



# *Rookery Bay* REVIEW *Jan - June, 2017*

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*The official newsletter for  
Rookery Bay National Estuarine Research Reserve*





# Director's Message

Dear Friends of the Reserve,

Keeping up with the tides,  
*Keith Laakkonen*

## Welcome, New Staff!

Sarah Norris is an Environmental Specialist in our stewardship department. She manages the Cape Romano Complex sea turtle nesting program and also assists with prescribed burns and wildlife management. Originally from Bradenton, Fla., Sarah joined the Rookery Bay team as a sea turtle intern in 2015 and is currently pursuing her master's degree at Florida Gulf Coast University.

Jessica McIntosh is our Coastal Training Program coordinator. Originally from Houston, Jessica earned her master's degree from the University of Florida and was previously a Park Services Specialist in the Florida Keys at Long Key State Park. Now, she is responsible for working with stakeholders and external networks to facilitate training programs for decision-makers and environmental professionals.

Nick McIntosh joined the staff as facilities specialist. Nick is originally from Cape Town, South Africa. He brings years of maintenance experience along with a love of the marine environment, having worked in the scuba industry as a boat captain and PADI instructor.

Jared Franklin is the newest member of our staff in the stewardship department. He is responsible for invasive plant and animal management, permit review and prescribed fire. Jared moved to Florida in 2016 and most recently worked with the U.S. Fish & Wildlife Service at the Southwest Florida Gulf Coast Refuge Complex. Originally from Torrington, Conn., Jared received his bachelor's degree from Messiah College in Grantham, Penn.





# Introducing the NEW Estuary Encounter!

**Meet our mollusks, crabs, urchins and more...**

After several years of planning, we were thrilled to unveil our 180-gallon marine life exhibit. The new “Estuary Encounter” exhibit houses nearly two dozen species of marine animals for guests of all ages to discover during regular visiting hours. The new exhibit features a partitioned, state-of-the-art flow-through system, which improves water quality and enables visitors to interact with animals throughout the day. The imaginative, Florida west coast-themed tank includes live sand on the bottom and view-through windows along the side, adding opportunities for guests to observe the diversity of species in the exhibit from different angles.





# Learning Through Lectures

Whether you like your lecture with breakfast or lunch, Rookery Bay Research Reserve has something for you. The Lunch & Learn Lecture Series has been an enormous success, and this past season's lectures shone a spotlight on the new partnership between the research reserve and **Florida International University** (FIU).

Running from January through April, the series focused on research underway by scientists at the university. Lectures included "Aquarius: to Live and Work Beneath the Sea" with FIU's Medina Aquarius Program director Tom Potts, "Acoustics and Fisheries Ecology Lab," with Dr. Kevin Boswell, "The Epigenetics Revolution Reaches the Ocean," with Dr. Jose Maria Eirin-Lopez and "Green Turtles Graze Down Bermudian Seagrass Meadows on the Move to South Florida," with Dr. Jim Fourqurean. Our audience was entranced and lunch from Carrabba's is always a crowd-pleaser.



Using Lunch & Learn as a model, the reserve partnered with **Audubon Florida** to host a new summer lecture series called Breakfast with the Birds. Adam DiNuovo, the Shorebird Stewardship Program Manager for Audubon stationed in our office, presented lectures on beach-nesters, migration, seabird restoration and stewardship and citizen science. Each event began with a light breakfast and mingling, followed by a question and answer session.

## Engaging Legislators and Staffers

Research Reserve staff recently hosted a day on the water with legislative staffers from the offices of Representative Byron Donalds, Congressman Mario Diaz-Balart, Senator Kathleen Passidomo, Congressman Francis Rooney, as well as Representative Bob Rommel. The on-the-water tour included visits with our fisheries research and

education staff, a charter fishing guide, FWC officers, Audubon, Team Ocean and the Friends of Rookery Bay. The day concluded with a tour of the Environmental Learning Center and research laboratories. Breakfast and lunch were generously supported by the Friends of Rookery Bay.





# Listening for Sharks

An acoustic monitoring program is now underway to complement the research department's long-term study of sharks' use of estuaries as nurseries. In April, five acoustic receivers were deployed in Faka Union Bay in the Ten Thousand Islands study area.

RBRR's fish biologist Pat O'Donnell uses baited longlines and gill nets to catch sharks, and the information he collects, including length, weight, age and gender, is compiled to produce a baseline database about community composition. This long-term dataset can be used as a benchmark after restoration is complete to better understand how the removal of drainage canals and reestablishment of historic sheetflow influences shark habitat preference.



In addition to releasing them with a plastic dart tag near the dorsal fin, sharks of the appropriate species and age class are now implanted with a small transmitter in the shark's belly. The transmitter sends a signal made up of acoustic pulses, or "pings," with information about the transmitter to the new acoustic receivers. The receivers record the presence of any sharks, sawfish or other implanted fish if they swim within a certain distance of a receiver.

The data is downloaded from the receivers each month as part of O'Donnell's ongoing study. The receivers also record basic information from tags in use by partnering institutions who are conducting similar research. This new program will not only better inform Rookery Bay reserve's research and management efforts, but will also fill gaps in similar studies already being conducted along the coast.



## Caught on Camera - Protected species monitoring shows a Florida panther on a crocodile nest

As part of our listed species monitoring program, Rookery Bay Research Reserve biologists use wildlife cameras at a known crocodile nesting site to document nesting and predation. The camera has captured images of many different animals at the nest site, including Florida panther. The images are clear enough that panther biologists could possibly identify the individual through scars and other markings, and provide a rare opportunity to observe endangered species behavior.

The series of images, which spanned nearly 30 minutes, were stitched together into a video which has gotten 33,000 views on Facebook and reached more than 112,000 people with information about our efforts to monitor these species on reserve lands.

Coincidentally, the prior week the security camera at our facilities building adjacent to the Environmental Learning Center also picked up an image of a panther, maybe the same one.



# Why Rookery Bay?

## *In their own words...*

We took a moment to catch up with a few of our dedicated volunteers to find out what motivates them. Here's what they told us.

"Rookery Bay Reserve is a multifaceted gem of South Florida. The staff are dedicated to finding out just what makes this ecosystem and all its parts function so wonderfully and how it can work in harmony with all that ever-increasing human activity. Best practices have been worked out - and taught, to benefit all. Research is ongoing to ensure that this path towards good stewardship and remediation can continue. There are so many opportunities open to everyone: volunteers, politicians, community leaders, business and property owners, students, young kids, you name it, to help preserve this unique, beautiful and functional place on earth for future generations."

- Ilse Holler

Marco Island

"My knowledge and involvement with Rookery Bay National Estuarine Research Reserve began in 2004 following a Florida Master Naturalist course and the opening of the Educational Learning Center. Supporting Rookery Bay's mission of land management, restoration, research, education and stewardship through volunteering and becoming a member of the Friends of Rookery Bay has been a part of my life for 14 years! I LOVE introducing students, tourists, as well as locals (who never knew about RBay) to this 'cradle of the ocean'...an amazing habitat for birds, fish, turtles, manatees...that we need to protect!"

- Marilyn McCollister

Naples & Mentor, Ohio

"Friends of Rookery Bay is vital to the mission and functioning of the National Estuarine Reserve. As an educator, I have a vested interest in the Reserve's role of enhancing school programs. State and Federal funding is tentative, so financial support from the Friends is critically important."

- Paul Westberry

Isles of Capri

"There is no end to education, learning and expanding your boundaries in a life time. Rookery Bay provides not only protects our corner of the planet but expands my outlook above and below these horizons."

- Marilyn Naiman

Marco Island

"I first visited the Rookery Bay Environmental Learning Center on National Estuaries Day in September 2011. It was love at first sight... from presenting many of the daily nature programs at the Center to introducing visitors to the critters in the Estuary Encounter (aka Touch Tank), I love teaching, especially the children on Estuary Explorer field trips and Kids Free Fridays. I still experience the wonders of Southwest Florida through children's eyes."



## *Happy Retirement, Beverly!*

Beverly Anderson started at Rookery Bay Research Reserve as a dedicated volunteer, then was hired as a research assistant in 1997. During her 19-year tenure, she conducted water quality monitoring and was part of the research group that worked with Collier Mosquito Control District to study effects of aerial spraying, leading to a successful change of spray protocol that reduced unintended mortality of shoreline crabs. Her biggest sense of accomplishment, she says, was the extensive avian survey she conducted at the Second Chance sand bar that led to its Critical Wildlife Area designation by the Florida Fish and Wildlife Commission.

Anderson says she loves being retired, and is planning a trip to Mexico later this year. She will still volunteer with Rookery Bay for its annual Christmas bird count. We wish her well in her retirement!



## Providing Assistance for Manatee Protection



Rookery Bay Research Reserve partnered with the South Florida Water Management District, USFWS, State Parks, Division of Forestry and the Army Corps of Engineers to identify a location for new manatee habitat as part of mitigation efforts relating to the Picayune Strand component of the Comprehensive Everglades Restoration Plan.

The restoration project is restoring surface water flow to vital wetlands in the western Everglades and reducing the amount of water flowing over the weir to Faka-Union canal, disrupting a warm water and fresh water source for manatees that migrate to this area of the Reserve each winter. To comply with the Marine Mammal Protection Act, the South Florida Water Management District needed an alternate warm water refugia for these manatees.

The most feasible option was to create an oxbow through a berm located on state-owned lands managed by Rookery Bay Reserve. The site is located adjacent to the Faka-Union canal, and contains three deep-water holes capturing sub-surface warm water flows while facilitating additional protection from boat traffic.

## Rookery Bay Research Reserve

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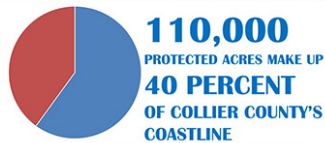
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### ROOKERY BAY RESERVE BY THE NUMBERS since 2000

ESTABLISHED 1978  
Compiled Feb. 2017



Promoting informed  
stewardship of local estuaries  
through research and education  
since 1978.