



2024 Annual Report

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

A Letter From The Team

2
0
2
4

As we take a look back at 2024, we cannot help but feel grateful. Grateful for all that we've accomplished and grateful for all the organizations and individuals we've had the pleasure of working with. From the beginning, it has been the goal of MORAES to establish ourselves within the environmental community, becoming a staple here in South Florida.

With each progressive year, we've been able to establish new partnerships, new sponsors, and new projects, all with the hope of bettering our own backyard and leaving a lasting impact. Overall, 2024 truly was a big year for us, with milestones reached that were only pipe dreams when we first started this nonprofit. We invite you now to take a deep-dive into our annual report to see for yourself!

Looking ahead into 2025, we've set our goals even higher. Does that mean MORE MORAES in 2025? Absolutely! Through your continued support, our family of supporters has continued to grow and we have no intentions of slowing down now. The seed that originally sprouted the MORAES cause back in 2019 is stronger than ever and we are truly inspired to continue to learn, protect, and enhance our local marine resources for our collaborative benefit. This has been, and will always be our mission, and we will keep putting the marine resources of South Florida first. We truly want to thank our volunteers, followers, colleagues, friends and neighbors for continuing to act as marine stewards and for supporting the MORAES mission.

A special thank you to all our sponsors for making 2024 a truly incredible year. We encourage you to learn more about these great organizations and companies. Without their support, we simply would not be where we are today. It truly takes a village.

We hope to see you in 2025.

Meet the Team



T.J. Morrell



Kirk Linaje



Shannon Jones



Stacy Assael



Kristen Weber

Our Mission

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

Meet the Interns

Jordyn Kimmel

Conservation Intern

Jordyn was a Master of Professional Science student at the University of Miami studying Marine Conservation. She is from Montreal, Canada and got her undergraduate degree in Toronto in a program called Creative Industries. This internship opportunity gave her the chance to merge her love for communication with her passion for marine research and restoration! In her spare time you can find her reading, diving, going out for walks, and hanging out by any body of water! Jordyn primarily assisted MORAES with outreach, social media, volunteer management, and the CASP program.



Isabella Lopez

Sea Turtle Nesting Survey Intern

Isabella is Puerto Rican and Colombian and obtained her B.S in Marine Science from FIU in the Fall of 2024. She is an outdoorsy person who loves a good morning paddleboard session to see what marine life she can find! She loves getting people involved with how incredible our oceans and marine life are and wishes to inspire them to help protect our amazing home we call Earth. Isabella primarily assisted with sea turtle monitoring throughout the season on Virginia Key, overseeing data collection and assisting with outreach.





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.

2024 Milestones



Removal of Australian Pines on Darwin Beach



New Grant Obtained from the KB
Community Foundation



First Published Paper in 2024: “Dolphins in Facilities
are Instrumental in Developing Field Techniques”



Completion of Outreach Booth



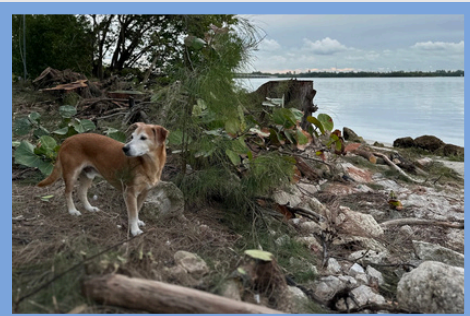
Featured Interview on Drones in Dolphin Sampling in
Garden & Gun Magazine



First staff member hired



Reached 1000 followers on Instagram



Projects

EVOLUTION OF DARWIN BEACH

January 24, 2024

As part of the Evolution of Darwin Beach project, MORAES was able to reach a huge milestone by removing a dozen large, invasive Australian Pines that inhabited the coastline of Darwin Beach. Not only did we remove the pines, but we also incorporated an educational component by collaborating with University of Miami and their Rosenstiel School of Marine, Atmospheric and Earth Science's Tropical Coastal Restoration class. The project was categorized into four sections: 1) Surveying (January 24th); 2) Removal (January 31st); 3) Assessment and Planting Plan (February 21st); and 4) Planting (April 24th). From beginning to end, the students learned about permitting, invasive species, removal protocols, and planting plans. To cap off the project, the students planted a number of native species directly on Darwin Beach, the same species from the same planting plan that was created by them and submitted to the county for approval. Incredible end to an amazing portion of the Evolution of Darwin Beach project.

A pipe dream when we first started enhancing Darwin Beach in 2020, it's unbelievable to think we finally raised enough funds to fulfill this goal. For all those who helped us get to this point, we are forever in your debt. It's truly amazing what a few passionate volunteers can do!



EVOLUTION OF DARWIN BEACH

Thank you to our sponsors!

A few incredible organizations helped push us over the edge, and for that, we cannot be more grateful.



First, Surfing's Evolution & Preservation Foundation graciously donated a huge percentage of the funds needed to complete this project. Support them, purchase their plates. Every purchase of the Endless Summer® specialty license plate makes it possible for them to support organizations like ours and keep our South Florida beaches beautiful.



Next, Athletic Brewing Company and their Two for the Trails grant was crucial in allowing this project to kickstart. Their mission to positively impact their communities and environment for the better could not be more true and we are beyond grateful for their generosity. By selecting MORAES as a recipient of their grant in 2023, we were one step closer to reaching our goal!



And finally, TreeSources for the win! We needed an organization to perform the removal, and what we got was a company filled with passionate, enthusiastic nature lovers who could not be more excited to get started on this project. Their flexibility to get this done, complemented by their desire to better our local environment at every step, has been a true inspiration to us. Check them out when you can!

SEA TURTLE NESTING SURVEYS

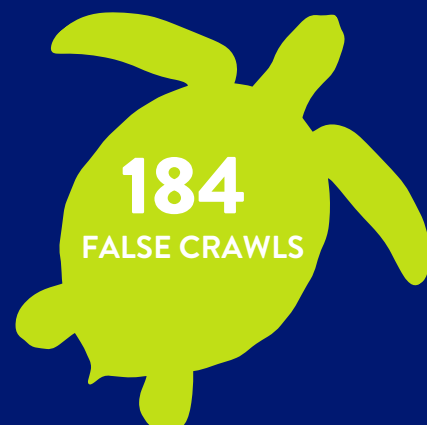
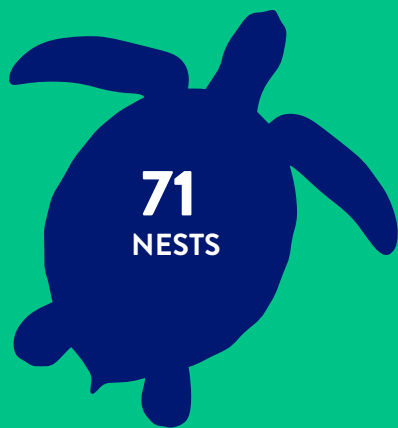
May-October 2024

Under the Florida Fish and Wildlife Conservation Commission (FWC) MTP-153, MORAES helped with Virginia Key sea turtle nesting surveys. Every morning throughout the nesting season (May 1st through October 31st), our trained and permitted team led a group of 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.



A big thank you to RSLVE for graciously donating new uniforms for this year's sea turtle volunteer team!

RSLVE.COM



SEA TURTLE NESTING SURVEYS

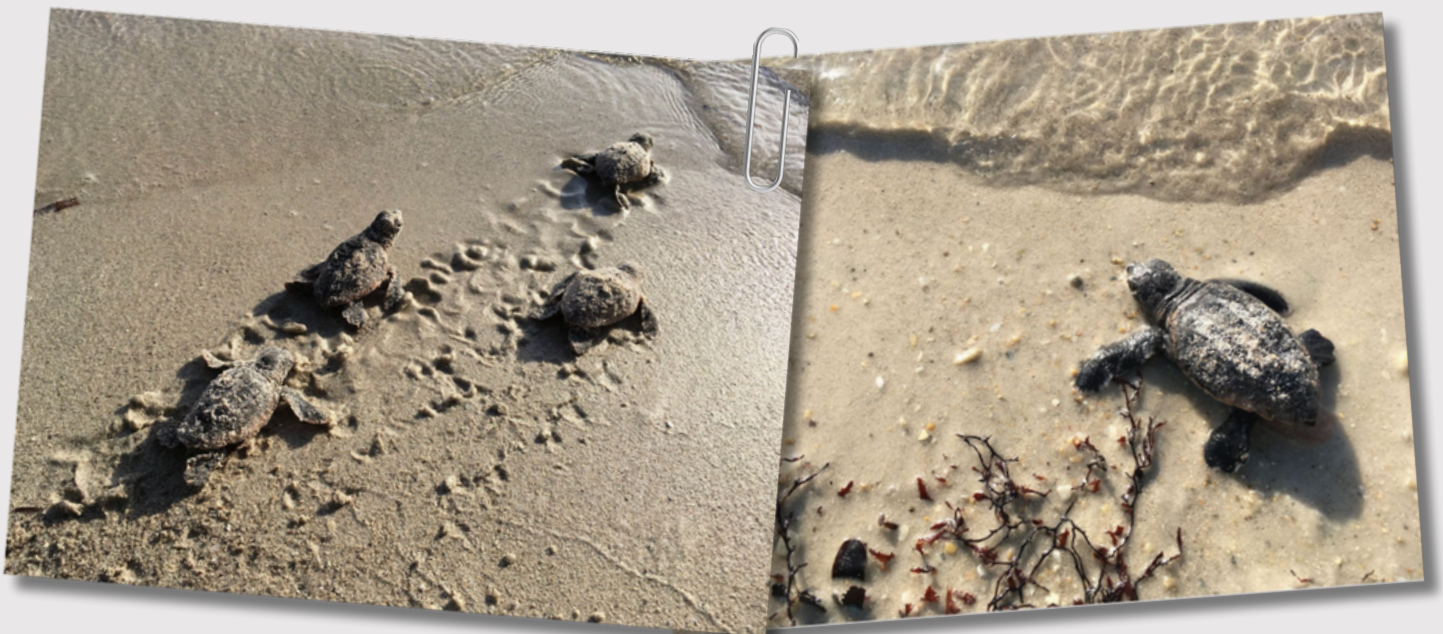
Thank you to our sponsor!

A few incredible organizations helped push us over the edge, and for that, we cannot be more grateful.



NATIONAL
SAVE THE SEA TURTLE
FOUNDATION

Thank you to the National Save the Sea Turtle Foundation for their continued support of the Sea Turtle Nesting Program at *MORAES*. Their generous annual funding allows us to keep helping our flippered friends!



ISA'S PROJECT

“For my intern project, I aim to obtain a more concrete understanding on the trend of raccoon (*Procyon lotor*) predation on VK (Virginia Key) sea turtle nests over the past 10 years. Loggerhead sea turtle (*Caretta carretta*) nests are the only present species of marine turtles on VK, hence this project focuses on raccoons and Loggerheads. Preliminary data from 2012-2023 show that raccoons impact more nests than any other predator year over year. Identifying trends on VK may serve as useful not only to see if raccoon predation events have been increasing, but also to evaluate/ infer on the success of screen implementation since 2022. I am looking at data for the entire beach on VK which includes VKS. When quantifying predation trends, this can allow MORAES personnel or other organizations to further explore preventative measures for marine turtle nests where mammals like raccoons pose a large threat.”



NEST UPDATE

The education team at Frost Science has partnered with MORAES to run the Nest Excavation for Sea Turtles (NEST) program. Led by permitted professionals, participants have the opportunity to learn about sea turtle nesting and conservation in South Florida and witness the process firsthand right there on the beach!



FROST
SCIENCE



ADOPT A SEA TURTLE NEST

Donors of adopted nests received a stake with their name at the nesting site, as well as detailed information about their nest and an update when it hatched!

13
ADOPTED
NESTS



CETACEAN AERIAL SURVEY PROJECT

YEAR-ROUND

Cetacean Aerial Survey Project (CASP) collaborates with Dolphin Research Center (DRC) located on Grassy Key, Florida. DRC graciously opened their doors (or more accurately their lagoons) to allow MORAES to perform 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 be broadened dramatically. MORAES has officially moved offshore as we continue to test these applications on wild cetacean species in Biscayne Bay.



Co-founder, Kirk Linaje has his drone certification through the Florida Aviation Association (FAA)



6.5 HOURS OF
DRONE FLIGHT
TIME

6
BOAT SURVEYS

X USABLE
IMAGES TAKEN
BY DRONE

CETACEAN AERIAL SURVEY PROJECT NEXT STEPS...

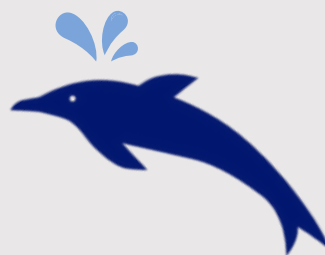


Next steps for CASP involve developing effective methodology for blow sampling collection to be used for genetic diversity analyses and microbiome studies. Various techniques have been developed for successfully analyzing DNA from larger cetaceans, but collecting samples from small cetaceans in a non-invasive manner are still under exploration.

On August 5th, Jordyn and Kristen visited the Dolphin Research Center to test two sample collection methods: one involved placing a stationary petri dish 2-3 feet directly above the dolphin and waiting for it to breathe, and the other mimicked the “swooping” motion of a drone. Both natural breathing and the trained behavior known as “chuffing” were sampled using these two methods.



The following phase will include developing techniques for securing petri dishes to the drone in order to collect samples from free-ranging dolphins.

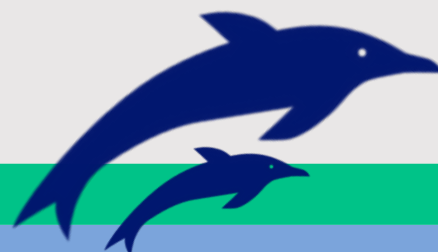


JORDYN'S PROJECT

“I’m developing a project that aims to bring dolphin conservation into middle school classrooms in an engaging and effective way. Recognizing that many students lose interest in STEM subjects by middle school due to uninspiring teaching methods, I’ve designed a solution that leverages storytelling and interactive lesson plans to make scientific concepts more relatable and memorable.

By using the Scientific Discovery Narrative format, my project introduces students to dolphin conservation through a blend of character-driven stories and hands-on activities. I’m creating three comprehensive lesson plans that cover dolphin biology, conservation efforts, and the work of programs like CASP and DRC. These plans are aligned with Florida State Standards and the Ocean Literacy framework, ensuring they meet educational requirements while also sparking students’ interest in marine conservation.

My goal is to inspire a deeper understanding and enthusiasm for marine conservation among students, potentially guiding them toward future careers in this field. Additionally, I’m exploring opportunities to expand this project’s impact through collaborations with MORAES and the WAVES program, broadening its reach to more students and communities.”



Events

2024

JANUARY 27



MORAES joined Rescue a Reef (RAR) and a number of other local, environmental organizations for the first, Hopeful, Healthy Oceans (H2O) event, which combined the power of science communication and art to capture and share the importance and beauty of our imperiled Florida marine ecosystems. With an exhibition of marine-themed art created by young Miami artists, RAR invited MORAES to spend the afternoon at University of Miami's main campus discussing environmental issues, the importance of science, the power of art, and do it all through the eyes of our young artists.

FEBRUARY 1

Another huge milestone for MORAES was the hire of our first employee, Kristen Weber. Originally from Northern California where she completed her undergraduate degree in the California Bay Area, she moved to Miami in 2023 to obtain her Master's of Professional Science degree from the Rosenstiel School of Marine, Atmospheric and Earth Science. During her master's program, she focused on marine mammal medicine and conservation, eventually becoming the intern for MORAES's Cetacean Aerial Survey Project (CASP).

After getting the opportunity to work with her in 2023, we could not have been more excited to hire onto the team in 2024. From volunteer management and grant writing, to operations and outreach management, Kristen will be introduced to all aspects of running an environmental nonprofit, while still having the opportunity to focus on her efforts on our CASP project. In her free time, she enjoys surfing, hiking, running, and being offshore on boats! We expect great things from her, and cannot wait to see what we can accomplish together moving forward. Welcome aboard, Kristen!

Hired First Staff Member



Darwin Beach Cleanup - David Fairchild Elementary

FEBRUARY 24

On Saturday, February 24, MORAES hosted a beach clean up and environmental stewardship program for David Fairchild Elementary. A group of 32 volunteers from the school, including teachers, guidance counselors, and students from the botany club and student council, came out to Darwin Beach to partake in an educational, informative, and impactful day to improve our local community. The day's focus was on the collection of marine debris, especially micro-plastics!

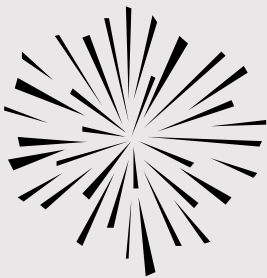
The group was also provided with data collection sheets to gather important information on the variety of marine debris collected. It was an incredibly successful event with a removal of over 115 pounds of harmful marine debris from our shorelines. We look forward to having David Fairchild Elementary back at one of our events!



FEBRUARY 25

On Sunday, February 25, MORAES was invited to celebrate Ocaquatics for their 30th Birthday! A fellow 1% For the Planet partner, we could not have been more excited to join them during this fun packed day that included other partner organizations such as Blue Scholars, Blue Missions, Clean Miami Beach and more. The MORAES booth invited kids and adults to come by and interact with our educational outreach team and test their skills with our Biscayne Bay Food Web Challenge. MORAES also held fun-filled raffle prizes throughout the event and we want to congratulate all of our lucky winners. A special shoutout to Miren and Mary at Ocaquatics. We can't thank you enough for your hospitality and allowing us a platform and opportunity to reach so many people.

Happy Birthday Ocaquatics!



Ocaquatics 30th Birthday

MARCH 8

Beach Cleanup: Christopher Columbus High School

On Friday, March 8, the junior class at Christopher Columbus High School spent their “Junior Day of Service” with MORAES, removing invasive vegetation and cleaning up over 100 pounds of marine debris from our shorelines. Adelante!



APRIL 4

Frost Science NightLab

MORAES tabled at Frost Science's NightLAB event on April 4th. We met so many new faces (who we hope to see a lot more of!) and had tons of fun with the Sea Turtle Obstacle Course 🐢 run by some amazing Frost Science staff and volunteers. Thank you for having us @frostsience!



APRIL 16

Southern Glazer's VolunCheers Ambassadors Cleanup

On Tuesday, April 16, MORAES hosted a cleanup and planting day for Southern Glazer's Wine and Spirits' team of VolunCheers Ambassadors at Darwin Beach. As part of an annual experience, the team at SGWS elected to focus their efforts and passions toward environmental benefits here in South Florida. We also hosted a virtual component for those around the country who were not able to attend in person.



APRIL 20

Miami Beach Turtle Fest

MORAES attended the Miami Beach Turtle Fest. Turtle Fest was started to raise awareness about sea turtle conservation and encourage community members to take action to protect these creatures.



APRIL 26

City Nature Challenge at Darwin Beach

MORAES partnered with the UM Sustainability Club and Salt Waterfront Restaurant for our City Nature Challenge and BioBlitz event! We kicked off the event with a beach cleanup by the Sustainability Club and then identified some native beach species using iNaturalist. Volunteers also planted a multitude of native plant species on the beach such as sea oats, beach sunflower, and railroad vine. Afterwards, participants enjoyed a beautiful view from Salt and some non-alcoholic brews from Athletic Brewing as a refreshing end to all that hard work!



MAY 18

Turtlepalooza

On May 18, MORAES attended Turtlepalooza, hosted by Miami-Dade Sea Turtle Conservation and Miami Ecoadventures. MORAES tabled at the conservation village and helped to spread awareness and information about sea turtle nesting season and conservation.



JULY 18

Lincoln's Beard Brewery Happy Hour

On July 18th, MORAES organized a happy hour event at Lincoln's Beard Brewery. Our team engaged with the local community, sharing insights about MORAES's initiatives and achievements. The bar showcased videos produced by Reel Ocean, including one highlighting the success of our Evolution of Darwin Beach project in removing invasive species and planting native vegetation, and another featuring our Sea Turtle Monitoring program with a spotlight on Sarah Beggerly.



JULY 21

On Sunday, July 21, MORAES collaborated with Top Tier to dedicate a morning to sea turtle education and the clean up of Historic Virginia Key Beach. The sea turtle monitoring team demonstrated the process of a nest excavation, highlighting some tracks and educating the TopTier team on some of the work our staff and volunteers perform each and every day during the 6-month turtle season. We were even lucky enough to have five sea turtle babies that needed some help finding their way to the water!

The second half of the event consisted of a good old fashioned beach cleanup! The group made their way along Historic Virginia Key and were tasked with finding the coolest piece of trash. The winner received a custom MORAES tank top and cup as a prize.



International Coastal Cleanup Day

SEPTEMBER 21

On Saturday, September 21, 40 volunteers joined MORAES for a cleanup at Darwin Beach, collecting a total of 310 lbs of trash. The most unusual find? A whole tire! This effort was part of International Coastal Cleanup Day, led by the Ocean Conservancy, the world's largest single-day volunteer event for our oceans and waterways. In addition to removing harmful debris, volunteers also contributed as citizen scientists by documenting the types and amounts of trash collected.



OCTOBER 19

On Saturday, October 19, MORAES held its annual Kickball for a Cause event at Historic Virginia Key Beach Park. Teams from Rescue a Reef, MUVE, Miami Dade Sea Turtles, and MORAES competed for the championship trophy and a \$500 prize for their organization. In the end, MUVE emerged as the champions! The day was made even better with great food, drinks, and a fantastic atmosphere, all thanks to our generous sponsors: Wildlime Adventures, Wines for Humanity, Salt Waterfront Restaurant, Eagle Brands Sales, Ocaquatics Swim School, and Historic Virginia Key Beach Park.



Kickball for a Cause and Beach Cleanup

OCTOBER 26

In October, MORAES was honored to speak at Coral Reef High School's AgriScience Magnet program about STEM based work and how to get involved and gain experience in the field of marine science. It was an amazing opportunity to engage with over 200 students who all have a passion to protect our natural world and we look forward to working with them again in the near future.



NOVEMBER 21

With the help of generous donors, MORAES was able to raise over \$4,000 for essential project operations and supplies during Give Miami Day! We had around 45 people attend our in person Give Miami Day event at Harry's Pizzeria and raffled off over \$6,000 in items donated! Special thanks to Harry's Pizzeria for hosting us and to Eagle Brands for graciously donating beer for the event, as well as our local sponsors, Wonder Waves Coffee and Infinity Beyond Fitness!



Give Miami Day

DECEMBER 7

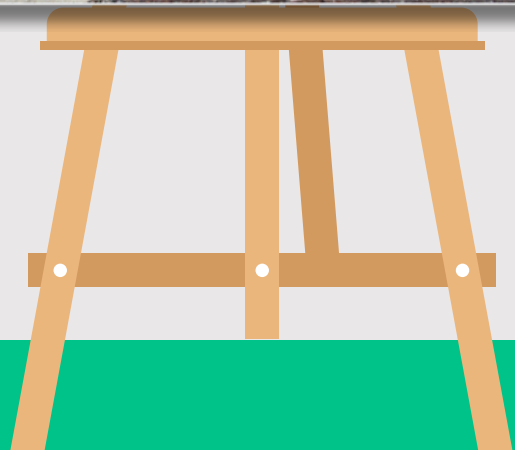
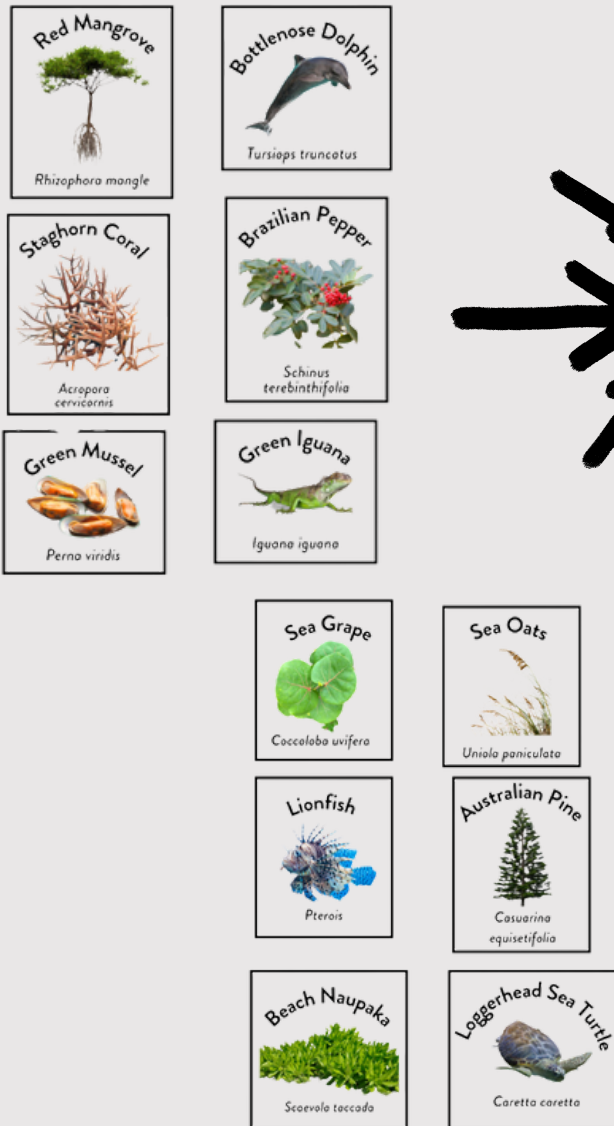
Eco Walk and Learn

Attendees gathered for a day of fun and environmental stewardship at the Historic Virginia Key Beach Park. The event featured an eco walk through the park's beautiful surroundings, offering participants a chance to learn about the importance of preserving natural habitats. They explored the plant and animal species in the park, learned how to identify them, and discovered the rich history of Historic Virginia Key Beach Park. During the walk, participants also engaged in a casual beach cleanup, contributing to efforts to keep the shores clean and safe for wildlife. It was a wonderful opportunity for everyone involved to make a difference while enjoying a day outdoors.



Outreach UPDATE

This year, we enhanced our outreach efforts by creating an engaging matching game to educate visitors about invasive and non-invasive species in South Florida. The game highlights the differences between healthy and unhealthy dune and marine ecosystems. Participants must correctly place species magnets on the board to indicate whether they would be found in a healthy environment (native species) or unhealthy environment (invasive species).



Project Documentation

This year, we had the privilege of documenting two of our key projects throughout their entire journey. Thanks to Reel Ocean, we were able to highlight the Evolution of Darwin Beach and our Virginia Key Sea Turtle Monitoring program through educational videos. These videos not only showcase the incredible work we've completed and continue to pursue but also feature interviews with the MORAES team, bringing our efforts to life for the public.



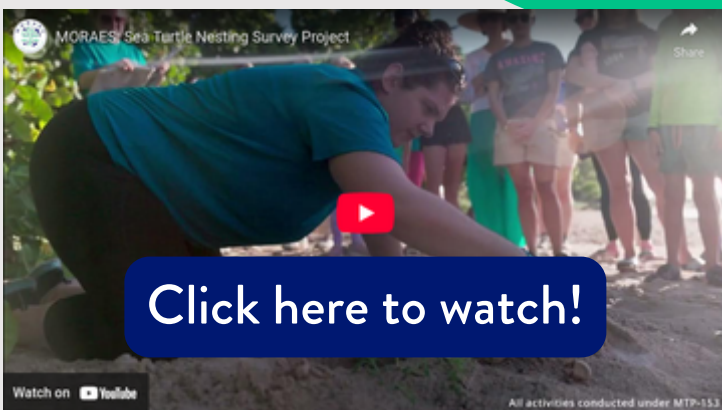
Co-founder
TJ Morrell



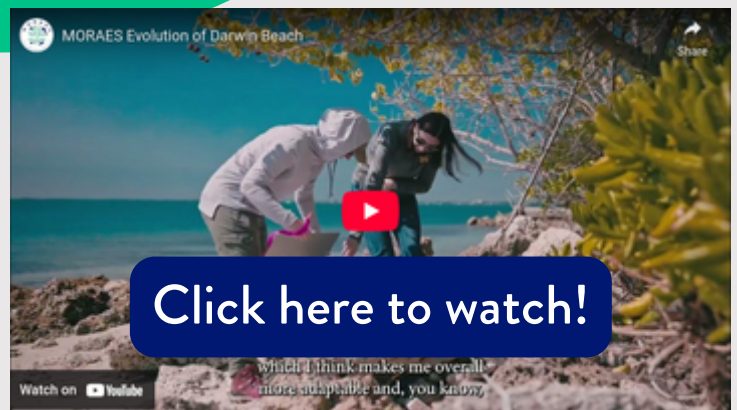
Conservation Intern
Jordyn Kimmel



Sea Turtle Lead Surveyor
Sarah Beggerly



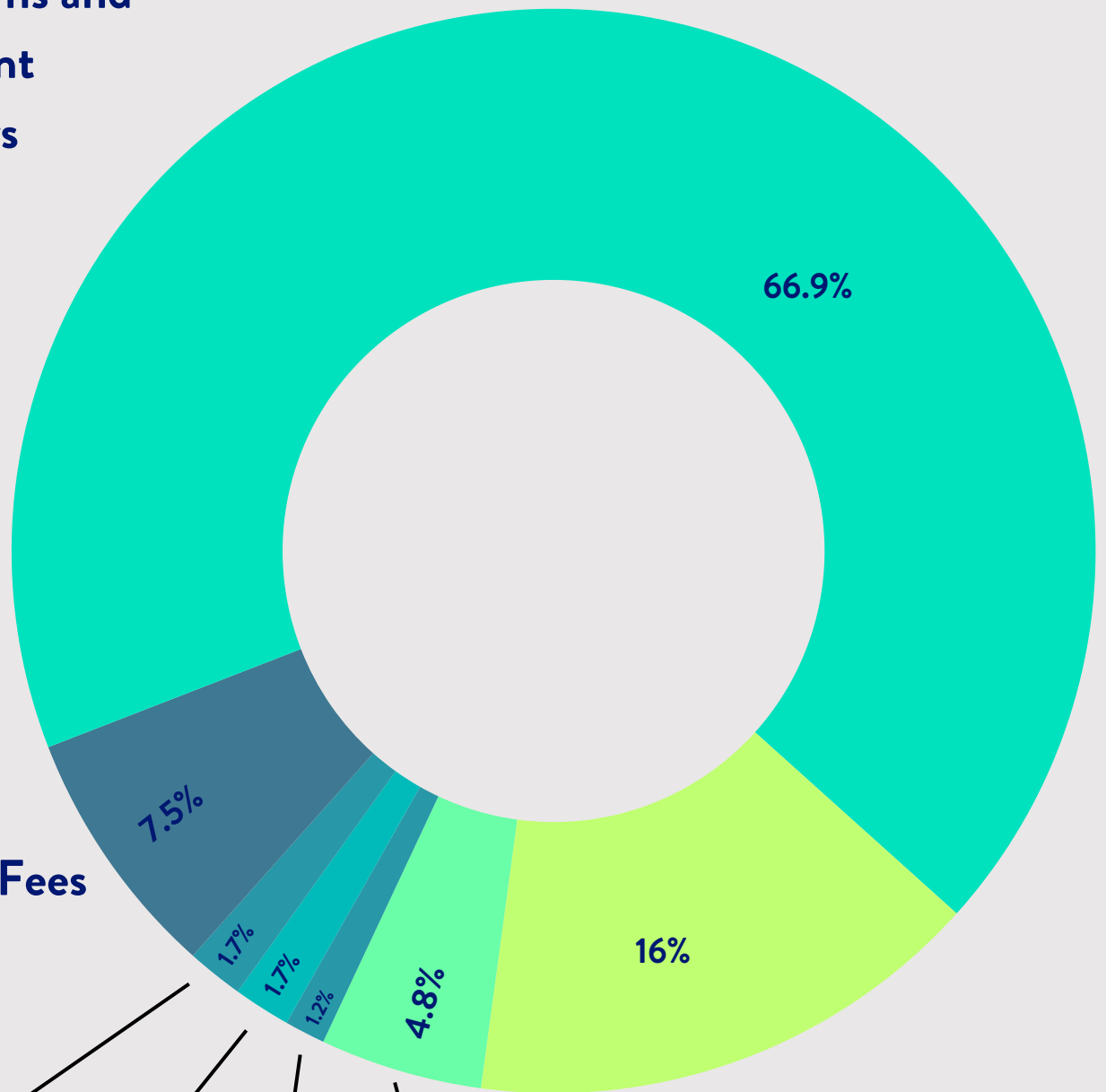
Click here to watch!



Click here to watch!

2024 Expenses Breakdown

**Staff, Interns and
Independent
Contractors**



**Professional Fees
and Dues**

**Permits and
Licensing**

**Advertisement &
Promotion**

Insurance

**Fundraising
& Entertainment**

**Project Costs and
Field Supplies**



In 2025 We Plan To...

Organize,
apply to, and
receive more
grants



Increase Number of Field
Days with DRC



Collaborate with
WAVES to deliver
lesson plans to local
students

Continue successfully
running the internship
program and bring on
two new interns

Thank you to everyone who made this year possible...



Surfing's Evolution &
Preservation Foundation
PreserveSurfingBeaches.org



*Rescue a Reef
Cerveza Monopolio
International Coastal Cleanup
Reel Ocean
Waterlust
The Miami Foundation
Grateful Diver
Wines for Humanity
Infinity
Volunteer Cleanup.org
Rep Your Water
The Billfish Foundation
Tito's Handmade Vodka
Mountain Rose Herbs
Historic Virginia Key Beach Park
Blue Scholars Network
Green Marine
Sustainable Events Network
Miami Seaquarium
Fillabag
Butterfly World*

*Flamingo Gardens
Let's Roam
BarkBox
Frost Science
Zoo Miami
Trash Panda Discs
Museum of Discovery and Science
Sawgrass Recreation Park
The Escape Game
PRP Wines International
Sand Cloud
Gorjana
Bobo's Bakery
Gourmet Gift Baskets
The Rounds
City Nature Challenge
After the Tone
Cooper's Hawk Winery
Sun Mud
Duffy's Sports Grill*

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

