



Is That Fuzzy Moss Killing My Trees?

What Cape Cod residents see on their trees is lichen, not moss. Lichen is an interesting organism because it's actually a relationship between algae or cyanobacteria living among filaments of many fungal species. They don't have roots for water and nutrient absorption, as plants do, but they do produce their own nutrition through photosynthesis. Lichen is having fun in the sun!

Is the lichen you see hurting your trees? The short answer is no. Lichens use the branches of trees as a place to grow, but they are *not* drawing any nutrients from those plants. Lichens are epiphytes, not parasites.

Many people assume that the lichen is at fault when they see their trees or shrubs getting thinner, and looking less healthy. Actually, it's the other way around. If a tree or shrub is declining or under stress, the canopy of leaves becomes less dense. This allows the lichen to flourish because it receives more light for photosynthesis. **So, the stressed or declining tree comes first, and the lichen just moves in to take advantage of the space.**

Lichen is also more noticeable on thinner plants, but it is not the cause of plant decline. Here are some of the things that can stress a shrub or tree, causing it to become thinner over time.

- **Drought.** Long periods without rainfall cause roots to dry up. When a shrub or tree has a reduced root system, you see leaf-drop or dieback on the top of the plant. Even plants that are under automatic irrigation suffer in times of drought because most irrigation systems water shallowly, so there is still a reduction in the root system.
- **Soil compaction.** If there have been heavy machinery working around shrubs or trees – cars, trucks, backhoes, or other construction vehicles – that can compress soil which limits root growth. If a plant can't grow a big root system because the soil is compacted, the top will decline or show dieback. Soil compaction might have happened years before, but you may only see the results as your trees grow larger.
- **Insect or Disease Damage.** If a plant is diseased, limbs or branches may die off. Similarly, if plants are defoliated by larvae on an annual basis, or if borers have infested their branches, those limbs may die. During the years when winter moth larvae were stripping trees every spring, some trees lost upper branches as a result. Lichen just takes advantage of these bare twigs but does not cause them.
- **On Cape Cod, it's good to learn to like the lichen.** It's a sign that we have good air quality, since lichens don't flourish in polluted areas. Lichens will always share our environments, and they do no harm.