

Human Impact Lab: Hammock Hike

Loggerhead Marineline Center

Loggerhead Marineline Center is an ocean conservation organization and sea turtle hospital located adjacent to one of the most important sea turtle nesting beaches in the world. The Center features an on-site campus hospital, research laboratory, educational exhibits and aquariums, and also operates the Juno Beach Pier, which hosts world-class angling and sightseeing. The Center's conservation team works with 76 local and international organizations across six continents to form partnerships and share conservation initiatives and best practices that are core to its mission of ocean conservation. The Center is expanding and has launched its Waves of Progress capital expansion campaign, designed to accelerate and amplify LMC's conservation and education impact.

Our mission is to promote conservation of ocean ecosystems with a special focus on threatened and endangered sea turtles. Our vision is to be recognized locally and internationally as the leading authority in sea turtle education, research and rehabilitation.



Lesson Objectives


- I can describe two major coastal ecosystems.
- I can describe the difference between native and nonnative species.
- I can use a plant guide to identify plants in my local community.

Vocab

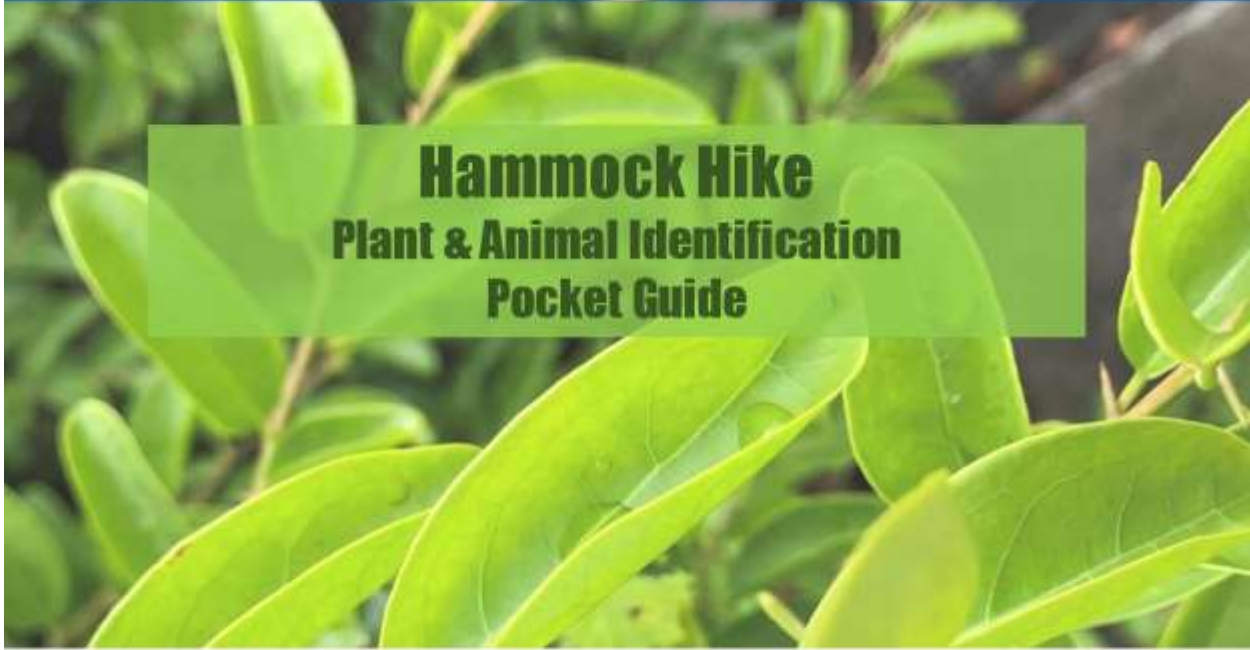
- Coastal sand scrub: An endangered subtropical ecoregion found on coastal and inland sand ridges and is characterized by a xeromorphic (dry) plant community dominated by shrubs and dwarf oaks.
- Maritime forest: A broadly inclusive term that can be used to distinguish woody vegetation growing near any of the world's oceans.
- Tropical hardwood hammock: a habitat that is found on higher elevations, making it (like the pinelands) a dry habitat.
- Native species: Species of plants or animals that occur naturally in an area (indigenous species).
- Nonnative species: Species of plants or animals that do not occur naturally in an area.

Resources

Hammock Hike: Plant and Animal Identification Pocket Guide



Visit Marinelife.org to learn more about Loggerhead Marineline Center!



Hammock Hike
Plant & Animal Identification
Pocket Guide



Juno Beach History

Juno Beach arose along the Atlantic shore of southeast Florida with the settlement of the ocean dune by a small group of motel and tourist court owners. The town was incorporated in 1953 with approximately 130 year-round residents and 1500 seasonal population. The town is located in an area with native civilization dating from 500 B.C. and European contact dating from sixteenth century A.D. Spanish exploration and settlement. Juno Beach is located on a barrier island along the Atlantic coastal ridge. Spanish wrecks lie offshore dating from late 1500's to early 1600's. The barrier island was created by the cutting of the Intracoastal Waterway. The Waterway was dredged along the watershed of old Lake Worth Creek and cut through to Lake Worth in 1898.



Mexican Clover

Look for Mexican Clover (pictured) in the field adjacent to the pavilions. This is also known as "Florida Snow," because it tends to carpet grassy areas in large blooms. There are three different species, but none of them are native to Mexico or related to the clover.

Natural Heritage and Acquisition Information

- Since October 1987, the Palm Beach County Department of Environmental Resources Management (ERM) has worked to preserve, protect, and enhance the land and water resources of Palm Beach County.
- The County acquired most of the natural area in six purchases from 1992 and 1999.
- Voters approved \$250 million in bonds to purchase the land for conservation purposes.



Gumbo Limbo Tree "Tourist Tree"

This is an iconic hardwood upland tree in Florida. It got the name "Tourist Tree" from the appearance of its red and peeling bark, which is similar to peeling sunburn of Florida's seasonal visitors. The branches have been used for fence posts, and the sap is used in the manufacture of glues, varnishes, and medicines.



Sand Scrub Oak provides important cover for small birds and exhibits a significant downward curl of its leaves help it retain moisture under prolonged exposure to sunlight. The pollen exposed during its flowering is largely responsible for spring-time allergies in South Florida.



Myrtle Oak is known for its contorted forms due to exposure to strong coastal winds. The acorns of this oak are an important food source for native wildlife and its dense thicket growth provides excellent nesting and cover sites for birds, including the endangered Florida Scrub Jay.



Chapman Oak, although more shrub-like in this Natural area, can grow up to 30 feet if conditions are right. As the weather cools in Florida, the slightly lobed leaves of this tree will turn yellow and red, making the Chapman Oak the "fall foliage" of South Florida.



Beach sunflower (*Helianthus debilis*)

This flowering shrub is related to the daisy and sunflower. It is easily identified by its yellow flowers with black or brown centers. The beach sunflower is a perennial; it can be found flowering all year long.



Blue-eyed grass (*Sisyrinchium atlanticum*)

This herbaceous plant is characteristic of its small purple flowers with yellow centers. Because of its beautiful appearance, butterflies are attracted to the plant's flowers.



Cabbage (sabal) palmetto (*Sabal palmetto*)

The Cabbage Palmetto is Florida's state tree, can stand 83 feet tall and is characteristic of its arched midrib. It gets its name cabbage palm because of the edible part of the palm that is also known as swamp cabbage. It was eaten by Native American and pioneers during Florida's settlement and is even still eaten today.



Coastal (Atlantic) panic grass (*Panicum amarum*)

Atlantic panic grass is a native grass found in coastal habitat with sandy substrates and can grow to heights between 3 to 6 feet tall. This grass is tolerant to moderate salt spray.



Cocoplum (*Chrysobalanus icaco*)

This shrub has leathery, oval leaves. In the spring, this plant will produce small, white flowers and in the summer, plum-like fruits will grow.



Dodder vine (*Cuscuta sp.*)

The plant cannot photosynthesize or produce its own food. Instead, dodder vine has the ability to wrap around its host plant, and feed off the nutrients taken up by the host, making it a **parasitic plant**.



Grape vine (*Vitis vinifera*)

The grape vine is also known as the wine grape. This plant produces edible berries but the fruit is very sour.



Hercules' club (*Zanthoxylum clava-herculis*)

The tree produces Xanthoxylins - oils that give it a citrus smell. Hercules' club is also known as the "toothache tree" because its leaves are believed to numb. It is found mainly in areas with dense salt exposure, making it common in dune habitats.

Please be careful to not touch this tree.



Narrowleaf silkgrass (*Pityopsis graminifolia*)

Narrowleaf silkgrass is an herb native to Florida. The herb's distinguishing feature is its silvery, grass-shaped leaves. The silvery tint is due to fine hairs on the leaves' surface. This plant produces yellow flowers from spring to fall. These flowers are characterized by their large number of petals – between eight and 12.



Partridge pea (*Chamaecrista fasciculata*)

This plant is in the same family as soybeans, which are a type of legume. Partridge pea is an herb characterized by yellow, five part flowers and leaves with leaflet pairs of about a dozen.



Prickly pear (*Opuntia humifusa*)

This plant has the spines that are characteristic to all cacti along its oval-shaped leaves. **Please, be careful not to touch this plant.** In spring, yellow flowers bloom and later, the prickly pear will produce a red/pink edible fruit that is a favorite of the native Gopher Tortoise.



Saltwart (*Batis maritima*)

Saltwart, also known as turtleweed, is a coastal wetland succulent shrub. It can grow to be two to four feet in height but is known to spread laterally rather than grow tall. In the spring and summer, small, white flowers bloom and cylindrical berries grow.



Saw palmetto (*Serenoa repens*)

Saw palmetto fronds are silver tinted and fan-shaped. The stem of the palmetto has sharp saws, hence the plant's name. Saw palmetto can be found all along the Atlantic Coast.



Sea grape (*Coccoloba uvifera*)

This tree can grow to be up to 20 feet tall and is distinguished by its large, round, stiff leaves. Clusters of edible grapes can be found on the female trees. The sea grape is the dominate woody species within coastal habitats such as Florida's dunes.





Spanish bayonet (*Yucca aloifolia*)

This plant, a relative to asparagus, is part of the family that includes agave and yucca. These plants have sharp, taunt leaves and can grow to be up to 10 feet in height. **The tips can puncture even thick clothing and are often planted under windows to deter break-ins.** In the spring, they will bloom a beautiful upright cluster of white blossoms.



Strangler fig (*Ficus aurea*)

The strangler fig gets its name because it slowly grows up and strangles the tree it is growing on. It can grow to be up to 60 feet in height and is moderately tolerant to salt. Its broad leaves, which never change color provide a dense canopy. This plant will produce small, round, green or yellow fruits that do not serve as a source of food for any wildlife; instead they tend to fall to the leaf litter.



Virginia creeper (*Parthenocissus quinquefolia*)

This climbing vine is often mistaken for poison ivy; however, it is distinguishable by its **five serrated leaves**, whereas poison ivy has three. It is able to climb by its tendrils, which grab onto tree trunks, fences, ect., hence the name "creeping vine." This plant produces a dark purple berry in late summer and early fall. **While the berries are poisonous to humans, they can be safely ingested by some animals such as deer and squirrels.**



Wild coffee (*Psychotria nervosa*)

This native shrub is known for its waxy, deep-veined leaves and small, red berries that grow from late summer to early fall. In the past, these berries were ground like other coffee, but they do not produce caffeine. Instead, this plant's berries produce a hallucinogenic chemical.



Wild Poinsetta (*Euphorbia cyathophora*)

Although Florida's wild poinsettia is not as showy as its Mexican relative that you see at Christmas time, it retains many of the same characteristics. Both plants have milky sap, and all parts of the plants are poisonous (don't let your dogs eat them). Both plants have very small greenish-yellow flowers surrounded by leaves, many of which are a combination of bright reds and green on the inner-most portion of the leaf.



Buttonwood (*Conocarpus erectus*)

This silvery tree gets its name from its hard, round seeds. It is known as the "fourth mangrove" in that it can tolerate somewhat saline environments but not to the extent of the red, black, and white mangroves.



Brown anole (*Anolis sagrei*)

The brown anole is a **non-native species**. The species is native to Cuba and the Bahamas and was first observed in the Florida Keys in 1887. It has been suggested that the brown anole may be responsible for decreased populations of the green anole due to habitat displacement and predation.



Curly tailed lizard (*Leiocephalus carinatus armouri*)

The curly tailed lizard is a **non-native species**. They are thought to be competition for and even predators of green anoles.



Eastern diamondback rattlesnake

This native species is the largest of the 32 recognized species of rattlesnakes. Eastern diamondback rattlesnakes spend most of their time coiled in palmetto thickets waiting to ambush prey. This species feeds almost exclusively on mammals.



Gopher tortoise (*Gopherus polyphemus*)

The gopher tortoise shares the burrows it digs with over 300 other species. For this reason, the tortoise is known as a keystone species. As a threatened species, the gopher tortoise receives special protection from the state of Florida including relocation before clearing land.



Raccoon (*Procyon lotor*)

Raccoons are very adaptable animals. They can be found in a large range of habitats feeding on a wide variety of food. Females usually have one to seven cubs in early summer.



Black racer (*Coluber constrictor priapu*)

In Florida, this non-venomous snake eats primarily frogs, lizards, and small snakes. Despite its scientific name, the snake is not a true constrictor. Females lay 6 to 20 eggs between May and August.

The Gulf Stream

- **The Gulf Stream** is a current within the Atlantic ocean that originates in Mexico, travels around Florida, up the east coast of the US and crosses over the Atlantic
- The Gulf Stream discovered by Ponce de Leon in 1513 near Cape Canaveral
- The average speed of the current is about *4 miles per hour*. It brings warm water from the Gulf of Mexico into the Atlantic ocean.
- This strong current of warm water influences the climate of the east coast of Florida, keeping temperatures there warmer in the winter and cooler in the summer than the other southeastern states. Since the Gulf Stream also extends toward Europe, it warms western European countries as well.
- Many species use it as a "**highway of the ocean**," including sea turtles!
- Nesting/mating sea turtles make their way to the Florida coast with the help of the gulf stream. After hatching out of the nests, hatchlings swim to **sargassum patches** and make their way to the Gulf Stream as well and eventually to the Sargasso Sea!
- Post-hatchling and young juvenile sea turtles will drift within surface currents

Witherington, B. E., & Witherington, D. (2017). *Florida's Living Beaches: A Guide for the Curious Beachcomber (Second)*. Sarasota, FL:

Preservation



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Backyard Bio-Blitz

Submit your plant photos to the Loggerhead Marinelifelife Center Backyard Bioblitz page on iNaturalist: <https://www.inaturalist.org/projects/loggerhead-marinelife-center-backyard-bioblitz>