

Here are some common things to look for when observing trees. It is often difficult to pinpoint an exact cause of the problem – and there may be more than one problem. The important thing is to start observing trees and take notice of unusual growth, dead or dying leaves or plant parts, animals, insects and more.

Note where the tree is planted. Do the roots have enough room to grow? Is the tree getting enough sunlight and water? Or perhaps the tree is getting too much sunlight and water!

A tree is home to many living things. Look . . . and *listen* for birds, insects, animals, mushrooms and other living organisms, too!



Cracks or damage in
tree trunks (cankers)

Photo: Monica Lewandowski, Ohio State



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Dead or dying leaves may be a natural part of the tree's life cycle or may indicate a disease, insect or nutrient problem.



Sprouts or shoots at the base of the tree is an indication of tree stress.





Sap oozing from a canker (wound). Note deep cracks in bark, also indications of poor tree health.



Another example of sap oozing from a canker (wound). Lichens are the greenish growth on the tree trunk.



Roots may grow above ground if they cannot penetrate the soil. This could lead to poor tree growth.

Photo: Monica Lewandowski, Ohio State



Dead branches may be caused by damage or wounding, poor establishment, insects, disease or other problems.

This is general tree decline in red maple (*Acer rubrum* L.)

Jason Sharman, Vitalitree, Bugwood.org

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Poor or no leaf growth on
branches, dead or dying
branches
(ornamental *Prunus*)

Photo: Monica Lewandowski, Ohio State



There are many possible causes for dead or dying leaves.

Dead or dying needles may indicate disease, insect, drought stress or other problem.

This is a photo of disease symptoms caused by a fungus - pine needle rust (*Coleosporium asterum*) (Dietel) Syd. & P. Syd.

Photo: USDA Forest Service - North Central Research Station, Bugwood.org

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The brown needles on this pine tree is caused by a fungus.

The disease is Lophodermium needle cast (*Lophodermium sp.*) Chev. Austrian, mugo, red, Scotch and some (but not all species) of pines can be infected with this fungus.

Photo: Terry S. Price, Georgia Forestry Commission, Bugwood.org

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The brown leaves on this flowering dogwood tree are due to drought.

John Ruter, University of Georgia, Bugwood.org

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Leaf scorch symptoms on a dogwood branch. These symptoms are most likely related to environmental stresses commonly observed on landscape dogwoods planted in full sun.

Photo: Cheryl Kaiser, University of Kentucky, Bugwood.org



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Insect damage caused by the leaf blotch miner moth.

Photo: Lance S. Risley, William Paterson University, Bugwood.org



Many insects and other organisms make their home in trees.

Insects may be beneficial, neutral or harmful to the tree.

Photo: gypsy moth on oak
(Columbus, Ohio)

Photo: Monica Lewandowski, Ohio State



Galls. These spots are galls, or growths, caused by a gall midge insect (*Resseliella liriodendri*) (Osten Sacken, 1862). Tree: tulip tree.

Photo: Lance S. Risley, William Paterson University, Bugwood.org



Galls. These tumor-like growths are galls on bur oak (*Quercus macrocarpa* Michx.) In many cases, the galls don't seriously harm the tree.




Galls. The brown growths on this European beech tree (*Fagus sylvatica* L) are galls caused by an insect - the beech gall midge (*Mikiola fagi*) (Hartig, 1839).

Photo: Jan Liska, Forestry and Game Management Research Institute, Bugwood.org



The holes on the leaves of this tree are indications of insect feeding damage.

Photo: Monica Lewandowski, Ohio State

A cluster of mushrooms with light-colored, slightly wavy caps and reddish-orange gills, growing on a weathered log in a forest. The surrounding ground is covered with brown leaves and green plants.

Mushrooms on logs or tree trunks.

Photo: Monica Lewandowski, Ohio State



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The shrubs on the right are showing damage (brown leaves) due to extensive salt damage.

Photo: Joseph LaForest, University of Georgia, Bugwood.org



Human caused injury to the tree.

Photo: Robert L. Anderson, USDA Forest Service,
Bugwood.org

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Look AND listen. Do you see or hear any birds or insects?
This is a northern mockingbird (*Mimus polyglottos*).

Photo: Alfred Viola, Northeastern University, Bugwood.org