



Identification Guide for 10 of Southwest Florida's

Tillandsia

Identification Key

How to use an identification key: Begin by looking at all of the number ones (1) and deciding which is the most accurate description of the plant. Select the correct one. Then go to the number twos (2) under the one selected and do the same. Repeat the process until there are no more choices left. You have identified the Tillandsia species.

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|--|---|
| 1. Leaves uniformly thin, soft, string-like with grayish, velvety look | <i>page</i> |
| 2. Leaves hang in long twining festoons | Tillandsia usneoides (Spanish Moss) 2 |
| 2. Short leaves form a tangled, ball-like mass | Tillandsia recurvata (Ball Moss) 2 |
| 1. Leaves uniformly thin, stiff, needle-like | Tillandsia setacea (Needle-leaved Wild Pine) 4 |
| 1. Leaves wider at base, taper to point | |
| 2. Plants have a bulb-like or urn-like base | |
| 3. Leaves are fuzzy, gray, almost furry | |
| 4. <u>Rounded</u> scales (use lens) | Tillandsia paucifolia (Pot-bellied Air Plant) 2 |
| 4. <u>Pointed</u> scales (use lens) | Tillandsia pruinosa (Fuzzy-wuzzy Air Plant) 2 |
| 3. Leaves are smooth, greenish to reddish | |
| 4. Leaves wide, twisted with light bands | Tillandsia flexuosa (Twisted Air Plant) 3 |
| 4. Leaves taper, curly, curve down over bulb | Tillandsia balbisiana (Reflexed Wild Pine) 3 |
| 2. Plants do NOT have a bulb-like or urn-like base | |
| 3. Leaves stiff, erect, widely spreading | Tillandsia fasciculata (Stiff-leaved Wild Pine) 3 |
| 3. Leaves curve downward along entire length | |
| 4. Leaves less than 18" long, thin | Tillandsia variabilis (Soft-leaved Wild Pine) 3 |
| 4. Large wide leaves 2' or more, curve in wide arc | Tillandsia utriculata (Giant Wild Pine) 4 |

Tillandsia basics

One common name for many Tillandsia is “wild pine” because of their resemblance to the leaves of the edible pineapple. All are in the general bromeliad family.

Spreading leaves form a cup-like structure that collects water and holds debris, supplying the plant with nutrients. The leaves may look soft or fuzzy, but they are more like dry sponges ready to absorb moisture and nutrients from the air, which gives them another common name, “air plant.”

Air plants are usually attached to the branches and trunks of rough-barked trees and shrubs by modified roots. Spanish Moss, which hangs on by becoming tangled around and over twigs, and Ball Moss, which grows around the twigs like a loose watch spring, are the exceptions.

Their cup-like structure provides shelter for treefrogs and other small wildlife.

All Tillandsia are epiphytic and do no harm to the host plant.

Tillandsia blooms

Flower spikes are distinctive features. They can project from a few inches to six or seven feet from the base of the plant.

During flowering, they have colorful bracts varying from pastel greens and yellow to bright red. These are often mistaken for the flowers, but they are not blooms. Small petals, often purplish in color, protrude from the bracts but only last about a day.

Seed pods mature gradually and eventually split open to reveal masses of plumed seeds that are dispersed by the wind.

Hummingbirds are one of the primary pollinators of the different Tillandsia species.



Tillandsia usneoides

Spanish Moss

Spanish Moss droops from its support in long, gray festoons. The slender stem is greatly elongated, twining, and covered with silvery scales.

It is commonly used as mulch around plants, Northern Parulas nest in it, and Swallow-tailed Kites use it extensively in their nests.



Leaves: Numerous short leaves, round in cross-section, and 1 to 2-1/2 inches in length are on the stem at intervals.

Blooms: Tiny, inconspicuous flowers are fragrant and occur singly on a very short stalk in the axils of leaves on younger portions of the plant. The petals are yellowish-green with curved tips. Two long bracts of unequal length extend well beyond the flower. It flowers from April through June and then sparingly throughout the summer.

Tillandsia recurvata

Ball Moss

Ball Moss prefers the exterior of tree canopies but accepts any support in the sun, even wire fences and telephone wires.

The leaves curl around themselves giving it the scientific name "recurvata."



Leaves: Leaves are slender, quill-like recurved and twisted, about 3/4 to 1-1/2 inches long and are covered with silver-green scales much like Spanish Moss. However, the stems curl around their supports, entangling several plants together to give the characteristic ball-like appearance.

Blooms: One to four flowers are on the end of a slender, stiff, wire-like stalk 2-6 inches long which has bracts only at the base and tip. Petals are violet. It flowers in August and September.

Tillandsia paucifolia

Pot-bellied Air Plant

This plant occurs in all situations, equally well-adjusted to deep shade where the leaves grow long, or to bright sun where they are contorted. Silvery scales on the leaves are rounded.

It is a small, compact species 4-8 inches tall and about the same in width.



Leaves: Leaves are thick, strongly contorted, slenderly pointed quill-like and covered with small gray scurfy scales. The plant body is short and bulbous at the base (urn-shaped).

Blooms: The flower spike is short, 2-4 inches long, strongly curved, undivided, and pinkish in color. There are few flowers on the bract, but the petals are lavender. It flowers from mid-June through August.

Tillandsia pruinosa

Fuzzy-wuzzy Air Plant

This is a really small plant, only 3-5 inches tall. Leaves are swollen at the base to form a bulbous looking portion.

The entire plant is covered with dense silver-scurfy pointed scales, giving it a silvery sheen with an undertone of dull green.

The northern limit of its range is in the Big Cypress Swamp, so it is found sparingly in Collier County.

Leaves: Leaves appear to have bulbous bases which are actually pseudobulbs and which usually overtop and hide the short flower stalks.

Blooms: The flower spike is contracted into an oval, flattened mass of pinkish bracts when flowering and bears 2-5 flowers with purple petals.



Tillandsia flexuosa
Twisted Air Plant

The *T. flexuosa* is readily distinguished by its bulbous base and thick leaves. It is usually in the tops of trees in fairly sunny situations, but it can be terrestrial.



The flower's inflorescence (stalk) is produced only once on each plant after which the "mother" plants can exist for years bearing offshoots, or "pups," which either break away to form another life cycle or remain attached until the original plant finally withers away.

Leaves: Leaves are silver-gray, up to 16 inches in length, and are strongly recurved and twisted. There are random white crossbands and a pronounced bulbous base.

Blooms: The flower stalk is slender, usually erect, 16-32 inches long, and the bracts do not overlap. Flowers are set out at an angle to the zig-zag stalk. Petals are pink. It flowers in August and September.

Tillandsia balbisiana
Reflexed Wild Pine

T. balbisiana is most easily recognized by its noticeably bulbous (urn-shaped) base and its very long, slender twisted leaves.



It is similar in appearance to *T. paucifolia* (page 2) but *T. paucifolia*'s leaves are much wider at the base while *T. balbisiana*'s are uniformly slender. *T. paucifolia* is more squat while *T. balbisiana* is taller and more slender.

This is the most common of the urn-shaped base air plants.

Leaves: Leaves are gray-green to reddish, finely scurfy, long and twisted and sometimes reaching 20 inches in length.

Blooms: The flower stalk is long, 8-16 inches, slender, and recurved. The bracts are often brilliant red but sometimes greenish. Petals on the bract are violet.

Tillandsia fasciculata
Stiff-leaved Wild Pine

This bulky plant is probably the most common and most conspicuous species.

In deep shade, its leaves may be as much as 40 inches long and strongly twisted. In the open, it is compact and highly colored.



When it grows on trunks, it forms large protuberances that give the host tree a knobby appearance. Large plants in tree tops are often mistaken for bird or squirrel nests.

Leaves: Leaves are long, slender, tapering, bluish green, reasonably erect to the point where they appear like vertical spikes, and have brownish bands at the base.

Blooms: The flower stalk is usually red, although green or yellow in some varieties. It appears braided because of the branchlets, and from each section of the braid, bright violet flower appear from January through the summer.

Tillandsia variabilis
Soft-leaved Wild Pine

This shade-loving species is locally abundant throughout the Everglades, Keys, and cypress swamps.

It is a low-growing plant and is seldom found high on trunks, as opposed to *T. fasciculata* which prefers to grow high.



Leaves: Leaves droop 8-20 inches and spread out in a widely curved arc from the base of the plant.

Individual leaves are fairly narrow, strongly cupped, gradually tapered, and covered with a silvery bluish. They have a soft texture and unlike most air plants, are very brittle, snapping off cleanly on bending.

Blooms: The flower spike is slender, usually curved or drooping, crimson, and can be up to 24 inches long. The actual flower petals are lavender purple with a white base in the bract.

Tillandsia utriculata
Giant Wild Pine

This is the largest air plant, having a spread of up to 48 inches. It is always a single plant, for it doesn't produce secondary plants from the base.



Large plants often fall to the ground and continue to grow, flower, and fruit normally.

It may take six or seven years before the plant grows a flower stalk. It dies after flowering and dispersing seeds.

Leaves: Leaves are pale green, very wide at the base, gradually tapering to a point, and often 24 inches or more in length. They grow outwards from the base and arch to give a cornucopia-like form.

Blooms: The stalk is erect, up to 70 inches tall. Petals are cream colored to ivory white. It blooms mid-summer to early fall, a few flowers at a time with the lowest flower opening first and the top flower last. The entire bloom may last up to three weeks.

Tillandsia setacea
Needle-leaved Wild Pine

Leaves of *T. setacea* resemble pine needles; hence, the name.

Plants can form a huge, dense colony that contains up to 50 individuals. The clumps can be 8-16 inches tall and nearly as wide.



It can grow on trunks of trees as well as horizontal branches.

Leaves: Leaves are needle-like and from 4-12 inches long. There are only 10-20 leaves to a plant. In the open with lots of sunlight, the leaves look copper-red or bronze in color. In more shaded areas, they are green.

Blooms: The flower stalk is very slender and about as long as the leaves. One to four flowers are grouped at the top. Petals are lavender. It blooms in early August through September.

Something Wicked This Way Comes... The Evil Weevil

Tillandsia and other native bromeliads are under serious attack. The culprit is a small, seemingly unstoppable alien beetle known as the "Evil Weevil," *Metamasius callizona*.

First identified in a Broward County bromeliad nursery in 1989, scientists believe the introduction began with an infested shipment of bromeliads to the United States from Mexico. It has now spread throughout southern Florida and into central Florida.

The insect, the Mexican Bromeliad Weevil, does not cause extensive damage to bromeliads in its native range in southern Mexico and Guatemala, but Florida offers it the opportunity for uncontrolled growth because there is a lack of any natural predator.

The adult beetle cuts a small slit at the base of the bromeliad and lays an egg. When the egg hatches, larvae of *M. callizona* cause the death of bromeliad by mining the plant's stem for food. Then they shred the inside of the leaves to make a cocoon and pupate inside the plant. After hatching, they burrow out leaving a small hole about the diameter of a pencil eraser at the base of the dead or dying plant.



The age and size of a *Tillandsia* contribute to its vulnerability. In Florida, the bromeliad thus far most attacked is *Tillandsia utriculata*, with lesser damage to *T. fasciculata*, *T. paucifolia*, and *T. balbisiana*.

The weevils target the largest and consequently the oldest plants which in turn compromises the breeding population of the plant colony. Because it takes years for a *T. utriculata* (Giant Wild Pine) to reach maturity, these plants' are the first to go because destruction makes the colony unable to reestablish itself after a weevil inundation.

The only *Tillandsia* that may be "safe" are those so small that they don't offer a food opportunity. But once the weevils exhaust the larger species, they migrate to the smaller plants, often consuming the entire plants and leaving only a small pile of shredded leaves on the ground.