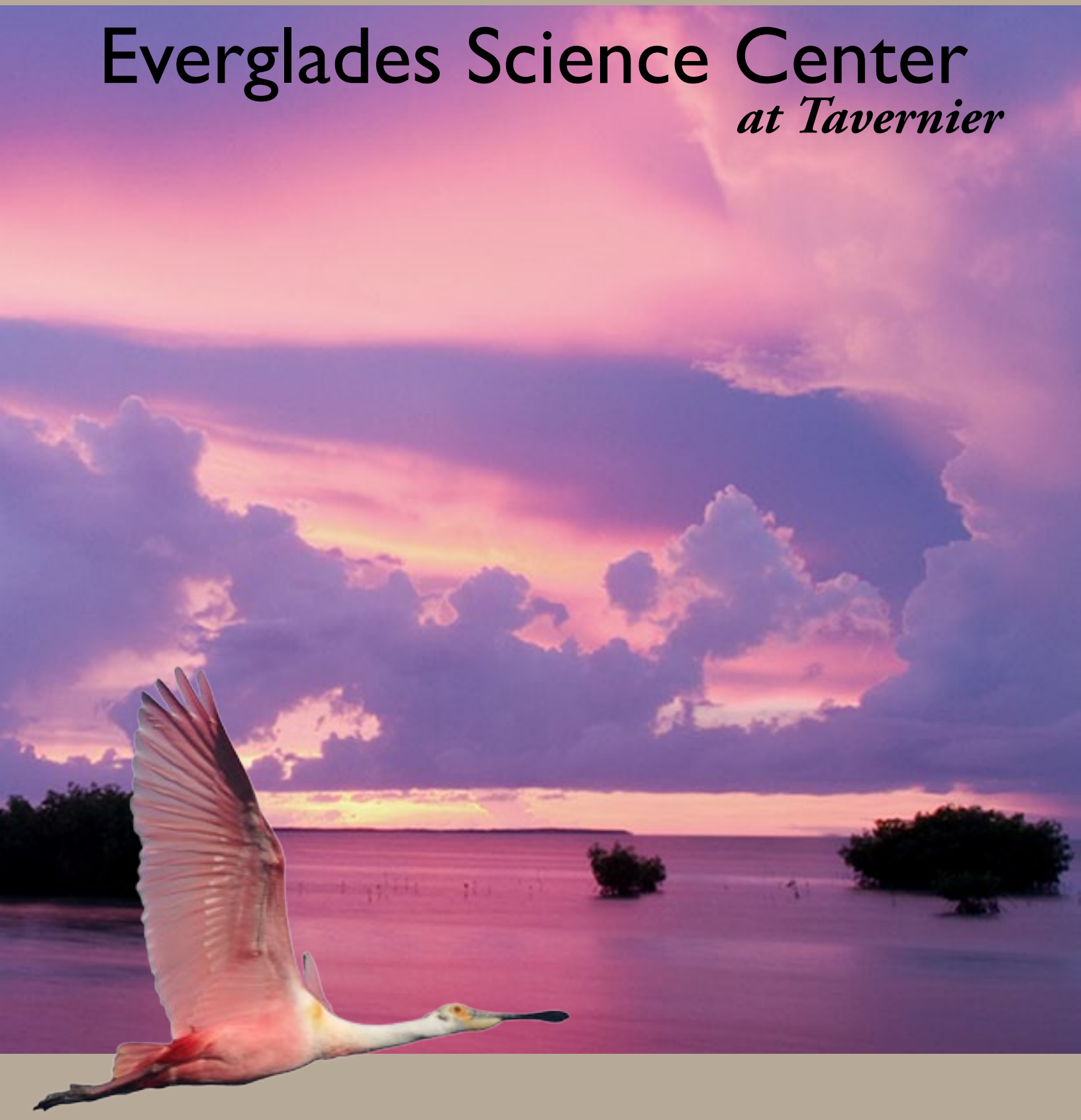
Audubon FLORIDA

Everglades Science Center
at Tavernier



The Science Driving Everglades Restoration Decisions

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Audubon's Everglades Science Center at Tavernier conducts field research on the effects of putting more freshwater into the Everglades to benefit marsh and mangrove habitats where wading birds forage and nest. From the research station in the Florida Keys, scientists travel across Florida Bay to Everglades National Park to gather data on water conditions, forage fish, seagrass health and wading bird colonies.

Data collected and analyzed over decades by the Science Center indicates how the Everglades have changed as a result of water management. This important information guides the state and federal agencies making Everglades restoration decisions.

Dr. Jerry Lorenz, a renowned field biologist and published scholar, directs Audubon's Everglades Science Center and the staff of hydrologists and biologists. The government team that coordinates science work for Everglades restoration lists Dr. Lorenz as a "principle investigator" for Florida Bay. The Science Center's modest quarters near Islamorada house a laboratory and decades' worth of field samples and records.

75 Years of Research Benefitting the Everglades

The Florida Keys research station was established 75 years ago to track Florida Bay and the Everglades bird life. Generations of scientists have used the outpost to study wading birds and other migratory species. This research is part of the foundation of biological knowledge that led to many of the region's network of protected habitats – state and national parks, refuges and sanctuaries.

Everglades restoration can only succeed if guided by good science. Congress approved the Everglades Restoration Plan in 2000, committing Florida and the federal government to build a series of restoration projects that correct past mistakes and allow more fresh water to flow to the parched Everglades ecosystem. But the plan is based on quality science. State and federal agencies depend on Audubon's field research to provide data from the marshes and mangroves where freshwater flows into Florida Bay and Biscayne Bay.

Donors Bob Vila and Diana Barrett were with Dr. Jerry Lorenz when Bob pointed to a Roseate Spoonbill flying west across the horizon. The flight path toward a remote island signaled a parent bird and the possibility of nests. Following the spoonbill to the island, the group found several previously unknown nests that would soon fledge chicks. Now known as Bob's colony, these spoonbill nests are the newest evidence that the Everglades southern marshes are making a comeback.

The first completed restoration project at Everglades National Park – the C111 spreader canal - demonstrates that
Audubon's Science Center is more valuable than ever. Preliminary data gathered in the park indicates that getting more fresh water back into the Everglades is producing excellent ecological benefits.

Government grants, contributions from foundations and individuals, and support from Audubon Florida make up the Everglades Science Center's budget. Because of recent state and federal budget cuts the agencies in charge of Everglades restoration have cut back funds to the Science Center. This has led to a reduction in monitoring sites resulting in gaps in key information and putting science based restoration decisions at risk.

In a vote of confidence for Audubon's Everglades Science Center, state and federal agencies recently extended grants for the research and monitoring for three years. Yet government funds cover only part of actual research and operations costs and do not provide for boats and office space or the important job of publishing and communicating valuable findings.

Everglades Restoration Depends on Good Science

Successful restoration depends on understanding how the plants and animals that live in the Everglades respond to changing water conditions, rainfall patterns and upstream water releases. Audubon's Everglades Science Center has already demonstrated how improving the distribution and timing of water into Everglades National Park has led to increased diversity of fish and aquatic plants which increases the nesting success for wading birds such as the iconic Roseate Spoonbill.

Now the first completed Everglades restoration project – water sheet flowing across the southern end of Everglades National Park - can only be effectively managed with data collected from monitoring the results of the water flows. The data and scientific analysis that Audubon provides are essential to the future construction of restoration projects in the area.

Government grants pay for researcher's time in the field, but private funds have never been more important to underwrite other essential costs for collection, analysis, and sharing of data to inform Everglades restoration decisions.

Why Donations are so Important

Without accurate monitoring and analysis of actual results, billions of dollars spent on Everglades restoration could fail to produce desired restoration outcomes.

Only Audubon's Everglades Science Center has the leadership, experienced staff and knowledge to conduct research in the most remote wilderness areas of the Everglades National Park.

Individual donors have begun to help us bridge the gap in government dollars, but your help is needed.

Several times each week researchers set out from Tavernier in small boats to cross Florida Bay to the Everglades. Offloading kayaks and equipment they paddle into otherwise inaccessible parts of the mangrove forests and sawgrass marshes that define the southern Everglades. Braving heat and storms, sharks, crocodiles and biting insects, these hardy souls set up fish traps and maintain water monitoring gauges and then return to record the results. Others researchers wade into the thick mangrove roots to find nests and count wading bird chicks. Back at the lab, staff identify and count thousands of small fish. Data is then fed into the computers and analyzed with climatic conditions.

Photos by Mac Stone

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Audubon's winning formula is Science + Policy + Advocacy = Results

Audubon's Everglades Science Center studies ecological conditions in the sawgrass-mangrove fringe of Everglades National Park. The research informs government agencies making decisions about how to build and operate the restoration projects that bring fresh water back into the Park.

This research is also used by Audubon Florida and the Everglades Foundation to educate the public and advocate in Washington and Tallahassee for approval of restoration projects and funds.

In 2008 Dr. Lorenz helped persuade the South Florida Water Management District to push forward with building a project to increase sheet flow water into Everglades National Park. Completed in 2013, the project is showing strong evidence of success. Audubon's research informed the design and operation of the first successful Everglades restoration project demonstrating effective use of science for restoration.

"As I watched water gush through the first completed restoration project and seep into the Everglades marshes I wondered if it would make a difference. The research conducted by Audubon's Everglades Science Center demonstrates that it does make a difference. The marsh, the fish and the birds are making a comeback. Everglades restoration can succeed."

-Steve Lynch

Audubon's Legacy of Field Research


Photo by Mac Stone

An Outpost for Understanding Life in the Everglades
The Roseate Spoonbill, iconic bird of the Everglades and Florida Bay, was making a slow recovery in 1939 when Robert Porter Allen, Audubon's first Director of Research, established an avian research outpost in the Florida Keys. Allen sailed and motored across Florida Bay into the Everglades. His collections and data provided a foundation for the valuable scientific research that continues to this day.

Audubon's Research Drives Everglades Restoration Decisions
Audubon's researchers continue to collect samples that give state and federal agencies the information they need to make important decisions about managing water resources in the Everglades. The Roseate Spoonbill is still the indicator species for the health of the marshes on the fringe of the southern Everglades. Data collected on the water, vegetation and fish that comprise the spoonbill' habitat helps demonstrate that the ecosystem responds to water management decisions.

Committed Team of Researchers
Led by Dr. Jerry Lorenz, Audubon's researchers still cross the open bay in all seasons in small boats to observe bird colonies and collect water and fish samples. Samples are brought back to the lab for analysis. Findings are fed into large databases for analysis and shared with other scientists and state and federal agencies.

Wading Birds are the Measure and Treasure of the Everglades
Roseate Spoonbills provide the ultimate measure of the success of Everglades restoration and getting them back into the Everglades is the real test of restoration. These long-lived birds return to nest if possible on the colony sites where they were hatched. Their nesting success tells us if Everglades restoration is working.

Support the Science that is Driving Everglades Restoration
Audubon needs your help to keep researchers in the field and lab to continue to guide Everglades restoration decisions. Your contributions will help restore the Everglades and bring back the treasured wading bird colonies that are the measure of success.

There are so many ways you can help.
(See back panel for details.)

Contributions and Endowments Can Make A Difference

Audubon is seeking gifts totaling $1.51 million to support a five-year initiative to expand Everglades research, upgrade the Everglades Science Center, and educate the public and decision-makers. Your contribution will help drive the science that drives Everglades restoration decisions:

Reestablish four research sites in the Western Everglades. – $40,000 per site, per year
Locations are remote sites needed for Audubon researchers to collect essential data on water conditions, fish and wading bird nests.

Replace hardworking boats, motors and equipment. – $17,000 per boat and $9,000 per motor
Audubon's working science boats are on the water almost every day covering thousands of miles of Florida Bay and Everglades waterways. Constant use requires frequent replacement of boats and motors.

Upgrade the historic Tavernier Science Center. – $150,000 over five years or $30,000 a year
Help complete our five-year plan to update the facility housing researchers, equipment, lab, samples and computers. The Center also serves as the launch point and briefing space for visiting scientists, donors and the media.

Put Everglades science in decision-makers' hands. – $40,000 a year
Funding supports Dr. Lorenz to write, publish, and share his work. Interpreting field data for policy makers, other scientists and the public requires time, travel funds, publication costs, and support.

Implement sound everglades policy by joining science to advocacy. – $20,000 a year
Help support Audubon's Everglades advocacy team. Translating science to policy results requires an effective advocacy team. This gift is matched dollar-for-dollar with funds from the Everglades Foundation.

To ensure the funding of this important science work for years to come, consider leaving the Audubon Everglades Science Center in your will or bequest.

To learn more about how your gifts can make a difference or to arrange a briefing call 305-371-6399.

To donate online go to www.GivetoAudubonFlorida.org and designate your gift to the Everglades Science Center or mail a check made payable to Audubon Florida to:

Audubon FLORIDA
4500 Biscayne Blvd., Suite 205
Miami, FL 33137