

VELADOR

Science-Based Sea Turtle Conservation Since 1959

Issue 2, 2022

Felipe Baker: STC's Own Conservation Hero



Felipe Baker, far right, stands with members of his Ngäbe-Buglé indigenous community from Rio Caña on Panama's Caribbean coast.

In this feature article, Sea Turtle Conservancy (STC) proudly introduces STC members and supporters to Felipe Baker, a remarkable young man and a rising star in the world of sea turtle conservation. Felipe is a biologist, environmental activist, and indigenous rights activist. He is a member of the Ngäbe-Buglé indigenous community from Rio Caña on Panama's Caribbean coast. The indigenous Ngäbe (pronounced “no-

bay”) community is one of the most populous in Central America, and the semi-autonomous region inhabited by the Ngäbe people includes Chiriquí Beach – one of the most important nesting sites for both hawksbill and leatherback turtles in the world. For the last year, Felipe has been employed as STC's Education and Outreach Coordinator, but his history with STC and with sea turtles goes back much further.

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Felipe Baker (left) shows a project volunteer how to accurately record nesting beach data at Chiriquí Beach, Panama.

Felipe's mother was one of STC's first employees in Panama, hired in 2004 as the cook at STC's Chiriquí Beach research station. As a teenager, Felipe volunteered on the project and was later hired as a Research Assistant. Through his experience tagging turtles and tracking nesting activity, Felipe was motivated to pursue a career in biology. After high school, he enrolled in the Natural Sciences program at the University of Panama and became the first member of his family to get a four-year degree (one of the first from his entire community as well).

Since receiving his degree, Felipe has continued working with STC on its turtle program. While his efforts initially focused on continuing nesting beach surveys, over time STC began to recognize in Felipe a unique and powerful skill that could be put to greater use toward the conservation of sea turtles. Felipe happens to be a passionate and eloquent public speaker, whose perspectives on conservation and the intertwined issue of indigenous rights create a powerful voice on behalf of these issues. As an education and outreach coordinator for STC, Felipe is in high demand to give presentations in schools and at conferences, and he now regularly appears on national TV and radio programs promoting STC's work and advocating for improved conservation measures.

Felipe's family has an even longer association with sea turtles. His grandfather was a well-known sea turtle hunter in his



Felipe is a natural with children; here he is seen working with indigenous elementary school kids on coloring worksheets that teach about marine wildlife.

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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community, during the years when there was high demand for hawksbill shell for international trade. Tons of this shell was harvested from Chiriquí Beach to feed international demand for “tortoise shell.” During this period, his family witnessed firsthand as hawksbill turtles stopped coming ashore to nest at what surely had been among the most important nesting beaches for this species in the Western Hemisphere. They recognized that the turtle hunt was leading this species toward extinction, and his grandfather took the bold step of halting his participation in this practice.



Adhering to COVID protocols, Felipe Baker uses Zoom to conduct presentations with schools and interviews with the media, allowing him to reach an even larger audience.

Instead, his family, along with others of a like mind in the community, came together to begin working toward conservation of the species. They were the first people in Rio Caña to push for the creation of a local conservation collective, which became known as the Association for the Conservation of Natural Resources Ngäbe-Buglé (APRORENAB) – a group STC still works with closely as part of its efforts in Panama.

On behalf of STC and his people, Felipe works to develop strong relations between indigenous and non-indigenous communities, government institutions, schools and public-private colleges. He is now well-known as an effective advocate for sea turtles and indigenous rights, helping impact government policies and building awareness among Panamanian decision-makers, community leaders and the general public on the importance

of sea turtles to marine ecosystems – and to indigenous culture.

“Even as sustained conservation efforts are showing positive changes for sea turtles in Bocas del Toro and nearby indigenous regions, many threats to turtles remain,” said Felipe. “Effective long-term conservation of sea turtles depends on close collaboration with local indigenous communities.”

And that is exactly what Felipe Baker is helping STC achieve. Recently, in recognition of Felipe’s unique voice on behalf of sea turtle conservation, he was invited to speak at the Latin American Meeting of the International Sea Turtle Symposium, where he shared his experiences and his wisdom with an international audience. STC is very proud to know Felipe and to have him as a valuable member of our team. 🐢



Despite directing much of his attention toward education and outreach, Felipe is a very capable turtle biologist who continues to assist hands-on with STC’s research programs (above) when he’s not appearing on national TV (below).



By David Godfrey
Executive Director

Hickory Boulevard Turns Turtle-Friendly

Since Sea Turtle Conservancy (STC) began its sea turtle lighting retrofit program in Southwest Florida through the National Fish and Wildlife Foundation's Gulf Environmental Benefit Fund in 2019, we have helped 34 beachfront property owners utilize turtle friendly lighting. An additional 46 properties – and counting – are currently undergoing the retrofit process. In total, 273 property managers across the state of Florida have received turtle friendly lighting through STC's retrofit program since 2010, ensuring that the lighting on their homes is energy efficient, aesthetically pleasing, and in compliance with local lighting ordinances.

STC aims to retrofit several beachfront properties in a row to create stretches of restored nesting habitat for sea turtles. In Bonita Springs, on Florida's Southwest Coast, STC is in the process of retrofitting ten beachfront homes along Hickory Boulevard – two of which have recently completed the retrofit process.

Gary and Pamela had always dreamed of living on the beach after living in Carlyle, Illinois their whole lives. They made that dream a reality in 2012 after they purchased their Hickory Boulevard home, which they believed was already turtle friendly. After rescuing a hatchling from their pool and receiving notifications from local code enforcement personnel about their lighting, they realized that the lights were actually not turtle friendly. They did some research, found information about STC's lighting retrofit program, and reached out to STC staff for a lighting evaluation.

STC replaced the existing bulbs on the property with long wavelength LEDs, retrofitted pathway and area lights with shielded fixtures and long wavelength LEDs, utilized long wavelength underwater pool and spa lights, and covered the cost of tinting the north, south, and beachside windows to limit interior light from making its way onto the beach.

"We were so happy with their help and guidance that we shared it with 10 other home owners that could benefit from their service," Pamela said. "We couldn't be happier with our results from STC! They were awesome to work with."

Mark and Jill, who also live on Hickory Boulevard, consider themselves environmentalists and were very concerned with ensuring that their lights were not disorienting turtles. With STC's help, they now have long wavelength amber LEDs in all of their exterior beachfront fixtures and a long wavelength underwater light in their pool.



STC retrofitted the lights on Mark and Jill's Hickory Boulevard home with long wavelength amber LEDs and shielded fixtures.

For beachfront homeowners in Southwest Florida who want to comply with their local lighting ordinances and protect sea turtles, Mark has this advice: "Do yourself a huge favor and reach out to the STC for counsel. They know their stuff and are great with which to work."

To contact the STC lighting team, email Lighting Project Manager Rachel Tighe at rachel@conserveturtles.org or call the office at 352-373-6441. 

Tour de Turtles

STC recently kicked off its 15th 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 21 sea turtles, including leatherbacks, loggerheads, greens and hawksbills 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. Meet this year’s turtles and their sponsors below!



Leatherbacks

- Lady Jayne - Turtle & Hughes, Inc.
- Certinada - Certina
- Big Blue - Atlantis
- Cleo - Sea Turtle Conservancy
- Truffle - Shark Reef
- Super - Supercell
- Pancake - Fahlo
- CUper-ina II - Cobra Panama
- Donna - Florida Leatherbacks, Inc.



Chelonians

- Esther - Waterline Villas & Marina
- Timmy - gimMe Seaweed
- Megan Thee Turtle - Graft Cider
- Tortie - The Turtle Hospital
- Papa - The Turtle Hospital
- Waffles - Fahlo
- Dobby - 1888mills
- Brownie - Four Seasons Nevis
- Splash - Four Seasons Nevis
- Neytiri - Disney Conservation Fund
- Ronal - Disney's Vero Beach Resort
- Troona - Sea Turtle Conservancy



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.

Sea Turtle Grants Program (STGP) awards \$445,000 to turtle conservation organizations in Florida

The Sea Turtle Grants Program (STGP), funded by the sale of Florida's "Helping Sea Turtles Survive" specialty license plate, recently awarded \$445,550 to 26 different projects benefiting Florida sea turtles as part of the 2022-2023 grant funding cycle. Each year the STGP, which is administered by STC, distributes money to coastal county governments, educational and research institutions and nonprofit groups through a competitive application process. The sea turtle specialty license plate also is the primary source of funding for the Florida Fish and Wildlife Conservation Commission's Marine Turtle Protection Program.



The following organizations received grants for their approved projects for the 2022-2023 cycle:

- **Mote Marine Laboratory:** Exclusion analysis and assessment of late season nests to identify breeding sex ratios and productivity of a large and growing nesting aggregation on the Gulf of Mexico
- **Florida State University:** First Characterization of Breeding Sex Ratio for Northern Gulf of Mexico Loggerheads
- **University of Central Florida:** Connecting Health and Ecology for Juvenile Sea Turtles in Eastern Central FL
- **Nova Eisenhower Elementary:** #CleanDarkFlat - Sea Turtle Conservation for Kids
- **University of Central Florida:** Late-season sea turtle nesting in central and south Brevard County, FL (Year 2)
- **Sea Turtle Conservancy:** Body Condition, Blood Analytes and Diet of Juvenile Green Turtles in FL's Big Bend
- **Inwater Research Group:** Information to Protect Florida's Most Valuable and Vulnerable Sea Turtles From Vessel Strikes, Year-Two Surveys and Statewide Hot-Spot Identification
- **Beach Junkie:** Sea Turtle Educational Signs
- **Sanibel Captiva Conservation Foundation:** Supplies for Stranding Response and Salvage on Sanibel & Captiva
- **Florida State University:** Understanding fine scale behavioral response of sea turtles to vessels to infer non-lethal impacts from vessel interactions
- **Sanibel Captiva Conservation Foundation:** Evaluating the effects of sand characteristics on the incubation environment for loggerhead (*Caretta caretta*) sea turtles
- **Sea Turtle Conservancy:** Seasonal Movements of Immature Kemp's Ridley Turtles in a Warming Gulf of Mexico
- **University of Central FL:** Immunogenetics and pathogen drivers of fibropapillomatosis in stranded sea turtles
- **Sea Turtle Conservancy:** Sea Turtle Academy STEM: Empowering Students to Build Solutions to Sea Turtle Threats
- **Mote Marine Laboratory:** Upgrading the heater-chiller loop for Mote's Sea Turtle Rehabilitation Hospitals
- **East Coast Biologists, Inc:** Proximate nutritional values and tissue assimilation of macroalgae for juvenile green turtles foraging in algal-dominated ecosystems
- **Friends of the Archie Carr Refuge:** Interpretive Signage across the Archie Carr National Wildlife Refuge
- **Loggerhead Marineline Center:** Sea Turtle Stranding Response Ambulance for Loggerhead Marineline Center's Rehabilitation Program
- **Loggerhead Marineline Center:** Investigating baseline demographics and inter-nesting habitat for a globally important loggerhead rookery (Year 3)
- **The Turtle Hospital:** Sea Turtle Hospital LED Surgical Lights
- **Florida Atlantic University:** The effects of nest temperatures on the skin microbiome of leatherback hatchlings
- **Brevard Zoo:** Sea Turtle Healing Center Veterinary Equipment
- **The Turtle Hospital:** Sea Turtle Rehabilitation X-Ray Equipment
- **Friends of Gumbo Limbo:** Strengthening Sea Turtle Rehabilitation: Building a Permanent Outdoor Facility to Improve Immunity, Enhance Recovery, and Capacity for Sea Turtles with Fibropapillomatosis
- **Clearwater Marine Aquarium:** Transport Vehicle for Clearwater Marine Aquarium Sea Turtle Rehab Program
- **City of Satellite Beach:** Satellite Beach Crossover and Beach Park Educational Signage

Sea Turtle Grants Program continued...

STC Receives Grants for In-Water Research and STEM from Florida's STGP

This year, STC received two new in-water research grants from the Florida Sea Turtle License Plate Grant Program. These studies will expand our knowledge on sea turtles in the northeastern Gulf of Mexico and help us understand how to best protect them. The first will focus on collecting baseline blood chemistry and diet data from juvenile green turtles. This information will be valuable for comparisons with green turtles at other developmental foraging sites throughout the Caribbean and determine their health and resiliency in the face of deteriorating marine environments. Blood chemistry data from wild-caught sea turtles are also extremely useful as a reference in the medical management of sea turtles under veterinary care.



Costanza Manes, Ph.D. Student at University of Florida, examines a recently captured juvenile green turtle. Research conducted under NMFS permit #21327 and FWC permit #118.



The second will focus on the highly endangered Kemp's ridley sea turtle. Until recently there was evidence that Kemp's ridleys were recovering based on nesting numbers, but recent nest counts have been erratic and it is unclear if the nesting population has stabilized or is in decline. Over 20 years ago juvenile Kemp's ridleys in Florida's Big Bend migrated south in the winter with a decrease in sea surface temperature. STC's in-water research team plans to capture juvenile Kemp's ridleys and place satellite transmitters on them with temperature depth recorders. The purpose will be to identify changes in overwintering movement and diet

of Kemp's ridleys in response to increases in sea surface temperature that have occurred over the past two decades. Both of these studies will provide valuable information to state and federal wildlife managers and educate visitors and residents about the importance of the northeastern Gulf of Mexico to sea turtles.

A third grant focuses on empowering students to build solutions to sea turtle threats. The Barrier Island Center (BIC), located in the heart of the Archie Carr National Wildlife Refuge, has a responsibility to train the next generation of sea turtle stewards. Since 2015, Sea Turtle Academy (STA) field study education programs have reached 3,000 students in Brevard and Indian River counties with support from the STGP. There is strong demand from Title I, private and charter schools for the STA program, however, many schools lack the bus funds to attend. This STGP grant will support bus funds for these schools and the creation of a new follow-up outreach program option for classes. The BIC team will create an integrated STEM (Science, Technology, Engineering and Math) outreach program that encourages students to think critically about sea turtle threats, collaborate, problem solve and build solutions to these threats. The threats sea turtles face can be sad and overwhelming to young children. However, by focusing on solution-minded thinking, the BIC team aims to empower the next generation to not only be informed of threats sea turtles face but to also build solutions to save sea turtles from disorientation on nesting beaches, boat strikes, incidental takes by fisheries and predators on nesting beaches. 🐢

To learn more about the Sea Turtle Grants Program and the "Helping Sea Turtle's Survive" License Plate, visit helpingseaturtles.org



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Adopt-A-Turtle

Turtle adoptions are a great way to support Sea Turtle Conservancy's conservation programs and make a fun gift for family and friends! With your tax-deductible donation of \$56 or more, you are making a direct difference in the lives of sea turtles! STC 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).



To adopt a turtle, visit conserveturtles.org/adopt-a-turtle