

Press Release

The Manchester Water Works will begin removal of red pine plantations on the Massabesic Watershed Properties in the winter of 2015. Red Pine Scale is an exotic insect that was first detected in Bear Brook State Park in 2012. Many other outbreaks of infestations have caused swift decline and mortality in plantations in Merrimack and Rockingham Counties.

Red Pine Scale outbreaks were first detected in NY and NJ in the 1950's and 1960's and have slowly crept north virtually eliminating red pine in RI and CT. Over the past decade it has covered most of MA. Early signs of infestation include bright "flagging" of the lower branches followed by a swift decline of the entire crown and eventual stand wide mortality.

The Manchester Water Works has over 50 red pine plantations totally over 400 acres. There are no known effective controls for plantations. Infected sites experience complete mortality in as little as 3-5 years. Working with NH State Forest Health Specialists, the Water Works has developed a plan to slowly remove red pine plantations and release young saplings and seedlings in the understory to reforest the sites. The target is to remove 40 – 80 acres of red pine per year.

Any risk to water quality through widespread tree mortality, forest fire danger, and associated erosion is not acceptable to our mission for healthy forests and clean water on the Massabesic Watershed.

For additional information regarding red pine scale or if you have a red pine stand you suspect may be infested, contact Forest Health Specialist Kyle Lombard at (603) 464-3016.

For additional information regarding red pine harvesting at Manchester Water Works properties, contact Watershed Forester John O'Neil at (603) 496-5836.



PEST ALERT

State of New Hampshire
Department of Resources and Economic Development
Division of Forests and Lands
Forest Protection Bureau—Forest Health Section

Red Pine Scale

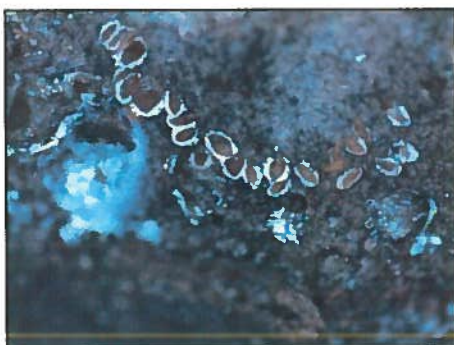
Matsucoccus resinosa

Host: Red Pine (*Pinus resinosa*) in the US

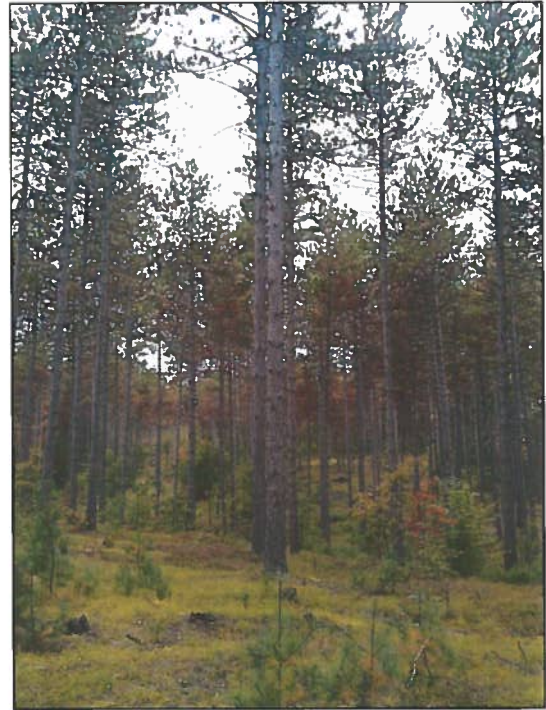
Distribution: Throughout southern New England, New York, New Jersey and eastern Pennsylvania. First reported in Connecticut in 1946 and New Hampshire in 2012. Most likely it was introduced to the US on exotic pines planted at the NY World's Fair in 1939.

Identifying symptoms: Foliage color changes slowly from light green to yellow to red appearing first on individual branches on the lower part of the crown then gradually over the entire crown. Masses of cottony white filaments become visible on the branches when infestations are heavy. Weakened trees may also be attacked by bark beetles causing rapid tree mortality.

Life History: The red pine scale has two generations per year. Adult females are brownish red and wingless. Preadult males resemble females but are smaller and soon after emergence become true winged adults inside a waxy cocoon. Although adult males are winged they do not fly. The summer generation lay their eggs in early spring and these mature in early August to lay the Fall generation. First stage larvae resemble adult females but are smaller and transform into an intermediate legless stage. The fall generation overwinters as first stage crawlers under bark scales and become adults the following Spring.



Intermediate stage nymphs




Symptomatic pines at Bear Brook State Park

Control: Several species of native predators attack red pine scale but are not abundant enough for effective control. Trials in Connecticut of introduced predators have also been ineffective. There are no effective chemical controls for plantations. Maintaining tree vigor may aid in slowing tree mortality and attack by bark beetles but avoid fertilizing as this only favors the scale. Harvesting during winter months will prevent spread of the scale.

Other Notable Pests: There are two other known piercing and sucking insects on red pine in the northeast. Both are adelgids and one is exotic and believed to have arrived with the red pine scale. *Pinus coloradensis* is native and feeds on the needles. *Pinus boernerii* is exotic and feeds on the needles as well as the branches and may be confused with the red pine scale. Damage has not been noted by either of these insects.

Red Pine Scale Infestations in NH

 Towns Positive for Red Pine Scale

- Allenstown
- Barnstead
- Chichester
- Concord
- Deerfield
- Epsom
- Loudon
- Portsmouth
- Strafford



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Jen Weimer
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