

Spanish Moss *Tillandsia usneoides*



Spanish Moss is one of nine species of *Tillandsia* that can be seen from the boardwalk. It is not Spanish or a moss.

The suffix *-oides* means *similar to*. For Spanish Moss, it refers to the similar looking but unrelated lichen, *Usnea*, or Old Man's Beard, which also is an epiphyte on tree limbs.

T. usneoides grows on a wide range of trees which have a high rate of mineral leaching. It shows a preference for Southern Live Oak or Bald Cypress because of these trees' high rates of foliar mineral leaching (calcium, magnesium, potassium, and phosphorus), which provide an abundant supply of nutrients.

Spanish Moss is gray when dry and light green when wet, and it hangs from tree branches in festoons that may reach 20 feet or more in length.

It is unique in that the plant grows downward toward gravity and not upward toward light.

The stems and leaves are slender and curly, covered with tiny silvery-gray scales which catch water and nutrients in dust particles.

With no roots, the scales have evolved to replace root functions. Scales collect all the water and nutrients it needs from the rain and the air. During dry periods, it becomes dormant, resurrecting itself when the rain returns.

Atmospheric moisture alone will not support growth. In experiments, the plants died in three to four months with natural humidity but no rain. The rate of growth is not related to moisture or temperature, but it is adversely affected by shade.

T. usneoides reproduces both sexually and vegetatively. It flowers from March through June, often abundantly, although the tiny, pale yellow-green to blue, solitary flowers are inconspicuous. The flowers last about four days and have a pleasant, subtle fragrance at night.

The fruits are tiny, cylindrical capsules which split and release seeds the following December and January. Each seed capsule averages around 13 seeds. Seed dispersal is aided by delicate hairs, 1 to 2 cm. long, which act as parachutes. These hairs are covered with tiny barbs, which anchor in the cracks of rough bark or other sites.

Seedlings have rootlike holdfasts, which soon dry up and disappear as the plant develops.

As the plant grows and elongates, early parts die. The living part of the plant is only at the end of the festoon and is usually less than 18 inches.

Vegetative reproduction and spread is much more common than propagation by seeds. Small broken plant fragments are scattered by wind, birds and animals, and also can float. They grow into new plants if they land on appropriate sites. *T. usneoides* may owe its extensive range largely to powerful hurricane winds.

In the spring and summer, Yellowthroated Warblers and Northern Parulas weave nests in the Spanish Moss. The nests look somewhat like tennis balls woven into the strands. Many other kinds of birds use pieces of Spanish Moss for nesting material. Bats roost in

Spanish Moss and there is one species of jumping spider, *Pelegrina tillandsiae*, that occurs only in Spanish Moss.

For more than two centuries, Spanish Moss was harvested commercially. Tons of it were shipped to cities in America and Europe for mattress and furniture stuffing and to Detroit for use in automobile seats, mostly in Model T's. It was said to make the coolest mattresses, an important consideration in the days before air conditioning. In 1939, more than 10,000 tons of Spanish Moss was ginned in Florida and Louisiana.

Up to the 1960's, Spanish Moss was still harvested by moss pickers wielding long poles, cured in moss yards to remove the outer gray "bark," ginned at commercial moss gins, and then baled for shipment.

Native American tribes used *T. usneoides* for livestock feed, as a binding agent in clay bricks and plaster, and for kindling. Women wove the fiber into the fabric of their dresses.

It was used in medicine for a range of purposes, and has many uses in contemporary herbal medicine in Latin America. For example, preparations of the plant are used on hemorrhoids, abscesses and tumors.

Research has shown that *T. usneoides* has antiviral, anti-inflammatory, and analgesic qualities, among others, that may support its use in herbal remedies.

Because of its analgesic qualities, wads of Spanish Moss were often used as packing for wounds during the Civil War when other medicinal supplies weren't available.

Spanish Moss is susceptible to air pollution and has disappeared from polluted areas in some cities. In the early 1970's Spanish moss declined dramatically in much of its range due to a parasitic mold. Since then it has recovered.

The following really is a warning currently posted on the Floridata web site (http://www.floridata.com/ref/T/till_usn.cfm)



WARNING

Don't use Spanish moss for bedding or packing without first treating it to kill tiny pests (especially red bugs or chiggers) that may be lurking within. Microwaving works well, as does heating or boiling in water. (Remove bats, lizards and snakes before microwaving.)