



Audubon | FLORIDA

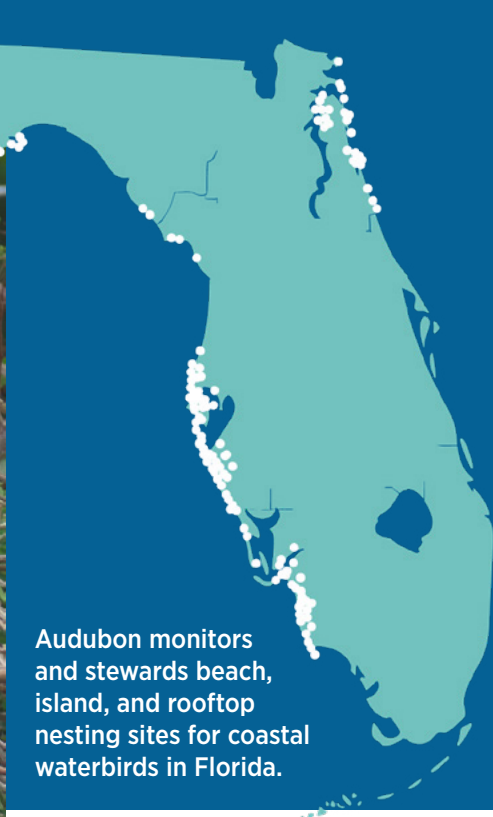
# Coastal Report

2023 ANNUAL SUMMARY





White Ibis feeding chicks.  
Photo: Jeff Liechty/Audubon Florida



Audubon monitors and stewards beach, island, and rooftop nesting sites for coastal waterbirds in Florida.

## Friends and Supporters,

Florida has been shaped by hurricanes for millennia. Historically, our long and varied coastline has been dynamic under the force of storm surges and strong winds, sand movement and pounding waves. But today, climate change is supercharging hurricanes. In the 2023 nesting season, as we observed the effects of 2022's Hurricane Ian, we were relieved that the largest hurricanes of 2023 hit near the conclusion of the summer nesting season (page 4).

Our beaches and barrier islands are also, often irrevocably, shaped by development, human disturbance, and sea level rise. Audubon biologists and volunteers protect nesting species on busy beaches by seeking innovative partnerships (page 6) to protect birds and the places they need while collecting and publishing critical data to inform our future management and monitoring work (page 3).

To our staff and volunteer coastal team, thank you for your efforts on behalf of sea and shorebirds. Cheers to an upcoming and busy 2024 season!

Audrey DeRose-Wilson,  
*Director of Bird Conservation*



**Audrey DeRose-Wilson,**  
Director of Bird Conservation

Cover Photo:  
American Oystercatchers.  
Photo: Sydney Walsh/Audubon



## New Study: Benefits of Returning Fallen Chicks to Rooftop Nests

During beach bird nesting season, it's all hands on-deck. This is especially true for Audubon staff and volunteers in the Greater Tampa Bay area, who go above and beyond to ensure birds like Least Terns find the habitat they need to raise their young each spring and summer.

Because beach habitat across the region is busy with human visitors, many beach-nesting birds are instead finding refuge on rooftops. While rooftop nesting colonies can be as productive as beach colonies and provide relief from most forms of disturbance, these chicks face a threat unique to rooftops: falling off.

Audubon Florida has monitored rooftop nesting in Florida for decades. In the past, volunteers who found chicks fallen from their rooftop colony had two choices: Take the seemingly healthy chick to a rehabilitator where it would stay until fledging without the benefit of learning how to be a tern from its parents; or return the chick to the rooftop. Anecdotal evidence has long suggested these returned chicks fared well, but a new study reveals more about how many survive to adulthood and go on to raise their own families.

From 2011 to 2022, under permits issued by the U.S. Geological Survey and Florida Fish and Wildlife Conservation Commission, past-Audubon Florida Director of Bird Conservation Marianne Korosy, PhD, and renowned bird biologist Beth Forsy, PhD, (Eckerd College) conducted a study in which biologists placed colored bands on the legs of any Least Tern chicks they returned to a rooftop following a fall. With a squadron of volunteer rooftop monitors, co-author and Audubon Coastal Biologist Jeff Liechty set out to resight the birds they banded in later breeding seasons on beaches, piers, and rooftops throughout Florida.

Over the course of nine years, biologists banded a total of 168 healthy Least Tern juveniles that had fallen from 16 different nesting rooftops. Fifty of those birds were resighted a total of 347 times, with an overwhelming majority coming from a single, narrow staging beach (not a Least Tern nesting area) along the Gandy Bridge causeway in the middle of Tampa Bay. Seven of the terns were resighted while nesting: three on nearby beaches, three at rooftop colonies in Pinellas County, and one on a Levy County beach. Resighting birds while they are nesting means they have survived to adulthood and are ready to raise the next generation of Least Terns.

A 30% resighting rate is good: It means the birds are successfully fledging after placement back on rooftops. The banding study also



Banded first-year Least Tern chick photographed in St. Petersburg. Photo: Beth Forsy

confirmed that at least 39% of those birds survived to one year of age. After one year of age, 82% of the terns survived each year thereafter.

The team published their peer-reviewed paper in *Avian Ecology & Conservation* earlier this year—the first published estimate of juvenile Least Tern survival rates and scientific evidence that returning fallen chicks to the roof results in their long-term survival. The data are valuable for understanding population dynamics and show that putting juveniles back on rooftops is a viable management tool for Least Terns and potentially other rooftop-nesting seabirds.

Although rooftops may offer an alternative nesting habitat for Least Terns, juvenile survival likely depends on habitat quality after they leave the rooftop.

This work would not be possible without dedicated volunteers with St. Pete Audubon Society and Clearwater Audubon Society, who monitored and chick-checked rooftops, rescued chicks, and re-sighted banded birds across the region. Read the published study here: [ace-eco.org/vol19/iss1/art7/](https://ace-eco.org/vol19/iss1/art7/)



Photo: Kara Cook/  
Audubon Florida

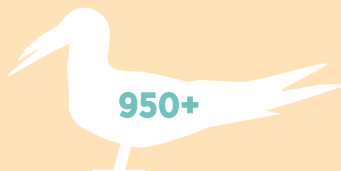
## NESTING BIRDS CONTENDED WITH HEAT, OVERWASH, AND DISTURBANCE IN 2023 SEASON

Coastal nesting birds in 2023 persevered despite record-breaking heat and busy beaches. Hurricane Idalia hit in late August, which, along with subsequent beach and island overwashes, effectively ended the nesting season for much of the state. Here, we summarize the results from Audubon-monitored-and-stewarded sites—these numbers do not represent species totals from across Florida.

Four species of shorebirds and seabirds that rely on Florida's shorelines as their habitat are listed as state-Threatened by the Florida Fish and Wildlife Conservation Commission (FWC): American Oystercatcher, Black Skimmer, Least Tern, and Snowy Plover. In addition, Piping Plover and Red Knot, which do not nest in Florida, are listed by FWC as federally Threatened.

### BLACK SKIMMERS

In the Panhandle, this year belonged to the Black Skimmers, with more than 175 fledged across the region. Black Skimmers nested on Flag and Lanark Critical Wildlife Areas, Pensacola Beach, and Navarre Beach. In the absence of overwash from storm events or abnormally high tides, Flag Island had two rounds of skimmer nesting. The Pensacola colony settled on their site after being displaced from their first nest site at Gulf Islands National Seashore, while the Navarre Beach colony settled on a sandy empty lot site after nesting attempts at two other sites in the area.



Black Skimmer

Carlos Point in Lee County successfully fledged almost 400 Black Skimmers while nearby, in Collier County, the historically successful Marco Pass Critical Wildlife Area colony completely failed. Though the colony began with approximately 900 Black Skimmer adults, they were not successful. A small colony at Second Chance Critical Wildlife Area resulted in 100 Black Skimmer nests.

In Northeast Florida, about two dozen Black Skimmers fledged from Nassau Sound. In Pinellas County, high tides and summer storms drenched beaches in overwash, wiping out many nests but a successful partnership between Audubon Florida, Sarasota County, and the FWC resulted in 320 Black Skimmer fledges.

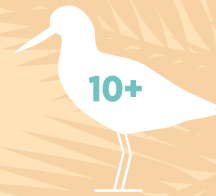
### ROOFTOP NESTERS



Across 30 active rooftops in Pinellas, Pasco, Hillsborough, and Sarasota counties, staff recorded 20 Least Tern colonies, nine American Oystercatcher pairs, three Black Skimmer colonies, and six Killdeer pairs. With the FWC, Audubon and volunteers installed 2,750 feet of fencing to protect chicks from falling off the roof, as well as 198 chick shelters.

## AMERICAN OYSTERCATCHERS

The Coastal team celebrated a triple-chick nest of American Oystercatchers this year at Fort De Soto County Park, a testament to the partnerships between the park staff, Audubon, and Florida Fish and Wildlife Conservation Commission that kept the young birds safe during a busy beach season. At the Florida Coastal Islands Sanctuaries, six oystercatchers fledged.



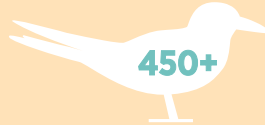
American Oystercatcher



Snowy Plover



Wilson's Plover



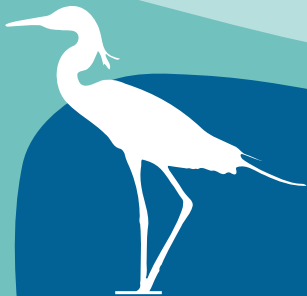
Least Tern

## GULLS AND TERNS

Statewide, Audubon biologists monitored nests of several tern species, including Caspian, Royal, Sandwich, Least, and Sooty. Two colonies accounted for the majority of Least Tern fledglings from Audubon-monitored sites: 104 from the colony at Lido Key (Sarasota) and 300 from Carlos Point in Lee County. Least Terns nesting on Panhandle area beaches fledged at least 54 young from multiple sites, with the majority fledging from Pensacola Beach. In Northeast Florida, the nesting areas around Nassau Sound are not monitored by Audubon staff but saw a small number of Gull-billed and Least Tern fledges. Huguenot Memorial Park, despite its struggles with erosion and large crowds, produced hundreds of Laughing Gull and Royal Tern chicks, with well over 50 Sandwich Tern chicks fledged this year, too.

## PLOVERS

Wilson's Plovers had a decent year in 2023 with 21 fledglings from Fort Myers Beach and 16 chicks fledged from 32 nests in Collier County. Only two Wilson's Plover nests in Greater Tampa Bay monitored by Audubon successfully fledged in 2023. 33 chicks hatched from 13 nests in the Panhandle, and several Wilson's Plover nests fledged chicks from Little Talbot Island in Northeast Florida. Lee County hosted the Audubon-monitored site with the most Snowy Plover fledglings: 17. Seven fledged from Panhandle beaches.



Reddish Egret



Wood Stork

## WADING BIRDS

The Richard T. Paul Alafia Banks Sanctuary, leased from and managed in collaboration with The Mosaic Company and Port Tampa Bay as a bird sanctuary, provided homes to 6,000 bird pairs across fifteen species. White Ibis proved to be the most numerous, but four state-Threatened bird species fledged chicks as well, including Reddish Egret, Roseate Spoonbill, Tricolored Heron, and Little Blue Heron. Reddish Egret and Wood Stork are also listed as federally Threatened by the U.S. Fish and Wildlife Service.

Staff monitored a mixed Wood Stork and wading bird colony in Tampa this year, hosting the annual Colony Watch volunteer training on the site in coordination with the owners. Unfortunately, the colony experienced some bird die-offs of undetermined causes as well as disturbance from a neighbor removing trees during nesting season. In good news though, the manager of the site and our volunteers alerted Audubon to both of these issues, prompting further investigation that will ultimately help the birds.





## Law Enforcement Partnership Spells Success for Beach-Bird Nesting Season

The phrase “Life’s a Beach” typically connotes a relaxing atmosphere with warm sunshine, bright white sand, and maybe even a cool drink with a little umbrella. But the beach is not always a hospitable place for sea and shorebirds trying to raise their families. Several species of beach-nesting birds face threats like coastal storms and red tide each year, in addition to people, beach balls, drones, and dogs—this recipe can spell disaster. Luckily, Audubon Florida’s relationship with coastal law enforcement officers is the best ingredient for managing violations at protected areas, resulting in wins for the birds in many locations in 2023.

Apalachicola Shorebird Biologist Natasza Fontaine monitors nesting efforts across the Panhandle, where law enforcement agencies improve on-the-ground conservation efforts.

At Phipps Preserve, for example, as Fontaine and her team of bird steward volunteers make their rounds on the busy beach, law enforcement officers on ATVs follow behind to reinforce the laws and educational messages for all. Beach goers who see this cohesive effort are more likely to realize the gravity of the situation.

“We’re able to provide more protection to the birds and people seem to be more open to listening when they know there may be legal repercussions,” said Fontaine.

Megan Hatten is the Southwest Florida shorebird biologist and is grateful for the large cooperative effort underway each year at Fort Myers Beach. Audubon uses grant funds to hire Lee County sheriff’s deputies to provide extra coverage over the holidays. Last year at Carlos Beach, officers spotted and stopped a group with fireworks from going onto the nesting beach. The colony might have been abandoned if fireworks were set off at that location.



Meanwhile in Collier County, Hatten explains the ripple effect that happened when the FWC officers found the owner of a luxury shelling/camping company guilty of entering Second Chance Critical Wildlife Area (CWA).

“The fine was small, but word got around quickly that the CWA was being enforced, which resulted in fewer violations later in the year,” Hatten added. She is hopeful that trend continues.

Audubon has also built strong relationships with state and local law enforcement agencies in the Tampa Bay area, where bird stewards are known by name to several FWC officers because of the time they take to build relationships.

FWC schedules officers at critical times during the two major holiday weekends, Memorial Day and July Fourth, to provide support to our bird stewards in Pinellas County.

Holley Short, Tampa Bay shorebird project manager, is relieved to have such good partners.

“**Their assistance with education is crucial for ensuring the safety of nesting shorebirds and seabirds, their eggs, and their young chicks.**”  
— Holley Short, Tampa Bay Shorebird Project Manager

While raising a family on the beach still has many challenges, it is slightly safer for them now, thanks to this wonderful partnership.



## COASTAL PROGRAM



BREEDING AND NON-BREEDING  
SEASON VOLUNTEERS



ROOFTOPS  
SURVEYED



WITH ACTIVE  
NESTING AND  
MOST WITH  
PROTECTIONS

(chick fencing, chick checkers, etc)



BEACH, ISLAND, AND ROOFTOP SITES  
STEWARDED BY AUDUBON FL

5,720  
HOURS



INVESTED IN BIRD STEWARDSHIP  
AND PUBLIC OUTREACH TO  
PROTECT VULNERABLE COLONIES

## FLORIDA COASTAL ISLANDS SANCTUARIES



VOLUNTEERS

26 VOLUNTEERS DONATED A  
TOTAL OF 147 SERVICE HOURS  
FOR THESE IMPORTANT PROJECTS

147  
HOURS

COLONY  
MONITORING

MONOFILAMENT  
CLEANUP

BROWN PELICAN  
BANDING



VOLUNTEERS

75 HOURS



VOLUNTEERS

56 HOURS



VOLUNTEERS

16 HOURS

WE ALL OWE OUR THANKS TO THIS INCREDIBLE TEAM!





## Audubon Coastal Bird Science Showcased at Gulf Restoration Conference

Coastal Biologist Jeff Liechty spoke to a standing-room-only crowd about banding Brown Pelicans rescued from entanglement to learn about survival and re-entanglement rates, while Florida Coastal Islands Sanctuaries Manager Mark Rachal gave a talk about living shoreline breakwater projects and improving habitat. Audubon Texas' Alexis Baldera presented a talk

co-authored by Director of Bird Conservation Audrey DeRose-Wilson on future conservation planning in response to predicted habitat loss from sea level rise and erosion, using coastal bird rookery islands in Texas and Alafia Banks in Tampa Bay as examples. To learn more, visit [fl.audubon.org/gomcon2024](https://fl.audubon.org/gomcon2024).



### THANK YOU TO OUR SUPPORTERS.

The Batchelor Foundation  
Bishop SPCA  
Community Foundation of Tampa Bay  
Mosaic Company Foundation  
Pinellas County Community Foundation  
– Tonne Fund and Bushnell Fund  
Rayonier  
River Branch Foundation  
Robert F. Schumann Foundation  
The Spurlino Foundation

***Thank you for supporting our coastal work!***

### VOLUNTEER

Steward coastal birds in your area:  
[FLConservation@audubon.org](mailto:FLConservation@audubon.org)

### DONATE

Audubon's efforts depend on you. Learn more about giving by contacting Anny Shepard at [anny.shepard@audubon.org](mailto:anny.shepard@audubon.org)

### LEARN

Explore coastal conservation and our efforts:  
[fl.audubon.org/coasts](https://fl.audubon.org/coasts)



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