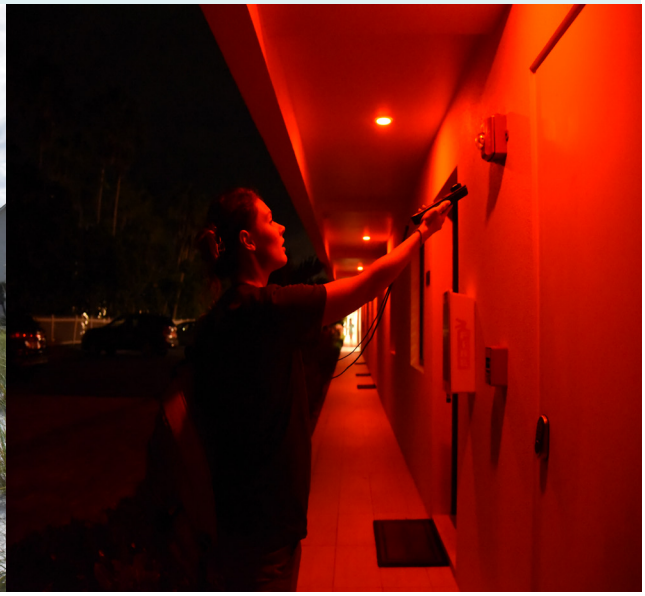
Sea Turtle Conservancy Newsletter

VELADOR

Science-Based Sea Turtle Conservation Since 1959 *Issue 3, 2020*

STC Uses Science and Experience to Shape Sea Turtle Protection Policies



Left: STC conducted dune plantings at a retrofitted property in Okaloosa County, FL. A healthy dune system stabilizes the beach, protects coastal properties from storm surge, and further prevents light trespass on the beach. Right: STC Lighting Specialist Cypres Ferran records a spectrometer reading on a beachfront property.

The Sea Turtle Conservancy (STC) has a long history of influencing state, federal and international policies that impact sea turtles and their habitats. Like the turtles STC works to protect, this policy work makes slow and steady progress, often taking many years working with stakeholders before goals are realized. In this regard, there are some significant developments in state and federal policy that will aid in sea turtle protection for years to come.

New Model Sea Turtle Lighting Ordinance in Florida

STC has long held that the existing Model Lighting Ordinance (Model) for sea turtle protection first promulgated as a regulatory rule (F.A.C. 62B-55) by the Florida Department of Environmental Protection (FDEP) in 1989, is outdated. New lighting technologies have been

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developed that significantly reduce impacts to sea turtles, and a lot has been learned about how beach front artificial lights impact sea turtles and what strategies can be implemented to reduce those impacts. Many of these advances are not reflected in the original Model.

As far back as 2013, STC began working to draft a new model lighting ordinance while simultaneously proposing to state agencies that the original Model needed to be rewritten and updated. In 2014, STC initiated a joint project with the Conservation Clinic at the Levin College of Law at the University of Florida to review the research on sea turtles and artificial lighting and incorporate best practices into a new model lighting ordinance. That year-long project resulted in a comprehensive, science-based report and the first draft of a proposed new lighting ordinance for local governments.

While some local governments have since relied on parts of this proposed draft lighting ordinance, most existing local lighting ordinances relied on the outdated DEP rule. In late 2018, the Florida Fish and Wildlife Conservation Commission (FWCC) reached out to the Law School's Conservation Clinic to work jointly to refine its draft model ordinance with the intention of replacing the language in the existing FDEP Model. Meetings were held and a two-day stakeholder workshop facilitated by the Archie Carr Center for Sea Turtle Research and FWCC took place in Gainesville in November, 2019.

STC's lighting team played a significant role in those meetings offering ideas to improve the draft model. Based on the outcome of this collaborative effort, FDEP then initiated "rule making" to replace the original Model with the new revised draft model, which is based largely on the original project between STC and the Conservation Clinic. Public hearings were held on December 11, 2019 and February 28, 2020 to finalize the wording of the new draft ordinance. STC attended those hearings and submitted extensive comments as it continued to advocate for a strong new model lighting ordinance. We expect the new draft model lighting ordinance to gain final approval by FDEP in the fall and replace the existing outdated Model.

The 2019 Florida Beach Bill

Beach nourishment involves the dredging of sand primarily from offshore and placing that sand on eroded beaches and is big business in Florida. A third of Florida's sea turtle nesting beaches are regularly renourished and this amount is certain to increase in the coming years as seas continue to rise. Beach rebuilding is the primary component of the state's beach protection and management program.

The state pays 50% to 75% of the cost of beach renourishment projects, including those projects that address erosion caused by the state's engineered inlets, with local governments picking up the remaining costs. Since 1989, the state has spent about a billion dollars repairing Florida's beaches through the FDEP program known as the Beach Management Funding Assistance Program (BMAP). Currently the state annually allocates $50 million to

VELADOR {bel.a.dor}

In Caribbean cultures, ***Velador*** translates as "one who stands vigil" —referring to turtle hunters who waited at night for turtles to come ashore. STC claims this title for its newsletter, and around the world STC's researchers and volunteers are replacing poachers as the new veladors. The ***Velador*** is published for Members and supporters of the nonprofit **Sea Turtle Conservancy**. STC is dedicated to the conservation of sea turtles through research, advocacy, education and protection of the habitats upon which they depend.

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Beach nourishment is an important option for restoring sea turtle nesting habitat that is lost to erosion. The placement of sand is a far better option for sea turtles than the construction of sea walls, which often blocks access to suitable nesting habitat, as seen in this photo. New ranking criteria used to allocate limited beach restoration funding in Florida now adds a priority for projects that benefit sea turtles as well as safeguarding upland property.

the BMAP. However, local coastal government requests for this state funding always far exceed the available money. In order to determine who gets this limited funding the FDEP had relied on a complicated point scoring system to rank projects based on a set of criteria. Funding goes to the highest ranked projects. The ranking system has long been fraught with problems and biases. The Florida legislature had grown increasingly wary of the ranking system as more and more beaches became critically eroded. In 2014, the Speaker of the Florida House sent a letter to a number of state agencies calling for a revamping of the criteria with an emphasis on storm damage reduction, economic return on investment and other proposed broad new criteria.

STC began working with key stakeholders and lobbyists revamping the criteria to comply with the new legislative mandate, advocating for criteria that also addressed threats to sea turtle nesting habitat such as coastal armoring. A Beach Bill addressing these issues was filed in the 2017 legislative session. It took three years to pass this bill which become law in 2019. The legislation defines over 20 ranking criteria for beach nourishment projects totaling 100 points. FDEP then began the complicated process of developing a new regulatory rule to implement the legislation. Rule development hearings were held in 2019 and twice in 2020, with final approval of the new rule (F.A.C. 62B-33) in June of this year.

As required in the 2019 legislation and the new implementing rule, the BMAP ranking system now includes a new Environmental Enhancement (EE) criteria aimed at improving sea turtle nesting habitat which STC has been actively promoting since 2014. The EE criteria is worth 5 points out of a possible 100 points, however, because project funding is so competitive we expect it to make a difference as permittees strive to score as many points as possible. The EE criteria includes a number of requirements that must be met to qualify for the 5 points; the project is in an area designated as critical beach habitat with extensive shoreline armoring (currently critical habitat has been designated for loggerhead sea turtles, piping plover, and some species of beach mice), or the project is located in areas outside of critical habitat where armoring exceeds 50% of the project's shoreline, and projects should include sea turtle friendly best management practices that exceed what is currently required through the federal permitting system for beach nourishment. This is the first time that sea turtle nesting habitat protection and improvement has been specifically incentivized in Florida's Beach Management Assistance Program, and STC played a major role in achieving this new incentive.

Gary Appelson
Policy Coordinator

STC's Gary Appelson inspects a sea turtle nesting beach impacted by a recent hurricane.

Tour de Turtles

STC recently kicked off its 13th annual Tour de Turtles migration marathon! The Tour de Turtles is a fun, educational journey that follows the migration of sea turtles from their nesting beaches to their foraging grounds. Through the use of satellite telemetry, STC is tracking 15 sea turtles, including leatherbacks, loggerheads, greens and one hybrid green/hawksbill, to determine how far they swim. The one to swim the furthest distance by October 31 "wins."

Each turtle is also swimming to raise awareness about the threats sea turtles face. These threats include light pollution, beach erosion, marine debris, oil spills, commercial fisheries, illegal hunting, invasive species predation, climate change and more. The data collected during the Tour de Turtles helps researchers, conservationists and governing agencies make more informed decisions about sea turtle conservation methods and policies. Since the launch of the Tour de Turtles in 2008, STC has tracked more than 200 turtles.

This year's Tour de Turtles is special for several reasons… For the first time ever, it is comprised entirely of turtles from Florida. This is also the first time STC has tracked leatherbacks from Florida, thanks to a partnership with Florida Leatherbacks, Inc., and endangered green turtles from the Archie Carr National Wildlife Refuge. Typically the organization travels to Panama, Costa Rica, Cuba, Nevis and other international sites to satellite tag turtles, but was limited to Florida this year due to COVID-19.

Meet this year's turtles and their sponsors!

- Hope - Turtle & Hughes, Inc.
- Jessie - Certina
- Tamarind - Atlantis
- Tartleby - tarte cosmetics
- Freckles - STC
- Nevada - Florida Leatherbacks, Inc.
- Kermit - Disney Conservation Fund
- Miss Piggy - Disney Cruise Line
- Robin - Wildlife Collections
- Leia - Wildlife Collections
- Koa - honu
- Sandy - Ocean's Lending
- Mandy - Shark Reef
- Maisy - The Turtle Hospital
- Gim - gimMe Snacks

You can support the turtles by "adopting" them or sharing on social media to help raise awareness! Learn more about each turtle and follow their migrations at ***www.tourdeturtles.org.***

Tour de Turtles

Checking in with Current and Previous Turtle Competitors

Reefie - Green Turtle Tortuguero 2017

Green turtle Reefie was equipped with a satellite transmitter in July 2017. Her transmitter stopped sendings signals in February 2018, but she was recently spotted this July by STC researchers nesting on the same section of beach! She was identified by her flipper tags, as there was no evidence of the transmitter attachment, a good sign for the health and well-being of the turtles we tag!

Tamarind & Jessie - Leatherbacks Florida 2020

Originally tagged on May 23, adult females Tamarind and Jessie were both spotted nesting again on the same beach by Florida Leatherback Inc. researchers on June 1.

Sage - Green Turtle Tortuguero 2019

In April 2020, STC noticed that Sage's transmitter was showing her on land for several days in Nicaragua. It was later confirmed that, sadly, Sage was killed by fishermen off the coast of Nicaragua and her transmitter was recovered. We have seen active satellite tracked turtles being harvested or caught by people in other countries, including Suriname, Cuba and Columbia. This would be the first satellite tagged turtle to be killed in Nicaragua while being actively tracked.

Track our turtles with STC's Turtle Tracker at *conserveturtles.org/sea-turtle-tracking-active-sea-turtles*

STC's Long-Term Leatherback Monitoring Data Helps Federal Agencies Determine the Species Still Warrants Full Protection

After a long and careful review, the National Marine Fisheries Service (NMFS) and the United States Fish and Wildlife Service (USFWS) have determined that leatherback turtles still warrant their listing as "endangered" under the US Endangered Species Act, despite a petition by commercial fishermen asking that protections be weakened and the species be re-classified as simply "threatened."

STC was in stauch opposition of this petition from the very beginning. One of the greatest threats leatherbacks face is being accidentally caught by commercial fishing operations. When they are caught underwater in nets or on baited lines, they drown if they can't reach the surface for air. They can also sustain internal injuries from hooks or external injuries from entanglement, including strangulation or amputation.

In October of last year, a New Jersey-based organization representing commercial fishing interests quietly introduced a federal petition to classify the Northwestern Atlantic leatherback population as a distinct population and to change the status of this population under the Endangered Species Act from "endangered" to "threatened."

Photo credit: Florida Leatherbacks, Inc.

In the petition, the group states that the Northwestern Atlantic leatherback population (including leatherbacks that nest in Florida, Costa Rica, and Panama) should be listed as "threatened" because it is "not currently at risk of extinction (i.e., endangered) due to its overall population size." But the scientific evidence submitted with the petition did not take into account data from 2014 and forward that disputes this claim. Leatherback nesting has fluctuated in Florida since 2014, but the overall trend appears to be slightly downward. In addition, over the last two decades, STC has documented a severe decline in leatherback nesting at Tortuguero, Costa Rica. Furthermore, the nesting trend for this species at Chiriqui Beach, Panama, which had shown positive growth over a decade ago, actually shows a slight decline since 2005.

Photo credit: Guillermo Plaza Rodriguez

The future of leatherback sea turtles is also at risk due to climate change and global warming. Following a global trend, south Florida sea turtle hatchlings are becoming increasingly female due to warmer-than-average sand temperatures. Hot sand is also causing turtle embryos to overheat in their nests at STC's research sites in Panama, reducing the hatching success rate to less than 20% in many areas monitored by STC.

STC submitted substantial scientific data and comments to NOAA, including the data we collect in Costa Rica and Panama on the nesting status of this species, to help the agencies make their determination. This is why we monitor nesting beaches to collect this vital data every nesting season in Costa Rica and Panama. We are proud to show how our work makes a real difference!

Lighting Project Update

Four Year Phase II Lighting Retrofit Project Completed

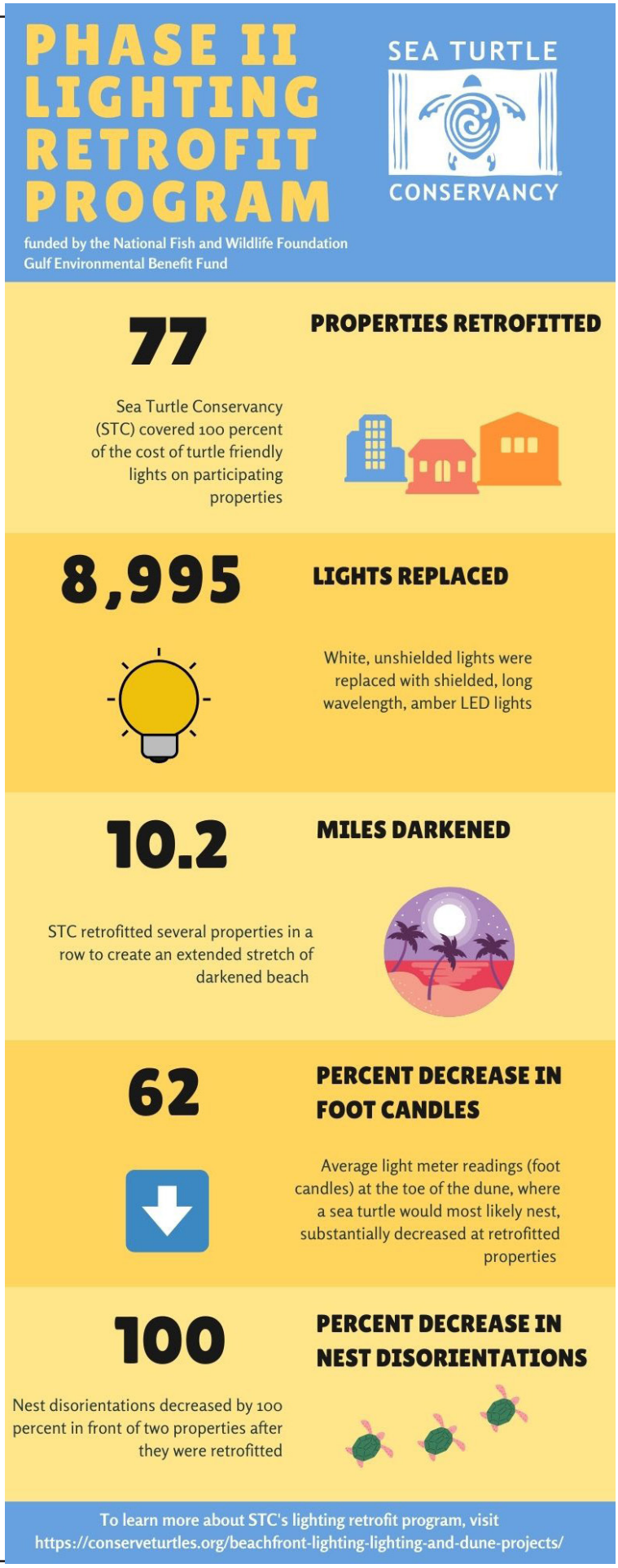
In August, Sea Turtle Conservancy (STC) completed its four-year Phase II lighting retrofit project, funded by the National Fish and Wildlife Foundation's Gulf Environmental Benefit Fund, which was established to mitigate the impacts of the Deepwater Horizon Oil Spill. From April 2016 to August 2020, STC retrofitted beachfront properties in the Florida Panhandle and Southwest Florida with turtle friendly alternatives (see infographic, right).

STC retrofitted this single-family home (above) on Pensacola Beach during its Phase II grant. Thanks to STC, the lights on this home are now sea turtle friendly!

In addition to these accomplishments, during Phase II STC coordinated dune plantings at 10 retrofitted properties to further screen light and stabilize the primary dune; empowered 104 code enforcement officials and building professionals to manage problematic beachfront lighting through interactive workshops; and educated thousands of people about turtle friendly lighting through media coverage, physical and digital literature, presentations at international conferences, and traveling lighting displays.

Throughout this project, STC restored critical sea turtle nesting habitat in this region and beyond, which has led to a decrease in the number of hatchlings disoriented by lights and may contribute to an increase in the number of turtles in the Northern Gulf Coast Recovery Unit.

Stacey Gallagher
Lighting Specialist



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2021 Calendar Contest

Calling all photographers! STC is looking for talented photographers (amateur or professional) for our annual Sea Turtle Calendar Contest! We are only accepting photograph submissions for the 2021 calendar, NO artwork.

Photo submissions along with the Photography Permission Form (available on website) should be sent to lexie@conserveturtles.org no later than September 30, 2020 and must follow this criteria:

- Include photographer's name, brief description of image, location, date it was taken, and Photography Permission Form
- Image must be submitted by the actual photographer
- Image must show turtles in a natural setting and follow turtle-friendly guidelines (i.e. no flash images of nesting sea turtles, no images of people handling sea turtles, etc.)
- Initial email submissions should be a small file (no larger than 10 MB) but a high resolution version of the image must be available for final printing if selected
- Photographers may only enter a maximum of three photos

The winners will be announced in STC's monthly e-newsletter, website and social media. Each winner will receive two free calendars and an STC t-shirt! We can't wait to see some beautiful submissions!