

**1) Scrub** - Scrub is most likely the oldest plant community in Florida. Thousands of years ago, much of the state was underwater due to rising sea levels. Not all of the state was submerged, the exception being desert-like islands that we know today as scrub, which occur along the coast as well as the “backbone” of the state.

Plants and animals living on these islands were isolated. Subsequently, many species are found in scrub and nowhere else in the world. These species are “endemic”, and it has been estimated that 40-60% of scrub vegetation is endemic. Endemic animals include the Florida Scrub-Jay, the Scrub Lizard, and the Sand Skink.

There are different kinds of scrub habitats, which are characterized by vegetation structure and composition determined by soil type, geography, and fire patterns. The deep, porous sands derived from the old dune systems that are characteristic of scrub ecosystems make it difficult for plant and animals to obtain water and nutrients, and many have developed unique adaptations to the harsh, dry environment. Scrub can be classified as coastal scrub, oak scrub, sand pine scrub, rosemary scrub, slash pine scrub, or scrubby flatwoods. No matter what the type of scrub, this ecosystem is considered globally imperiled, because of its rarity or vulnerability to extinction due to some natural or manmade factor. Since it is high and dry, it is well suited for homes or agricultural use. Over 2/3 of the original scrub habitat has disappeared to these uses. This site was purchased to preserve some of the last of this endangered community.

**2) Jointweed** - *Polygonella robusta* -The genus *Polygonella* means “little knees” which refer to the thickened joints of the stems, thus the common name “jointweed”. Other names for this plant include “wireweed” and “October flower”, due to its flowering season. The fruit of this shrub has wing-like structures that allow for wind and water dispersal away from the parent plant.

**3) Sand Live Oak** - *Quercus geminata* -This oak, along with other oaks found in scrub habitats, grows smaller than conventional oak trees, which is thought to be an adaptation for living in an arid and harsh environment. Even better adaptations are the very thick leaves with edges that are rolled under, most likely designed for moisture retention.

**4) Love Vine** - *Cassytha filliformis* - Other names for this plant include “dodder” and “old man berry”. This vine that usually has matted stems is considered a hemi (half)-parasite. This is because this plant grows special root-like structures into their hosts, like this Sand Live Oak, to withdraw liquid. It is only considered a “half” parasite because the stems contain some chlorophyll. Birds and other animals eat the fleshy fruits when it ripens causing the spreading of the plant.

**5) HogPlum** - *Ximenia americana*- Also known as “Tallowwood”, this plant species has developed adaptations to herbivory, and contains sharp thorns thought to prevent grazers from attacking its foliage. However, the plant produces a tasty fruit that is relished by gopher tortoises, foxes, opossums, raccoons and other animals. This shrub belongs to a family of plants that are known for grafting their roots with those of nearby plants, oftentimes oaks, tapping into their water conducting systems. In such a harsh environment, it’s every plant for itself, and this tactic gives this species a distinct advantage.

**6) Lichens**- *Cladonia sp.* - Groundcover is very sparse in scrub, with open patches of bare sand being the norm. Groundcover usually consists of lichens and small herbaceous plants, with very little grass. There are about half dozen different species of ground lichens that can be seen carpeting the ground of Florida scrub. Lichens are actually a combination of 2 plants, a fungus and an alga. Neither of which can live alone, they exhibit obligate mutualism, a type of symbiosis. The alga provides the food, and the fungus provides the structure. They are very delicate and are sensitive to poor air quality. Ground lichens may take 50 years or more to recover from disturbance from foot traffic or ATVs.

**7) Ecotone** You may notice that you are standing between two different-looking ecosystems. You are at an “ecotone” or edge between ecosystems, with hydric hammock to the east and scrub to the west. As “tonos” is Greek for “tension”, “ecotone” translates to “ecologies in tension”. Ecotones can blend or be a sharp boundary line. They are particularly important for wildlife, as they are able to exploit more than one kind of habitat within a short distance. This can produce an “edge effect” with the area usually possessing a greater diversity of species.

**8) Palafoxia** - *Palafoxia feayi* - Feay’s Palafox is a Florida endemic. The attractive white and pinkish flowers bloom and fruit in the spring and again in the fall. Nectar and pollen from the flowers provides food for many insects including bees and wasps.

**9) Southern Red Cedar** - *Juniperus virginiana var. silicicola* -The variety name *silicicola* is Latin for “growing in sand”, which is an appropriate description for this southeastern coastal relative of the Eastern Red Cedar. Female trees produced the bluish-berry-like cones that are a favorite food of birds. This may explain why lines of cedars are common along old fencerows, as birds eat and process the berries while perched. Cedars were virtually eliminated as overstory species in the 19th century due to harvesting. The insect-resistant heartwood was ideal for the manufacture of chests and fence posts, and it was the main source of wood for pencils.

**10) Sand pine** - *Pinus clausa* - is the dominant overstory tree found in scrub ecosystems. It is also known as “scrub pine”, and has been incorrectly referred to as “spruce pine” in older books. It is a serotinous species, meaning that heat is required to open up the cones for the seeds to be released. This can occur from sunlight or by fire. Fire in scrub occurs on a longer interval than in other upland communities such as pine flatwoods, due to limited groundcover and minimal leaf fall from plants that would help carry fire. Without fire, scrub will succeed to a climax community known as Xeric Hammock. Land managers currently apply prescribed fire on uplands as a management tool to mimic mother nature. Adaptations of Sand Pines to the harsh scrub environment include fewer, smaller and thinner needles. The pine species normally found in wetter sites have as many as 5 needles per bundle, while Sand Pine only has 2 per bundle. They also have shallow root systems that can catch rainfall at the surface before it percolates down to the water table, but because of this, they are easily blown down.

**11) Dayflower** - *Commelina erecta* - Dayflowers used to be more common in southeastern Florida, but since this region only has about 5% of scrub habitat remaining, this plant has become rare. A similar exotic species, *C. diffusa*, has a creeping growth habit and is found as a common weed in lawns. The genus of the plant is named after the Commelin brothers, who were Dutch botanists. It has been reported that Linnaeus, the founder of binomial nomenclature, or the Genus/species method of classifying living organisms, used the petals of the Dayflower to remember the brothers. Two of them lived long lives and were represented by the two blue petals; one of them died young and was represented by the single white petal.

**12) Tough Bumelia** - *Sideroxylon tenax* - This plant, also known as “Tough Bully”, refers to the tough branches that possess sharp thorns. Another distinguishing characteristic of this species is the contrasting leaf coloration, with dark green upper surfaces and dark brown/copper lower surfaces due to dense pubescence, or fuzz. This plant inhabits coastal dunes and interior scrub of Florida, mainly along the east coast.

**13) Myrtle Oak** - *Quercus myrtifolia* - is one of a few “scrub oaks” that like the Sand Live Oak, grow short in stature and have adaptations to water conservation. Myrtle oak also has thick waxy leaves that are turned downward. Scrub oaks are important for wildlife; they produce acorns and provide nesting habitat for the threatened Florida Scrub-Jay.

**14) Prickly Pear** - *Opuntia compressa* - Prickly pears produce a tasty fruit that is food for many animals, including birds and gopher tortoise, the latter eating even the spiny pad with no problem. There is currently a South American moth in Florida that feeds on the cactus that could pose a threat to our

**15) Beautyberry** - *Callicarpa americana* -This plant is not a true scrub plant, but is found more in scrubby flatwoods, pine-lands and hammocks. The purple berries are important food sources of birds and other wildlife in the fall, including mockingbirds, catbirds and other species. Mockingbirds often establish territories around plants and drive off potential competitors.

**16) Scrub Hickory** - *Carya floridana* Also called “Florida Hickory”, this is the only *Carya* found growing in the white sand scrub of the central peninsula of the state; most hickories are found growing in moist woods or along riverbanks. The underside of the leaves are rusty in color, which is another distinguishing characteristic. Flowers appear in April that later produce a four-angled pear shaped nut.

**17) Gopher Apple** - *Licania michauxii* Another name for this ground-hugging plant is “ground oak”, which can be confusing as it is not an oak at all. Some people mistake it for Runner Oak (*Quercus minima*). True to its name, this plant produces a fruit that is relished by wildlife, including raccoons, opossums, foxes, and of course, the gopher tortoise. The species is named for French botanist Andre’ Michaux, who was scheduled to go on the trip that later became the Lewis and Clark expedition. Shortly before it left, the U.S. President learned that Michaux was actually a spy, and substituted an American in his stead.

Indrio Scrub Natural Area contains 23 acres of scrub, hydric hammock and seepage slope ecosystems.

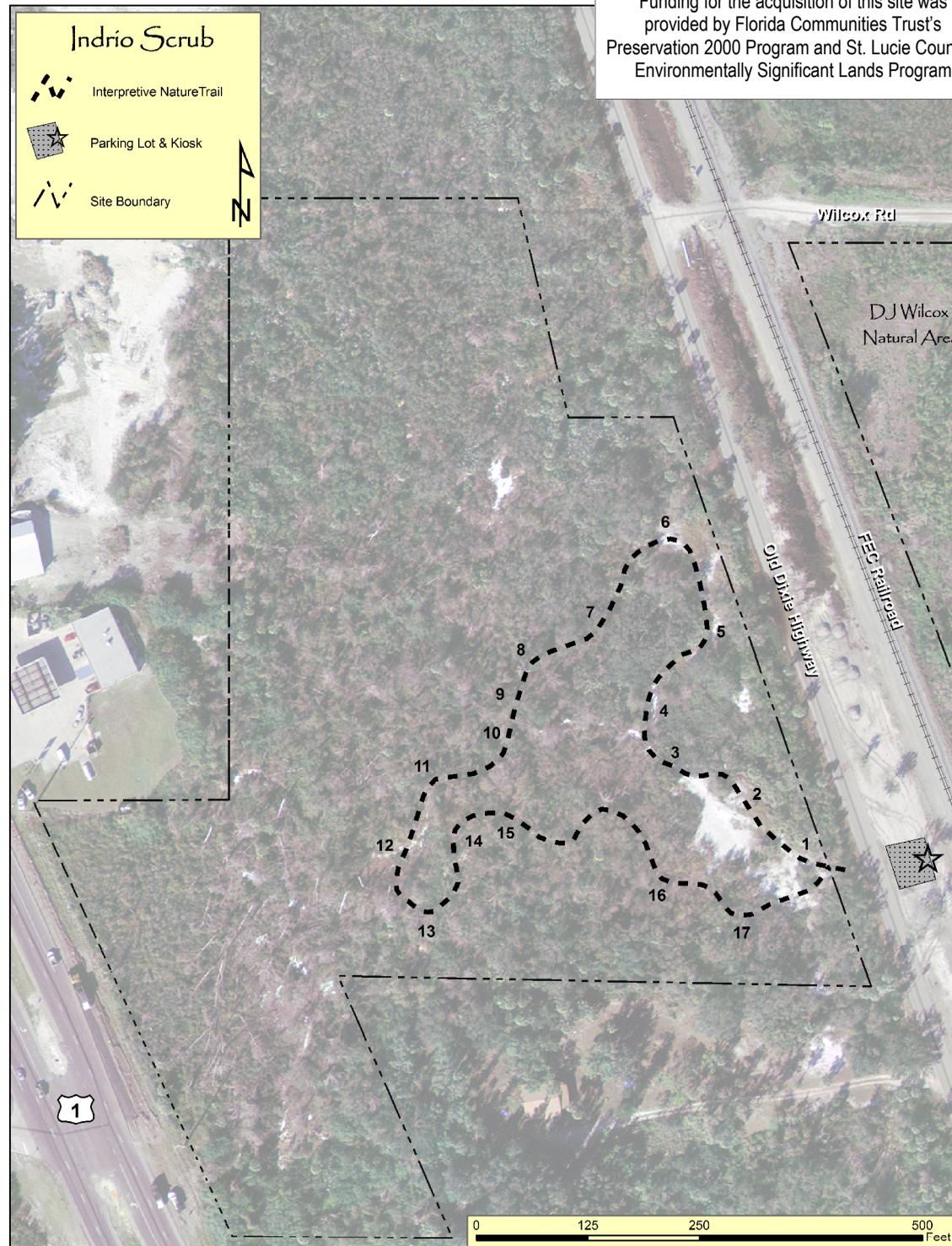
An approximate 1/2 mile long trail will take you through the scrub, the most dominant ecosystem of this site, considered to be one of the rarest ecosystem types in Florida.

Indrio Scrub is located 1000 feet North of Indrio Rd on Old Dixie Hwy. The parking area and kiosk is located on the Eastside of Old Dixie Hwy and the interpretive trail is on the Westside adjacent to the parking area.

### Guidelines and Safety Information:

- Be cautious of uneven trail surfaces.
- Please remain on the trails.
- Carry adequate drinking water.
- In case of lightning, seek a low area away from trees, fence lines and tall objects.
- In case of emergency, call 911.
- While hiking the trail you may encounter animals indigenous to this area. Please observe from a safe distance.
- Leave all plant life intact.
- Please leave site cleaner than you found it. "Pack it in, pack it out."
- Use at own risk.

**To learn more about St. Lucie County's natural heritage, there are more than 20 self-guiding interpretive trails located within the Natural Areas/Preserves. Each trail describes the most common plants, as well as significant geographical and historical features of the site.**



# Indrio Scrub Natural Area



## Interpretive Trail



**St. Lucie County  
Environmental Resources  
Department**

2300 Virginia Avenue  
Ft. Pierce, FL 34982

772-462-2525

[http://www.stlucieco.gov/erd/environmental\\_lands.htm](http://www.stlucieco.gov/erd/environmental_lands.htm)

Gates Open: Sunrise to Sunset