Tips for Identification

Adult female pine needle scales are 1/8 inch long, white to grayish-white. They are always found attached to evergreen needles.

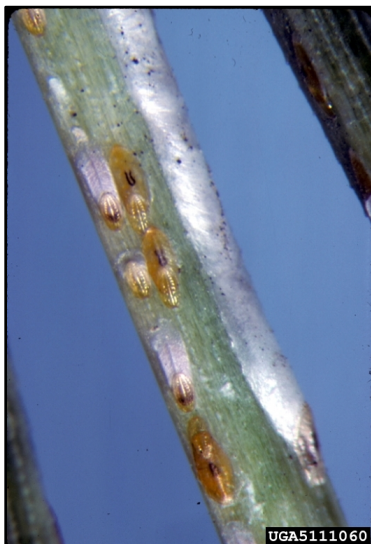


[Lorraine Graney, Bartlett Tree Experts, Bugwood.org.](#)
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Be aware that there is variation from individual to individual within a species, so your insect may not look exactly like the one pictured. If you are uncertain whether or not a phenophase is occurring, report a "?" for its status until it becomes clear what you are observing after subsequent visits.



Chionaspis pinifoliae
pine needle scale



Adults

One or more adults are seen moving about or at rest. For *Chionaspis pinifoliae*, the wingless, waxy-armored, adult females are settled in one spot on a plant and do not move whereas the winged, adult males are mobile. Also include waxy-armored instars as they are difficult to distinguish from adults.

Image Needed

email
photos@usanpn.org

Male adults

One or more adult males are seen moving about or at rest. For *Chionaspis pinifoliae*, males have wings whereas females do not.

[United States National Collection of Scale Insects Photographs, USDA Agricultural Research Service, Bugwood.org. CC BY-NC 3.0](#)

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Mating

A male and female are seen coupled in a mating position, usually with the male on top of the female.



Eggs

One or more eggs are seen. For *Chionaspis pinifoliae*, eggs are present under the scale body when a waxy, white "tail" is visible behind the adult female body, generally over the winter into early spring and again in mid summer.

[Robert J Bauernfeind, Kansas State University, Bugwood.org. CC BY-NC 3.0](#)



Crawlers

One or more crawlers are seen moving about or at rest. For *Chionaspis pinifoliae*, these first-instar nymphs are yellow to rust in color and move around before settling in one spot on a plant.

Howard Russel, MSU
Diagnostic Services

Phenophases not pictured: Feeding, Dead adults, Individuals in a trap