



Audubon | FLORIDA

Naturalist

Winter 2019



Common Yellowthroat. Photo: Boe Baty

In this Issue of The Naturalist *Florida*

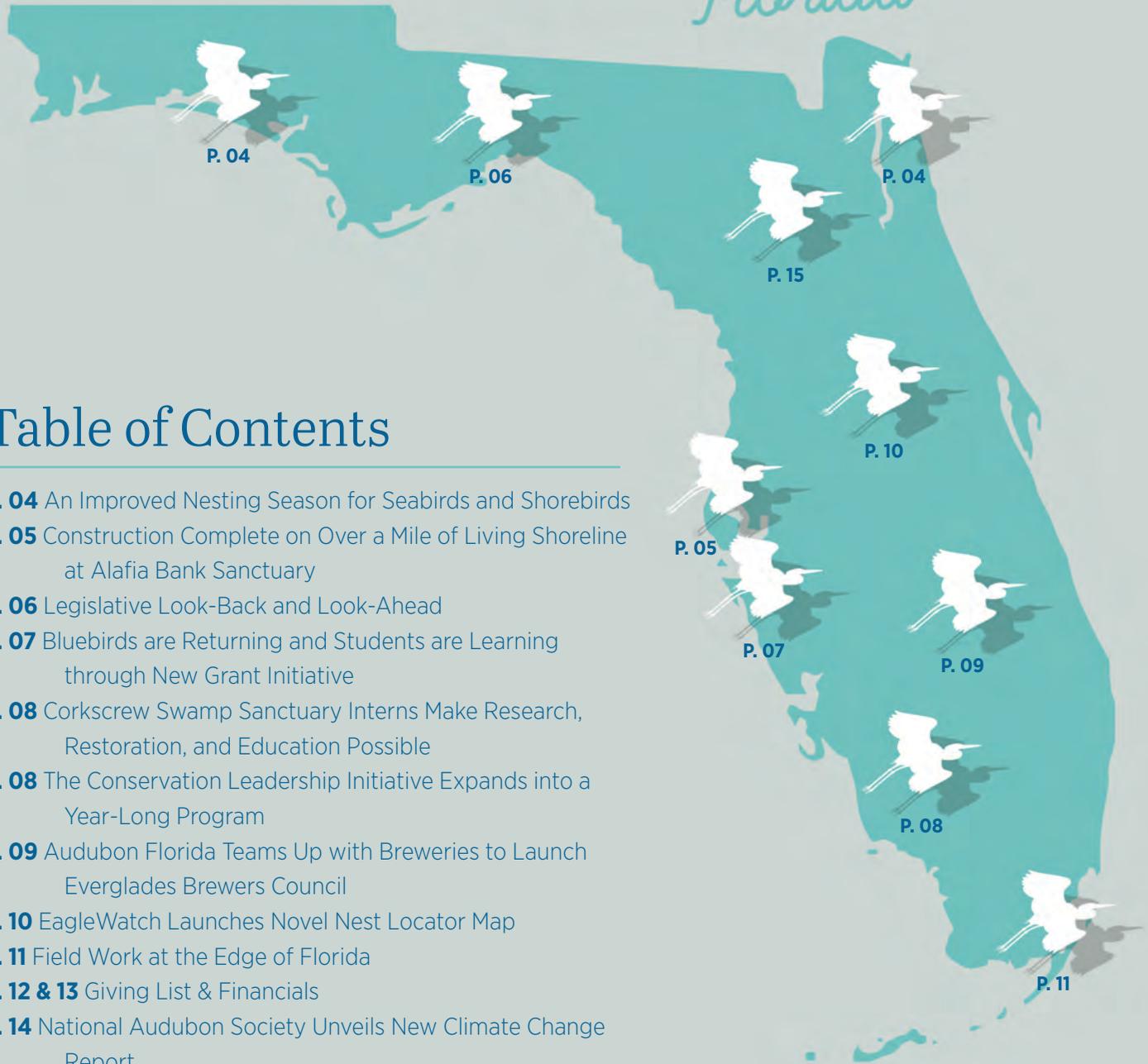


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Dear Friends,

At Audubon Florida, we fight to protect birds and the places they need to survive and thrive. This year, our flock of staff and volunteers has capitalized on years of effort and your support in monumental successes for conservation.

The Alafia Bank Bird Sanctuary now has an additional mile of living shoreline to protect vulnerable nesting grounds; Little Talbot Island hosts nesting sea and shorebirds for the first time in recent memory; the Center for Birds of Prey has launched an Eagle Nest Locator Map; Corkscrew Swamp Sanctuary's team of interns has been instrumental in carrying out research, education, and restoration initiatives, and so much more.

In 2020, our legislative and policy teams will work to expand our conservation and sustainability goals by championing water rules that reduce algal blooms and restore our Everglades, as well as advocating against the expansion of personal fireworks, working with communities on model ordinances, and more. Stay on top of our work by enrolling in our action alert emails at fl.audubon.org, and join us by making a generous gift towards our work to round out the 2019 year.

We are so grateful.



Sincerely,
Jud Laird



Jud Laird, Chair

Dear Audubon Members and Supporters,

The past year has been a remarkable one for Florida's birds and their conservation. From the wreckage of 2018's Hurricane Michael came habitat renewal on the Panhandle's coast, resulting in one of the most successful breeding years for shorebirds and seabirds in the last decade. Corkscrew Swamp Sanctuary science is providing new revelations on the changes to Southwest Florida's water supply over the last 30 years of growth, and are proposing restoration projects that can help reverse the damage at Corkscrew. Audubon released a sobering national report detailing the grim outlook for North America's birds if global warming exceeds 3 degrees C, but galvanized us all with the number of species we can save if we hold warming to only 1.5 degrees C.

This year's Audubon Assembly in Gainesville was similarly inspiring, showcasing the ways in which Audubon staff, members, and volunteers are our greatest asset. From chapters celebrating the completion of new park features that connect people to nature, to members of Congress championing Everglades restoration, to Conservation Leadership Initiative participants charting the course for the next generation of conservationists, the assembly showcased how powerful we are as a community.

Next year will be even better, with your help and support. Thanks for all you do.

Happy Holidays.



Sincerely,
Julie Wraithmell



**Julie Wraithmell,
Executive Director**

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4500 Biscayne Boulevard, Suite 350
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An Improved Nesting Season for Seabirds and Shorebirds



Florida's beach-nesting shorebirds and seabirds always face extraordinary odds, but Audubon's hard-working coastal biologists and volunteers were thrilled in 2019 to see more breeding success than the previous year. In particular, Northeast Florida and the Florida Panhandle saw impressive results.

This summer, **Little Talbot Island** in Northeast Florida experienced one of the most successful nesting seasons in recent memory. Thanks to the dedication of the Timucuan Shorebird Partnership, which includes staff and volunteers from Audubon Florida, the Florida Fish and Wildlife Conservation Commission (FWC), the Florida Park Service, and the City of Jacksonville, five species of beach-nesting birds successfully raised chicks on Little Talbot Island: American Oystercatchers, Least Terns, Gull-billed Terns, Wilson's Plovers, and Black Skimmers.

To achieve this, Audubon collaborated with the FWC in 2016 to both renew and enlarge the Critical Wildlife Area (CWA) designation for beach-nesting bird habitat in Nassau Sound. Fortunately, the new CWA designation brought additional resources and focus to the nesting site. The most impactful change in 2019 was the addition of seven large "No Landing" signs installed around the breeding area to let boaters know they could not land and disembark near the nesting birds.

Additionally, Audubon Florida and the FWC hired seasonal staff to steward this remote nesting area, where it can be difficult to recruit help from volunteers.

The cumulative result of these partnership efforts has been a significant increase in nesting success by several species. Least Terns managed to fledge a few chicks from the site last year, but had more than 100 nests in 2019, with dozens of chicks fledging. 2019's big surprise? The return of sizable numbers of nesting Black Skimmers and Gull-billed Terns. Skimmers made a whopping 30 nests, and at least 25 chicks survived. Gull-billed Terns had over 20 nests and many successful offspring. Four pairs of American Oystercatchers also produced young, with Wilson's Plovers rounding out the list of successful nesters at this site, bringing the total number of species to five.

2019 brought even more good news, this time from the **Florida Panhandle**. Last year, Hurricane Michael flattened and rearranged coastal dunes, buried or swept away vegetation, and breached many beaches that have historically served as nest sites to the diminutive Snowy Plover. Even though nesting season was over,



these birds that normally remain near their homes year-round were scarce in the months following the storm.

According to the FWC, "despite the population setbacks, the hurricane-altered landscape provided conditions ideal to successfully hatch and fledge young during the 2019 breeding season." Reduced sea oats and other vegetation cleared the way for better nesting grounds, while predator populations declined. Lower crowd densities on the beaches further reduced disturbance, and the number of Snowy Plover fledglings increased by fivefold between 2018 and 2019.

Overall, the 2019 nesting season was better than last year, and Snowy Plovers remained the big winners in the central Florida Panhandle this summer for numbers of fledged chicks. Wilson's Plovers also proved successful in the Panhandle with five chicks fledging at **Phipps Preserve CWA** and 11 chicks fledging at **Crooked Island West**. Around the state both Least Terns and Black Skimmers did well.

Unfortunately, in locations where Audubon Florida monitored nesting American Oystercatchers, few chicks fledged. According to FWC biologists, breeding success was high in the **St. Marks National Wildlife Refuge** and on oyster rakes within river channels in Northeast Florida.

Stay tuned for the 2020 Coastal Update for a full breakdown of the 2019 nesting season!

Construction Complete on Over a Mile of Living Shoreline at Alafia Bank Sanctuary

Mark Rachal steps into the 20-foot center console skiff, throwing rope lines back into the boat and motoring towards the Alafia Bank Bird Sanctuary. As he moves away from the boat launch, Brown Pelicans, Forster's Terns, and Great Egrets wheel across the blue sky overhead, a testament to the importance of the bird habitat here, not only during nesting season, but year-round.

As Sanctuary Manager, Rachal is charged with inspecting nearly 5,000 feet of newly installed living shoreline breakwater arrays along the north shores of both Sunken and Bird Islands, the two islands of the Alafia Bank Bird Sanctuary. The Alafia Bank is a Florida Fish and Wildlife Conservation Commission-designated Critical Wildlife Area (CWA) and is leased from and managed in collaboration with The Mosaic Company and Port Tampa Bay as a bird sanctuary.

Over the years, erosion from ship wakes and storm events threatened these nesting sites. Audubon has been working to devise a more resilient future by offsetting sea level rise as well as storm surges and waves.

In 2011, Audubon began construction of a new living shoreline breakwater near the edge of Sunken Island. The concrete wave attenuation devices — known as WADs — that make up the breakwater intercept incoming wave energy before it hits the shoreline, slowing or even stopping erosion altogether. The calm water between the island and the breakwater provides foraging and nesting habitat. Phases 1 and 2 — encompassing 1,000 linear feet near the shore of Sunken Island — were completed in 2014.

Rachal cruises past the long-finished segments of the living shoreline to the active construction area along the two islands. This fall, Rachal and his team worked with Living Shorelines Solutions and Cypress Gulf Development to install an additional 5,000 feet — nearly a mile! — of additional living shoreline along both Bird and Sunken Islands, bringing the total area of protected coastline to over 6,000 linear feet. Set in 500-foot sections separated by 12-foot gaps for marine animal access, the breakwater allows water to flow through to the shallow, quiet water lagoon. With the project's completion, Rachal says, "the Alafia Banks CWA will be better protected from erosion problems," aiding the vulnerable native bird species that nest here.



Photo: Mark Rachal



Photo: John Landon

Grants from the Tampa Bay Environmental Restoration Fund, the Environmental Protection Commission of Hillsborough County, and donations from Audubon supporters have provided funding for invasive species removal, as Audubon's coastal team directs work to plant native coastal hammock vegetation on the Alafia Bank Bird Sanctuary.

This fall and early winter, contractors have worked with Rachal and his team to remove an additional threat to native birds: invasive plants. They may look pretty, but Brazilian peppers, lead trees, and more are crowding out the mangroves and native trees that birds require for nesting.

Audubon Florida has been working to monitor, manage, and protect the Alafia Bank Bird Sanctuary since 1934.

Legislative Look-Back and Look-Ahead

Fall legislative committees are in full swing in the run up to the January 2020 Session. Issues of interest include:

New Proposed Toll Roads

Legislation championed by Senate President Bill Galvano (R-Bradenton) last session paved the way for the development of Multi-Use Corridors of Regional Economic Significance (M-CORES). Its goal is to build three new toll roads in the next 10 years — extending the Suncoast Parkway to Jefferson County; connecting the turnpike to the parkway; and building another toll road connecting Polk and Collier counties.

Task forces assigned to each potential corridor have met at least twice and are tasked with evaluating the feasibility and routes of these impactful proposals. Audubon staff is represented on all three task forces by Charles Lee (Suncoast and Turnpike) and Dr. Paul Gray (Polk to Collier). At the latest of these meetings, both elevated concerns that the need and financial viability for these roads have not yet been demonstrated. They are also vocal advocates for mandatory protection elements for wildlife and conservation and agricultural lands in the planning process. Learn more at <https://floridamcores.com>.

Governor's 2020 Budget

Governor DeSantis released details of his Bolder, Brighter, Better Future budget on November 18, 2019, keeping his promise to request \$2.5 billion for the environment and water resources over four years. The Governor's proposed budget includes significant recommendations for programs that address both water quality and quantity challenges across the state, including the state's premier land buying program, Florida Forever. Strategic land acquisitions complement the critical water quality restoration programs that will help keep our state free from future algal blooms and water shortages. The Governor has exhibited great leadership on the Everglades and now the work begins to enlist the Legislature in adopting these funding recommendations.

The Governor's proposed budget calls on the Legislature to make the following appropriations in 2020:

- \$322 million for Everglades restoration projects
- \$150 million for water quality improvements
- \$50 million for the Total Maximum Daily Load Program to meet water quality restoration goals
- \$50 million for springs restoration
- \$22 million to combat the harmful effects of algal blooms and red tide
- \$50 million in beach nourishment
- \$8.9 million in coral reef protection funding
- \$6 million for the Resilient Coastlines Program
- \$100 million for the Florida Forever Program
- \$54 million for state parks

Water Legislation

Water remains an important topic in the Legislature this year as we continue to see red tide blooms off the Gulf Coast, reminding us that strong regulatory programs are necessary to set the stage for managing our precious resources to prevent problems before they start. We've seen three water bills filed so far; Senator Joe Gruters (R-Sarasota) and Representative Margaret Good (D-Sarasota) filed SB 686 and HB 405 that will bring much-needed reform to urban stormwater permitting and design. Senator Mayfield (R-Vero Beach) filed SB 712, the "Clean Waterways Act," a comprehensive water quality bill that address nutrient pollution from wastewater, septic tanks, agriculture, and stormwater.

Fireworks

While official fireworks displays are an integral part of key holidays, personal fireworks used in inappropriate locations can prove deadly to birds and their colonies. SB 410 by Sen. Travis Hutson (R-Jacksonville) and HB 65 by Rep. Ana Maria Rodriguez (R-Doral) would allow the use of explosive fireworks on designated holidays such as July 4, Memorial Day, New Year's Eve, and New Year's Day. The use of explosive personal fireworks can also have damaging effects on special needs populations, veterans, private property owners, and domestic pets.

To learn how you can help during the 2020 Legislative Session, sign up for updates from the Audubon Advocate at fl.audubon.org.



Bluebirds are Returning and Students are Learning through New Grant Initiative



Florida is home to 45 independent Audubon chapters. Stretching from the Panhandle to the Florida Keys, these volunteer-driven organizations range from 100 to 4,000 members who collectively put in over 30,000 hours each year on projects to improve local habitat for birds and people.

Supported by Florida Power & Light Company (FPL) through its charitable arm, the NextEra Energy Foundation, Audubon Florida is administering \$25,000 in grant funding to help chapters improve bird habitat in their communities through Audubon's Plants for Birds program.

Applications for the new grant program were submitted this fall and 12 chapters were awarded 2019 grants, including one chapter that will receive additional grant funding through the foundation of FPL's sister company, Gulf Power.

"The program focuses on more than just native plants," says Jacqui Sulek, Chapter Conservation Manager for Audubon Florida, "It is about creating habitat. Many of our chapters are taking that concept to the next level."

Manatee County Audubon Earns FPL Grant

When Manatee County Audubon accepted the donation of the 30-acre Felts Preserve near Sarasota, they also accepted a big management responsibility. Since the preserve's inception, it has been a challenge to keep the land in pristine condition. Exotic plants threaten to take over the native plant community, and land managers struggled to maintain this fire-dependent habitat without the use of fire, due to the proximity of nearby communities. Their preserve, which had once been home to many species, including Eastern Bluebirds, no longer provided the habitat birds needed.

"It takes money and a long-term commitment to manage a property like Felts Preserve," says Sulek.

With past grant funds, Manatee Audubon members built bluebird nest boxes and planted native plants. They were also able to hire a contractor to mow the meadow (as an alternative to prescribed fire) and install a 1,200-gallon rainwater capture-and-storage tank with solar-powered

pump to enable their new plants to thrive. Members soon began seeing Eastern Bluebirds return to the property. In 2019, Manatee was awarded one of the FPL/Audubon Plants for Birds grants to further expand their capacity. Their goal? For Felts Preserve to provide a fantastic resting place for migrating birds and a wonderful home for the birds that live there year-round.

"There's no doubt that, without the grant funds, we would not have been able to achieve the progress that we have so far," said Manatee County Audubon Treasurer, Jim Stephenson.

Each year, the chapter hosts between 800 and 3,000 local students, who gain first-hand experience with native plants and the birds that rely on them. Now, students can see bluebirds in their nest boxes, while also learning about renewable energy and water conservation.

With a remarkable diversity of habitats, Florida is home to more than 500 species of birds, including year-round residents, seasonal nesters, and those passing through. Because many neo-tropical songbird migrants, facing the daunting odds of long overwater flights, stop in Florida during migration in fall and spring, ample food, clean water, and shelter are critical to their survival. The Plants for Birds program underscores the importance of restoring native plants to our landscapes and provides resources to support these birds.



2019 FPL Grant Award Winners:

- Francis M. Weston Audubon
- Apalachee Audubon
- Audubon Everglades
- Hernando Audubon
- Manatee County Audubon
- Peace River Audubon
- Pelican Island Audubon
- Sanibel-Captiva Audubon
- Southeast Volusia Audubon
- South Florida Audubon
- St. Lucie Audubon
- Tropical Audubon

Highlight: Corkscrew Swamp Sanctuary Interns

From research and restoration projects to education and communication initiatives, interns form a critical part of the Corkscrew team.



RESEARCH: On a brisk winter morning, the research team heads into the field carrying equipment to sample aquatic fauna, just one portion of data that research intern Sam Goss collects. Each day in the field is unique, as interns assist with trail monitoring, wading bird surveys, hydrologic monitoring, and more. In the lab, Goss and the team work directly with data through both entry and processing. The primary goal of the research program is to collect and provide ecological data to land managers, Audubon's policy team, and decision makers.



RESTORATION: Adrenaline courses through Ayanna Browne's veins as Corkscrew's prescribed fire boss starts a test fire. The target: 250-acres of pine flatwoods and wet prairies. Throughout the day, the crew monitors the firebreaks and weather, changing ignition techniques as on-the-ground conditions vary. Browne learns about all prescribed fire operations, including planning, execution, suppression, and the ever-important mop-up stage. In addition, land management focused conservation interns experience restoration, invasive plant identification, and eradication techniques first-hand.



EDUCATION: Class time looms closer as Corkscrew Education Intern AnnaFaith Jorgensen works quickly to set up the stations for the 2nd Grade Insect Adventure Program. After making sure everything is in place, Jorgensen guides the youth along a trail, teaches them about insects, and illustrates adaptation, habitat, and interdependence. Many students have never had an opportunity to explore the world in this unique way, and faces light up as they engage with

the natural world around them under the guidance of the Jorgensen and trained volunteers. During her six months at Corkscrew, Jorgensen leads additional fifth grade programs, and a variety of public and private guided walks, After Hours events, and more.

Thank you to Anne Drackett Thomas, Florida Power & Light Company, Frederick S. Upton Foundation, Robinson Foundation, and Vincent J. Coates Foundation for funding Corkscrew's recent conservation, research, and environmental education interns.



Photo: Luke Franke

The Conservation Leadership Initiative Expands into a Year-Long Program

In 2019, Audubon expanded its Conservation Leadership Initiative (CLI) from a three-day program to a full year training fellowship for Florida students interested in conservation. CLI brings together college participants who demonstrate great potential as environmental leaders, pairing each with a mentor and providing workshops to showcase conservation careers. This year, Audubon was proud to welcome 25 gifted students from 12 Florida Colleges and Universities.

Throughout the year, CLI participants will continue to attend regional events and activities, volunteer events, chapter meetings and programs, leadership training, and a celebration event at the close of the program.

The expansion of the CLI program trains the next generation of conservation leaders, while providing opportunities for current Audubon staff and chapter members to engage with enthusiastic and passionate students.

The extended initiative would not have been possible without grants from Darden Sustainability, the Jessie Ball duPont Fund, and the Maggie Walker Incentive Fund. The Maggie Walker Incentive Fund has challenged us to match their funding 1:1 in order to receive the full \$75,000 grant.

If you are interested in partnering with Audubon to provide invaluable skills and training for aspiring environmental professionals, or investing in the next generation of conservation leadership, please contact Suzanne Bartlett at Suzanne.Bartlett@audubon.org.



Crocodile. Photo: Mac Stone



Reddish Egrets. Photo: Mac Stone



Wood Storks. Photo: Mac Stone



Audubon Florida Teams Up with Breweries to Launch Everglades Brewers Council

Great beer begins with great water. In South Florida, great water depends on a healthy Everglades ecosystem. In recognition of this, South Florida breweries have teamed up with Audubon Florida to form the Everglades Brewers Council and jointly advocate for policies that protect Florida’s natural resources for people, businesses, and wildlife.

The Everglades provide fresh drinking water to nearly eight million Floridians. Increasing waterflow into the Everglades and, consequently, into our aquifers, makes South Florida more resilient in the face of rising seas that threaten our wellfields. Additionally, wetlands are instrumental in maintaining Florida’s beautiful inland and coastal waters. In our ecosystems, wetlands act like powerful kidneys, filtering impurities out of water – they are nature’s way of improving water quality.

South Florida’s burgeoning craft beer industry relies on a dependable and abundant source of clean water to thrive. Beer is, after all, 90% water. Statewide, Florida’s craft breweries have proliferated in the last few years, adding \$3.6 billion to the economy, creating jobs, providing economic growth, and uniting communities around locally-made brews.

Allen Steen, owner of Mad Robot Brewing Co, says, “I’ve lived my whole life in the great state of Florida, so the importance of the Everglades has been ingrained in me since I was a child. These wetlands are vital to the state’s way of life, identity, health, and economic future. The brewing industry in Florida has become a significant part of the state’s tourism. As brewers, we depend on clean water to make a quality product and to continue to attract beer seekers from outside of the state.”

In October, the Everglades Brewers Council delivered a letter to leaders in the Senate and House urging them to pass an appropriations bill that includes \$200 million for Everglades restoration in FY20. In the future, the Everglades Brewers Council looks forward to continuing to engage community members and decision makers on policies that are good for beer, good for birds, and good for our communities.



To date, the members of the Everglades Brewers Council include:

- Beat Culture Brewery, Miami, FL
- Biscayne Bay Brewing Company, Miami, FL
- Florida Keys Brewing Co., Islamorada, FL
- Gulf Stream Brewing, Ft. Lauderdale, FL
- LauderAle Brewery, Ft. Lauderdale, FL
- Mad Robot Brewing Co., Boca Raton, FL

- Mathews Brewing Company, Lake Worth, FL
- M.I.A. Beer Co., Miami FL
- Saltwater Brewery, Delray Beach, FL
- Spanish Marie Brewery, Miami, FL
- The Tank Brewing Co., Miami, FL
- Tarpon River Brewing, Ft. Lauderdale, FL

EagleWatch Launches Novel Nest Locator Map

Last fall, Audubon Florida's EagleWatch program launched a brand new, interactive map detailing eagle nests across the state. Now, volunteers, stakeholders, and interested birders can see the nests closest to them, and learn how to protect this iconic species.

The EagleWatch program works closely with the Florida Fish and Wildlife Conservation Commission (FWC) to document and map Bald Eagle nest locations in Florida. However, while the FWC maintains a nest map for the state, data and locations may be a few years out-of-date due to their lengthy internal process for updating the map. Recognizing the need to have a more current map of nest locations for EagleWatch nest monitors to reference, former EagleWatch Program Manager Reinier Munguia created a Google Map of nest locations in 2015, incorporating data from the FWC's map but also including new nests and relocations.

"This early version was simply a static map showing nest locations but contained no underlying data or information for the nests," explains current EagleWatch Program Manager, Shawnlei Breeding. The nest data was maintained in a separate database accessible only by volunteers.

Inspired by a more interactive nest map created by the Center for Conservation Biology for the state of Virginia, Breeding began to imagine what a real-time nest map tool could mean for Florida.

"As the Program Manager, I field a constant stream of requests for underlying nest information, both from our volunteers and from the general public."



To view the map, check out:

<https://cbop.audubon.org/conservation/about-eaglewatch-program>

EagleWatch volunteers collect a treasure trove of data on the nests they monitor, including nest status (active, inactive, gone), fledgling success, and notable disturbances nearby. How could the Center for Birds of Prey team make all this available for users at a click of a button?

Breeding worked with the National Audubon Enterprise Technology Team to migrate the nest information from the previous EagleWatch map and database to a new interactive map that was created using ArcGIS software by ESRI.

Today, Breeding shares the public map not only with volunteers, but also with key stakeholders that work together to protect Florida's Bald Eagle population. In addition to state and federal wildlife agencies, power and communication companies consult the map when making management and construction decisions.

This critical resource would be impossible without the dedicated EagleWatch volunteers. "Because the map is interactive and is linked to the underlying monitoring data," Breeding says, "Volunteers are directly responsible for providing the information that maintains an up-to-date map resource for our program and for external users."



30 Years at CBOP

Audubon Florida is pleased to recognize long-time staffer, Dianna Flynt. Flynt has been a wildlife rehabilitator since 1974, starting as soon as she graduated from high school. She spent her first 16 years specializing in seabirds

before coming to the Audubon Center for Birds of Prey in 1989. Now serving as the Center's Rehabilitation Supervisor, Flynt maintains all state and federal permits pertaining to the birds in rehab to the non-releasable residents. She sits on the Florida Wildlife Rehabilitators Association Board and the Florida Wildlife Alert Committee.

Flynt has dedicated her 30-year career to saving birds and the special places they need. Her expertise, passion, and dedication to conservation have led to thousands of birds being released back into the Florida skies. From bird rescues to baby returns, Flynt has made a large impact in the world of raptors.

It takes true heroes to make Florida a better place for birds and people. Audubon Florida is lucky to have a hero like Dianna Flynt amongst the ranks.

Field Work at the Edge of Florida

Audubon biologist Alex Blochel loads up the Pathfinder boat at the Everglades Science Center (ESC), tossing in snorkel gear and measuring equipment for a full day of field work on the water. The dawn light has just crested the shiny leaves of Florida Bay mangroves, and he'll need all the daylight he can get to measure submerged aquatic vegetation (SAV) waving beneath the surface of the water.

Aquatic vegetation is a key indicator of the salinity of Florida Bay. Plants are surveyed to assess upstream water management practices that heavily influence freshwater flows to the Bay and are changing as Everglades restoration proceeds.

Additionally, sea level rise will increase the salinity of the bay, especially if freshwater flows from upstream do not increase. The aquatic vegetation Blochel and the ESC team measure six times a year is a canary in the coal mine, forecasting future environmental conditions by responding to past water conditions.

Blochel anchors at their first study site, slipping into fins and pulling a snorkel mask tight over his face. Once into the water, he uses a 3 ft² quadrat to measure SAV coverage in 12 areas near the boat, noting the species of grasses. When the bay sites are complete, he and his sampling partner transfer their gear to much smaller jon boats, motoring up the Taylor River to continue monitoring vegetation while simultaneously collecting hydrologic data, including an additional salinity measurement, water depth, and temperature.

"Every day on the water is an adventure," Blochel explained. On a recent sampling trip, he decided to visually inspect nearby seagrass meadows after finishing his official data collection. While beneath the water, the urgent tapping of his teammate hitting the side of the boat caught his attention. Raising his head above water, he caught one word: "Crocodile!"

Turning slowly, carefully, Blochel spotted just the eyes and snout of the giant reptile, which coexists with alligators in South Florida. While the croc was 90 feet away, that still felt much too close for Blochel. Swimming towards the boat at a measured pace – to avoid triggering the creature's hunting brain – Blochel kept his cool while closing the distance between himself and safety. When the crocodile began moving towards him, Blochel swam faster, only heaving a sigh of relief when he successfully pulled himself over the bow of the boat. The crocodile disappeared as suddenly as it appeared, just one of the many creatures that call this complex ecosystem home.

Back in the lab, the Everglades Science Center staff crunch the numbers to create regular reports on how the aquatic vegetation changes in the bay and in the surrounding rivers



Audubon scientists in the Keys map seagrasses in Florida Bay to gauge the success of Everglades Restoration.

over time. In addition to acting as a long-term metric of Everglades health, the reports are used by the South Florida Water Management District, the Army Corps of Engineers, and other stakeholders to analyze the impacts of upstream water management decisions earlier in the year.

The data provided by ESC, not only on aquatic vegetation but also on hydrology, fish species, nesting birds, and more, are an invaluable resource as Audubon Florida and our partners seek to restore the Everglades.

30 Years at ESC

This year we are celebrating Dr. Jerry Lorenz, Director of Research, and his 30 years at Audubon Florida.

Lorenz is well known in the environmental community as the "go-to" guy for anything related to spoonbills. For the past few decades, he has overseen a team that monitors 70+ nesting islands and collects physical data – water temperature, submerged vegetation, and fish communities – from Florida Bay to provide clues about the bay's health. Spoonbills are considered environmental indicators because their livelihoods are directly tied to prey fish that rely on vegetation that cannot tolerate varying water levels.

Lorenz is not only resilient, but also tenacious in his efforts to protect Florida Bay.



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Ms. Leona Fitzsimonds Boldt
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Joseph and Rebecca Carle - in memory
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Carroll Morgan Carpenter
Robert Lee and Thomas M. Chastain
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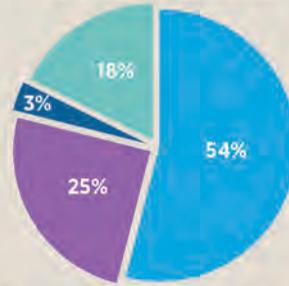
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 Jean Langdon
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**AUDUBON FLORIDA & FLORIDA AUDUBON SOCIETY
 FINANCIALS JULY 1, 2018 - JUNE 30, 2019**

REVENUE SOURCES



Total Revenue \$8,876,745

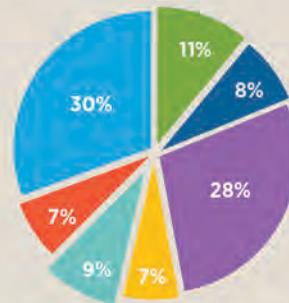
\$4,793,876 Contributions & Bequests

\$2,219,455 Government Grants

\$1,574,071 Center Admissions & Other Revenue

\$289,343 Investments

EXPENSES BY PROGRAM



Total Expense \$8,876,745

\$2,709,255 Coastal Stewardship & Restoration

\$2,497,123 Corkscrew Swamp Sanctuary

\$964,883 Florida Program

\$778,788 Everglades Research

\$711,918 Conservation Policy

\$628,488 Center for Birds of Prey

\$586,290 Everglades Policy

**FLORIDA AUDUBON SOCIETY, INC.
 STATEMENT OF ASSETS, LIABILITIES, AND NET ASSETS
 AS OF JUNE 30, 2019**

ASSETS

Current Assets

| | |
|---------------------------------------------------|------------------|
| Cash | 88,409 |
| Cash - Restricted | 19,387 |
| Charles Schwab Investment | 5,015,495 |
| Charles Schwab Investment - Restricted Geanagel | 670,719 |
| Charles Schwab Investment - Restricted VonBoroski | 365,823 |
| Receivable - NAS | 10,000 |
| Total Current Assets | 6,169,833 |

Other Assets

| | |
|---------------------------|------------------|
| Land | 2,578,510 |
| Building & Improvements | 2,270,834 |
| Furniture & Equipment | 44,459 |
| Accumulated Depreciation | -1,280,975 |
| Total Other Assets | 3,612,828 |

TOTAL ASSETS 9,782,661

LIABILITIES & EQUITY

Liabilities

Net Assets 36,255

| | |
|-----------------------------------|------------------|
| Land-Preservation | 503,612 |
| Board Designated Aquisition Fund | 3,336,177 |
| Unrestricted Net Assets | 4,934,332 |
| Temporarily Restricted Net Assets | 581,782 |
| Permanent Restricted Net Assets | 300,000 |
| Net Income | 90,503 |
| Total Net Assets | 9,746,406 |

TOTAL LIABILITIES & NET ASSETS 9,782,661

National Audubon Society Unveils New Climate Change Report

In October, the National Audubon Society announced a groundbreaking climate report, *Survival by Degrees: 389 Bird Species on the Brink*. As a result of climate change, two-thirds of America's bird species are threatened with extinction. However, we still have time to save up to 75 percent of these at-risk species if we take action now. In Florida, Audubon is working to reduce our state's carbon footprint and save taxpayer dollars by improving energy efficiency, helping make our coastal areas more resilient, and inspiring citizens to work with their elected officials to expand renewable energy sources.

In *Survival by Degrees*, Audubon scientists studied 604 North American bird species using 140 million bird records, including observational data from bird lovers and field biologists across the country.

"Like canaries in the coal mine, birds show us the real threat posed to us by climate change," explains Julie Wraithmell, Executive Director of Audubon Florida. "What affects birds affects us all—if we act now, we can avoid the worst impacts, to birds and ourselves."

In addition to the climate model, the Audubon team also studied climate-related impacts on birds across the lower 48 states including sea level rise, Great Lakes level changes, urbanization, cropland expansion, drought, extreme spring heat, fire weather, and heavy rain. Florida species remain particularly vulnerable to a rising Gulf and Atlantic, as well as development, changes in rainfall, and more.



American Redstart. Photo: Tom Warren

"Florida has lagged on renewable energy, but is catching up quickly," explains Beth Alvi, Audubon Florida's Director of Policy, "Investor-owned utilities have made major commitments to close the gap between Florida's solar potential and reality. Additionally, cities like Tallahassee, St. Petersburg, and Orlando have all committed to 100% renewable energy. The need for leadership like this at local, state, and industry levels is urgent."

Much of the progress at local levels is driven by individual Floridians. Audubon Florida and its chapters collaborate with municipalities to make real gains for climate resilience at local levels. To make it easier for Floridians to engage their cities and counties on these issues, Audubon Florida is piloting a Model Ordinance Toolkit with examples citizens can take to their councils and commissions for adoption.

Audubon's new findings reflect an expanded and more precise data set, and indicate the dire situation for birds and the places they need will continue.

Work with Your Community Using Our Model Ordinance Toolkit



Change begins with you! Changes at the local level can add up to big savings — in greenhouse gas emissions and taxpayer dollars. Improving the energy efficiency and clean energy mix of your city or county and keeping your waterways free of polluting nutrients can fight climate change and harmful algal blooms.

Curious about what your city or county could do? Our toolkit includes some of the common ways small communities can make a huge difference. To make it even easier, we've included examples — model ordinances — that your city or county staff can consider as a starting point for crafting the solutions that work best in your community.

<https://fl.audubon.org/news/model-ordinance-toolkit>

Conservation Leaders Recognized at 2019 Audubon Assembly in Gainesville



Joyce King received the **Lifetime Achievement Award** in honor of her relentless advocacy for gardening with native plants for birds.



Mark Middlebrook received the **Special Places Award** for a career dedicated to the protection of Northeast Florida's iconic natural landscapes.



Rathmann Family Foundation received the **Philanthropist of the Year Award** for visionary investment in the restoration of Southwest Florida wetlands.



Charlie Causey received the **Theodore Roosevelt Award** for leadership on the protection and restoration of Florida Bay and the Florida Keys.



The **City of Orlando** received the **Guy Bradley Award** for ambitious leadership on meeting the challenge of climate change.



Congresswoman Debbie Wasserman Schulz and Senator Marco Rubio received **Champions of the Everglades Awards** for ensuring essential funding for the River of Grass.



Dick and Sharon Stilwell received the **Volunteers of the Year Award** for their long and expert service at Audubon's Corkscrew Swamp Sanctuary.



Lt. Evan Laskowski with FWC received the **Law Enforcement Award** for his service to Pinellas County's imperiled coastal wildlife and their habitat.

Audubon Florida Recognizes Chapters for their Conservation and Education Efforts

Audubon Florida is 93,000 members strong, and our members are our livelihood. We were thrilled to have 36 of our 47 chapters represented at the Assembly this year. As has been our Assembly tradition, we offered two Chapter awards in each of three categories: Education, Conservation and Outstanding chapter in two levels: small chapters (with less than 500 members) and large chapters (with over 500 members).

Taking the **Best Small Chapter Education Award** was **Marion Audubon** for the environmental education programs they planned and executed for students in cooperation with the College of Central Florida in Ocala. The **Best Large Chapter Education Award** went to **Tropical Audubon** for their Audubon Ambassador program, which provides workshops by local experts and tools for attendees to advocate for water, air, and the habitat that sustains their region's birds and other wildlife.

Earning **Best Small Chapter Conservation Project** was **St. Lucie Audubon** for initiating a restoration plan for Wesley's Island and coordinating with St. Lucie County Environmental Resources Department on the erection of Osprey nesting platforms in their community. The **Best Large Chapter Conservation Project Award** went to **Manatee County**

Photos: Luke Franke & Charles Lee/Audubon

Audubon for their work restoring Felts Preserve and creating an outdoor classroom for visitors and young Audubon Adventurers.

Apalachee Audubon earned **Best Large Chapter** for their Lake Elberta Habitat Enhancement project, which included hiring interns from local universities to complete the habitat restoration, create new partnerships, plan and host events, and engage members of an underserved community around birds, plants, and nature. **West Pasco Audubon** was honored with **Best Small Chapter** for increasing their capacity and facilitating a grant from Duke Energy to build a bird blind and boardwalk at Starkey Wilderness Park.

And, it was not a coincidence that West Pasco Audubon President Christine Rowland was recognized for her continued leadership and rejuvenating the chapter.

We are honored to have such an amazing band of chapters working to spread the Audubon mission.



Manatee Audubon's Jim Stephenson pictured at right with Audubon Florida Chapters Conservation Manager Jacquie Sulek.

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Executive Director: Julie Wraithmell

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Contributors: Laura Aguirre, Beth Alvi, Shawnlei Breeding, Chris Farrell, Jud Laird, Celeste De Palma, Allyson Webb, Renee Wilson, Julie Wraithmell, and Erika Zambello

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Charlie Causey: Recipient of 2019 Teddy Roosevelt Award

Driven by his desire to fish and awareness that good fishing is dependent upon clean water, Charlie Causey is an environmental champion. He has been dedicated to protecting the health of Florida Bay and the Everglades for decades; and he has supported the work of Audubon Florida and the Everglades Science Center through his foundation, the Florida Keys Environmental Fund.

Causey was the recipient of the 2019 Theodore Roosevelt Award at Audubon Florida's annual Assembly in October. According to Dr. Jerry Lorenz, Director of Research, Causey was instrumental in galvanizing the community behind the establishment of "pole and troll" zones and no motor zones in Everglades National Park. He has established a boater education program, leveraged funds to update signs and other park infrastructure, and supported scientific research into coral, sponge and seagrass die-offs with a focus on manually re-establishing damaged communities.

"Charlie Causey is the embodiment of what the Teddy Roosevelt Award is all about," said Lorenz. "He has spent a lifetime working to protect the Everglades, Florida Bay, and the Florida Keys and no one is more dedicated to this cause," he concluded.