 Audubon | FLORIDA
State of the
Everglades
Spring 2024

Corkscrew Swamp Sanctuary. Photo: Sydney Walsh/Audubon.

This year we are thrilled to celebrate 70 years of Corkscrew Swamp Sanctuary—a gateway to the Western Everglades. Thanks to the efforts of brave members of our community to save ancient cypress trees in 1954, Audubon continues to protect more than 13,000 acres in Southwest Florida as a wilderness refuge for some of Florida’s rarest plants and animals, with access for 100,000 visitors a year to experience them via its 2.25-mile boardwalk.

Today, the Sanctuary is not just a haven, it is an incubator for state-of-the-art restoration science that informs our policy actions. The more we learn about hydrology, habitat management, and biodiversity at Corkscrew Swamp, the more equipped we are to weigh in on novel issues and defend against emerging threats across the Greater Everglades.

To that end, we are celebrating successes. New projects are in line for congressional authorization this year, including the critically important Western Everglades Restoration Project. Historic levels of funding continue to pour in from the state and federal government to support restoration work. A new national wildlife refuge unit will connect four million acres of habitat across the Everglades footprint. Ground has been broken on vital project components like the Everglades Agricultural Area Stormwater Treatment Area. And, the ecosystem is responding.

Our iconic American Flamingos blown in from Hurricane Idalia in 2023 continue to remain in Everglades National Park thanks to available forage and quality habitat—a bright pink indicator of the success of our Everglades conservation efforts.

There’s certainly more work ahead of us in 2024, but there would be a much steeper hill to climb if it weren’t for some motivated Auduboners 70 years ago. May their legacy continue in the work we do each day to restore our River of Grass.



Sincerely,
Kelly Cox,
Director of
Everglades Policy
kelly.cox@audubon.org

Photo:
Sydney Walsh/Audubon.



Lake Okeechobee. Photo: Sydney Walsh/Audubon.

Storage Solutions North of Lake Okeechobee Needed to Reduce Discharges

In February, following an unusually rainy January, the Army Corps of Engineers (USACE) announced plans to discharge water from Lake Okeechobee to the coasts to reduce water levels in the lake. High water in Lake Okeechobee both increases flood risk to nearby communities and harms the overall health of the lake. However, water discharges often create conditions for harmful algal blooms in both the Caloosahatchee and St. Lucie estuaries.

For decades, Audubon has advocated for water treatment and storage solutions north of Lake Okeechobee to address these issues while supporting broader Everglades restoration goals. Water storage projects north of the lake will prevent the lake from getting too high during wet periods and will store water for use during dry periods.

The South Florida Water Management District (SFWMD) and USACE are working together to meet the region’s water storage needs. These efforts include the Lake Okeechobee Watershed Restoration Project (LOWRP), the Lower Kissimmee Stormwater Treatment Area project, and most recently, the Lake Okeechobee Component A Storage Reservoir (LOCAR).

LOCAR is the largest storage feature of the Comprehensive Everglades Restoration Program north of the lake and includes plans for a 200,000-acre-foot reservoir. The project will store water during wet periods for use in drier times, while also providing flexibility for managing the lake and basin water levels to enhance overall environmental health.

The LOWRP and LOCAR are both in line to receive congressional authorization this year under the Water Resources Development Act of 2024. Audubon supports authorization of both projects because, once complete, they will allow water managers to store and treat water more effectively—reducing the likelihood of discharges and increasing beneficial water flows south to Everglades National Park and Florida Bay.

New Everglades to Gulf Conservation Area Will Stretch Across Four Million Acres

This March, the U.S. Fish and Wildlife Service (USFWS) announced the establishment of the newest unit in the National Wildlife Refuge System at a ceremony at the site of the country's first national wildlife refuge. Audubon Florida's Executive Director Julie Wraithmell, Director of Everglades Policy Kelly Cox, and Everglades Science Coordinator Paul Gray, PhD, were thrilled to join U.S. Secretary of the Interior Deb Haaland, U.S. Fish and Wildlife Service Chief Martha Williams, and Assistant Secretary for Fish and Wildlife and Parks Shannon Estenoz at Pelican Island National Wildlife Refuge in Vero Beach. Together they celebrated the establishment of the country's newest refuge unit: The Everglades to Gulf Conservation Area.

The establishment clears the way for the USFWS to begin protecting land in the four million-acre conservation area with acquisitions, easements, and landowner incentive programs.

“Audubon hired the first warden at Pelican Island National Wildlife Refuge when it was founded, and these uniquely American conservation assets are more important now than ever. Public, private, and Tribal partnerships like this one are essential to the future of Florida, our way of life, and future prosperity.”
— Julie Wraithmell, Executive Director, Audubon Florida

Special thanks to Audubon's own Dr. Paul Gray, who in a private capacity as a rancher, donated the first seven acres needed to set this new refuge in motion!



Audubon continues to foster strong relationships with federal agencies including the Department of the Interior (Julie Wraithmell and Kelly Cox pictured above with Secretary Haaland and Assistant Secretary Estenoz).

The first seven acres of the new conservation area.



Audubon Celebrates EAA Stormwater Treatment Area Ribboncutting



Audubon staff attended the much-anticipated ribbon cutting to celebrate filling the first cell of the Stormwater Treatment Area (STA) of the the Everglades Agricultural Area (EAA) Reservoir on January 25, 2024, hosted by the South Florida Water Management District.

At the event, a record number of attendees cheered as water entered the first cell of the STA, which is now complete.

Constructed on an expedited schedule, this water-holding area is a critical component of overall Everglades restoration. The EAA Reservoir, which broke ground last year, will hold 240,000 acre-feet of water, which in turn will be cleaned by this 6,500-acre STA. Together the Reservoir and STA are considered the “crown jewel” of the Comprehensive Everglades Restoration Plan, working to send water south, rehydrate our aquifers, connect Lake Okeechobee to the southern system, and reduce harmful discharges into the northern estuaries.

The remaining two cells in the STA will come online by this summer.

Vulnerable Cape Sable Seaside Sparrows need us to get the water right in South Florida as they struggle to survive. Photo: Lori Oberhofer/NPS.



What to Know about Cape Sable Seaside Sparrows

WHAT IS THE CAPE SABLE SEASIDE SPARROW?

A sub-species of the Seaside Sparrow, the Cape Sable Seaside Sparrow is a non-migratory bird with an extremely limited range—this unique bird calls the Florida Everglades home.

IS THE CAPE SABLE SEASIDE SPARROW ENDANGERED?

The sparrow was listed as endangered in 1967 due to its limited range and habitat threats caused by drainage of the Everglades south of Lake Okeechobee as part of the Central and South Florida Project. This initiative was meant to provide flood control for communities south of the lake.

The sparrow prefers the wetland prairies in and around Shark River Slough and Taylor Slough for nesting habitat, and six distinct sparrow subpopulations—labeled A through F—have been identified across the Central and Southern Everglades. According to the U.S. Fish and Wildlife Service, subpopulations B through F are “stable or increasing.” But numbers in subpopulation A, which is located along the northwest portion of Shark River Slough and to the south of Water Conservation Area 3A (WCA 3A), have continued to decline. Right now, there are limited pathways for water to flow out of WCA 3A, which, when combined with the billions of gallons of runoff from the Everglades Agricultural Area (EAA) and unseasonal rainfall, results in WCA 3A water levels that are too deep.

In normal years, specific water control structures are closed in winter to retain water in WCA 3A and dry out sparrow nesting habitat to the south. The S-12 and S-343 water control structures can directly impact sparrow habitat, but have limited flow capacity and do little to reduce overall water levels upstream in WCA 3A. Other structures with the capacity to impact water levels in WCA 3A without impacting sparrow habitat remain closed or are under construction, as in the case of the Tamiami Trail bridging effort.

Even so, the sparrow gets blamed when water levels in WCA 3A are higher than desired.



HOW HAS THE HABITAT BEEN CHANGED?

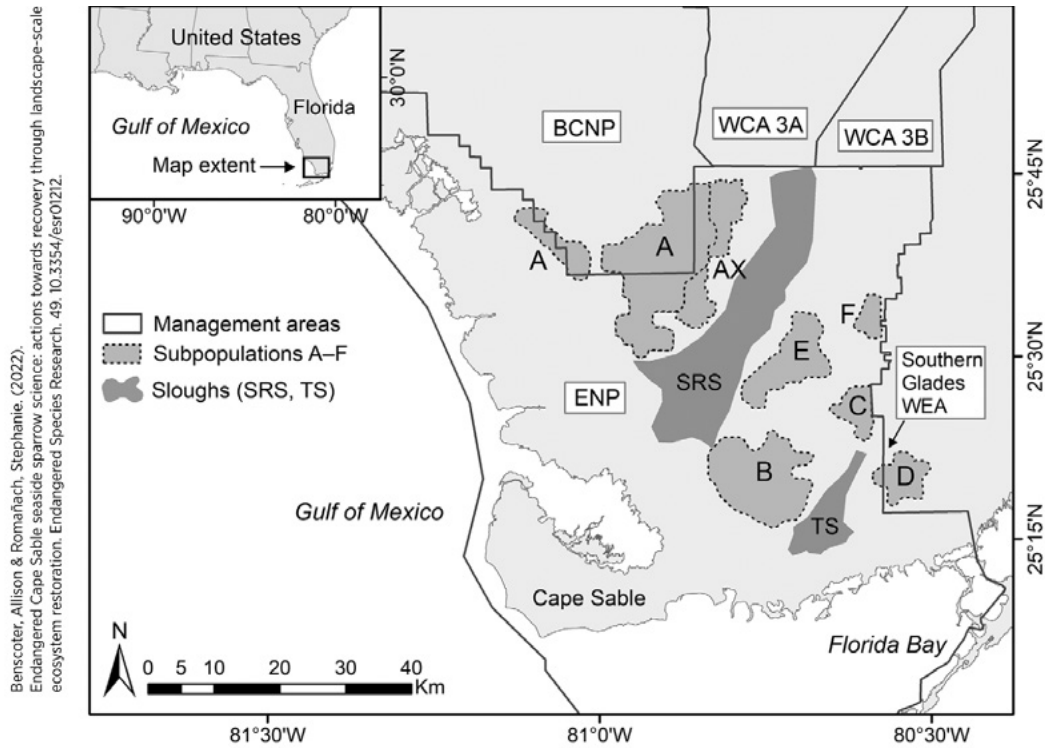
The sparrow didn't create the conditions that threaten its existence. Human efforts to drain the Everglades to create the EAA, provide for flood control, and foster urban development altered the natural volume, timing, and flow of water to Everglades National Park and Florida Bay. The Comprehensive Everglades Restoration Plan and restoration of the historic flows to Northeast Shark River and Taylor Sloughs are the remedies for the Everglades and the sparrow. Despite recent accelerated progress and unprecedented funding investment, restoration has suffered from numerous delays since being approved in 2000.

WHY IS THIS A PROBLEM FOR SPARROWS AND PEOPLE?

2023-2024 has been a particularly wet year as the result of a supercharged El Niño season. The additional rain has caused large amounts of runoff from farms within the EAA and other sources to flow south. While water in the Everglades is a good thing, too much water is causing flooding of nearby Miccosukee land, especially tree islands that host a unique community of flora and fauna and are of cultural significance to the tribe.

To mitigate this, the flood control structures that normally remain closed to protect sparrow habitat are actually open. Unfortunately, the open structures have not appreciably reduced the flooding caused by heavy rains this year, but they have impacted sparrow nesting habitat.

MAP OF CAPE SABLE SEASIDE SPARROW SUBPOPULATIONS



Benscoter, Allison & Romafach, Stephanie. (2022). Endangered Cape Sable seaside sparrow science: actions towards recovery through landscape-scale ecosystem restoration. *Endangered Species Research*, 49, 10.3354/esr0712.

Water control structures located along the Tamiami Trail have historically remained closed so as to protect sparrow nesting habitat in subpopulation A.

HOW CAN WE REDUCE FLOODING WHILE PROTECTING CAPE SABLE SEASIDE SPARROWS?

More water is flowing south from the EAA, but we do not have additional routes for the water to eventually make its way to Florida Bay. We must keep up the momentum in Everglades restoration to increase the distribution of water to the south so the WCA 3A area does not absorb all of the excess flood waters flowing from upstream agriculture and urban communities.

Parts of the Tamiami Trail have already been elevated, as an example, to allow additional water to move south. As this project continues, more water will be able to flow, reducing flooding issues.

Other projects like the Western Everglades Restoration Project will also create additional flow pathways for WCA 3A water. These complementary projects will be integrated into operational plans and will provide high-water-level relief once online.

As climate change and sea level rise continue to impact Florida's coastline, ultimately the Cape Sable Seaside Sparrow may need to move. Audubon has been encouraging conversations between experts, regulators, and land managers on the feasibility of a captive breeding program (similar to the one currently underway for Florida Grasshopper Sparrows) to ultimately boost population numbers and establish additional populations in the bird's historic range.



Photo: Lori Oberhofer/NPS.





Photo: Sydney Walsh/Audubon.

Corkscrew Swamp Sanctuary Celebrates 70 Years by Looking Back and Preparing for the Next 70

For more than a century, Corkscrew Swamp has inspired all who visit to protect and cherish this iconic wetland. In the early 1900s, Audubon wardens protected thousands of nesting birds from the devastation of plume hunters; in the 1950s, community members banded together to purchase and save the original 5,680 acres from logging; and in 1954, the National Audubon Society was chosen to safeguard Corkscrew Swamp in perpetuity as a sanctuary.

WHERE WE ARE GOING

From the forward-thinking conservationists in the 1950s to our current supporters today, the Sanctuary is built on a legacy of conservation champions working to secure a sustainable future for this special place. While we proudly continue this legacy today, we need your help. To secure Corkscrew Swamp Sanctuary’s future as an inspirational nature destination, a safe haven for wildlife, and a leader in the science of saving Florida’s wetlands, we must make foundational improvements to our campus.

Audubon is making strategic investments in the Sanctuary’s campus infrastructure that will strengthen our ability to deliver transformational programming and conduct the science needed to preserve this special place. These include:

» CONSERVATION COMMONS

The Sanctuary is a gateway to the Western Everglades and a critical part of the greater Everglades ecosystem. As private landowners with a revered land stewardship program, we are a leading conservation voice at the local, state, and federal level. As new developments and land uses are proposed, Audubon must influence neighbors and regional landowners for best practices that will improve water quality and water flow, provide wildlife corridors and habitat, and reduce drought and flooding

events. This conservation hub will house the new John “Jack” Hayworth Western Everglades Research Center, the Habitat Stewardship Operations Center, and Mission Control, serving as an incubator for collaboration between our research and land stewardship teams.

» PAUL PACTER OUTDOOR CLASSROOM

Place-based learning at the Sanctuary is life changing for our nearly 2,000 annual program participants. To increase our capacity to deliver educational programming, we must expand and transform our outdoor classroom space and functionality to allow an immersive experience through all seasons. Flexible space will allow us to serve families, younger children from local communities, more camp groups, and students of all ages, as well as increase and expand programs for the public.

» NEW VOLUNTEER HEADQUARTERS

Volunteers are a critical component of our mission, maximizing visitor engagement while reducing our bottom line. They lead youth education and public programs, enhance the visitor experience along the boardwalk, assist in the maintenance of our grounds, and work with our prescribed fire team. With 100 active volunteers dedicating more than 9,000 hours of their time annually, our volunteer program provides a cost savings of at least \$250,000 each year.



“With an enhanced campus, the Sanctuary will be uniquely positioned to convene stakeholders and share science-based stewardship plans that mitigate the growing impact of development in the region, ensuring long-term sustainability for wildlife and people.”

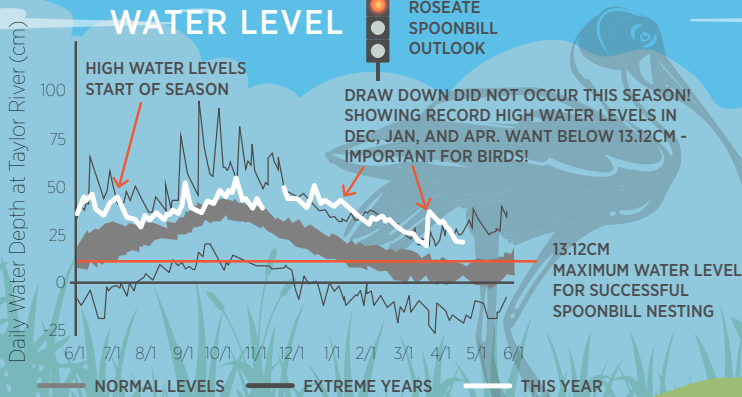
— Keith Laakkonen, Sanctuary Director

To help us reach our fundraising goals, contact Suzanne Bartlett at Suzanne.Bartlett@audubon.org for more information, or check out corkscrew.audubon.org/70-years



Audubon | FLORIDA STATE OF THE SLOUGH SPRING 2024

At the southern end of Everglades National Park, a series of sloughs convey fresh water to the Florida Bay estuary. Audubon researchers track these freshwater deliveries (or lack thereof) and their impacts on the ecology of Taylor Slough and the Bay.

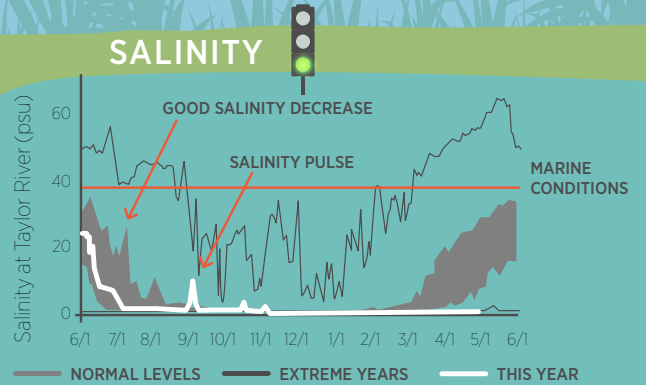


The 2023-24 water year started with record-high water levels in June and July. Since then, Taylor Slough has experienced higher-than-normal water levels. The drawdown that started in December was not sufficient to bring water levels below 13 cm by the end of January. Roseate Spoonbills need water levels of 13 cm or less for prey fish to concentrate, which in turn helps them feed their voracious chicks. Higher water levels lead to lower nesting success.

Florida Bay used to receive four times more fresh water from the Everglades ecosystem than it does today. As a result, rainfall makes all the difference between a healthy Bay and a hypersaline one, which can kill seagrass and the species that depend on it. Audubon uses our science to accelerate Everglades restoration projects to deliver much-needed fresh water to Florida Bay.



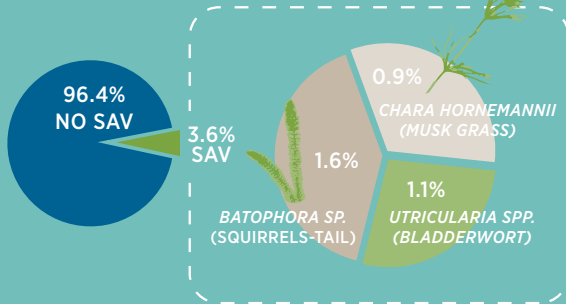
Taylor Slough



Historically, Taylor Slough was a freshwater ecosystem. The salinity pulse in September—possibly the result of a storm—had the potential to negatively impact freshwater plant and fish communities that are sensitive to salt. However, with constant low salinity readings throughout the year, no direct negative effects were noted from this event. Freshwater levels have been stable and consistent—a trend we need to see more of over the next couple of years to allow the system to have time to fully recover.

The average plant coverage for January through March was 3.6%, which represents a slight decrease compared to last year. This region is still experiencing very low coverage even though freshwater levels have been consistent this water year. We believe that the seedbank (the seeds in the sediment from the freshwater plant species) is low due to several years of highly fluctuating salinity values in the area. It may take the submerged aquatic vegetation longer to recover than we previously expected.

SUBMERGED AQUATIC VEGETATION (SAV) COVERAGE



FISH SPECIES CAPTURED THIS YEAR AT TAYLOR SLOUGH



For the end of the 2023-2024 water year, we caught 72 fish that could be classified as a freshwater species, accounting for 22% of the total catch. Fish community structure shows us how the ecosystem is responding to restoration efforts. A 22% catch of freshwater species is halfway to the restoration target of freshwater species making up more than 40% of the prey base fish community. However, the fish community in this region is currently comprised of 11% Mayan cichlids, an invasive species that prey on native species.

The freshwater fish population is showing signs of recovery, while the submerged aquatic vegetation may take longer to reach target levels. Our data highlight how important it is to keep salinity levels stable and low over long time periods, thus lengthening the period for these freshwater plants and fish species to establish. Their health is critical to the health of wading birds like a Roseate Spoonbill.

More than 100 Flamingos Counted in February Florida Census

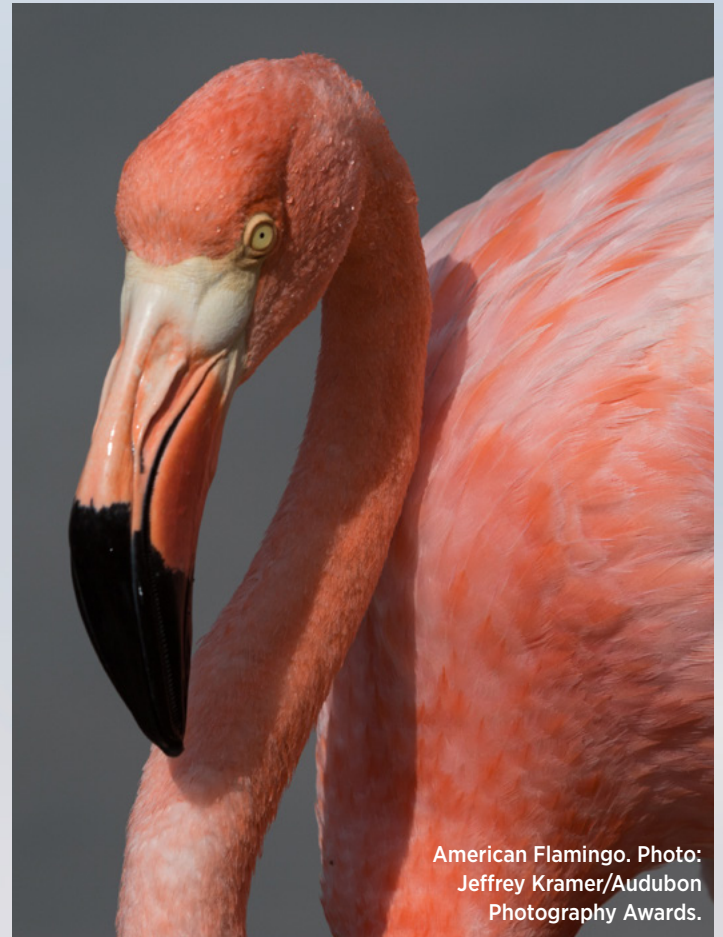
Earlier this year, Audubon Florida organized an American Flamingo survey across the Sunshine State. This effort was coordinated through the Florida Flamingo Working Group as part of a larger effort by the Caribbean Flamingo Conservation Group to census all American Flamingos throughout their range from February 18-25, 2024.

More than 40 people filled out the survey to record 101 wild American Flamingos across Florida. The largest group (50+) was spotted in Florida Bay; 18 were counted in the Pine Island area, with another 14 at Merritt Island National Wildlife Refuge.

“We are thrilled that there are flamingos that have remained in Florida after being blown here in 2023 by Hurricane Idalia. I actually suspect that 100 flamingos is the floor of this new population, and there could be more that were not counted during the one-week survey. We are continually monitoring for breeding flamingos,” says Jerry Lorenz, PhD, State director of research for Audubon Florida.

Flamingos were historically numerous in Florida until the 19th century plume trade—when an ounce of feathers was worth more than gold—decimated wading birds in South Florida. Even after legislation and Audubon wardens protected these birds, extensive draining and ditching of the Everglades destroyed their habitat.

Now that restoration momentum is flowing in the River of Grass, we are hopeful that protected wetlands and improved water flow will create enough habitat resources for the Hurricane Idalia flamingos to survive and thrive here.



American Flamingo. Photo: Jeffrey Kramer/Audubon Photography Awards.



American Flamingos. Photo: Harold A. Davis/Great Backyard Bird Count.



American Flamingo. Photo: Sydney Walsh/Audubon.



Wood Storks did not nest at Corkscrew Swamp Sanctuary this year. While they did fledge some chicks from other nesting colonies in Southwest Florida, high water levels from a very rainy winter season prevented many from successfully raising the next generation of storks. We need to continue to restore habitat at the Sanctuary and throughout Southwest Florida to bolster the resilience of this iconic wading bird. Photo: Cheryl Black/Audubon Photography Awards.

Everglades Coalition Conference Features Audubon Science and Policy Leadership

The 39th annual Everglades Coalition Conference took place from January 25-27 in Bonita Springs. Mark Perry, executive director of Florida Oceanographic Society and our very own Kelly Cox, director of Everglades policy, were the extraordinary co-chairs for this year's event. The weekend was filled with insightful conversation, engaging sessions, and opportunities to see old faces and meet new friends in the Everglades restoration community.

On Friday morning, National Audubon Society's Marshall Johnson, chief conservation officer, kicked off the conference with an informative breakfast presentation. He covered the ways Audubon is protecting migratory species across the country and highlighted our work here specifically. Later in the day, Paul Gray, PhD, our Everglades science coordinator, facilitated an intriguing panel on private lands and conservation. The conversation included a range of speakers from civil servants to ranchers.

All sessions inspired new ideas and connections, from talks on the Western Everglades and its unique

threats, to restoring Biscayne and Florida Bays, to using art to engage people in Everglades conservation. Many were in attendance from government agencies like the U.S. Army Corps of Engineers and South Florida Water Management District, Tribal leaders, non-governmental organizations, politicians, and more. It was a well-rounded event with keynote addresses from Shannon Estenoz, Assistant Secretary at the Department of Interior, Michael Connor, Assistant Secretary of the Army for Civil Works, and Congresswoman Debbie Wasserman Schultz, who spoke during the dinner ceremonies.

We look forward to next year's event in Miami at the Miccosukee Casino and Resort.

Audubon staff as well as members of the state and national board from across Florida and the national office led the conference, gave talks, participated in critical discussions, and more.

Tropical Audubon Society Vice President, Col. Terrence "Rock" Salt, was recognized for his contributions to Everglades restoration this conference. He was inducted into the Everglades Coalition Hall of Fame to commemorate his work leading the Army Corps of Engineers and advancing key projects like the Kissimmee River Restoration Project during his tenure as Colonel.





◀ Corkscrew Swamp Sanctuary is a conservation leader in Southwest Florida. Tours like the one led for the Big Cypress Basin Board allow us to share best management practices while sharing the importance of conservation and water quality for the region as a whole. Green Heron. Photo: Pamela Cohen/Audubon Photography Awards.

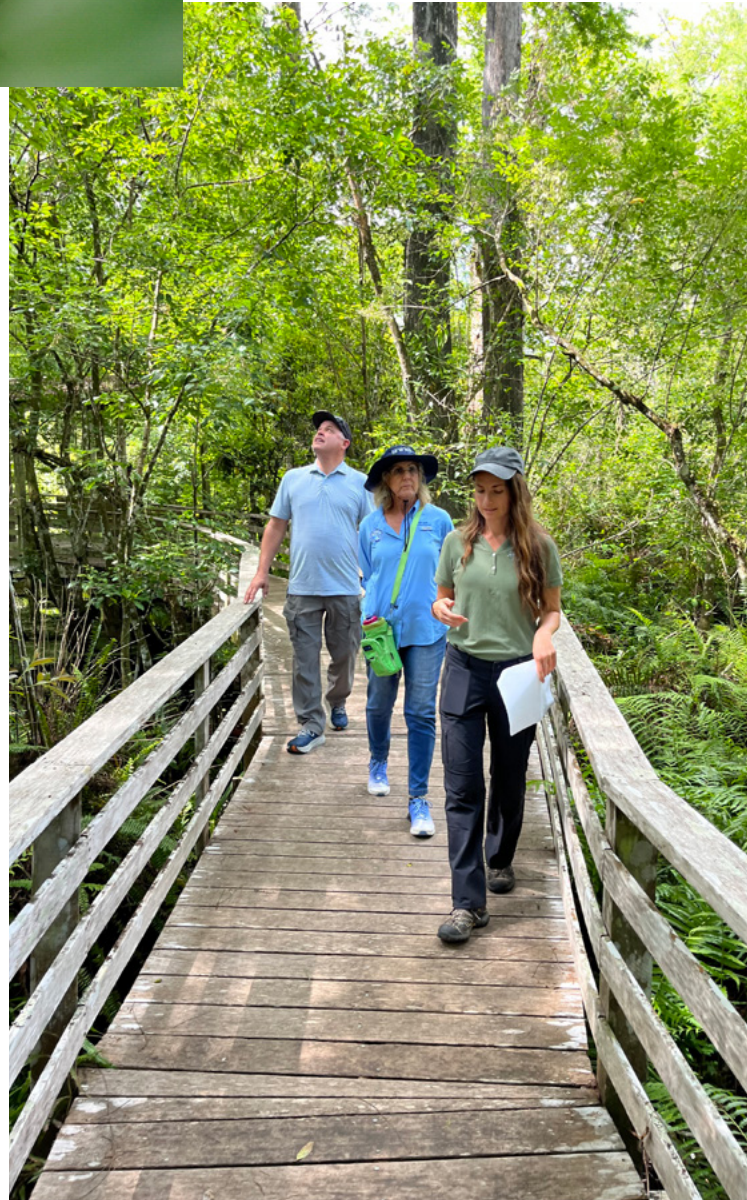
From left to right, Big Cypress Board Member Michael Romano, SFWMD Principal Engineer Robin Bain, and Audubon Everglades Policy Associate Caitlin Newcamp. Photo: Kelly Cox/Audubon Florida.



Audubon Leads Big Cypress Basin Tour

In late March, Audubon staff led tours of Corkscrew Swamp Sanctuary for the South Florida Water Management District Big Cypress Basin Board, including several newly appointed members. The day consisted of a guided boardwalk tour as well as a ride through the backcountry. Audubon staff discussed Sanctuary history and its significance in maintaining the largest tract of old-growth bald cypress forest in the world. They brought members through sections of wet prairie to highlight the importance of shallow, seasonal wetlands and how water levels have fallen significantly in recent decades. Wood Storks, which no longer breed in large numbers at the Sanctuary, are clear indicators of these changes.

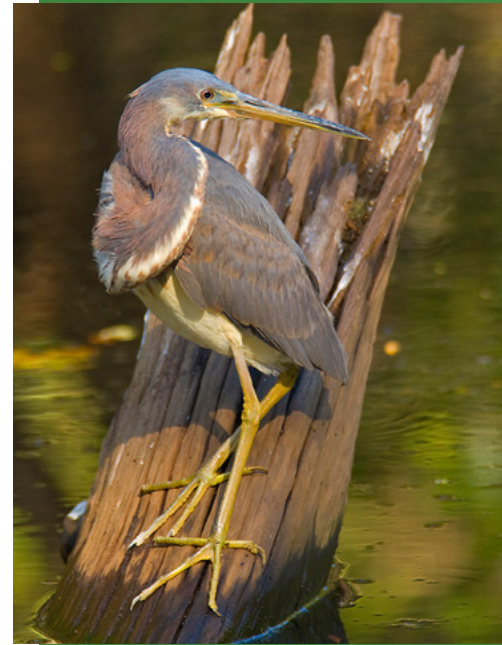
The board members saw firsthand the Sanctuary staff's efforts to control native-nuisance species on the property, including Carolina willow. The successful removal strategy pioneered here is now implemented by agencies across the state. They also discussed the range of iconic species that rely on the Sanctuary as habitat, such as the Florida panther and the ghost orchid, and the importance of collaborating with partners and neighbors on combating recent threats of developments nearby. Both in the backcountry and on the boardwalk, board members could see evidence of prescribed fire and learned about many benefits of this practice, including reducing catastrophic wildfire risk.



State Budget Delivers High Levels of Funding for Everglades

On March 8, the 2024 Legislative Session officially came to a close. From conservation funding and the much-awaited updated stormwater rule, to flood disclosure requirements—a first for our flood prone state—and fines for the intentional release of balloons, the 2024 session tackled a host of environmental issues. Audubon Florida’s policy team, led by Senior Director of Policy Beth Alvi, worked overtime to stay on top of worrisome bills, collaborate with elected officials on bill language and amendments, and keep our stakeholders up to date.

The legislature passed a \$117.4 billion budget for the coming fiscal year. The budget sets aside \$10 billion in reserves and \$500 million for a state Emergency Preparedness and Response Fund. It also includes more than \$740 million for Everglades restoration.



▲ We know that funding alone cannot guarantee a healthy environmental future. We must combine high funding levels for critical programs with common-sense regulatory modernization to improve water quality and quantity across the Sunshine State. Tricolored Heron. Photo: Joseph Mahoney/Audubon Photography Awards.

EVERGLADES	AMOUNT
Comprehensive Everglades Restoration Plan (CERP)	\$550,000,000
Northern Everglades and Estuaries Protection Plan (NEEP)	\$71,516,213
Transfer to Everglades Trust Fund	\$64,000,000
Dispersed Storage	\$5,000,000
Lake Okeechobee Watershed Restoration Plan	\$50,000,000
Operation and Maintenance for SFWMD (SB 1638)	\$150,000,000
TOTAL	\$890,516,213



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Sign up to receive Audubon Florida’s electronic newsletters and action alerts for opportunities to advocate for Florida and our Everglades.

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