
THE CLOAK OF THE OAK

by David J. Ellis

Live oaks (*Quercus virginiana*) are one of the most striking natural features in the landscape of the southeastern coastal plain. In most settings the majestic trees, often draped in a delicate mantle of silvery gray Spanish moss (*Tillandsia usneoides*), are cherished for their stolid strength and the graceful spread of their branches. But in swamps and river bottoms, live oaks can take on a primeval, even eerie look, especially at dusk or when mist rises around the thick trunks and the bedewed moss dangles heavily from the boughs.

Live oaks are evergreen oaks that thrive in the sandy soil and salt air of the coastal plain from Virginia south to southern Florida and then west into Texas and northeastern Mexico. They are remarkable for having stubby, often buttressed trunks that quickly diverge into nearly horizontal branches, spreading up to 120 feet (33m) in diameter with a rounded crown to 50 feet (14 m) tall. The smooth-edged, elliptical leaves are a dark, glossy green above and pale green beneath. The tree produces yearly crops of small, elongate, dark brown acorns.

A member of Bromeliaceae, or the bromeliad family, Spanish moss is an essentially rootless epiphyte that takes its water and nutrients from the air. It is commonly seen clinging to trees, walls, and even power lines throughout its native range, which in North America parallels not only that of live oak but also extends south to Argentina and Chile.

Usually found in clusters, individual Spanish moss plants are thread-like strands that can reach 100 feet long. Each strand is punctuated at short intervals by nodes that bear a few narrow leaves and minuscule green to purple flowers with a subtle fragrance that can only be detected when they are blooming en masse. The spreading of the tiny seeds is facilitated by inch-long silky threads with tiny barbs that help the seed cling to rough-barked trees. The plant is also spread through fragments carried by wind or by birds, which used the moss for their nests.

Although Spanish moss is seen on a variety of tree species, it seems to particularly thrive on *Quercus virginiana*. Naturalists disagree about the reasons for this association, however, and also about whether Spanish moss can be detrimental to its tree hosts. "Some people say this is an example of a nonparasitic pathogen--that if you get too much moss on a tree it can block photosynthesis," says Don Gardner, Director of Savannah, Georgia's Park and Tree Department. "Maybe there have been instances where that has occurred, but I don't believe it's the case the majority of the time." Gardner believes the idea that moss can be detrimental to trees originates from an inverse correlation. "I think Spanish moss can be an indicator of vigor, but not a determinant of vigor," he says. "When a tree goes into decline, the leaves may get smaller and fewer. The result is that the tree moves less in the wind and there is less opportunity for the moss to be shaken out."

Craig Martin, a professor of botany at the University of Kansas in Lawrence who has been doing research on *Tillandsia* for about 20 years, believes the primary reasons Spanish moss has an affinity for *Quercus virginiana* are that the oaks' rough, gnarly bark allows the moss to take a firm hold on the tree, and that the moss may be taking up nutrients that leach out of the oaks' leaves. "Epiphytes rely totally on aerial input for their nutrients, which they get from dust particles and whatever leaks out of what they are growing on," he says. Martin states that trees with needle-like foliage, such as pines, lose fewer nutrients than oaks. Martin's research has also shown that Spanish moss grows best in light shade. The dense overhand of live oak branches may provide more shade than is available on more vertically structured trees.

Quercus virginiana, often aided and abetted by their ornamenting moss, have a strong place in the history, literature, and lore of the South. Among the famous oaks are the Jefferson Davis Oak in Gulfport, Mississippi, under which the former president of the Confederacy is said to have made a speech in 1886 urging Southerners to forget the past and work toward a united future. The Treaty Oak in Austin, Texas, is the last of a group of *Quercus virginiana* under which Native Americans held councils, dances and ceremonies, and under which city founder Stephen F. Austin was said to have made the first boundary line agreement between Native Americans and settlers. The Austin tree made national news in 1989 following a deliberate poisoning incident from which the tree has never fully recovered.

Live oaks are also connected with literature achievements. The Evangeline Oak in St. Martinsville, Louisiana, was named in honor the Henry Wadsworth Longfellow's poem, "Evangeline," which memorialized the plight of a group of French Canadians deported from Nova Scotia to Louisiana in 1755.

Both species at one time had commercial value. The heavy timber of live oaks was prized by shipbuilders until the middle of the 19th century, and Spanish moss was used as a stuffing for mattresses and upholstery into the early part of this century. Other materials have come along to fill those niches, but Southern horticulturists say the charismatic combination of the live oak and Spanish moss is earning its keep by wowing first-time visitors to the Southeast. ☛

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