



## Everglades Science Center: Filling knowledge gaps for Florida



Photo: Robbyn Spratt/Audubon Photography Awards

### Overview

Audubon's Everglades Science Center (ESC) studies ecological conditions in the Florida Everglades. The ESC team conducts research to inform decision makers and stakeholders on the status of prey fish, submerged aquatic vegetation, and Roseate Spoonbill populations as indicators of the environmental health of the Everglades. The data are also used to educate the public and advocate in support of restoration projects to improve water quality in the Everglades.

Several times each week, members of the ESC team set out from Tavernier in small boats, offloading kayaks and equipment to access remote 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. They also wade through dense mangrove forests to find nests and count wading bird chicks. Back at the lab, they identify and count thousands of small fish before feeding this data into the computers for analysis with climatic conditions.



*Field technician Casey King assists with the banding of a Roseate Spoonbill.*

### Meet Our Team!

Casey King (pictured above) attended Salisbury University where she received a B.A. in Environmental Studies. After graduating, Casey worked for Assateague Coastal Trust focusing primarily on overall water quality issues in the Chesapeake Bay. Now in the Florida Keys, she is using her experience to study water quality issues in this very diverse ecosystem.

Jon-Paul (JP) Haydocy graduated from The Ohio State University, after which he spent nine seasons with the National Park Service. Since joining the team in 2019, JP has been a research associate in the fish program while also maintaining and organizing our fleet of boats and vehicles. JP has recently earned his USCG Captains License and is becoming a backcountry-fishing guide as another way of earning money while sharing his passion and knowledge of the bay and Everglades.

Anna Simmons works on the fish and subaquatic vegetation monitoring programs. A graduate of Ball State University with a Bachelor's in Biology and a Minor in SCUBA diving, Anna has spent her career working in the coral reef, seagrass, and mangrove habitats of the Florida Keys. With her thorough knowledge of the South Florida ecosystems, Anna and her data provide a holistic view of Everglades health to help decision makers implement policy changes to benefit the habitats and residents of South Florida and the Florida Keys.

Brian Fedak started as a seasonal field technician assisting in capturing and placing transmitters on Roseate Spoonbills in Florida Bay. In his new role with the fish program, Brian has now taken over the hydrology project, maintaining all of the hydro stations throughout ENP and the Southern Biscayne Bay sites. Brian helps with all projects, including fish, birds, and hydrology, and is an essential member of the science center team.

Jaime Gilrein joined the staff in 2019. Over the past year, she served as fish biologist, ran field operations, and is now the fish crew lead. Jamie makes sure the office and field crew are a smooth operating force. Jamie is a Coast Guard veteran and before joining ESC, she was the only female "buoy boy" helping to maintain buoys in the National Marine Sanctuary.

Emily Johnson graduated from Ohio Wesleyan University in 2015. She moved to Alaska to work with seabirds and sea ducks for three years, later completing her M.S. in Biology on King Rails in North Carolina. Before joining ESC, Emily worked for the Army Corps of Engineers in North Dakota monitoring Least Tern and Piping Plover nests on the Missouri River. Emily joined the flock in 2021 and oversees the Roseate Spoonbill nest monitoring project.

John "Breck" Wainwright held fisheries positions in California and North Carolina, collecting data for the management of recreational and commercial catch. Now part of our fish crew, Breck has great appreciation and interest in the taxonomy of both birds and fishes, and is excited to see what new species the Everglades ecosystems have to offer each day.

## Conclusion

- Audubon researchers collect essential data on water conditions, fish and wading bird nests.
- Audubon's working science boats are on the water almost every day covering thousands of miles of Florida Bay and Everglades waterways.
- Translating science to policy results requires an effective advocacy team.
- Interpreting field data for policy makers, other scientists and the public requires time, travel funds, publication costs, and support.
- Actual humans, living and working in the Florida Keys, are needed to undertake these efforts; finding and retaining staff is a real challenge.



**Audubon's Everglades Science Center**  
**115 Indian Mound Trail, Tavernier, FL 33070 305/852-5318**  
**[Fl.Audubon.org/everglades-science-center](http://Fl.Audubon.org/everglades-science-center)**