

The Curious Case of the Florida Scrub-Jay

A special Florida habitat is home to a very special bird.

It's a chilly winter day in central Florida. A gentle breeze barely ruffles the leathery leaves on the low scrub oak trees. Perched near the top of one of the oaks is a single Florida Scrub-Jay. Its bright blue feathers stand out against the sky. Several other scrub-jays hop about on the ground, poking their beaks into the sand. Suddenly the bird on the branch makes a series of rapid, raspy calls. It's a warning about a hawk soaring overhead. The birds on the ground immediately scatter, disappearing into the short, scrubby trees.

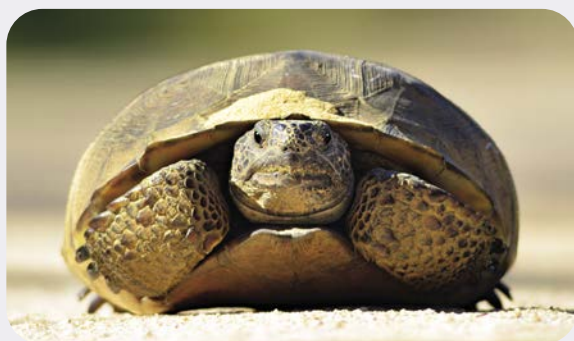
This is a Florida Scrub-Jay family. One member acts as a lookout for predators while the others seek out buried acorns in the sand below.

The Florida Scrub-Jay is interesting and unusual for many reasons. A big one is that it is found nowhere else in the world. It is truly Florida's bird. Turn the page to find out more about this unique Florida-only bird.

Meet the Florida Scrub-Jay



↑ Adult Florida Scrub-Jays have a gray patch on the back just below the blue feathers on the neck and head.



↑ The gopher tortoise plays an important role in the scrub habitat.



← This is an eastern black swallowtail caterpillar. It is a protein-rich food source for scrub-jays.



DANGER!

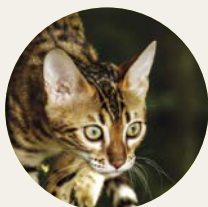
Florida Scrub-Jays face a number of predators.



Hawks and owls hunt them.



Snakes and raccoons raid nests for eggs.



Pet cats that live outdoors or feral cats—untamed cats that live in the wild—are also a major threat.

What's in a Name?

The name of this bird tells a lot about it. First, it is endemic to Florida. That means you could travel everywhere else in the world and never find one. It's a Florida-only bird. And it's the only bird that lives only in Florida. "Scrub" tells you about this bird's habitat. It tells you the habitat is dominated by low-growing shrubs called scrub oaks. There are few tall trees and lots of patches of bare sand. Finally, "jay" is a bird in the crow family. There are several species of jays and several species of scrub-jays.

Who Are the Neighbors?

Florida Scrub-Jays share their scrub habitat with a variety of other animals. They have to be tough. It's hot. Water is limited. It's hard to hide. There are eastern indigo snakes, gopher tortoises, sand skinks, and Florida scrub lizards. Insects and spiders live there, too. Lots of predators can make a meal out of a scrub-jay.

What's on the Menu?

Florida Scrub-Jays take advantage of food that's available depending on the season. Spring and summer mean an abundance of high-protein caterpillars, insects, spiders, and lizards. An occasional mouse is also on the menu. The timing is important because this is when scrub-jays are raising their young, who need protein for healthy growth. Scrub oak acorns are a big part of their diet in fall and winter when other food sources are limited.

Acorn Accumulation

In the fall months, a lot of acorns are available—more than the scrub-jays can eat. But they don't go to waste. Florida Scrub-Jays harvest acorns and bury them in the bare sand patches to save for the winter months. This is called "caching."

A single Florida Scrub-Jay can bury, or cache, up to 8,000 acorns a year. Even more amazing is that each jay remembers where its caches are and checks on them regularly. If any acorns in one cache are rotting, the scrub-jay abandons the cache. If the acorns are just a bit wet, the bird moves all of the acorns to another location.

By creating caches and remembering where they are, Florida Scrub-Jays have a reliable source of food in the fall and winter, when insects, spiders, and lizards are hard to find.

Caching has another benefit. Acorns that are cached but not eaten sprout and grow into new scrub oaks, thus keeping the ecosystem healthy.

How many acorns can you find throughout this magazine?



A Home in the Florida Scrub

The Florida scrub gets its name from the short scrub oaks that are the main type of plant in this habitat.

The soil is sandy, with patches of bare sand between plants. This is the home of Florida Scrub-Jays. Take a peek to discover how the living things that share this habitat are connected to one another.



1 Cooper's Hawk

Red widow spider



2

Florida scrub lizard



3

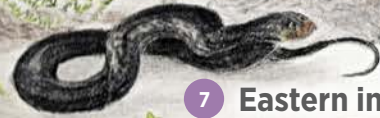
Scarab beetle



6

Scrub palmetto

7 Eastern indigo snake



7

8 Gopher tortoise



8

9 Gopher frog



9

10 Bluetail mole skink



10

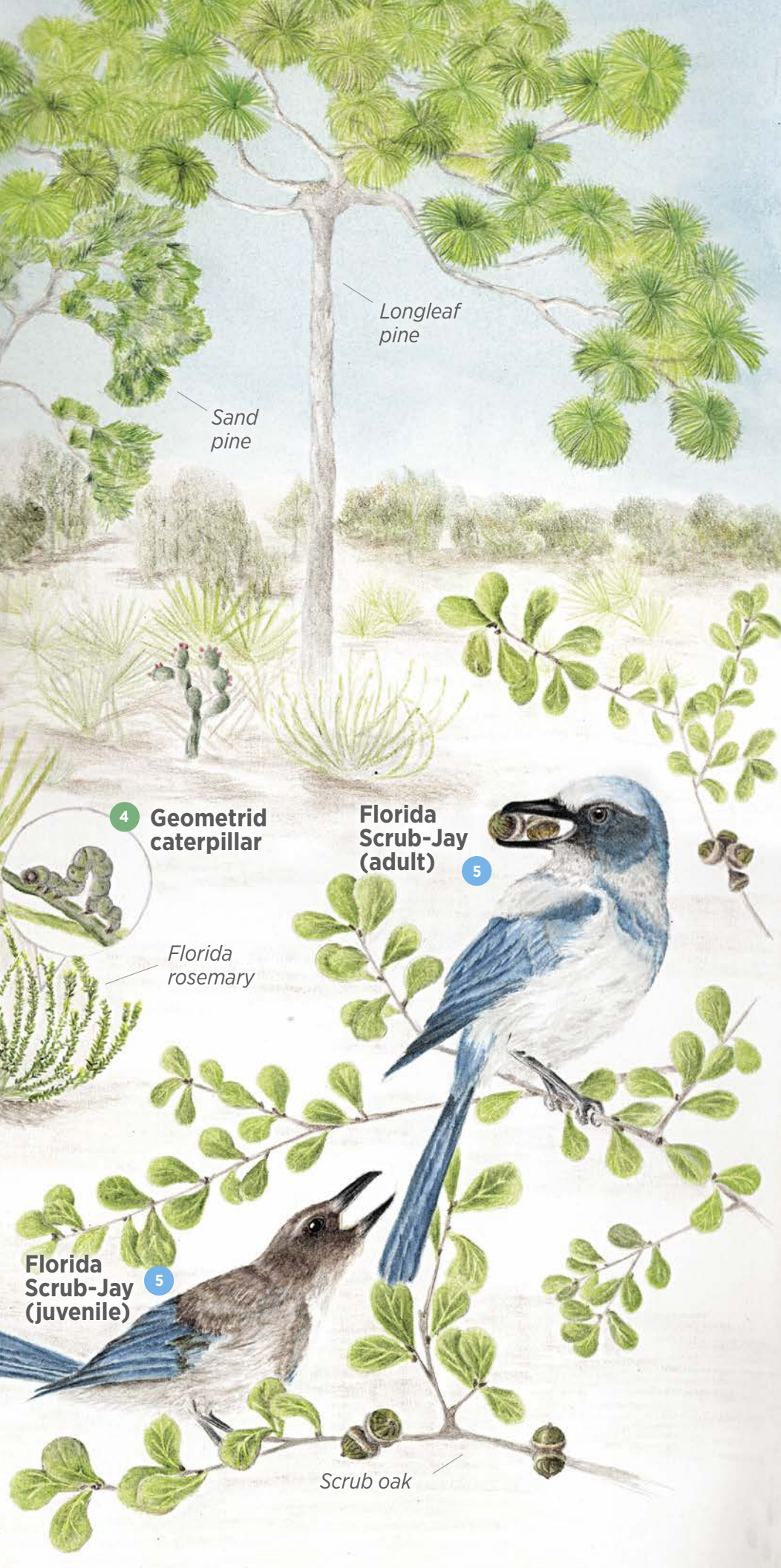
Florida mouse



11

Highlands golden aster





Longleaf pine

Sand pine

4 Geometrid caterpillar

Florida Scrub-Jay (adult)

5

Florida rosemary

Florida Scrub-Jay (juvenile)

5

Scrub oak

- 1 **Cooper's Hawks** are birds of prey. Their preferred food is other birds. They also eat small mammals such as mice as well as reptiles and insects.
- 2 The **red widow spider**, like the Florida Scrub-Jay, is found only in Florida. Scarab beetles are a big part of its diet.
- 3 Lizards are members of the reptile family. The **Florida scrub lizard** is another Florida-only critter. It eats beetles, spiders, and ants.
- 4 The **geometrid caterpillar** eats only the leaves of Florida rosemary plants. If it isn't eaten by a bird or other predator first, it will eventually become a moth.
- 5 **Florida Scrub-Jays** depend on acorns from scrub oak trees as an important part of their diet. They also eat caterpillars, insects, spiders, lizards, frogs, and mice.
- 6 Many species of **scarab beetles** live in the Florida scrub. Some are found only in gopher tortoise burrows.
- 7 **Eastern indigo snakes** often use gopher tortoise burrows. These reptiles eat other reptiles, amphibians, small mammals like mice, and birds.
- 8 The **gopher tortoise** digs a long underground burrow that is shared by many other critters in this habitat.
- 9 **Gopher frogs** live in the burrows of gopher tortoises. They eat beetles, crickets, spiders, worms, and small frogs.
- 10 **Skinks** are small reptiles. The bluetail mole skink is a Florida-only critter. It preys on spiders, crickets, and roaches.
- 11 The **Florida mouse** makes its nest in a small burrow inside the burrow of a gopher tortoise.



↑ Older brothers and sisters of these Florida Scrub-Jay nestlings will help their parents with feeding, lookout, and babysitting duties.

Family Matters

Another special and rare thing about Florida Scrub-Jays is that they are cooperative breeders.

When young grow up and leave the nest, they stay near their parents for at least a year.

They learn important life skills during this time. This behavior has some great benefits for the whole family. The young help their parents when the next generation is born. They can act as babysitters when the parents are away searching for food, and they help feed the nestlings, too. They serve as sentinels or lookouts, watching for and alerting the others when a predator is near. Florida Scrub-Jays stick together when trouble comes. If necessary, the family forms a mob—attacking the predator until it gets the message and leaves. Even when they've left the family, Florida Scrub-Jays rarely travel more than 2 miles from where they hatched.

Cooperative breeding is rare among birds. Of about 10,000 bird species in the world, only about 3 percent have this behavior.



Habitat Matters

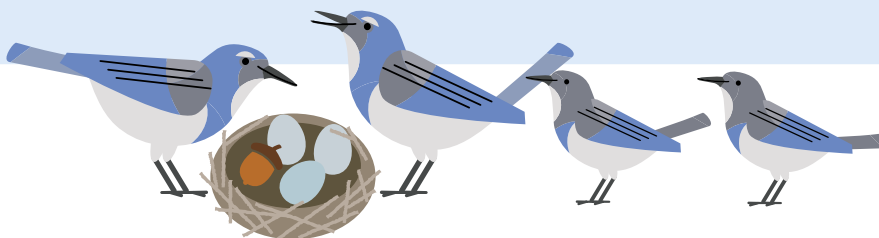
The Florida Scrub-Jay is a habitat indicator species, also known as an “umbrella species.”

The population of Florida Scrub-Jays was once estimated to be about 40,000. Today the estimate is about 8,000 birds. It is listed as a threatened species under the Endangered Species Act. Loss of habitat is a big factor in this decline. Florida Scrub-Jays cannot survive without scrub habitat in good condition, with short scrub oaks, few trees, and lots of bare sand patches.

Development for homes and businesses and clearing for agriculture have reduced the amount of scrub habitat in Florida. Unpredictable cycles of rainfall and drought and higher temperatures caused by climate change threaten the scrub-jay's food supply. Another factor is that fires that are started naturally by lightning are not allowed to burn. See “When Fires Are Needed” (right) for information about this problem and its solution.



↑ Lots of bare, sandy patches among short scrub oaks and palmettos are signs of a healthy habitat for Florida Scrub-Jays.



habitat

WHEN FIRES ARE NEEDED



In the past, lightning-caused fires kept scrub oaks low and open for the scrub-jays.

Today, people tend to quickly put out wildfires that can spread quickly and destroy property. But fires also burn back pine trees that could turn scrub habitat into a forest. Scrub oaks can survive fire. Without periodic fires, scrub oaks grow thick and tall, providing hiding places for predators.

Grasses spread, covering the bare sand patches that scrub-jays need to hide acorns. When the habitat becomes unsuitable for Florida Scrub-Jays, the birds will disappear.

There is a solution! When the numbers of birds begin to decline, land managers know it's time for a fire. Experts decide where to set fires and firefighters carefully control the fires so they don't spread beyond the scrub. The scrub-jay's habitat is safely preserved.

get involved

You Can Help the Florida Scrub-Jay!

Florida Scrub-Jays face a lot of challenges, but everyone can help them.

JAY WATCH IS WATCHING FLORIDA SCRUB-JAYS



- Don't feed them! Florida Scrub-Jays sometimes let people get near, but we shouldn't feed them. The food they get on their own is the right kind of food, especially for their growing young.
- Keep cats inside. Pet cats are excellent hunters and are able to catch and kill birds. Cats that stay inside are also healthier and live longer than cats that live outside.
- Spread the word about how to protect the scrub-jays' habitat, including allowing carefully controlled fires to burn in order to keep the scrub healthy.
- Learn about and volunteer with Jay Watch.
- Find a park with scrub habitat near you and volunteer to help preserve it.

Information collected by volunteers helps scientists learn about and protect Florida Scrub-Jays.

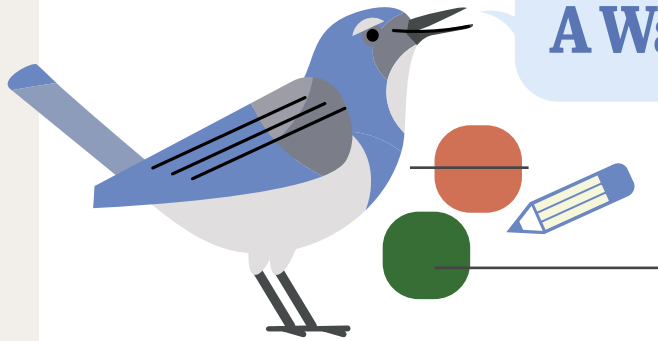
Jay Watch is a community science program of Audubon Florida. It trains and supports volunteers to conduct scientific surveys related to the Florida Scrub-Jay. You can find out more about the Jay Watch program here:

fl.audubon.org/jaywatch



There are many more fun editions of Audubon Adventures. You can find them all here:

audubonadventures.org



A Walk in the Florida Scrub

This is a story that you help write. Fill in the blanks with your own words. Keep in mind what you've learned about the Florida Scrub-Jay and its habitat. Be accurate, but also be creative!

My friend _____ and I were visiting the scrub habitat in a Florida state park. It was autumn. We were hoping to see some Florida Scrub-Jays. Our feet sank into the _____ as we walked. There were a few tall trees, but mostly shrubs called _____ grew all around. They were _____. Up ahead we spotted a large, slow-moving creature in the sand. "That's a(n) _____!" I said. We watched it crawl down into a wide hole in the sand. Then we saw something else. Slithering along under the shrubs was a long, black _____ snake. At that moment, we heard a raspy sound coming from one of the shrubs. We stopped and peered in. There it was! A Florida Scrub-Jay with its _____ and _____ feathers. Then, nearby, we saw several other Florida Scrub-Jays hopping around in the sand. Some had a(n) _____ in their beak. They would stop and _____ it in the sand, then fly off to get another. "They're making _____," I said. We stood still for a long time, enjoying the activity of these _____ birds. Finally, it was time to go. "What a _____ day," my friend said. "Right," I said. "My favorite thing was _____."

Audubon Adventures is published by National Audubon Society
 225 Varick Street, 7th floor,
 New York, NY 10014
 Audubon Adventures is a registered trademark of National Audubon Society. All rights reserved © 2021
Subscriptions and customer service:
 Please call (800) 340-6546. Learn more at audubonadventures.org
Project Team: Elaine O'Sullivan, Managing Editor; Joshua Bellamy, Lorin Driggs, writers; Lorin Driggs, principal editor;

Marianne Korosy, Jacqui Sulek, scientific and educational reviewers. **Audubon Art Department:** Kristina Deckert, Art Director; Melanie Ryan, Assistant Art Director; Alex Tomlinson, Graphic Designer; Sabine Meyer, Photography Director; Jovelle Tamayo, Contributing Photo Editor. **Credits:** Cover: Stephen Kintner. P2, clockwise from top left: Sundari Greene/Audubon Photography Awards; Carlton Ward Jr.; iStock; Jacqui Sulek/Audubon; Seregra/Shutterstock; amadeusamse/iStock.

P3-4, illustration: Natasza Fontaine. P5, from left: J. Adam Fenster/University of Rochester; Reed Bowman; Marianne Korosy/Audubon. P6 from top: Carlton Ward Jr.; Luke Franke/Audubon. Other illustrations: Alex Tomlinson/Audubon.

There are nine acorns like this scattered throughout the magazine.



This edition of Audubon Adventures was created in collaboration with Audubon Florida and was generously funded by The Walt Disney Company.