

VELADOR

Science-Based Sea Turtle Conservation Since 1959

Issue 3, 2022

Help us Raise Funds for Urgent Turtle Research & Protection Efforts in Tortuguero



A green turtle returns to the Caribbean Sea after nesting in Tortuguero. Photo credit: Simon Waitland.

Each year for Giving Tuesday (the Tuesday after Thanksgiving), Sea Turtle Conservancy (STC) targets one of its most pressing sea turtle protection projects as the focus for this annual charitable event. The campaign starts with a pledge from STC’s Board of Directors to match the individual donations provided by STC members and supporters, up to a certain amount. This year’s challenge match from the Board will be about \$30,000, which means our Giving Tuesday

fundraising goal is \$60,000 or more.

All funds donated for this year’s Giving Tuesday will be directed toward STC’s turtle research and protection efforts in Tortuguero, Costa Rica—the birthplace of sea turtle conservation. STC’s work in Tortuguero began back in the 1950s, making it the longest-continuous turtle conservation project in the world. Many of the turtle monitoring and

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Inside: Hurricane Update



Holiday Gift Guide

... from cover

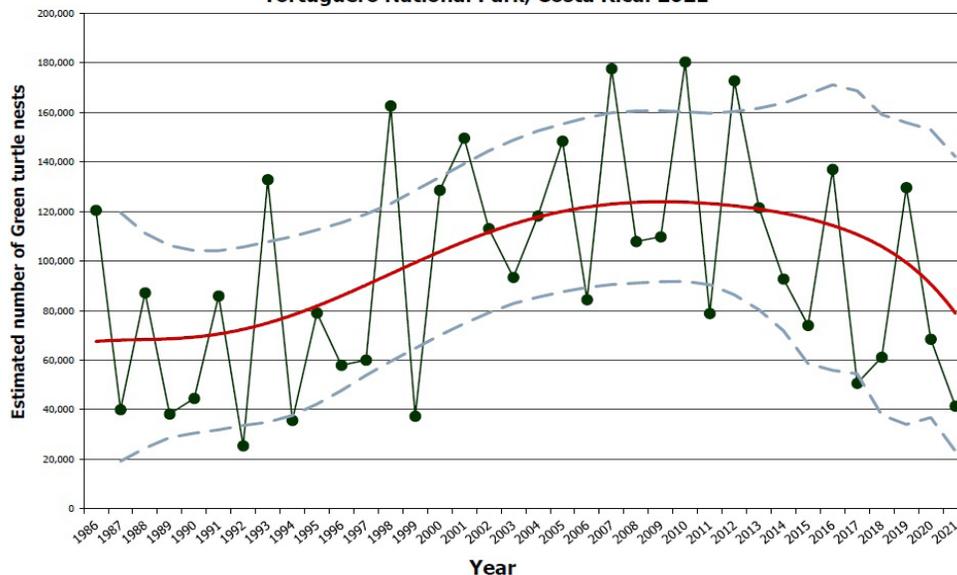
protection efforts developed at Tortuguero are used today by sea turtle conservationists around the globe. In fact, many of the world's leading sea turtle scientists and project leaders got their start as STC Research Assistants in Tortuguero. Most importantly, as a result of STC's efforts over the last six decades, the green turtle colony that nests at Tortuguero recovered from near the brink of extinction to being one of the two largest green turtle populations in the world.

With all the history and success of this project, STC is concerned knowing that the gains made on behalf of Tortuguero's green turtles could be in jeopardy for reasons that are poorly understood. Our strategy of systematically reducing threats to sea turtles both on the nesting beach and at sea produced measurable results over the decades. Beginning in the late 1970s, approximately 25 years after conservation efforts started at Tortuguero, the green turtle population began increasing in size. The timing was not a coincidence. Green turtles take at least that long to reach maturity—meaning hatchlings that were protected and released in the 1950s should have started returning to Tortuguero as adults to nest by the end of the 70s. That's exactly what our data indicates happened.

From the 1960s up to 2012, the number of green turtle nests deposited in Tortuguero grew by over 600%. During high nesting years, it was common to document well over 150,000 nests in a season. The establishment of Tortuguero National Park, the elimination of global sea turtle trade, the banning of turtle and egg consumption at Tortuguero, and the development of sea turtle eco-tourism as an alternative livelihood for the local community all had positive impacts—proving that sea turtle conservation efforts developed by STC worked. Tortuguero green turtles were on the path to full recovery.

But something unexpected began to happen over the next decade. Starting in 2013, we began documenting a declining trend in nesting. It wasn't a dramatic drop. In fact, given the phenomenal growth of the population

**Nesting Trend Green Sea Turtle (*Chelonia mydas*) 29 Km
Tortuguero National Park, Costa Rica. 2021**



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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Green turtle hatchling in Tortuguero. Credit Julian Gervolino

prior to this time period, STC was not particularly worried about a few “down” years of nesting. The factors that cause annual turtle nesting numbers on any beach to ebb and flow still are not well understood. However, our cautious observation of the nesting trend turned into real worry in 2021, when after several down nesting seasons, the number of nests dropped to the lowest level in 25 years (about 40,000 nests for the entire season). This is still a lot of green turtle nests, and it reaffirms Tortuguero’s global importance for this species. Nevertheless, it sparked worry knowing that a little over ten years ago the number of nests hit 180,000 during a single season.

While our preliminary analysis of the 2022 nesting season indicates an encouraging uptick in nesting, the trend over the last decade still has us concerned that something unusual is happening. And that’s bad news for green turtles throughout the Caribbean and Atlantic. With funding raised through this year’s Giving Tuesday campaign, STC will launch important new studies and

: conservation efforts to help identify and address
: the threats that have caused the population
: decline. There probably is not a single “smoking
: gun.” Rather, it’s more likely that the collective
: impact of several threats is affecting the
: population. Our work will focus on identifying
: new marine foraging sites used by green turtles
: where they may be experiencing previously-
: undocumented hunting pressure. We also will
: work more strategically with the community
: and natural resource agencies in Tortuguero to
: curtail illegal hunting of turtles and eggs, which
: increased dramatically during the pandemic and
: still remains at an elevated level. It is entirely
: possible that unforeseen factors related to climate
: change could be impacting turtle reproduction, so
: this is another area where our focus will turn.

: STC has proven that it has the skill, dedication
: and tenacity to ensure the long-term survival
: of sea turtles. We will not allow our decades of
: success on behalf of sea turtles at Tortuguero
: to be undone, but we need your help. Please
: consider making a special donation for this year’s
: Giving Tuesday (donations will be accepted for
: this purpose through the end of the year).

Help support STC’s Giving Tuesday

Fundraiser by donating in one of three ways:

1. Online at conserveturtles.org/GivingTuesday or facebook.com/conserveturtles
2. Call 352-373-6441 with your credit card info
3. Mail a check with “Giving Tuesday” in the subject line. All checks received with “Giving Tuesday” in the subject line will count towards the campaign if received by December 31st. 

Hurricane Update

Hurricane Ian Impacts Sea Turtle Lighting Progress in SW Florida

On September 28, Hurricane Ian made landfall near Cayo Costa, a barrier island in Lee County, as a strong Category 4 hurricane with maximum sustained winds of 155 miles per hour. A storm surge with an inundation of 12 to 18 feet above

: ground level was reported along the Southwest
: Florida coast. Months after the storm, community
: members in Southwest Florida are still deeply
: involved with debris clean-up, determining the
: extent of damage to homes and businesses, and
: evaluating whether they will be able to remain
: in the coastal cities that they called home for
: decades.

: Unfortunately, more than one-third of STC’s
: in-progress and completed retrofitted properties

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were damaged or destroyed by the storm. It is likely that many of STC's retrofitted properties in Lee County – including Hickory Boulevard on Sanibel Island that was mentioned in the last issue of the *Velador* – may need to be completely demolished and rebuilt. Several of our retrofitted properties on Fort Myers Beach and surrounding areas in Collier and Charlotte Counties were also severely damaged by high winds and storm surge.

In addition to the horrific loss of life and property, the environmental fallout of the storm is just now becoming evident. Thousands of gallons of boat fuel from sunken vessels and landward gasoline storage tanks have leaked into the waterways; critical wastewater management infrastructure in the area was damaged, leading to sewage spills; and seagrass meadows off the coast of Lee County, prime foraging grounds for sea turtles, may have been destroyed by the storm.

The impact of Hurricane Ian on Florida's sea turtles, however, could have been much worse if the storm hit earlier during nesting season. Most of the sea turtle nests laid in 2022 had already hatched by the time Hurricane Ian hit. Still, an estimated 2,200 loggerhead nests and 8,000 green turtle nests were incubating in areas significantly impacted by the storm, and those likely were lost completely. Fortunately, nesting sea turtles have evolved to account for potential losses by laying multiple nests in one season.

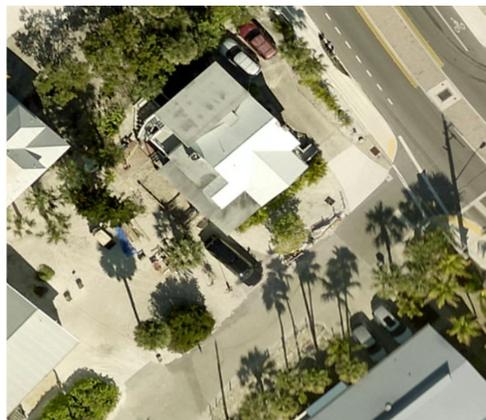
One of the most immediate threats to sea turtles after Hurricane Ian will be the reactive, short-sighted responses that coastal property owners and government agencies may carry out. These include an increase in seawall and coastal construction projects that can impact nesting and reproductive success and exacerbate erosion. In a rush to encourage businesses back to fragile barrier islands as soon as possible, coastal governments may also approve hasty development plans in the same places that were just leveled by the storm. In the coming months, STC will closely watch these issues and, when necessary,



A sea turtle nest is exposed after high tides from a hurricane cause beach erosion. Photo credit: Inwater Research Group.

serve as a voice for sea turtles when poor coastal development decisions are being considered.

Although Hurricane Ian had devastating effects on the Southwest Florida community and its environment, STC has also witnessed some heroic, hopeful moments while completing damage assessments of our properties. Local government officials from neighboring towns are making frequent trips to assist the hardest hit communities with cleanup. Marine turtle permit holders are continuing to collect hatching and emergence success data in their survey areas. Despite suffering damage from the storm, some property managers that were beginning to complete contracts with STC are still interested in moving forward with a lighting retrofit. STC has coordinated with the National Fish and Wildlife Foundation, which funds our lighting retrofit program, to extend the time period of the project and allow for more flexibility in dealing with properties impacted by the storm. We're working very hard to ensure that the positive results of our sea turtle lighting project survive even in areas most impacted by the storm. 🐢



Hurricane Ian completely destroyed a single-family home on Estero Blvd. in Fort Myers Beach that had executed a lighting retrofit with STC.

Cause-Related Partners

These companies give back to STC when you shop on their website! View all the companies that STC partners with at www.conserveturtles.org/partners.



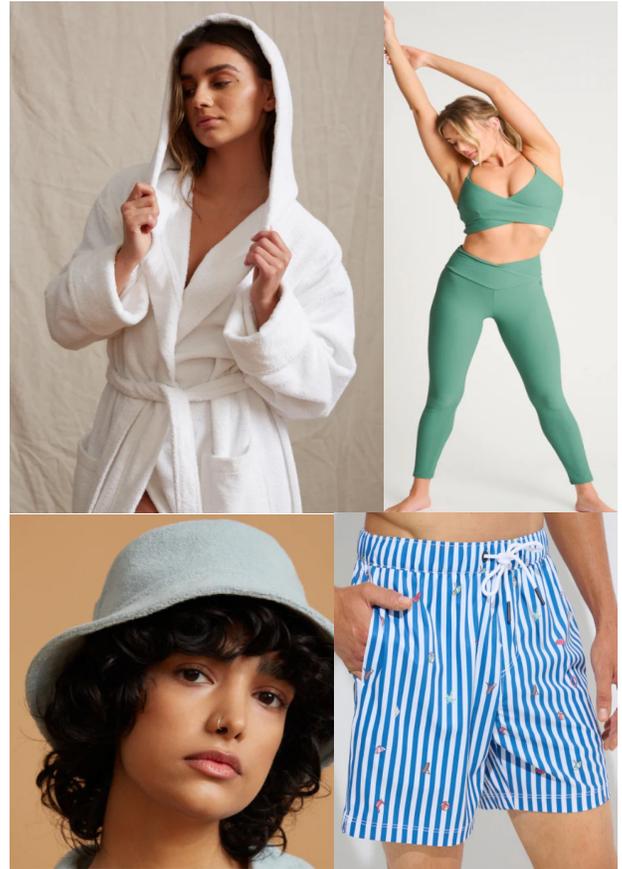
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TRACK A REAL SEA TURTLE.

In partnership with  **SEA TURTLE CONSERVANCY**

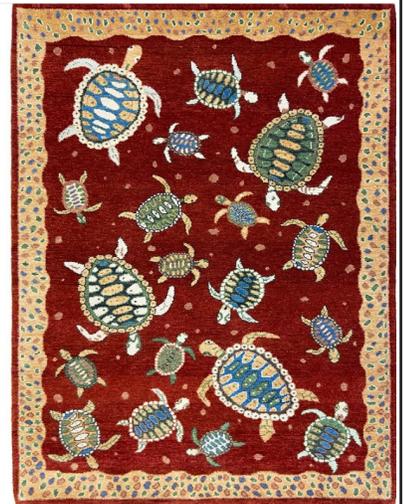
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Each bracelet comes with an STC turtle to track!
myfahlo.com



Everyday Sunday

Apparel and swimwear to support STC.
everydaysunday.com



SEAKEEPER Towels by 1888mills

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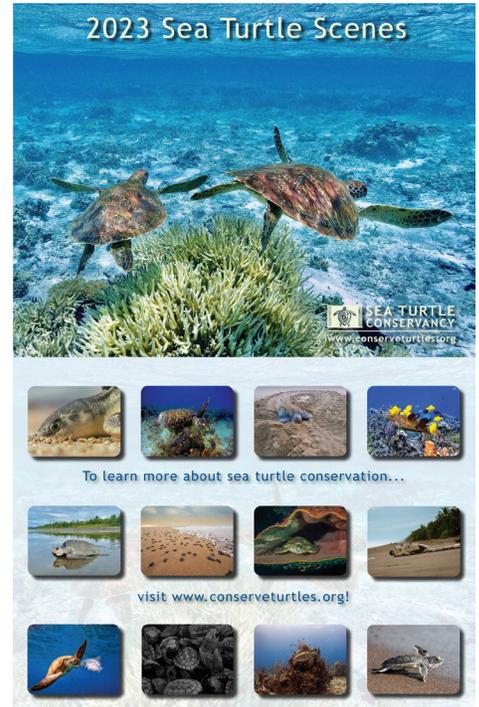
Turtle Beach Designs
Hand-woven wool rugs.
turtlebeachdesigns.com

Holiday Gift Guide

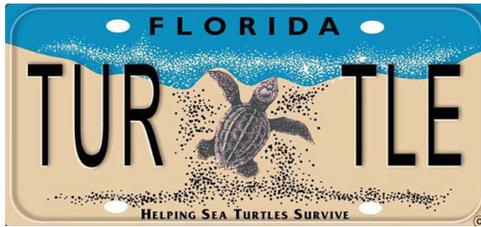
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B.



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- A. **2022 Holiday Ornament** - Engraved with the year 2022 on the back. **\$9.95**
- B. **2023 Sea Turtle Scenes Calendar** - 11" x 17" (open) wall calendar features some of STC's favorite sea turtle scenes taken by talented photographers from around the world. **\$14.95**
- C. **Replica Sea Turtle License Plate** - mock version of Florida's sea turtle speciality plate for the front of your car. Metal, size of a standard American license plate. **\$12.95**
- D. **Sea Turtle Jotter Notebook** - Small notebook with a 3D sea turtle scene cover. Contains 50 blank recycled pages. **\$9.99**
- E. **Turtle Tribal Mint Blue/Pink Youth Shirt** - Shirt by Tortuga Moon. Available in Youth Sizes XS - L. Comfortex shirts are 60% cotton - 40% polyester. **\$22.95**
- F. **White Fade Sea Turtle Shirt** - Shirt by Tortuga Moon, features STC's logo on the sleeve. Available in Granite and comes in adult sizes S - XL. 100% lightweight cotton. **\$28.95**

Visit conserveturtles.org/shop to shop for these items and other great turtle gear!

G.



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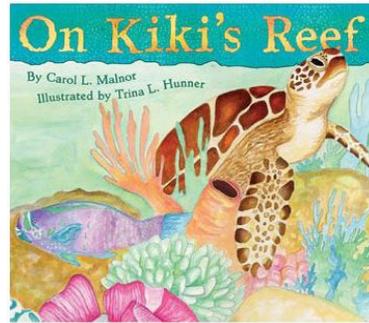
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G. Reusable Bamboo Straw - STC laser engraved logo on a reusable eco-friendly bamboo straw, comes with a cleaning brush and cotton pouch. Straw measures approx 7.87" L. **\$9.95**

H. Palm Sea Turtle T-shirt - Shirt by Tortuga Moon, features STC's logo on the sleeve. Available in Sapphire and comes in adult sizes S - XXL. 100% lightweight cotton. **\$28.95**

I. STC Logo Towel - made from Turkish 100% Cotton, a premium cotton that has extra-long fibers. These towels are produced with Oeko-Tex Green sustainability standard. Measures 3' x 6.' **\$34.95**

J. Hatchling Notecards - Green, Loggerhead, Leatherback and Kemp's Ridley hatchlings on the front. Includes 8 assorted cards and envelopes. Cards measure 3.5" X 5". **\$14.95**

K. Sea Turtle Stretch Bracelets - Stylish sea turtle stretch bracelet by Tortuga Moon. Available in four different styles. **\$9.95**

L. Sea Turtle Stretch Anklet - Stylish sea turtle stretch anklet by Tortuga Moon. Available in a green turtle with white bead or a white turtle with green bead. **\$9.95**

M. On Kiki's Reef - By Carol L. Malnor, illustrated by Trina L. Hunner. **\$21.95**

N. Eco-Friendly Hatchling Tote Bag - Large, natural colored bag is made of 22 oz. cotton canvas. The handles and bottom are Forest Green. Washable. **\$24.95**

Visit conserveturtles.org/shop to shop for these items and other great turtle gear!



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With your tax-deductible donation of \$56 or more, you are making a direct difference in the lives of sea turtles! Sea Turtle Conservancy will send gift recipients a special folder with a personalized adoption certificate, Sea Turtle Conservation Guide, window cling, sea turtle sticker, bookmark, hatchling magnet, one-year subscription to STC's newsletter, and a gift of your choice (turtle plushie, ornament or calendar). Please order by **Dec. 12, 2022** for delivery by Christmas.



To adopt a turtle, visit [conserveturtles.org/adopt-a-turtle](https://www.conserveturtles.org/adopt-a-turtle)