

Volunteering at the beach!

Most of the environmental stewardship work that takes place on the beaches of Volusia County is conducted by dedicated citizen volunteers who have a little spare time and love the beach! You can get involved with the many volunteer programs offered by contacting the individual programs below.

Sea turtle nesting survey volunteers (May – October)

During sea turtle nesting season, dedicated turtle lovers start surveying the sandy beaches every day at sunrise to look for evidence of sea turtle nesting and hatching activity from the previous night. Since 1984 in Volusia County, Volusia Turtle Patrol (VTP) and Volusia Sea Turtle Society (VSTS) volunteers have led the efforts to protect nesting sea turtles, their nests and hatchlings. Both nonprofit organizations recruit volunteers who can dedicate at least one morning a week during nesting season (May through October) to commit to sea turtle nesting surveys. This work is physically demanding and is often hot and buggy.

If early mornings aren't for you, but you'd like to support these volunteer efforts, you can "Adopt a Nest." For a small donation, you will receive an adoption packet that includes a T-shirt and detailed information about your nest.

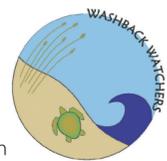
For more information or to volunteer with this effort, please contact VTP (for beaches north of Ponce Inlet) at 386-763-0977 or visit turtlepatrol.com or VSTS (for beaches south of Ponce Inlet) at 386-290-0737 or visit vstsin.org.



This sign is posted at many nests in Florida and on all nests in Volusia County.

Washback Watchers (August - November)

Are you an avid beachcomber who is interested in looking for more than just seashells at the beach? If you are, join the Washback Watcher program! This team of permitted volunteers is trained to find and rescue young sea turtles that wash ashore in heavy winds and surf. From August through November, volunteers help search through deposits of seaweed for sea turtles along their favorite section of beach. Training takes place annually in late June or July. For more information, contact Volusia County Environmental Management staff at 386-238-4716 or 238-4668 or visit volusiaseaturtles.org.



Beach clean-ups

Every time you visit the beach, you can help to keep it clean by picking up trash and placing it in the proper bin for disposal or recycling. A clean beach is more pleasing to look at and is also safer for beach wildlife!

Volusia County hosts the Ocean Conservancy International Coastal Clean-up on the third Saturday of every September. This worldwide volunteer event helps us to understand what trash is plaguing our environment by recording the amounts of each type of trash removed from the beach.

The Adopt-a-Beach program is another great way to help keep your favorite mile of beach clean. With support and provided supplies, adopters (families, companies, organizations) clean their designated mile at least four times a year and report their findings for an annual summary. For more information on these programs, contact Volusia County Environmental Management staff at 386-238-4716 or 238-4668 or visit volusiaseaturtles.org.

Please visit volusia.org/environmental to learn about other programs and to become part of the team!

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Beach tips for sea turtle nesting season in Volusia County May 1 – Oct. 31

Don't Shine Lights on the Beach

How: Keep all light sources and reflections off the beach by using light shields, blinds or by keeping fixtures low to the ground. Only use red LED flashlights and headlamps on the beach at night.

Why: Lights and fires may discourage sea turtles from nesting and attract baby turtles away from the water.

*Volusia County Lighting Ordinance/VC LAND DEV. CODE Art. XII § 1201-1209

Remove beach furniture at night

How: Take beach furniture, cabanas, tents and ALL beach equipment with you when leaving the beach. Do not store anything on the beach or in the dunes.

Why: Beach equipment is a tripping hazard for people and it may also harm, disturb, or trap nesting or baby sea turtles. When left out, it can damage the dune system.

Fireworks are ILLEGAL to possess or explode on the beach

Why: Litter from fireworks can harm sea life and explosions can disturb nesting sea turtles. *Beach Code/Ch. 20, Sec. 2025

Reducing artificial lighting for sea turtles

Bright lights can disorient and confuse sea turtles on the beach. On a natural beach, females choose dark beaches lit only by the moonlight to lay their nests. As hatchlings emerge from the nests 45 to 70 days later, they orient themselves toward the water using the dark silhouette of the natural sand dunes behind them and the open, lighter horizon over the water in front of them. Other wildlife, especially nocturnal animals, are also often confused and misled by artificial lighting.

Lights from homes, condominiums, businesses, signs, streetlights and other structures near the beach can be managed effectively without a great deal of effort, expense or compromise to personal safety, security and convenience. In many instances, good light management improves the appearance of the property and reduces energy costs. To help protect turtles from artificial lights on the beach, Volusia County developed a sea turtle lighting ordinance. Habitat Conservation Plan staff members work with our beachfront property owners throughout the year to reduce lighting problems along our beaches.

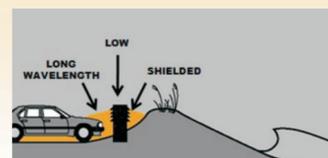
The Volusia County lighting ordinance has three main components for beachfront properties:

- 1) No light source from any part of your property shall be visible to a person standing on any part of the beach, regardless of the light's color.
- 2) No light from any part of your property shall directly or indirectly illuminate any part of the beach.
- 3) No reflective surface of a fixture shall be visible to a person standing on the beach.

Get an idea of your property's compliance by performing a nighttime lighting inspection from the beach! Turn on all your lights and walk on the beach to the north, south and east of your property. Can you see any sources of lights or reflective surfaces? Can you see your shadow on the beach? If you answered yes to these questions, you may be out of compliance with the lighting ordinance. To request staff assistance with bringing your property into compliance or to



Examples of sea turtle friendly exterior light fixtures from the manufacturer Electro Elf. No one fixture fits all situations with lighting compliance, so make sure to inspect your property at night!



Keep it low (to the ground), long (wavelength) and shielded!

Illustration courtesy of Florida Fish and Wildlife Conservation Commission (FWC)

To read the entire ordinance and get more information on compliant lighting, visit our website at volusiaseaturtles.org. To read about effects of artificial light on other wildlife, visit darksky.org or myfwc.com (and search "wildlife lighting").

Off the beach you can help wildlife by participating in "Earth Hour" annually and by turning out lights not in use. Reducing your energy consumption also lowers carbon emissions affecting climate change.

Beach wildlife emergency contacts

When an animal that lives in the sea washes ashore, it is called a stranding. Stranded animals are usually so sick or injured that they are no longer able to survive on their own and need immediate medical attention. Never push a stranded animal back into the ocean as it is unsafe and unproductive. Instead, get help immediately so the animal can receive appropriate medical attention. Please see the list below for who to contact for a beach wildlife emergency.

Call the Florida Fish and Wildlife Alert Hotline for any injured wildlife (sea turtles, dolphins, whales, manatees, birds, gopher tortoises): 888-404-FWCC (3922) or TIP@MyFWC.com

In Volusia County, for injured or stranded animals on the beach, call: Beach Safety (7 a.m.– 7 p.m.) at 386-239-6414 or Volusia County Sheriff's office (after hours) at 386-248-1777, ext. 1.

Right whale sightings (December - March): 888-97-WHALE (9-4253)

Fish Kill Hotline: 800-636-0511

Turtle and bird rehabilitation hospital (drop-off only) at the Marine Science Center: 386-304-5544 (turtles) or 386-304-5530 (birds)



Rehabilitated pelicans being released after successful treatment at the Marine Science Center in Ponce Inlet. Visit marinesciencecenter.com for visiting hours and more information.

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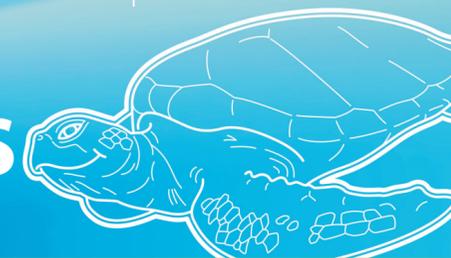
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Beach Eco News

volusiaseaturtles.org



Playing safe while minimizing disturbance to wildlife ensures that all beach users enjoy their day at the beach. From dolphins to stingrays and ghost crabs to wading birds, people share the beach with many animals that call the coast their home. Volusia County manages a Habitat Conservation Plan that minimizes potential impacts to protected species and their habitat from beach driving and implements environmental programs on the beach.

Year-round resident and seasonal wildlife depend on healthy, undisturbed, sandy, dune systems and clean, flourishing oceans for their survival. In Volusia County you can find threatened and endangered species of sea turtles coming up on the beach to nest, a variety of protected shorebirds resting and eating along the water's edge, dune-dwelling residents, such as gopher tortoises quietly eating plants and manatees swimming along the surf break line.

Play a leading role in protecting the earth for our health and our wildlife co-habitants.

To ensure the beach is safe for everyone please:

- Don't litter – please place all trash in proper receptacles. Recyclables (plastics and paper) can be placed in the yellow bins along the beach. Glass containers are not permitted on the beach. Visit greenvolusia.org to learn more!
- Remove tents, volleyball nets and other beach equipment and fill large holes before you leave the beach. These items are hazardous to people and wildlife when left on the beach overnight.
- Always view wildlife from a distance and never feed wild animals. Walk, run and bike around groups of birds resting or feeding to avoid causing harassment.
- Do not disturb the dune system or plants, use designated beach access points and keep activities off the dunes and dune vegetation.
- Barbecue grills are allowed on the beach, but please elevate them off the sand and remove all coals from the beach after use. Please do not bury the coals in the sand.
- Keep all artificial light off the beach at night including non-red LED flashlights and flash photography as lights can disturb sea turtles.

Volusia County beach seasons

The coastal ecosystem is an amazing environment that is home to a variety of wildlife throughout the year, but some animals found at the beach are only here seasonally.

Sea turtle nesting and hatching takes place between May 1 and Oct. 31. When coastal waters warm up in the spring and summer, manatees move from their inland freshwater wintering areas to the salty ocean or estuary and

can often be seen mating in large groups. Resident shorebirds lay their eggs directly on the sand and newly hatched birds learn to fly between March and August. Migratory shorebirds, like Piping Plovers, can arrive as early as August to feed and rest on the beach during the winter. These birds sometimes don't migrate back to their

summer nesting grounds until as late as May. Right whales swim into the area to give birth to calves between December and March and can be seen from shore. All these coastal animals depend on a clean and healthy coastal environment to live!



With an estimated population of only 500 individuals, right whale sightings from the beach are always a special event from December to March!

The beach environment

Ocean coastlines are breathtaking networks of plants and animals that work together to survive in an ever-changing ecosystem. All living things in this dynamic environment thrive in sandy soil, salt spray, exposure to extreme weather events, and the constant ambush of ocean waves.

Florida's east coast environment includes several hundred barrier islands that are naturally rich with sand dunes. Coastal animals rely on these dunes for protection, shelter and food. Each animal and plant plays an important role in shaping the landscape.

Gopher tortoises burrow homes in the dunes, which can



Always view wildlife from a distance. Binoculars are a great tool to get an up-close view of animals without disturbing their natural behavior.

provide shelter for up to 420 different animals! Beach mice also build burrows and forage on seeds from native plants. This, in turn, contributes to the distribution of these seeds to new areas. When onshore wind washes seaweed ashore from the ocean, it plays an important role on the sand. This seaweed, like the stems and roots of plants, helps to trap wind-blown sand to build the beach. As it gets covered with sand and breaks down, its nutrients fertilize the existing plants on the dune.

Natural sand dunes are also important for people living along the coast. Unlike armored beaches, natural beaches lined with sand dunes provide a strong buffer to defend against the damaging effects of major winds and intense storm surges by absorbing wave energy and naturally eroding instead of destroying property.

Plants like sea oats play an important role in stabilizing coastal sand dunes along natural shorelines.



Sea turtles 101

All species of sea turtles are considered endangered or threatened and are protected by state, federal and international laws. Sea turtles spend their lives in the ocean except when females crawl onto the beach at night to lay eggs in the sand.

In Volusia County, nesting season is from May through October and includes three different species of sea turtles: loggerheads, greens and leatherbacks. Once they crawl up the beach to the edge of the dunes, they dig a deep hole and lay about 100 eggs. Then the mother turtle covers the eggs with sand and returns to the sea, leaving behind a distinct track in the sand. One female can lay three or more nests in a season. About two months after eggs are laid, baby sea turtles emerge from the nest at night and crawl to the ocean with only their instincts to guide them off-shore to the sargassum sea or Gulf Stream.

On the beach, sea turtles play an important role. The placement of their nests near the base of dunes ensures the eggs will stay warm and dry. After the nest hatches, the eggs provide vital nutrients for the plants growing there. In return, the dune vegetation reduces erosion and retains the beach elevation needed to allow sea turtle nests still incubating to remain safe and dry from potentially devastating wave action. Sadly, many factors threaten sea turtles on the nesting beach and in the open ocean.

On developed beaches, nesting can be disrupted when females encounter human-made obstacles like seawalls and walkovers, beach equipment left out at night, and curious people approaching too closely. Sea turtles have also been



A nesting loggerhead gets covered with sand as she camouflages eggs she buried in the sand.

killed on the beach by falling into deep holes left open and by becoming disoriented or confused by artificial lights shining on the beach. In the ocean, fishing fleets often inadvertently catch sea turtles resulting in injury or death.

They can also be struck by boats as they surface to breathe. Pollution and marine debris also threaten their habitat. When turtles mistake garbage for food, it can make them sick by impacting their intestines with the debris. They also get entangled by trash. Fishing line, gear and ropes are especially dangerous kinds of trash for marine life.

You can help support natural beaches by acting responsibly while at the beach at night, picking up garbage, disposing of your trash, and recycling properly!

Guided, public nesting sea "turtle walks" take place throughout the state and are led by permitted sea turtle scientists and guides. Find out about a walk near you by calling 850-922-4330 or visit

2 myfwc.com/education/wildlife/sea-turtle/where-to-view.

A guide to coastal wildlife in Volusia County from sea to shore

Images provided by Dawn Witherington. Visit drawnbydawn.com



Did you know?

All wildlife should be viewed from a distance. Some animals are protected by laws that make it illegal to disturb them.

If an animal appears agitated or flees, please move away.

Monofilament fishing line can take more than 500 years to break down in the marine environment. Always be sure to dispose of all trash and recyclables appropriately!

Fishing line recycling bins are located throughout Volusia County.

The Volusia County Marine Science Center (MSC) in Ponce Inlet is the primary mitigation for the beach driving Incidental Take Permit and Habitat Conservation Plan program. The MSC provides an innovative learning experience where visitors can discover, enjoy and appreciate the many wonders that embody the marine world in Volusia County.

Of particular interest are the sea turtle and sea bird rehabilitation hospitals and the stingray touch tank.

To learn more about visiting or volunteering at the MSC please call 386-304-5545 or visit marinesciencecenter.com