



M·O·R·A·E·S

OF SOUTH FLORIDA

2022 Annual Report

S O F L O M O R A E S . C O M

A photograph of a sunset over the ocean. The sun is low on the horizon, casting a golden glow across the sky and reflecting on the water. The foreground shows a sandy beach with some dark seaweed or rocks scattered along the water's edge. The overall scene is serene and natural.

**Marine
Order for
Research and
Action through
Environmental
Stewardship**

A LETTER FROM THE TEAM

Dear MORAES Friends, Family and Supporters,

2022 was such an incredible year for us here at MORAES and we cannot begin to thank everyone for their continued support. From our research projects and hosted events, to our new interns and latest collaborating partners, we have so many reasons to be thankful. MORAES was initially started as a result of a few dedicated people wanting to follow their passions in environmental science. What started as a means to give ourselves a chance to do what we love has now grown and expanded into an opportunity for multiple people to do the same and we could not be happier.

As we gear up for our fourth year as an organization, we cannot help but look back at how far we've come. It's incredible to see what we're doing now compared to that first year. Hindsight could have probably saved us a couple hiccups, but we made it here nonetheless and the future looks bright. This summary report alone is a testament to the progress we've been able to make within our local community. While showcasing one's impacts within a single year may seem mundane (and for most nonprofits it is), this truly means a lot to all of us here at MORAES. It's a surreal feeling on our end.

So without getting too sentimental, we'd really just like to say thank you to everyone who's been along with us throughout this journey so far. Your support is appreciated more than you know.

We can promise you that we are beyond excited to dive into 2023 and hope to see you out there at one of our next events. If you're looking to get more involved, visit our website, attend one of our events, or send us an email! Hope everyone has an amazing year.

Sincerely,

The MORAES Team

Meet the Team



"MORAES was founded to provide people with a chance to follow their passions. As we continue to grow as an organization, we're thrilled to be in a position where we can provide others with that same opportunity"

Left to right: Shannon Jones, T.J. Morrell, Kirk Linaje, Stacy Assael

Our Mission

Committed to the understanding, viability and protection of our local marine environment through conservation, research and environmental stewardship



Why MORAES

MORAES is an environmental research organization located in Miami, FL founded with the intent to inspire and retain local marine ecologists. We offer a streamlined path to get involved through applied research, publishing, volunteering and education outreach. Our goal is to protect our South Florida marine resources through collaborative community involvement and stewardship.

Through grant funding, donations, and the kindness of all our supporters, we have been able to offer internships, scholarships, and research opportunities to assist with habitat restorations, beach cleanups, sea turtle monitoring, cetacean research, and more!

2022 Milestones



Removed more than 180 cubic yards of invasive and non-native plants



Monitored 137 sea turtle nests



Engaged with over 150 volunteers



Gave 10 presentations



Collaborated with 5 local and national organizations

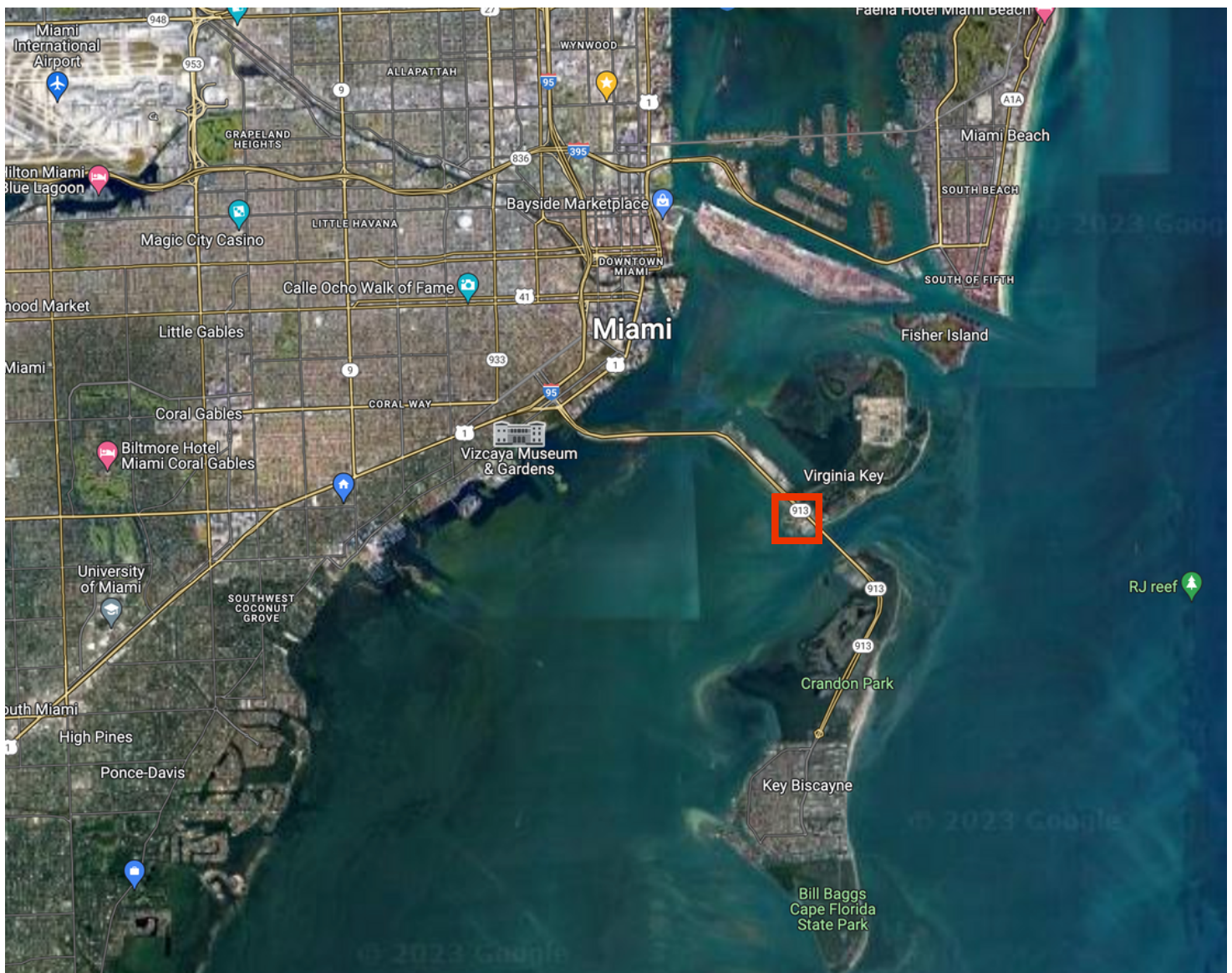


Raised close to \$15,000 in donations

CURRENT PROJECTS

EVOLUTION OF DARWIN BEACH

Starting in 2019, with the help of the University of Miami's Rosenstiel School of Marine and Atmospheric Science - along with Miami Seaquarium, Salt Waterfront Restaurant and Fillabag - MORAES began removing invasive and exotic species from Darwin Beach on Virginia Key. The goal of this project is to eventually restore the project area to a coastal habitat accurately representing a healthy coastal upland natural community by replacing them with native species. Marine debris cleanups are also executed at this time. Invasive and exotic vegetation currently inhabiting Darwin Beach – Beach naupaka, *Scaevola taccada*, Latherleaf *Colubrina asiatica*, and Australian Pine *Casuarina equisetifolia* – have prohibited native species such as Seagrape *Coccoloba uvifera* and Green Buttonwood *Conocarpus erectus* from surviving, but have completely disrupted the beach ecosystem.



In 2022 we hosted 8 clean up events at Darwin Beach

ATTENDED BY

58
volunteers

WHO REMOVED

251
pounds of
marine debris

AND

180
cubic yards of
invasive vegetation



WHY IS THIS WORK IMPORTANT?

Coastal native plants have a number of benefits compared to invasive plants, including a need for less water and absence of fertilizer or pesticides. Arguably the most important quality however, especially in South Florida, is their resilience to local weather, including erosion control and preservation of biodiversity. Essentially, native plants help keep the beach together and protect the coast from flooding.

MEET SOME OF THE LOCALS



Sea Grape, *Cocoloba uvifera*



Sea Oats, *Uniola paniculata*



Green Buttonwood, *Conocarpus erectus*

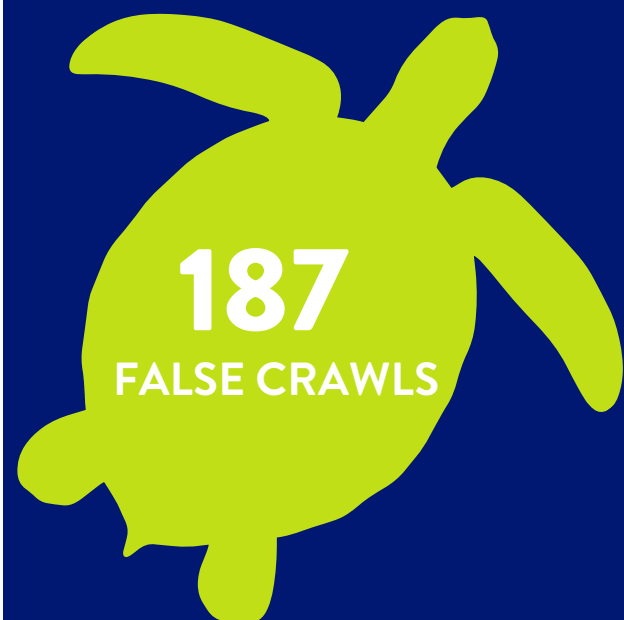
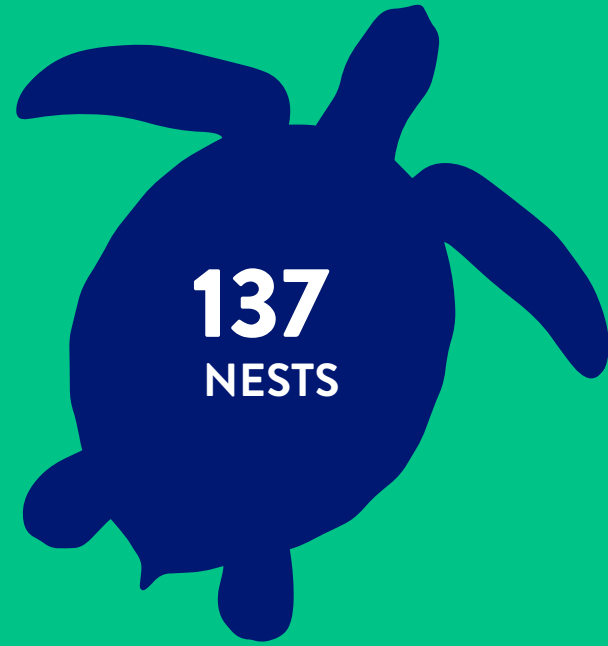
Volunteers have made the Evolution of Darwin Beach possible. With donations and man-power, Darwin Beach has truly transformed in such a small amount of time. A special thanks to Samantha Walsdorf and Brian Diaz and for helping with our latest research project!



SEA TURTLE NESTING SURVEYS

Under the FWC marine turtle permit MTP-22-153, MORAES helped with Virginia Key sea turtle nesting survey. Each and every morning throughout the nesting season (May 1st through October 31st), our trained and permitted team lead passionate interns and volunteers across the island's beaches to monitor, track, and document marine sea turtle nesting activity, most of which focus around the loggerhead sea turtle *Caretta caretta*. The data collected from this seasonal project is imperative to track sea turtle population trends and coordinate the necessary conservation efforts on an annual basis.

This year, nests averaged 96 eggs and the egg chambers were reinforced with mesh screen. As a result, we recorded a 19.7% decrease in predation most of which is due to racoons.



**DO NOT DISTURB
SEA TURTLE
NEST**

**VIOLATORS SUBJECT TO FINES
AND IMPRISONMENT**

**Florida Law
Chapter 379.34(3)(c)**
No person may take, possess,
harass, molest, handle, transport,
sell, or otherwise dispose of, or attempt
to do so, any sea turtle, sea turtle egg,
or sea turtle hatchling on the land or
in any other place.

**U.S. Endangered Species
Act of 1973**
No person may take, harass,
harm, molest, handle, transport,
sell, buy, or capture any sea turtle,
sea turtle egg, or sea turtle hatchling,
or attempt to engage in any such
conduct.

Any person who knowingly
violates any provision of this act
may be assessed a civil penalty
not to exceed \$25,000 or a criminal
penalty not to exceed \$50,000 and to
serve a year imprisonment.

Should you witness a violation, observe one injured
or abandoned turtle, or confiscated hatchlings,
please contact FWC at 888-404-FWCO (3923),
or call your nearest FWC office at 1-800-352-7731.
Call please always use French oak as "FWC" or "FWCO",
depending on your service provider.

**FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
SEA TURTLE PROTECTION PROGRAM**

CETACEAN AERIAL SURVEY PROJECT

Cetacean Aerial Survey Project (CASP) collaborates with Dolphin Research Center (DRC) located on Grassy Key, Florida. DRC has graciously opened their doors (or more accurately their lagoons) to allow MORAES to begin a research project focused on collecting marine mammal data through the use of unmanned aerial vehicles (UAVs), or more commonly referred to as, drones. With the incorporation of UAVs into the field of researching marine mammals, countless possibilities can now be considered as a result of their versatility, and the scope of data collection can now be broadened dramatically.

**3 HOURS OF
DRONE FLIGHT
TIME**

**6
BOAT SURVEYS**

**48 HOURS OF
INTERN/VOLUNTEER
WORK**



ASPIRING MARINE SCIENTIST SCHOLARSHIP

Each year MORAES is proud to offer the Aspiring Marine Scientist Scholarship to be used for undergraduate studies in marine science. Thanks to generous donations from our supporters, MORAES is able to award up to \$1,500.00 in scholarship money to a deserving graduating high school senior or actively enrolled undergraduate attending a South Florida University. This scholarship allows us to stay true to our mission by providing money, and thus opportunity to those dedicated to studying the marine world. As we continue to grow, we expect to offer more scholarships at higher dollar amounts allowing us to have greater impact.

2023 SCHOLARSHIP RECIPIENT

Dayris Mañon Arias is a sophomore at New College of Florida studying to obtain her undergraduate degree in Environmental Studies. She has a passion for Marine & Environmental Conservation and plans to pursue a career as a Community Outreach Educator for Marine & Environmental Studies. It is clear that underrepresented communities in Miami are the most affected by our rising waters and the consequences of climate change but are the least equipt to deal with it. As a result, Dayris wants to give her community the tools to understand, combat, and protect our ever-changing world.



2022 MORAES INTERNS

Conservation & Communications Intern - Michelle Martinez-Bonilla



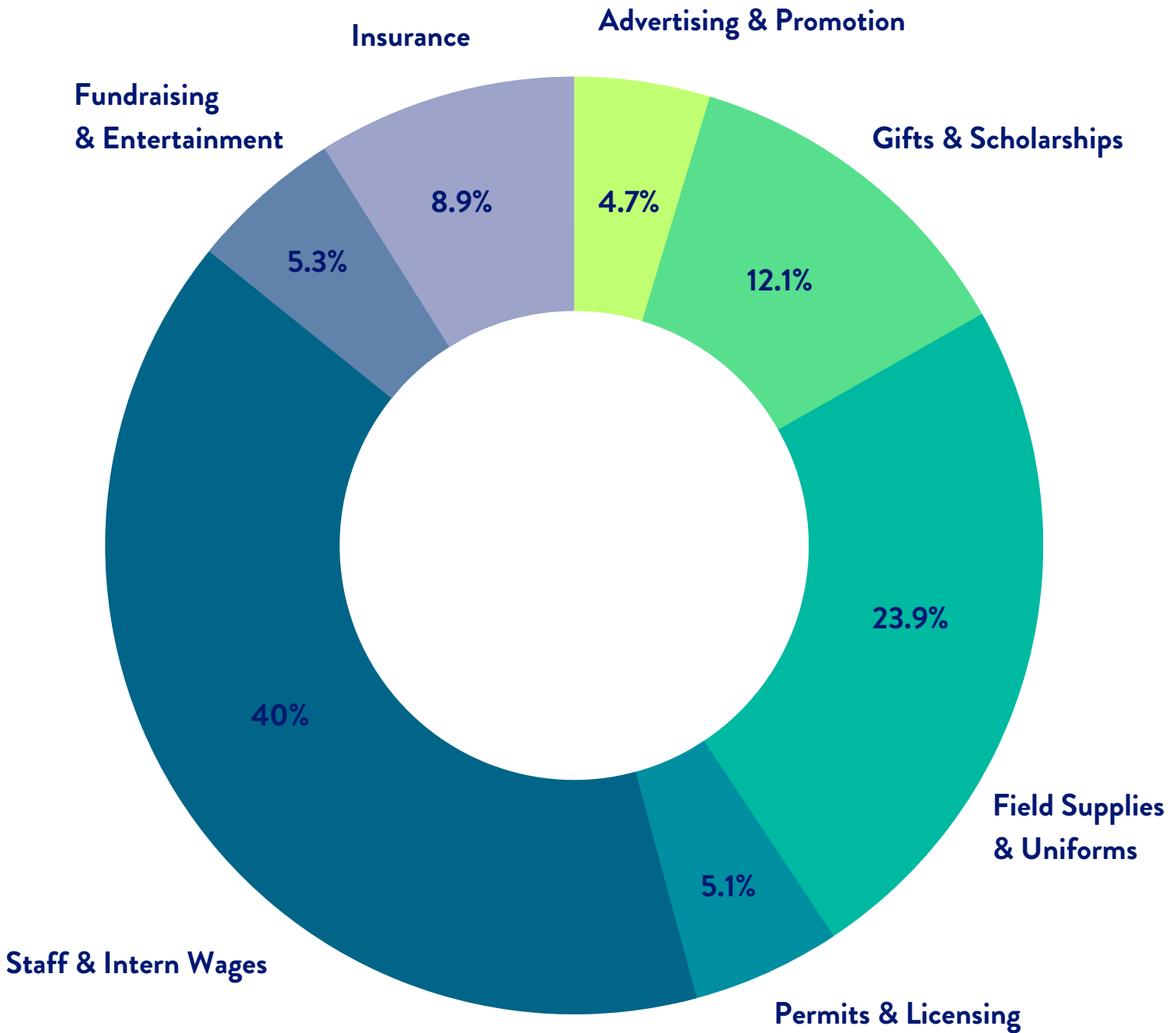
Michelle is student at Florida International University pursuing a B.A. in English Writing and Rhetoric and a B.A. in Sustainability and the Environment. "Being able to intern at MORAES brings me one step closer to the world of science communication and allows me to join their efforts in encouraging both environmental stewardship and awareness within South Florida."

Sea Turtle Survey Intern - Annaliese Durante

Annaliese is a graduate student at the University of Miami RSMAS in the Marine Conservation master's program. Her journey in the marine sciences has taken her from the Carolinas to Alaska and finally to Florida, where she interned with MORAES as a means to dive deeper into sea turtle conservation! Her other interests include environmental education and outreach, and the conservation of manatees and invertebrates such as horseshoe crabs.



[2022 Financial Breakdown]



IN 2023 WE PLAN TO DO A WHOLE LOT MOR[AES]...

**Become
Certified Drone
Pilots**

**Optimize our
Outreach**



**Raise more than \$10k on
Give Miami Day**

**Grow our
Board of
Directors**



**Attend Multiple
Public Events**



Apply to & Receive More Grants



Write this
Summary
Report!



Initiate More Student Led Projects



Increase Number
of Field Days
with DRC



Finalize Packet
for New Board
Members

THANK YOU TO EVERYONE WHO MADE THIS YEAR POSSIBLE

1% for the Planet
Barnacle Society
Blue Scholars
Box IQ
Calusa Club
City Nature Challenge
Florida Panthers
Four Seasons
Grateful Divers
Harry's Pizzeria
Hotel St. Michel
International Coastal Cleanup
Little Brewing Company
Lynker
National Save the Sea Turtle Foundation
Nomadix
Ocaquatics
Pub Grill
RepYourWater
Rescue a Reef
RSLVE Outfitters
Salt
Saving the Seas Popcorn Company
SEAMAMMs
Surfing Evolution & Preservation Foundation
Swamped in the Glades
The Billfish Foundation
The Miami Foundation
Tito's Vodka
Tom Bihn
Wild Lime Adventures

AND OF COURSE ALL OF THE GENEROUS INDIVIDUALS
WHO HAVE MADE PRIVATE DONATIONS

