



 Audubon | FLORIDA
Naturalist
 Fall 2021





Heidi McCree, Board Chair

Hurricane season is a part of living in Florida, but that doesn't make it any less nerve-racking. We watch the storms spin up while still far away, crossing our fingers that they will go out to sea and spare our coastal communities and coastal species. Yet, we are stronger because of the unique ecosystems that protect our shorelines, including mangroves, reefs, marshes, and

wetlands. These same natural resources are our best bet to help us become more resilient in the face of climate change. For the 2021 Audubon Florida Assembly next month, we will take a deep dive into these Natural Climate Solutions through immersive field trips combined with virtual programming. Audubon works across the state to implement and advocate for Natural Climate Solutions — this year, we are taking Assembly across Florida too!

Heidi McCree, Board Chair, Audubon Florida



Julie Wraithmell, Executive Director, Audubon Florida

It's no secret that here at Audubon, we love birds. They are beautiful, complex creatures, but I think we are drawn most to their flight. This very ability makes them both difficult to study and harder to protect, as they link Florida

with northern breeding territory, southern wintering grounds, and beyond. To boost avian resilience in the face of climate change and encroaching development, we pursue a multi-faceted approach to conservation, from bird bands and trackers (pg. 5-6) to meaningful policy change (pg. 13), innovative rehabilitation and full-scale restoration (pg. 10-11), and inspiring our ever-ready cadre of volunteers (pg. 3, 7, 14-15) for boots on the ground protection and monitoring. Each fledged bird making its way to wintering habitat this fall is a beacon of hope and proof that our methods work. Keep flying with our flock by joining the 2021 Audubon Florida Assembly (pg. 4), subscribing to our newsletter, or volunteering with us.

Julie Wraithmell, Executive Director, Audubon Florida

2021 Florida Audubon Society Leadership

Executive Director

Julie Wraithmell

Board of Directors

Chair

Heidi McCree

Vice-Chair

Carol Colman Timmis

Treasurer

Scott Taylor

Secretary

Lida Rodriguez-Taseff

Conservation Committee Chair

Ann Harwood-Nuss

Chapters Committee Chair

Paula Wehr

Amy Albury

Jim Brady

Steve Buczynski

Paul Ferber

Kirsten Hines

Lois Kelley

Amy Koch

Ron Magill

Brian Miller

Steve Nellis

Douglas Pitts Jr.

Alex Preisser

Frank Santelli

Dan Savercool

Mary Jean Yon

Kristine Young

Emeritus

Joe Ambrozy

Sandy Batchelor

John Flanigan, Esq

Jud Laird

Steve Lynch

Michael Sheridan

Cover photos courtesy of: Jean Hall, Christina Evans, Mark Rachal, Kara Cook, Shelly Rozenberg, and Shawnlei Breeding.

Clockwise from top right, banded birds include: Bald Eagle, Brown Pelican, Red Knot, Florida Grasshopper Sparrow, Roseate Spoonbill, American Oystercatcher, Royal Tern, Wilson's Plover; with Florida Scrub-Jay in center.

Subscribe to Our E-Newsletters & Alerts:
FL.Audubon.org/stayintouch

Coastal Update — A Difficult but Successful Breeding Season

To say 2021 turned out to be an eventful coastal breeding season would be an understatement. Two tropical systems impacted nesting along Florida's Gulf Coast, first with Hurricane Elsa skirting Southwest Florida and washing out Black Skimmer colonies, then Tropical Storm Fred hitting the Gulf Coast and Eastern Panhandle beaches late in the breeding season. Luckily Fred was just late enough that the storm had a minimal impact on the Eastern Florida Panhandle tern and Black Skimmer nest sites, though it did re-arrange sand for the wintering birds already on our shores.

NORTHWEST FLORIDA

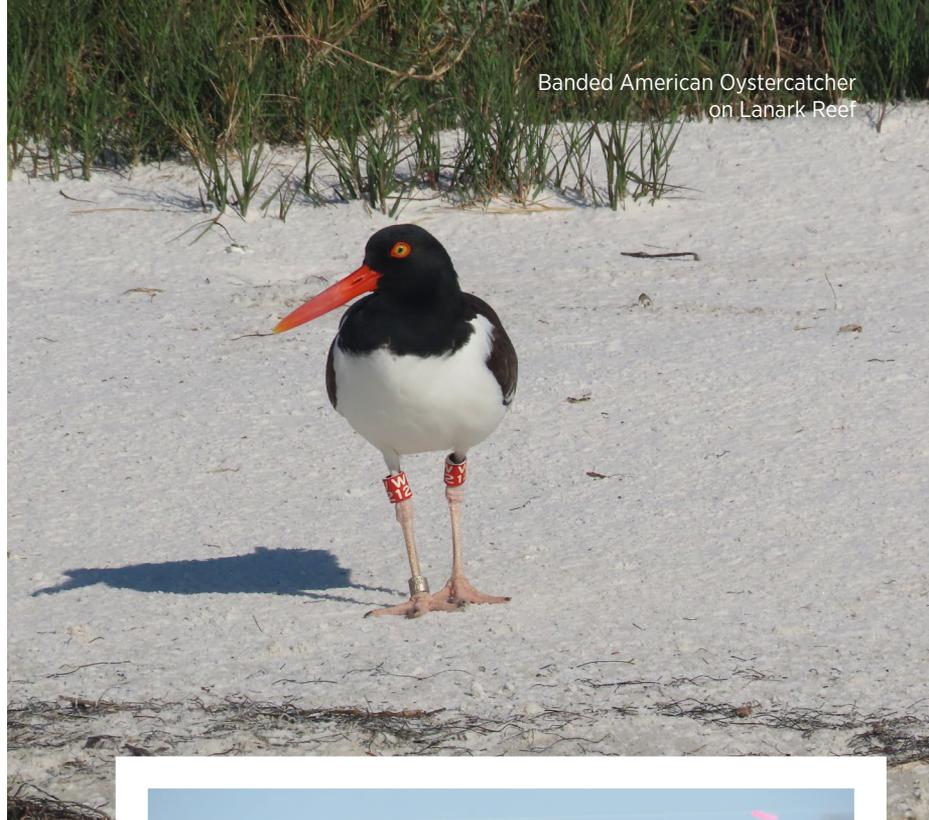
Northwest Florida's urban beaches, including Pensacola, Navarre, and Panama City, continue to support Least Tern and Black Skimmer nesting. Destin has become a hot spot for Least Terns, with 200 chicks fledged this year. The offshore and remote habitats of the Eastern Panhandle harbored a greater variety of nesting species, including: Black Skimmers, Least Terns, Snowy Plovers, Wilson's Plovers, American Oystercatchers, Royal Terns, Caspian Terns, Gull-billed Terns, and Brown Pelicans. A highlight this nesting season: seven American Oystercatchers fledged from Audubon-monitored sites, and more fledged from the region.

NORTHEAST FLORIDA

Northeast Florida saw successful Least Tern nesting at Amelia Island State Park through consistent stewarding and some additional management of the site. Anchor stewards and volunteers also contributed to the successful nesting of Least Terns and Wilson's Plovers at the Talbot Island State Parks and Ft. Matanzas.

SOUTHWEST FLORIDA

Colonies here produced over 400 Black Skimmer chicks, even after suffering through illness, red tide, and a hurricane. An ephemeral sand island off Caxambas Pass Critical Wildlife Area became a favorite for Least Terns this year, fledging 150 chicks. Florida Coastal Islands Sanctuaries staff documented over 24,000 breeding pairs of wading and shorebirds of 26 species, including Roseate Spoonbills, Reddish Egrets, American Oystercatchers, and Brown Pelicans.



Banded American Oystercatcher
on Lanark Reef



Least Tern colony on Lido Key

ROOFTOPS

Audubon staff monitored 15 active rooftop colonies in the Panhandle as well as 31 active colonies in the greater Tampa Bay area. The team recorded Least Terns as the predominant nesting species on rooftops, though we also watched American Oystercatchers and Killdeer as well. Rooftops are much harder to monitor than beach sites because of access and building height. However, our staff used various cameras and surveillance tools to improve our understanding of rooftop nesting.

Despite hurricanes, historic levels of human disturbance, and lingering uncertainty as the COVID-19 pandemic continued, our coastal team and volunteers worked around the clock to help chicks fledge. Though it was a difficult breeding season, it remained a successful one!

REGISTER NOW

2021 Audubon Assembly

From the forests of north Florida to the mangroves of the Everglades, from the bald cypress stands in Corkscrew Swamp Sanctuary to the living shorelines of the Tampa region, Florida relies on its natural resources for resilience in the face of a changing climate.

To advocate for Natural Climate Solutions, this year our Audubon Florida Assembly will journey across the state to experience these unique ecosystems. Don't feel like traveling? Sign up for the virtual components today!

Registration for any of the field trip experiences automatically registers you for all virtual events. Masks will be required at onsite events. If you prefer to experience Assembly from home, you can register for VIRTUAL ONLY sessions.

*Contact Alison Niescier with questions:
alison.niescier@audubon.org*

**OCT. 21 | 6 P.M. | VIRTUAL EVENT:
WELCOME AND CHAPTER SUCCESSES**

Welcome to the first session of the 2021 Audubon Florida Assembly! We will kick things off with a welcome from Executive Director Julie Wraithmell, followed by a round-robin of chapter successes, emceed by Jacqui Sulek.

**OCT. 28 | 6 P.M. | VIRTUAL EVENT:
CONSERVATION AGENDA SETTING FOR 2022**

Working with chapters from around the state, Audubon Florida will coordinate approval of the conservation agenda for 2022.

**NOV. 4 | 6 P.M. | VIRTUAL EVENT:
NATURE AS A CLIMATE SOLUTION: INLAND WETLANDS,
RANCHES, AND FORESTS**

Join us for an interactive workshop to learn how you can utilize inland wetlands, ranches, and forests as climate solutions in your community.

**NOV. 9 | 6 P.M. | VIRTUAL EVENT:
KEYNOTE BY SCOTT WEIDENSAUL, NEW YORK TIMES
BESTSELLING AUTHOR**

We will take to the skies for "A World on the Wing: The Global Odyssey of Migratory Birds." The sweeping and precisely timed migrations of birds make them that much more vulnerable to our changing climate. Join world-renowned author and researcher Scott Weidensaul as we explore the feats of migration that make these species so extraordinary.

Photo: Jean Hall

**Visit FL.Audubon.org/Assembly
for updates and registration details.**

NOTICE OF ANNUAL MEETING of the membership of The Florida Audubon Society. Pursuant to the Articles of Incorporation and Bylaws, notice is hereby given that the Annual Membership Meeting of the Florida Audubon Society will be held at 9 a.m. on Saturday, October 30, 2021. The meeting agenda will be to receive a financial report and hear any comments of the membership to the Board of Directors. A Meeting of the Board will follow immediately upon the conclusion of the Membership Meeting. For questions, contact Adrienne Ruhl at Adrienne.Ruhl@audubon.org.

Bird Bands and Satellite Trackers Unlock Secret Lives of Florida's Birds

Birds are everywhere, from the densest of cities to the highest of mountains, the driest of deserts to the deepest of forests. They are spread across Florida, the country, and the world, and yet their true nature can remain elusive. Birds are difficult to study, especially as they disperse away from their nesting grounds or fly hundreds of miles along migratory pathways.

Using bands and satellite trackers, Audubon scientists are unraveling the mysteries of some of Florida's most iconic species. We are already using this new information to advocate for the conservation and protection of the places they need most.

AMERICAN FLAMINGOS

Flamingos are unusual birds that are practically synonymous with Florida, even though they are rarely seen in the wild. Over the past several decades, however, more sightings have led to new research.

Starting in 2015, Audubon Florida's Director of Research Jerry Lorenz, PhD, took part in a study to determine the American Flamingo's (*Phoenicopterus ruber*) natural history and habitat needs. Led by Steven Whitfield (Zoo Miami) and other experts, the team affixed a tracking device to a young American Flamingo captured at the Naval Air Station at Boca Chica Key, Florida. The study tracked the bird, named "Conchy," for nearly two years and reported on the bird's whereabouts before the tracking device stopped transmitting signals.

According to the study, the flamingo spent much of its time around mangrove-fringed islands and mudflats at Snake Bight (Everglades National Park) within Florida Bay. The data showed that Conchy moved across the islands as prey became available, but did not leave Florida as many anticipated it would.

» Findings from the study can help guide management strategies for Florida Bay and surrounding regions with ramifications for flamingo conservation in the future.

FLORIDA GRASSHOPPER SPARROWS

Florida Grasshopper Sparrows (FGSP) are dependent on the dry prairie ecosystem of central Florida and found nowhere else. Some 90% of Florida's native prairies have been plowed under for human uses, but three large conservation areas, the Three Lakes Wildlife Management Area, the Avon Park Air Force Range, and the Kissimmee

Prairie Preserve State Park, have high quality habitat and have been managed specifically for sparrows. Back in 2000, the Florida Grasshopper Sparrow population at Avon Park dropped from about 150 singing males to ten in only four years. The Kissimmee Prairie followed next with a long decline; Three Lakes was last, as 140 singing males in 2008 declined to only 34 by 2019.

In 2020, we reintroduced the first captive-reared sparrows to the wild and they not only survived, but also nested and successfully fledged chicks. Three Lakes WMA, the area with the most sparrows remaining, had at least 89 birds this year, with 35 documented breeding pairs. This is almost twice as many as before the releases started. At least 80 babies fledged from nests in 2021. The DeLuca Preserve had at least 17 singing males and is a candidate for new releases in the coming years.

» The bands help researchers follow the family trees of these sparrows, to monitor breeding success of captive-reared versus wild sparrows, and track how their offspring fare over time.

The reason for the sparrows' decline remains unclear. Is it disease, low nest success, low annual survival, habitat management problems? Captive releases buy us time to resolve underlying issues driving declines.

Florida Grasshopper Sparrow
Photo: Christina Evans



ROSEATE SPOONBILLS

When early conservationists established Audubon's Everglades Science Center (ESC) in the Florida Keys in 1939, staff began Audubon's 75-plus year history investigating the spoonbill and its environment.

Roseate Spoonbills have gradually recovered and have established new nesting colonies in South Florida, in the Tampa Bay area, and along central Florida's Atlantic coast. Now, according to new research by Dr. Lorenz, spoonbill nests are shifting to escape habitat destruction in the Keys, as well as poorly timed water releases in the Everglades. In 2009, the "pinks" became one of 13 indicator species recognized by the South Florida Ecosystem Restoration Task Force within the Everglades Restoration Plan.

In 2003, Audubon Florida began applying leg bands to chicks in nests in Florida Bay and Tampa Bay at the Richard T. Paul Alafia Bank Bird Sanctuary (leased from and managed in collaboration with The Mosaic Company). In 2013, the team began banding birds that hatched from nests at St. Augustine's Alligator Farm; in total, we have banded more than 3,000 chicks. Banding spoonbills has led to a greater understanding of dispersal rates and behavioral structures after nesting season in the Florida Bay is over.

» In 2021, researchers added satellite trackers to a handful of spoonbills, leading to the discovery of previously unknown nesting areas. This data will also indicate how Roseate Spoonbills will be able to handle climate change and how the birds are affected by sea level rise.

AMERICAN OYSTERCATCHERS

Lanark Reef is a two-mile long string of sandy vegetated islands surrounded by marshes and mud flats. During low tides, the site grows in size as the drop in water level

exposes a vast expanse of sandbars and seagrass beds that are perfect for foraging shorebirds and roosting seabirds.

While there are a large number of shorebirds and seabirds at the site, the high number of nesting and non-breeding American Oystercatchers is the primary reason for ongoing protection of Lanark Reef. In 2021, Audubon Florida staff counted 13 nesting pairs of oystercatchers, and during the winter, we documented over 120 non-breeding American Oystercatchers, making Lanark Reef a location of international importance to shorebirds.

» The 2021 breeding season proved successful, with all nesting species fledging chicks. For the first time in nine years, a flight-capable American Oystercatcher chick successfully fledged and was documented at another site. How do we know? The bird bands!

BLACK SKIMMERS

Black Skimmers are one of the most striking birds on the East Coast: These black-and-white birds with the massive, underslung, orange lower jaws cruise the waters of beaches and back-bays from Florida all the way to Maine. However, for all of their conspicuousness, researchers did not know how far skimmers traveled during migration, if they returned to the same nest year after year, how they picked mates, or even how long they typically lived. All that has changed with Black Skimmer banding programs led by Audubon and partners, and the information we've learned has profound implications for skimmer conservation going forward.

The programs, the first of which began in partnership with Dr. Beth Forys of Eckerd College in Tampa Bay in 2015, have spread across the Atlantic Flyway. Projects



Roseate Spoonbill
Photo: Mark Rachal



Black Skimmer
Photo: Jean Hall

in Florida, North Carolina, New York, and other states all attach tags to skimmer chicks that anyone with a good pair of binoculars can read and then report back to a central database.

» **We have already learned so much. For example, Black Skimmers spotted at Clam Pass in Collier County in mid-winter include birds banded in FL, NJ, NY, NC, VA, and MA, which highlights the importance of Florida’s Gulf Coast beaches to skimmers from as far north as New England.**



Banding a Least Tern.

LEAST TERNS

Least Terns are small seabirds that nest throughout much of the continental United States during the summer months before migrating south for the winter. While historically they have nested in mixed-species colonies directly on sand, human development, disturbance, and

increased predation have sent many to gravel rooftops, which resemble their preferred habitat while protecting their chicks from on-the-ground dangers. Audubon staff both monitor the rooftop colonies and install fencing to prevent as many chicks from falling off the roof as possible.

However, since banding began, we have learned that these baby birds are surprisingly resilient — the majority of chicks that fall off of their rooftop nesting sites actually survive to fledge. Moreover, baby terns born in these rooftop colonies can go on to nest on beaches or roofs, and do not necessarily choose to nest on the sites where

they were born. In fact, once a colony breaks up, birds disperse to different beaches and wintering grounds.

» **Critical information on rooftop Least Terns has taught researchers that these colonies not only produce fledglings for future roof nesting, but these individuals also join colonies up and down the Florida coastline. Put simply, protecting the roofs protects an important breeding pool that can pump up beach-nesting colonies as well.**

BALD EAGLES

In July, Audubon Florida staff recorded the first auxiliary band resight from the 2021 season! The Bald Eagle that we now know as Green K/48 was rescued on the ground near her nest in Orlando on April 21 and released on May 25. In mid-July, Nancy Barnhart and Steve Thornill spotted her again — perched hundreds of miles away at the Hog Island Wildlife Management Area in Virginia! Just a few weeks later, another eagle released in May was spotted and photographed by Wayne and Theresa Tyler when they visited Barren River Lake State Park in Kentucky, a bright green K/43 band on its ankle.

From 2017 through July 2021, Audubon has banded and released 70 fledgling Bald Eagles as part of an ongoing study to determine eagle nesting habits. Do eagles that hatch in artificial structures return to similar infrastructure when they build a nest? Or are they equally likely to choose a tree for their nest? Is nesting becoming more common on artificial structures?

» **“Banding resights like this one bring us one step closer to understanding the future of Bald Eagle nesting habits,” explains Shawnlei Breeding, Program Manager for Audubon EagleWatch, “We depend on community scientists to help us track these majestic birds.”**

Banded Birds: See Something, Say Something!

Bird banding is like scientists putting a note in a bottle and tossing it back into the sea of migration. The note only gives us information if someone observes and reports it when the bottle arrives on a far off shore! Because of your efforts, we can learn more about the movements, populations, and breeding success of our banded species.

For information on how to report birds of all different species visit: [FL.Audubon.org/birds/banded-birds](https://www.audubon.org/birds/banded-birds)

If you see a banded bird:

- Note date, time, & location — with GPS if possible
- Note the species
- Note which legs or legs have bands
- Note the color and order of bands — upper or lower and left or right leg. If the band or flag has an alphanumeric code, try to note the code
- Take a picture! Digital cameras work great through scopes and sometimes even binoculars

Tampa Conservationist Creates Audubon Legacy with Estate Planning

From volunteering at Tampa Bay Raptor Rescue to maintaining both a bird feeder garden and native plants at Hammock Park and Moccasin Lake Nature Park, Louis Petersen is no stranger to wildlife conservation. Recently, he has expanded his support for Florida's feathered friends by naming Audubon Center for Birds of Prey as a beneficiary in his estate planning.

"I like organizations like Audubon that work on environmental conservation and education. I specifically appreciate Audubon because of their work with habitat restoration for raptors and other birds," explained Petersen.

For the Audubon Center for Birds of Prey, planned gifts like Petersen's ensure the future success of critical programs, including rehabilitation, which leads to the safe release of hundreds of raptors each year; conservation education and community science opportunities for all ages; and the Conservation Leadership Initiative, a program for college students that prepares the next generation of conservation champions.



When asked about the process of allocating his estate, Petersen shared, "It was simple. I changed the beneficiary of my account online with my bank, contacted Audubon beforehand to receive the EIN number, and was then sent a form where I designated the Center as the sole source where funds will go."

A simple act like Petersen's will make a lasting difference for the Center for Birds of Prey and continue a legacy of conservation.

Leaving a gift to Audubon in your will or trust, by beneficiary designation, or another form of planned gift can make a lasting difference to our work on behalf of birds and the places they need. For more information on how you can include Audubon in your estate planning, contact Audubon Florida Development Manager Rosa Rivera at rosa.rivera@audubon.org.

Looking for Ways to Double Your Impact in 2021?

If you are 70½ or older, you can make a tax-free distribution from your **traditional or Roth IRA** to Audubon Florida.

Here's how it works: you donate up to \$100,000 without incurring income tax on your withdrawal. The process is simple: you direct distributions in the amount of your choosing from your traditional or Roth IRA to Audubon Florida. This can be a one-time or recurring gift. The distributions go directly to Audubon Florida and are not subject to federal income tax. When making your gift, to ensure it is properly processed and that you are listed as the donor of record and the gift comes to Florida, please have all checks directed to the address below and contact Rosa Rivera at rosa.rivera@audubon.org or 904.238.0577 to let us know to expect your gift.

National Audubon Society
Office of Gift Planning
225 Varick Street, 7th Floor
New York, NY 10014



The restored Kissimmee River channel.
Photo: SFWMD

Audubon Celebrations Completion of Landmark Everglades Restoration Projects in 2021

TAMIAMI ROADBED REMOVAL COMPLETE

Old Tamiami Trail is a historic highway built in the early 1900s across the Everglades to connect the growing cities of Tampa and Miami. Unfortunately, the road blocked the critical flow of roughly 220 billion gallons of water through the River of Grass each year. In the summer of 2021, the Tamiami Roadbed Removal project finished six months ahead of schedule.

The roadbed removal project helps restore the ecologically important sheet flow of surface water south through the Everglades.

“Audubon is celebrating the righting of an ecological wrong,” says Julie Wraithmell, Executive Director of Audubon Florida, “The Tamiami Trail has long stood as an impediment to water flowing into Everglades National Park. With the completion of this project, connectivity and water flow are much improved, to support the imperiled habitats and species that need it most.”

KISSIMMEE RIVER RESTORATION PROJECT BRINGS BACK WETLANDS

After decades of construction, the Kissimmee River Restoration Project has restored 40 miles of river and floodplain and returned almost 25,000 acres to wetlands.

“The conclusion of the Kissimmee River Restoration project is a historic milestone for Everglades restoration,” said Kelly Cox, Director of Everglades Policy for Audubon Florida. “This event highlights an important shift in Everglades restoration projects across the state as we transition from construction to operation. We are thrilled with the ecological benefits we are already seeing from these projects,” she concluded.

The Kissimmee River once stretched 103 miles in length, curving through Central Florida as a haven for wildlife, including at least 39 species of fish and 38 species of water birds. Its two-mile-wide floodplain was regularly inundated by seasonal rainfall, which provided important habitat to fish, wading birds, and other species. However, between 1962 and 1971, the United States Army Corps of Engineers (USACE) channeled the Kissimmee River and created a 30-foot deep, 300-foot wide, 56-mile-long drainage canal (C-38). This project drained approximately 50,000 acres of the Kissimmee’s floodplain wetlands, of which about 25,000 are being restored.

Following restoration, Lake Kissimmee is expected to rise one and a half feet, storing water to feed the river during the dry season and rehydrating another 20 square miles of dried marshes. The river’s floodplain will flood seasonally and the river will meander again in order to replicate its natural path.

Wetland habitats of the Kissimmee River channel and floodplain now support at least 159 bird species, 66 of which are considered wetland-dependent during some portion of their life cycles.

Audubon has been advocating for the restoration of the Kissimmee River since channelization construction began. We supported the restoration when Congress authorized the project in 1992, and advocated for water reservation until eventual approval in 2020. Through it all, we have been a voice for birds and wildlife that have benefited from the newly restored river, as well as vocal proponents of how the natural channel will benefit flood control and water quality for surrounding communities.

A New Enclosure Project Helps Ambassador Birds While Fostering the Next Generation of Avian Scientists

Here at Audubon, we let science guide our work. And thanks to our dedicated volunteers, we're even using science to help redecorate the habitats of our resident education birds. Gaining insight into the preferred perches and habits of birds in their enclosures helps us create a healthy environment for these special species in captivity.

At the Center we have 39 ambassador birds, each with their own enclosure preferences. When it was time to alter the interiors of their living spaces, high school student and volunteer Anna La Sala began collecting data: She observed 14 birds in seven enclosures for five minutes at a time, for two-hour sessions, across 14 different days, mapping out where each bird sat and moved. The team scanned her maps, overlaid the different sessions on top of each other, and compiled

a final map. From this spatial representation of bird movement, recommendations were created to update or reconfigure bird enclosures.

For example, when observing a Turkey Vulture named Mortimer, they noticed she preferred the branches in her space, as well as the platform and the very top of poles. When moving items around her enclosure, the team recommended adding a new platform as well as a branch leading right to it.

"Bird welfare always comes first at the Center for Birds of Prey," says Laura VonMutius, Education Manager, who helped Anna run the mini-study, "Using these observations, we are fostering scientific inquiry in our volunteers, while making sure the raptors have the enclosures they prefer."



Amelia, a resident Peregrine Falcon

Hundreds of injured or orphaned birds arrive at Audubon each year. Many are released back into the wild, however, some remain non-releasable and are housed at the Center or placed at other facilities throughout the country. These education ambassadors at the Center educate visitors about raptors, challenges they face, and how people can become involved in conservation.



Mortimer, Turkey Vulture

Caring for owls, hawks, and eagles is both expensive and time intensive. Are you interested in supporting our clinic?

Please consider a gift: CBOP.AUDUBON.ORG



Wood Stork
Photo: David Hooper/Audubon Photography Awards



Wood Stork nests at Lenore Island

Despite Changes in Seasonal Water Patterns, Corkscrew Swamp Sanctuary Continues to Attract Wood Storks. Their Success Depends Upon Restoration.

In 1954, concerned citizens in Southwest Florida rallied together to protect the old-growth cypress forests of Corkscrew Swamp from logging. These trees, now more than 500 years old, supported the renowned Corkscrew wading bird colony that seasonally hosted thousands of nests and fledged tens of thousands of Wood Stork chicks. Establishment of Audubon's Corkscrew Swamp Sanctuary provided much-needed protection of the colony site, but Wood Storks remained vulnerable to ecological changes throughout the region, as their core foraging area includes all wetlands within 18.6 miles of the colony.

Since the 1960s, Wood Stork nest numbers at the Corkscrew colony have declined steadily, concurrent with development. In recent years, Wood Storks have opted to not nest at the Corkscrew colony site more often than they've chosen to nest — a clear sign that food resources in our area are inadequate. Years that Wood Storks choose to nest at the Sanctuary, particularly when they're able to successfully fledge chicks, give scientists hope that there is still time to improve regional conditions and restore annual nesting.

Wood Storks incubate their eggs for 30 days, and fledge their young about two months after hatching. The chicks are fast-growing and have large food requirements: their primary food being small fish and crayfish. Loss of wetlands and a decline in the quality of many existing wetlands have reduced the ecosystem's capacity to produce enough aquatic prey to support a large Wood Stork colony in the Corkscrew area. To make matters worse, over-drying of the Sanctuary during the dry season (as we've seen in recent decades) makes nests vulnerable to mammalian predators.

For the second consecutive year, unusual winter rainfall patterns delayed Wood Stork nesting, which in turn reduced annual nest productivity. In 2020, while regional nesting began in March, Wood Storks chose not to nest at the Sanctuary at all. This trend is troubling for storks, as predictions of global climate change call for increased variability in annual rainfall patterns.

In 2021, the first nests were observed in the Corkscrew colony during the first week of March. While over 60 storks were in the colony, they were attending to only 16 active nests — a fraction of the nests seen historically at this colony. This mixed colony also contained over 140 Great Egret and a few Roseate Spoonbill nests. By June 1, we observed 13 successful Wood Stork nests, with 25 fledgling chicks. Two other Southwest colonies were active this year, Lenore Island (on the Caloosahatchee River) and BC-29 (along SR-29), both producing significantly more nests and fledged chicks than the Corkscrew colony.

While Wood Stork numbers have declined precipitously in the Western Everglades, Wood Stork nesting has increased modestly in the Greater Everglades in recent years, and increased dramatically in Georgia and South Carolina. The decline in Wood Stork nesting in Southwest Florida is a clear indicator of the loss and degradation of our region's wetlands, but the storks' annual return to the Sanctuary offers hope. Audubon will continue to work with our federal and state partners to conserve and restore wetland hydrology, while improving foraging conditions in and around the Sanctuary in hopes of seeing our Wood Stork population rebound.

EAST CENTRAL FLORIDA GREENHOUSE GAS INVENTORY (GHGI) COHORT

College students worked with local governments and agencies in an environmental effort to assess greenhouse gas emissions.



Audubon Florida partnered with the East Central Regional Resilience Collaborative (R2C) and ICLEI Local Governments for Sustainability to organize the Spring 2021 Cohort.

EAST CENTRAL FLORIDA REGION

4 MILLION RESIDENTS
20% OF FLORIDA'S POPULATION

60 MILLION VISITORS ANNUALLY

18 LOCAL GOVERNMENTS

Counties

Volusia

Lake

Orange

Osceola

Brevard

Seminole

Cities/Towns

Cape Canaveral

Cocoa Beach

Satellite Beach

Titusville

Ormond Beach

Rockledge

Kissimmee

Melbourne Beach

DeLand

Palm Bay

Cocoa

Apopka



Student and municipal teams received specialized training from ICLEI to assess the emissions produced by government operations in municipally-owned buildings, municipal fleet usage, and waste services, among others.

3 PARTICIPATING SCHOOLS

- Stetson University
- Florida Institute of Technology
- University of Central Florida

90 HOURS PER STUDENT
= OVER 1,500 HOURS OF INVENTORY



Students not only gained internship credit, but also valuable skills working with their assigned local government and received a certificate of completion.

RESULTS!



At the end of the program, municipalities and counties received a detailed inventory report of their emissions that can be used to make informed decisions and compile climate action plans for their communities.

“We are thrilled to partner on this work to accelerate sustainability, save taxpayer dollars, and make Florida communities more resilient...all while providing on-the-job training for the next generation of leaders in this field.”

Julie Wraithmell, Executive Director of Audubon Florida

TO LEARN MORE ABOUT AUDUBON FLORIDA'S EFFORTS, GO TO FL.AUDUBON.ORG

Congress' Bipartisan Infrastructure Framework Means Progress Toward a Cleaner Energy Future for Birds and People

Audubon is celebrating the collaborative process that is resulting in US Senators finalizing the details of the Bipartisan Infrastructure Framework. This will be a meaningful down payment on the future clean energy and resilience investments our country needs, all while putting Americans to work.

In addition to investments in traditional “gray” infrastructure like airports and roads, the framework allocates meaningful spending to programs that would increase climate resilience, reduce emissions, and create a foundation for a cleaner energy future, including:

- \$73 billion for upgrades and improvements to the electricity grid, to allow for greater penetration of residential, commercial, and grid-scale renewable energy
- \$16 billion for capping orphaned wells and cleaning up abandoned mines, reducing methane emissions and local air and water pollution while restoring landscapes
- \$47.2 billion for climate resiliency projects
- \$7.5 billion for electric vehicle (EV) charging stations

Senator Marco Rubio filed an amendment to fully fund authorized Everglades restoration projects for \$5 billion.

While the framework does not fund some programs at high enough levels to fully meet the challenges of our changing climate, we hope that critical climate investments will follow passage of the framework. These could include a Clean Energy Standard, federal incentives for electric vehicles and renewable energy generation, and investments in climate resilience. Meaningful investments in resilience would include restoration and protection of wetlands, barrier islands, and other landscapes that buffer communities and wildlife from the impacts of climate change.



Tricolored Heron
Photo: John Wolaver

“The bipartisan infrastructure bill is an important step towards building a stronger and more resilient Florida, with funding included for transportation infrastructure, climate, energy, and environmental programs. Congress will continue to work on filling in the gaps via the Reconciliation Bill to invest in natural climate solutions and environmental justice programs that will equitably protect communities across the state and country.”

– Beth Alvi, Director of Policy

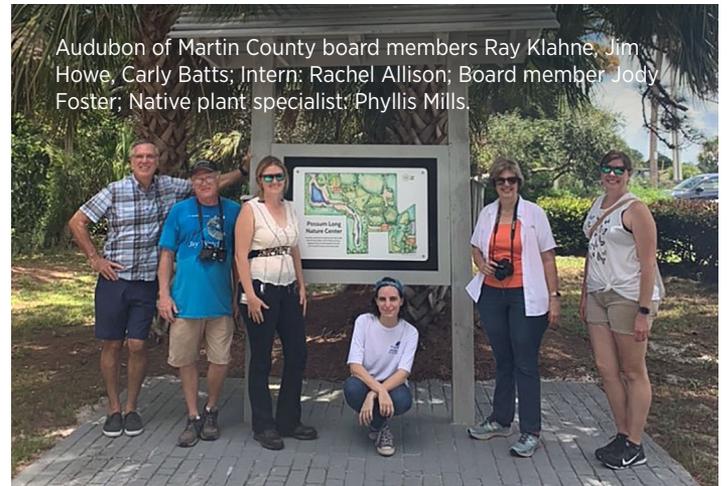
Audubon Chapter Interns Lead the Way

Audubon Florida chapters are all about getting things done. Despite COVID-19, many chapters found ways to engage students in meaningful internships in the 2021 fiscal year.

ALACHUA AUDUBON SOCIETY

Alachua Audubon Society annually hires several interns who receive scholarships in exchange for their hard work, including an opportunity at the Prairie Creek Banding Lab. Established in 2019 in partnership with the Alachua Conservation Trust and the University of Florida, the banding lab engages interns in hands-on training alongside conservation professionals.

Through mist netting, students learn how to identify birds and gain a better understanding of how birds rely on the diverse habitats in the region. Students also pick up valuable extraction and banding experience, which are incredibly important assets for any new graduate in the field of biology, while providing critical data toward land conservation and management.



Audubon of Martin County board members Ray Klahne, Jim Howe, Carly Batts; Intern: Rachel Allison; Board member Jody Foster; Native plant specialist: Phyllis Mills.

MANATEE COUNTY AUDUBON SOCIETY

Inspired by other chapters, Manatee County Audubon Society recruited five interns in 2021 to help with a variety of ongoing and upcoming projects, including the implementation of the habitat management plan on Felts Preserve. Located in Palmetto, Felts is a 28-acre preserve that has been owned by the Manatee County Audubon Society since 2002. With a variety of habitats, it hosts as many as 174 year-round and migratory bird species. Students are also invited to engage in Manatee's Audubon Adventures, Colony Watch, and Climate Change Advocacy programs.



Above: Interns Zack Cavanaugh (L) and Shivam Shukla (R) doing native plant restoration with Manatee County Audubon Society.

Left: Audubon of Martin County hosted a native plant giveaway and gave away free plants, such as Sunshine mimosa (L) and Lanceleaf coreopsis (R).



Veronica Simeoni interned with Alachua Audubon Society for two semesters and says she has become more appreciative of the diversity of migratory and resident birds in Alachua County. “I’ve never had a position where I’m surrounded by so many like-minded individuals. What unites us is this fondness for not only birds, but wildlife as a whole,” she explains.

Chloe Arbogast assisted with American Kestrel nest box monitoring at the banding lab during her internship with Alachua Audubon Society. “It was breathtaking seeing such elusive birds up close. I was impressed with how many kestrels were using the man-made nest boxes. There were a couple of nests with five speckled eggs! I found it a huge success for wildlife conservation and an interesting management strategy.” She is inspired to use these techniques in future research efforts and plans to pursue a master’s degree.



Grayson Koch loved learning to band birds as an Alachua Audubon Society intern. “Learning how to extract birds from mist nets was well worth all the cardinal bites and stressful mornings when the weather is below 40 degrees and not a second can be wasted to ensure the birds keep their energy,” he says.

Shivam Shukla is a Tampa native who initially enrolled at the University of Maryland, College Park to study computer science. However, they realized that their true passion was the environment, and transferred to the University of South Florida, applied for the Manatee County Audubon Society’s internship program, and became engaged in wading bird conservation through Colony Watch. Shivam plans to graduate in the coming year with an environmental science degree.



At Audubon of Martin County, an internship invites students to create and assist in the delivery of education programs for the community. **Rachel Allison** led nature walks at Possum Long Nature Center, aided in administrative tasks in the office, set up an informational table on native birds at the Blake Library, and just finalized a PowerPoint presentation on climate change and bird migration that the chapter will use in the fall.



Wood Storks.
Photo: Cheryl Black/Audubon Photography Awards

Florida Photographer's Wood Stork Photo Earns Recognition

We were thrilled to see that one of our very own volunteer photographers, Cheryl Black, had a photo chosen as part of Audubon's Top 100 Photography Awards!

Cheryl photographed this group of Wood Storks at Wakodahatchee Wetlands in Delray Beach.

"The boardwalk at Wakodahatchee Wetlands winds through mangrove islands covered with dozens of Wood Stork, Anhinga, cormorant, egret, and heron nests in the spring. Because nests are so crowded together and the mangroves so thick, it can be difficult to get a good picture," Cheryl explained, "I patiently waited as all four of these ancient-looking birds moved around the nest, trying to get comfortable in what seemed like an impossibly small space. The birds looked handsome and dignified together, much like an old-fashioned portrait of a very serious family."

[View all the award-winning photos at: bit.ly/3hDWcDs](https://bit.ly/3hDWcDs)



Protect the birds and we protect the Earth.

STAY IN TOUCH: FL.Audubon.org/stayintouch



Audubon | FLORIDA

4500 Biscayne Boulevard, Suite 350, Miami, Florida 33137
Tel: 305-371-6399 | Fax: 305-371-6398 | fl.audubon.org

The Naturalist is published by Audubon Florida. No portion of this publication may be reproduced without written permission from Audubon Florida © 2021. The Florida Audubon Society, National Audubon Society (doing business as Audubon Florida), and the 48 chapters in Florida, work together in a strategic alliance.

Executive Director: Julie Wraithmell | **Production:** Target Printing | **Editor:** Erika Zambello
Associate Editor: Renee Wilson | **Designer:** Frances Roy Agency | **Contributors:** Laura Aguirre, Beth Alvi, Shawnlei Breeding, Shawn Clem, PhD, Kelly Cox, Michael Ferrara, Halle Goldstein, Paul Gray, PhD, Heidi McCree, Olivia Sciandra, Laura VonMutius, Rosa Rivera, Caroline Stahala, PhD, Renee Wilson, Julie Wraithmell, Erika Zambello.

