

Ball Moss, Lichen, and Mistletoe

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What came first, the dying branches or the ball moss? A number of gardeners credit the ball moss on declining live oak branches as the cause of the decline! The truth is that the ball moss is on the tree because the branches in the interior of a live oak tree exist in a relatively humid, sheltered environment which is what is required for ball moss to prosper. In terms of which came first, the chicken or the egg, the declining branch comes first, and the ball moss follows.

Ball moss is not a parasite, it is an epiphyte unique to Central Texas. Epiphytes are plants that make their living from the air where they find the moisture and nutrients they need to grow and produce seed. The shaded, often leafless branches in the middle of a live oak tree are ideal sites for the seeds to land and germinate but they also will grow on crepe myrtle, pecans and even utility lines. The City of Pleasanton is an example of an environment that supports ball moss on its utility lines.

The ball moss on dead or declining live oak branches is not a factor in the decline of the branches but you can remove it if you do not like its looks. Physically remove it with a pole pruner or saw or spray it with copper hydroxide (Kocide) this month. Pest control firms and tree services companies will apply the spray or physically remove it for a fee.

Lichen is another plant that is a bit of a mystery to some gardeners and in that status is sometimes blamed for damage to trees for which it is not responsible. Lichen is more accurately called a plant community than a single plant. Various algae and fungus grow together to produce a layer on tree surfaces or even rock surfaces. The relationship between the algae and fungus can be complex and/or one-sided but in the simplest terms, like ball moss the lichen pulls its moisture and nutrients from the air to the "layer" where it is processed in a cooperative manner by one or both of the partner plants for their mutual benefit.

Not only is lichen growing on tree bark not hurting the tree, but it is an indicator that the air in the vicinity is relatively free of pollutants. Lichen only prospers in areas where the air is clean. There is no advantage in removing lichen by physical or chemical means from a tree trunk.

Mistletoe is actually a parasite that draws its nutrients and moisture from the plant on which it is growing. The question becomes is the stress that mistletoe causes to its host enough to justify a control program?

The most common tree that is parasitized is mesquite. The horizontal pattern of branching, limited foliage and deep furrowed bark seem to meet the mistletoe's needs for germination, growth and reproduction. Despite being toxic to humans, dogs and some other mammals, the mistletoe berry is a favorite food of birds. They do most of the mistletoe seed distribution.

Mistletoe plants can be removed with the use of a pole saw or pruner to be collected, bagged and sent to the landfill. They penetrate the host tree's vascular system with an organ called a haustoria. Mistletoe removed from a tree re-sprouts from the remnant of the haustoria in a few years. New plants are spread by birds carrying or excreting the seed on new branch sites.

It is hard to determine how much stress the mistletoe causes the host trees. I am not familiar with an instance when mistletoe parasitism has ever been credited with being the main cause of killing a tree. If you are interested in fascinating plant relationships and encouraging bird activity it is easy to justify leaving the mistletoe plants in place, even if they are a tree parasite.