



Audubon | FLORIDA

State of the
Everglades

Winter 2019



Wood Stork. Photo: Sandra Rothenberg

Dear Friends,

What do you love most about the Everglades? During a recent a trip to the River of Grass, I realized how much I treasure seeing its cotton candy skies reflected in the vastness of the sawgrass.

I imagine that the same feeling of freedom I get gliding on an airboat is what birds feel as they glide through the air and catch their reflection in the sparkling, grassy waters. As we face hardships in our resolve to bring this ecosystem to its former glory, I urge you to remember why *you* love the Everglades.

On the heels of a very dire report on the fate of birds in the era of climate change, we have reason to hope for a better future. The 2018 wading bird nesting season showed Floridians the tremendous amounts of additional freshwater this ecosystem needs to provide enough nourishment for hundreds of thousands of birds to successfully nest and fledge their young. Those nests are the reaffirmation that Everglades restoration is indeed the best tool we can employ to mitigate and adapt to climate change and the challenges of rising sea levels. Not only for the sake of birds, but for us humans, too.

Audubon's advocacy network and conservation partners created the political will in Tallahassee to commit an annual minimum of \$200 million for Everglades restoration. Last year, we secured more than \$360 million, and this year Governor DeSantis is calling for three more years at this same level. Thanks to you, we are on the verge of achieving the impossible once more — historic Everglades appropriations from Congress to match Florida's steadfast commitment to restoration are within grasp.

Here's to you, for never giving up and for making the impossible, possible!

Celeste De Palma,
Director of Everglades Policy

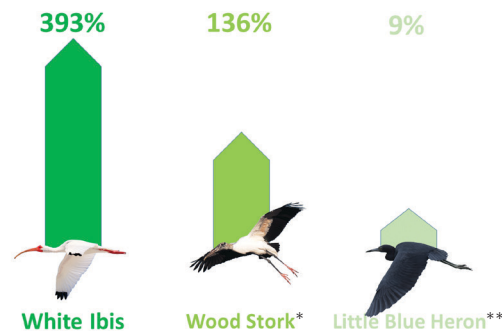


Wading Birds Need Everglades Restoration

Birds are an important tool for understanding the natural world around us. Wading birds, in particular, are considered an indicator of good hydrologic conditions — when water quality is good, wading birds tell us through successful reproduction.

The annual South Florida Wading Bird Report, which includes data contributed by Audubon scientists, provides a comprehensive overview of long-term nesting trends, and provides a glimpse into how the birds are responding to climatic conditions, water management, and restoration efforts.

While the 2017 report showed some of the highest nest counts in a decade, the 2018 report showed even higher nest counts - proof that once Everglades restoration is complete, we can expect to see more of these banner years more frequently. Rainfall in the summer of 2017 was slightly above average before Hurricane Irma added extra rainwater to the already saturated Everglades, and the birds responded.



Overall upward trend for most species with some special cases: *Wood Storks did nest in their historic nesting grounds of Corkscrew Swamp Sanctuary in 2018, but their numbers continue to be relatively small (328 nests) compared to the larger effort recorded elsewhere in South Florida and historic Corkscrew records. Loss of foraging habitat and reduced hydroperiods in SW Florida could be the culprits. **Smaller wading birds/small waders continue to decline with undetermined causes, however the improved 2018 nesting suggests hydrologically driven food limitation is at least partially responsible.

The numbers for the 2018 nesting season were staggering: wading birds built a whopping 138,834 nests throughout South Florida, with 122,571 of them in the Everglades! These numbers compare to nesting efforts in the 1930s and 40s — **we haven't seen this level of nesting activity in nearly 90 years!**

This shows just how much more water is still needed in the Everglades to generate the amount of prey required to support the bird population and ensure nesting success. Now we know the Everglades can still sustain historic numbers of birds, and under the right hydrologic conditions, the ecosystem is able to support supercolonies that are critical to sustain bird populations through tougher years.



Staff Spotlight

Laura Aguirre is the newest member of Audubon's Everglades Policy team. Specializing in higher education and community organizing, Laura is using her talents to galvanize new partners around clean water, Everglades restoration, and climate change. As an example of Laura's creativity, her outreach to the South Florida craft beer community resulted in the creation of the Everglades Brewers Council, adding renewed power to the fight for America's Everglades.



White Ibis, Roseate Spoonbill, and Snowy Egret. Photo: Robert Wilson



Roseate Spoonbill. Photo: Matthew Hansen

Audubon Science Explains

WHY SPOONBILLS DIDN'T SHARE SAME SUCCESSES AS OTHER WADING BIRDS

2018 will go down in the record books as one of the greatest years for wading bird nesting efforts in recent memory. The extreme rainfall associated with Hurricane Irma in 2017 and the following very dry period season became the driving forces behind the 138,834 wading bird nests in the Greater Everglades.

However, one of Audubon's indicator species exhibited disappointing nesting efforts by comparison. The Roseate Spoonbill colonies around Florida Bay produced only 278 nests in 2018. Historically, Roseate Spoonbills nested by the thousands in Florida Bay. Though the 2018 numbers are in line with the 10-year average trend for the species, given the optimal hydrological conditions and overabundance of freshwater in the Everglades, Audubon scientists expected spoonbill nesting numbers in Florida Bay to be much higher.

Audubon's data revealed that water management practices at the southernmost portion of the Everglades ecosystem resulted in overdrainage of the marshland that spoonbills rely on for nesting. In an effort to provide flood attenuation in urban areas during Hurricane Irma, valves dedicated to discharging fresh water out to sea via Biscayne Bay were left open longer than needed.

Despite having an overabundance of fresh water, these excessive water discharges caused increased salinity along the coastal wetlands of Florida Bay, an issue compounded by higher sea levels observed in this area. Increased salinity made the wetland less productive for spoonbill prey. Without high prey abundance, spoonbills simply did not nest in Florida Bay.

Using our latest findings, Audubon's policy and science teams are working with water managers to ensure that restoration projects in the southern Everglades are managed to provide maximum freshwater flows to Florida Bay, and to change damaging water management practices that unnecessarily overdrain sensitive wetlands ecosystems.

Roseate Spoonbills.
Photo: Candy Childrey





Improving Natural Defenses Against Climate Change in Cape Sable

In a changing climate, South Florida needs to buy time to improve resilience. Restoring the Everglades offers the opportunity for both.

The Everglades is South Florida's natural defense against the effects of climate change. Wetlands are carbon sinks, floodwater retention areas, and barriers to extreme wind and storm surge. Additionally, fresh water from wetlands helps slow saltwater intrusion into wellfields.

Cape Sable, tucked into the southwest corner of Florida, epitomizes both the consequences of wetland degradation and the urgency of restoration. Canals constructed across the state during the 1920's have allowed saltwater to advance inland, collapsing marshlands and impacting wildlife habitat. Decaying peat soils reduce elevation, furthering saltwater encroachment.

The Cape Sable restoration project aims to restore habitat by plugging manmade canals to eliminate the unnatural exchange of salt and freshwater in sensitive freshwater wetlands. This will restore natural ecological processes to the Cape Sable region, slowing saltwater intrusion and allowing wildlife time to adjust to the changing conditions.

Audubon is continuing to spearhead the effort to secure the funding needed to complete the project. With the first phase completed in 2011, completing phase two of the Cape Sable restoration will set a precedent for the importance of restoring habitat on the front lines of sea level rise and increasing South Florida's resilience through comprehensive restoration efforts across the Everglades region.

Recognizing the vital role of wetlands, Audubon's climate action plan prioritizes investing in green infrastructure and accelerating Everglades restoration, as well as tracking bird migration patterns that are key to protecting vital habitat.

Renewed Hope for Submerged Plants

IN LAKE OKEECHOBEE

Following years of high water levels exacerbated by Hurricane Irma, Audubon recommended the Army Corps of Engineers manage Lake Okeechobee to enhance the recovery of the submerged aquatic vegetation.

A recent tour of Lake Okeechobee brought renewed hope and relief to Audubon's Everglades team. The progression of images below shows the return of aquatic vegetation in the Lake. In addition to protecting nearby communities from flooding, lower water levels is important to the aquatic vegetation in the lake, which thrives when water levels are maintained between 12-15 feet between dry and wet seasons.

Lake Okeechobee's aquatic vegetation provides the same nutrient absorption and water filtration services as storm water treatment areas that cost billions of taxpayer dollars to construct and maintain, but for free. A healthy submerged aquatic vegetation community not only improves water quality, but also provides critical marsh habitat for birds and fish, including the largemouth bass fishery for which the Lake is world renowned. Audubon commends the Corps for their efforts to manage lake levels to promote ecosystem recovery.



Removing Roadblocks to Break Ground

ON THE EAA RESERVOIR

Last year Audubon's team objected to the previous South Florida Water Management District (SFWMD) Governing Board's action. The board authorized an ill-conceived lease with Florida Crystals on public lands set aside for the construction of the Everglades Agricultural Area (EAA) Reservoir project. Their action took place without proper public notice, in the waning days of the Scott Administration after the November election. The lease blocked access to the lands until April 2021.

Recent initiative by DeSantis' newly appointed SFWMD Governing Board and Executive Team ensured Florida Crystal's voluntary termination of the leases on the Stormwater Treatment Area portion of this critical project. This liberates more than 6,000 acres of land 16 months ahead of schedule, allowing construction of the Stormwater Treatment Area (STA).



Anhinga. Photo: Mac Stone

Gov. DeSantis' SFWMD governing board this fall fixed the barrier to reservoir construction that was created by the issuance of a hasty sugar lease on state lands in the waning days of the Scott Administration.

Audubon's team celebrated the move, noting that while the deal should have not happened in the first place, the early removal of roadblocks to advance the EAA Reservoir is a big step forward. Construction of the STA component of the EAA Reservoir projects adds more water cleansing capacity, which is a crucial next step as we try to move more water south. Audubon is now working to ensure the adequate permits are granted to keep up with the newly accelerated construction schedule.



Wood Stork. Photo: Jeffrey Karnes



White Ibis. Photo: William Vieth



Roseate Spoonbill. Photo: Joshua Pelta Heller

America's Everglades Welcome Two Champions

During the 2019 Audubon Assembly in Gainesville, we had the honor of celebrating the unique accomplishments of two Everglades Champions. Senator Marco Rubio and Congresswoman Debbie Wasserman Schultz were named Audubon's 2019 Champions of the Everglades for their long-standing commitments to securing federal funds for Everglades restoration.

This year in particular, Audubon is recognizing the members' efforts to secure historic levels of funding in their respective appropriations committees. Audubon also celebrates their bipartisan teamwork in shepherding funding bills across the aisle and across both chambers. As the federal funding process remains uncertain, this is especially important.

Senator Rubio and Congresswoman Wasserman Schultz illustrate the importance of working for the American people to advance the largest ecosystem restoration project in the world. We hope that by shining a light on their partnership it will serve as inspiration and a reminder that the environment and the birds we cherish truly benefit when we come together. Congratulations to our 2019 Champions of the Everglades!

Introducing the Everglades Brewers Council

South Florida breweries have teamed up with Audubon Florida to form the Everglades Brewers Council, a collaborative effort to champion policies that protect South Florida's water, restore the Everglades, and strengthen our regional resilience.

Craft breweries, a growing industry in South Florida, are contributors to local economies and important community hubs.

Since beer is 90% water, breweries rely on a dependable and abundant source of clean water to thrive. The members of the Everglades Brewers Council know that in South Florida, clean water starts with a healthy Everglades ecosystem.

The Everglades provide drinking water to one out of every three people in Florida. Increasing water flow to the Everglades and our aquifers makes South Florida more resilient in the face of rising seas that threaten our underground drinking water reservoirs. Everglades restoration ensures that the residents, businesses, and wildlife that depend on the Everglades ecosystem continue to thrive.

As its inaugural action, 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.



Members of the Everglades Brewers Council include:

Biscayne Bay Brewing Company
Florida Keys Brewing Co.
Gulf Stream Brewing Company
LauderAle Brewery
Mathews Brewing Company
Saltwater Brewery
Spanish Marie Brewery
Tarpon River Brewing
Beat Culture Brewery
M.I.A. Beer Co.
The Tank Brewing Co.
Mad Robot Brewing Co.

