



Audubon | FLORIDA

# Jay Watch Report

2019 ANNUAL SUMMARY



Adult Florida Scrub-Jay at  
Savannas Preserve State Park.  
Photo: Paul Strauss





**Marianne Korosy,  
Director of Bird  
Conservation**

I remember the first time I saw a Florida Scrub-Jay. Bright sunlight shone across the unique scrub habitat in Oscar Scherer State Park as we walked a loop around the sandy trails. The jay alighted on a bare branch, its blue and silver feathers glinting. And then it flew toward me and landed on my hat! In such a rare moment of direct connection with the jays, I laughed out loud. Though I first spotted Florida's only endemic bird species in 2003, the memory remains fresh in my mind's eye.

At Audubon Florida, we want current and future generations to delight in this intelligent, captivating species the way we do now. In the fall of 2019, Audubon released a seminal report detailing the dangers climate change poses to birds across North America. Changing temperature and precipitation levels, in addition to development, could continue to fragment Florida Scrub-Jay habitat, already diminished from historic levels. If we work together to slow climate change and continue to restore increasingly rare Florida scrub habitat, we can protect the jays.

Jay Watch volunteers play a critical role in Audubon's effort not only to restore habitat by supporting land managers in planning for prescribed burns – but also to monitor Florida Scrub-Jay populations across the state. With an accurate picture of the number and composition of family groups and changing population levels, we will help drive conservation action in the jay's most important breeding areas.

In this issue, we will look back on our past successes, and plan for the future. As always, thank you so much for your efforts!

Marianne Korosy, Ph.D., Director of Bird Conservation



**Jacqui Sulek,  
Chapter Conservation  
Manager and Jay  
Watch Coordinator**

What is it that makes Audubon Jay Watch both unique and special? It's the relationship that develops between the Jay Watchers and the Florida Scrub-Jays.

Our volunteers have a wide range of experience. Some have done surveys since Jay Watch began well over 15 years ago. They go back to those same survey points in the heat of the summer looking to check in with old friends. How was their year? Did they have any babies? Are the older kids still around? Is the scrub getting a little too tall?

In contrast, first-year Jay Watchers discover the magic of the scrub. They come to appreciate the jays' elusive behavior that makes it tricky to identify color bands, family groups, and territories. The volunteers may witness the cooperative breeding activities they learned about in the classroom, and they certainly learn tricks of staying cool and witness firsthand how tough life in the scrub really is. Yet, they come back for another day, another survey, another year!

The charisma of the Florida Scrub-Jay works its magic and the Jay Watch community continues to grow stronger. The Audubon Jay Watch program would not exist without our volunteers, land managers, and community members sharing the passion and vision for a sustainable future for Florida's endemic bird.

Jacqui Sulek, Chapter Conservation Manager and Jay Watch Coordinator



Photo: Doug DeNeve

# Florida's Award Winning Parks Lead Jay Habitat Restoration

Florida State Parks protect critical landscapes and historic sites, earning gold medals in recognition of the unparalleled experience they provide to locals and visitors alike. Equally important, parks are home to a range of iconic Florida species, including the endemic scrub-jay.

Staff at Florida State Parks have been hard at work restoring overgrown scrub to the structure that Florida Scrub-Jays prefer: short scrub oaks with space between them and plenty of bare sand patches in which to cache acorns. At Lake June-in-Winter Scrub Preserve State Park in Highlands County, park staff began cutting down trees taller than 15 feet in 2013, and by 2019, they had effectively reduced the tree density to the recommended two-per-acre for scrub habitat.

From 2013-2016, prescribed fire burned over 300 acres. Now that the previously burned acreage has recovered to “optimal” condition for jays, two more sections of the park are scheduled for burning. These habitat management efforts have paid off: in the past three years, more than 55 juvenile scrub-jays have taken flight from family groups in this small but important park.



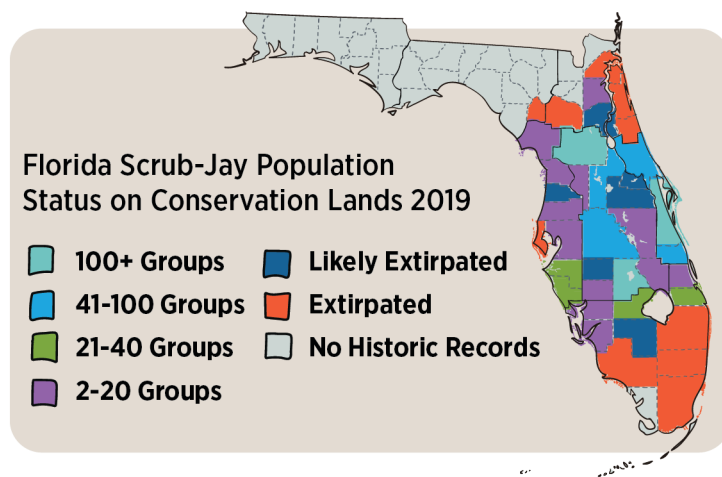
The “ideal” scrub-jay habitat includes few tall trees and large patches of open sand.

At Volusia County’s Blue Spring State Park, staff harvested 110 acres of overgrown scrub habitat for sand pine in 2013, roller-chopped it in 2017, and then burned the land in 2018. Additionally, park staff mowed 23 acres of dense edge habitat to eliminate predator perches, which functionally increased the amount of restored scrub habitat available for jays.

In addition, the District biologist banded more than 25 birds, which has further helped tracking and monitoring individual birds and scrub-jay group composition.

Thanks to partners like Florida State Parks, who routinely commit to multi-year action plans, efforts to protect and grow Florida Scrub-Jays are showing terrific results.

## Florida Scrub-Jays: By the Numbers



According to historical records, Florida Scrub-Jays have never lived anywhere outside Florida. Increasingly rare, intact scrub habitat in coastal areas and interior to the Florida peninsula is the only home that these flashy, intelligent birds know. The estimated historical population of 40,000 jays declined over decades as bulldozers razed tens of thousands of sandy scrub oak acres for construction of homes, orange groves, and other commercial interests.

The map illustrates the current distribution of Florida Scrub-Jay families as of spring 2019. In 2018, Palm Beach County joined nine other counties in which jays are no longer found. Many other counties have dwindling populations. Fortunately, some state and local agencies and nongovernmental organizations are working diligently to restore and maintain scrub habitat to support scrub-jays and the many other unique plants and animals that share their habitat.

The three largest remaining populations of jays on conservation lands can be found at Ocala National Forest in Marion County, on federal and county lands in Brevard County, and across a broad patchwork of state, federal, and NGO-managed lands in Highlands County located close enough together that jays can fly from site to site to find mates and establish new territories.

It's on us – conservation scientists and community science volunteers – to carry our messages widely by teaching friends and family about the importance of conserving the remaining scrub as conservation lands and maintaining the habitat in perpetuity for the unique, Florida-only scrub-jay.



# Volunteer Appreciation 2019

2019 VOLUNTEER #S

**215** Jay  
Watchers

COUNTED

**305** Family  
Groups

**209** Juvenile  
Jays

**715** Adult  
Jays



DONATING

**1,951** Hours



Reed Bowman, Ph.D., Avian Ecology Lab Director at Archbold, wows the crowd. Forty people attended the field trip to kick off the day.

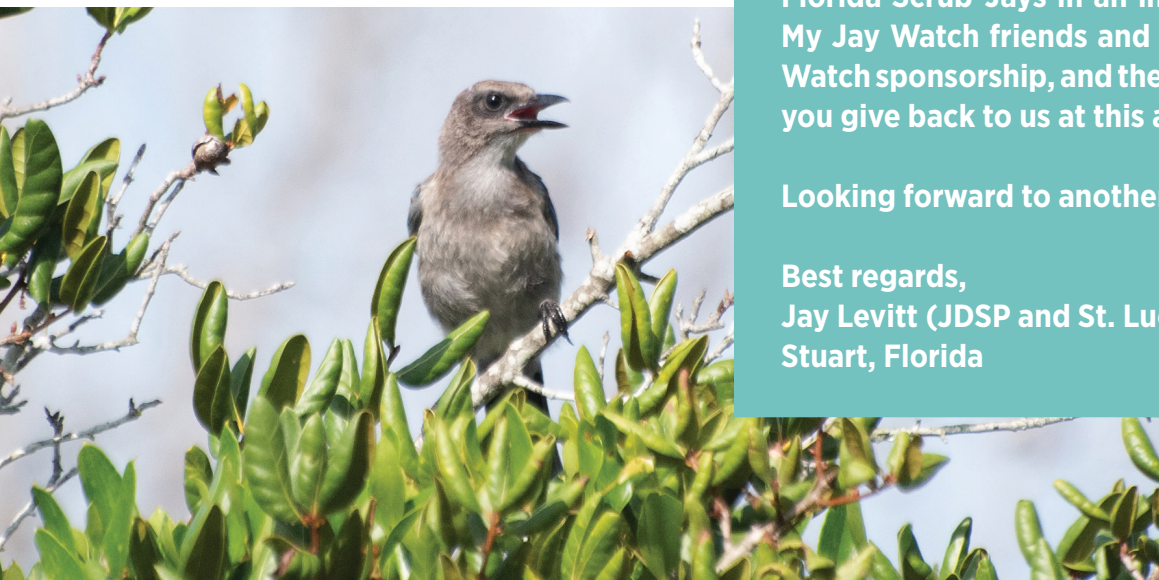


Photo: Doug DeNeve

Jay Watch volunteers celebrated the 2019 season at Archbold Biological Station.

The 2019 Audubon Jay Watch volunteer appreciation event at Archbold Biological Station in Lake Placid was the best yet!

Reed Bowman, Ph.D., led an early morning walk in the scrub and shared his take on potential effects of climate change on Florida Scrub-Jays. Audubon Florida's Marianne Korosy, Ph.D., gave an overview of Jay Watch breeding success surveys statewide followed by Cheryl Millett, with the Nature Conservancy, who discussed the beginnings and development of the Jay Watch community science program.

Following a catered lunch, Karl Miller, Ph.D., from Florida Fish & Wildlife Conservation Commission gave an information-packed talk about the translocation of Florida Scrub-Jays from Ocala National Forest to augment jays living at sites in Lake and Martin counties.

“

Just a quick note of thanks to Jacqui Sulek for organizing another entertaining, educational, and fun time for state-wide Jay Watchers. We love the opportunity to share in the love for our jays, and to help advance the science we so modestly contribute to for the continued survival of Florida Scrub-Jays in an increasingly challenging world. My Jay Watch friends and I appreciate the Audubon Jay Watch sponsorship, and the love, support, and recognition you give back to us at this annual event.

”

Looking forward to another exciting year in 2020.

Best regards,  
Jay Levitt (JDSP and St. Lucie County teams)  
Stuart, Florida

Juvenile Florida Scrub-Jay



# Climate Change Brings New Risks to Vulnerable Scrub-Jay Populations

As our state's only endemic bird species, the Florida Scrub-Jay may be extremely vulnerable to threats affecting its increasingly rare upland habitat, especially compared to other species with larger ranges. As the average global temperature continues to increase, sea level rise creates the potential for coastal scrub habitat flooding. Scrub-jays currently living in coastal scrub would be forced to move inland or face extirpation if they remain in place. Rainfall is projected to become more unpredictable with trends toward deeper, longer-lasting droughts and heavier, longer-lasting rainfall events.

All of these factors — higher average temperatures and more severe droughts and rainfall events of longer duration — will have consequences for the prey base of Florida Scrub-Jays. Droughts will deplete insect (especially caterpillars — a favorite food), arthropod (e.g. spiders), and amphibian (lizards and frogs) populations, while changing acorn production by scrub-oaks in unknown ways. Too much rainfall day after day prevents scrub-jays from feeding and floods their foraging habitat, putting food under water and out of reach. Food challenges would pose severe, additional stress to an already declining statewide population.

Sea level rise and the increased severity and frequency of large storms could wreak havoc on remaining scrub habitat by forcing people to move away from coastal communities and pave over the high-and-dry central areas of our state with some of the largest remaining scrub-jay populations. Encroachment of human activity around central Florida scrub preserves will increase other threats promoting the spread of invasive species, fire suppression, and disease.

Moreover, intense storms during nesting season washes out nests, decimating entire broods and hurting the long-term recovery of a species that has declined by 90% in the past century.

In fact, research shows that Florida Scrub-Jays are already changing their behavior. Each year, monitored jay families are nesting earlier and earlier. What will be the consequences of this earlier nesting season? We don't know yet.

Through Jay Watch, staff and volunteers are helping restore scrub habitat across the state. Results of annual Jay Watch surveys are provided to land managers directly responsible for planning prescribed fires that rejuvenate scrub habitat and thereby open optimum habitat for



With warming temperatures on the horizon, flooding and drought-related food challenges could pose severe, additional stress to an already declining statewide population.



Photo: Ann Foster



Under rising sea levels, scrub-jays currently living in some coastal scrub habitats would be forced to move inland or face extirpation if they remain in place.

jays to cache acorns and spot approaching predators. By combining efforts with groups such as the FWC Ridge Rangers, we help remove invasive sand pines that blanket bare sand areas where scrub-jays cache acorns for their winter food supply.

Here at Audubon Florida, we are committed to fighting climate change and conserving critical habitats while planning for increased resiliency. To advocate for green initiatives in your community, check out our brand new model ordinance toolkit (<https://fl.audubon.org/news/model-ordinance-toolkit>), or sign up for our Advocate newsletter to stay up to date on how you can make a difference during state legislative sessions. And bring along your friends and family to our 2020 lineup of Jay Watch trainings sessions and survey opportunities!

**Climate change brings floods, storms, food challenges, and more to Florida Scrub-Jay habitats.**



# Species Status Assessment Updated for Florida Scrub-Jays

In 1987, the Florida Scrub-Jay was listed as federally Threatened under the Endangered Species Act. Each federally listed species has a recovery plan in place that is based on a periodically updated Species Status Assessment. The recovery plan lays out all the actions and costs required to increase — or recover — the species' population to a level that qualifies the species for delisting.

**Recovery plans  
prescribe the  
actions needed to  
delist the Florida  
Scrub-Jay.**

An updated Species Status Assessment was published in December 2019. Although some may find it a challenging read — all 140 pages of it — the document is packed with fascinating life-history information about everything from survival and movement records to disease incidence to genetic diversity and habitat management needs.

The assessment discusses potential effects of climate change factors and sea level rise on Florida Scrub-Jays, their habitat, and their food base. Maps and discussion of core and auxiliary populations of scrub-jays are presented for each of Florida's 10 genetically distinct units along with the number of scrub-jays that each site could support if habitat were maintained in an optimal condition. Perhaps most importantly, the report describes long term conservation scenarios that could increase the statewide population to a self-sustaining level that would provide a basis for delisting under the Endangered Species Act. Contact Chuck Underwood [chuck\\_underwood@fws.gov](mailto:chuck_underwood@fws.gov) at the USFWS North Florida Ecological Services Office for a copy of the report.

## FLORIDA SCRUB-JAYS NEED YOU!

**With 45 sites continually monitored by dedicated Jay Watch community scientists each season, we are learning a lot about jays' efforts to persist in their home state. This important data informs management decisions that can help, or hinder, growth of scrub-jay populations. Without your support, the data that is collected remains only numbers. We need your help to ensure those numbers translate into dollars that can help leverage more support for Florida Scrub-Jays and scrub habitat protection. Please consider joining the effort either by donating your time, your expertise, or your dollars, to help keep the Florida Scrub-Jay thriving in Florida.**

**45 Sites  
Monitored by  
Audubon  
Jay Watch  
Community  
Scientists**



While scrub-jays have been determined to be extirpated from Palm Beach County, Jay Watch continues to monitor the Jupiter Ridge Natural Area where they were last sighted in Palm Beach County.

## Special Thanks to Our 2019 Jay Watch Supporters

**Batchelor Foundation • The Walt Disney Company  
Mosaic Company Foundation • Florida Power & Light Company**



**Audubon** | FLORIDA

4500 Biscayne Boulevard, Suite 350, Miami, Florida 33137 | 305.371.6399  
[GiveToAudubonFlorida.org](http://GiveToAudubonFlorida.org)

### **Join Jay Watch:**

Email [jsulek@audubon.org](mailto:jsulek@audubon.org)

### **Donate:**

[fl.audubon.org/SupportJayWatch](http://fl.audubon.org/SupportJayWatch)

### **Learn More:**

[AudubonJayWatch.org](http://AudubonJayWatch.org)