



FLGeoWeek.com

Learn Your Geography, Florida

2017



Florida Geographic Alliance
Educating Tomorrow's stewards of Florida

Happy Geography Awareness Week explorers!



It's officially day two of [#FLGeoWeek](#) 2017. This year's theme? **The Florida Scrub jay!** This endangered species is the only existing bird that is endemic to our state. To celebrate and spread awareness about this amazing Florida-native, we're thrilled to bring you new activities and fun-facts each day to show you just how incredible their world really is. Follow the Scrub Jay on its journey through an evolving landscape, as its home is threatened and families must adapt. With the many challenges facing them, these intelligent birds continue to embody a spirit of perseverance and wonder at the world around them.

This year at flgeoweb.com we're bringing you daily bell-ringers, lessons, and end-of-class reflections to introduce your class to the world of Florida ornithology. Make sure to follow our [Facebook](#) and [Twitter](#) for special announcements and challenges as the week goes on. The Florida Scrub Jay is a very special bird to our community, and the Florida Geographic Alliance has dedicated this week to telling its story.

Visit flgeoweb.com and keep an eye out for everyday surprises!

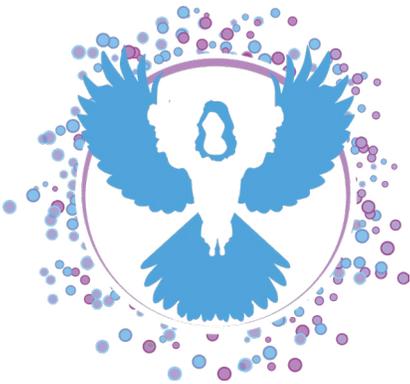
As always, happy exploring!

Sincerely,
The Florida Geographic Alliance



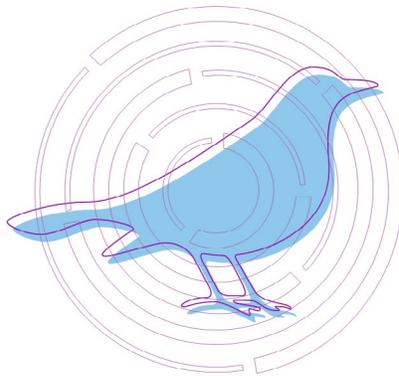
THE FLORIDA SCRUBJAY

WEEK OF ACTIVITIES



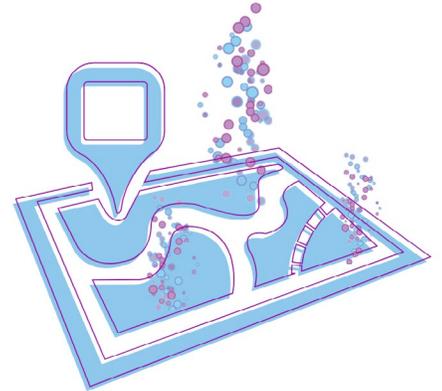
3 MONDAY

Introducing the Florida Scrub Jay



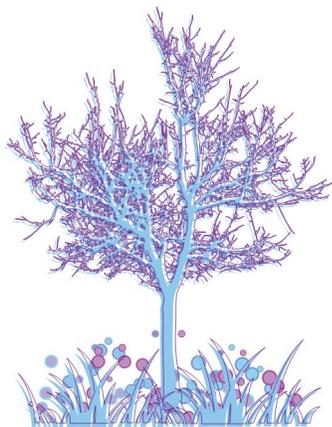
7 TUESDAY

Anatomy of the Florida Scrub Jay



11 WEDNESDAY

Map Analysis (GIS): What's happening to the Florida Scrub Jay?



15 THURSDAY

Habitat of the Florida Scrub Jay



19 FRIDAY

What Can You Do?



INTRODUCING THE FLORIDA SCRUB JAY



INTRODUCTION

Birds are all around us.

In the world, there are around 10,000 species of birds. In North America, there are about 914 species. And, here in Florida, we have around 378 species. With over 20 million people living in our state we have many opportunities to interact with the birds that inhabit Florida, whether they are year-round or seasonal visitors. Birds are beautiful to look at and listen to and they also help humans to live a happy, healthy lives. They are truly a gift of nature as they disperse seeds, provide pest control, keep our roadways clean, help us fight battles and win wars, and warn us when our ecosystems are imbalanced. By doing all of this for humans some scientists now call birds “ecosystem service” providers. We owe these unique, interesting winged creatures a huge thank you!

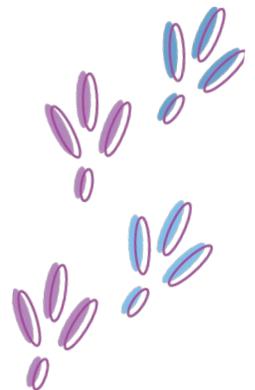
However, birds now need our help. Population numbers and their habitat are shrinking each day. Research shows that birds have been on earth anywhere from 60 million to 150 million years but the future does not look well for them for several reasons. Habitat and open space loss due to human development impact bird species at an overwhelming rate. 290 million acres of land utilized as bird habitat and other wildlife species has been developed, fragmented, or damaged. **Birds need our help so let's get started!**

- FLORIDA GETS WILD, Teacher's Guide



CLASS STARTER: EARLY BIRD

Using their device, students will look up the word “endemic” and record the definition on a piece of paper. Discuss findings with the class.



TODAY'S LESSON

- Teachers pose the following question to students:

“What is the name of the state bird of Florida?”

- Students may turn to their shoulder partner to discuss and share answers.
- Students will then regroup as whole class and call on volunteer for answer.

Correct answer to share with students: *Northern Mockingbird*

- The teacher may want to share that state’s select symbols that reflect the cultural heritage and natural resources found in each state that represent their uniqueness. Make connections to the idea that we can all be a part of civic engagement no matter what age we might be.
- Project the image of mockingbird found at [this link](#).
- Select a volunteer ask them to describe the bird’s features as shown in the image.
- Possible answers: *small, brownish in color, could be easily hidden in Florida’s plants and trees.*
- Play the [songs and calls](#) of the mockingbird and select volunteers to describe the songs and calls.
- Project the [Northern Mockingbird range map](#) and explain to students where the bird can be found.

Lesson continues below. Click for the full PDF.

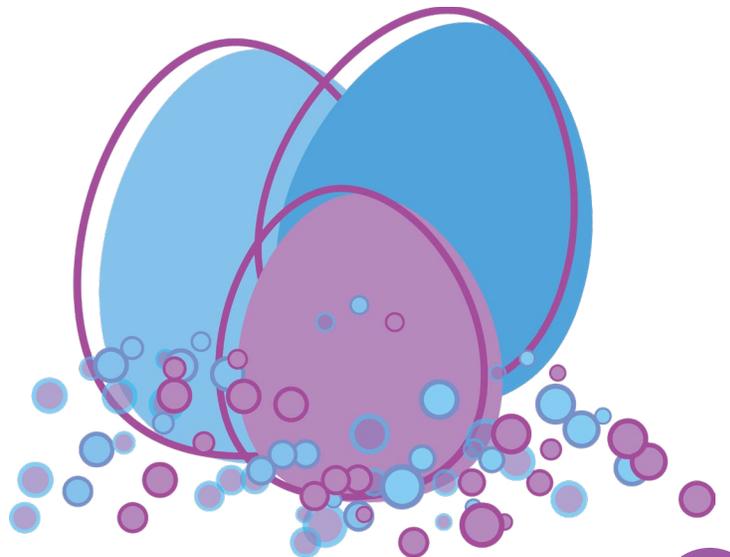
FLGeoWeek 2017
Florida Scrub Jay: Lesson 1

Download

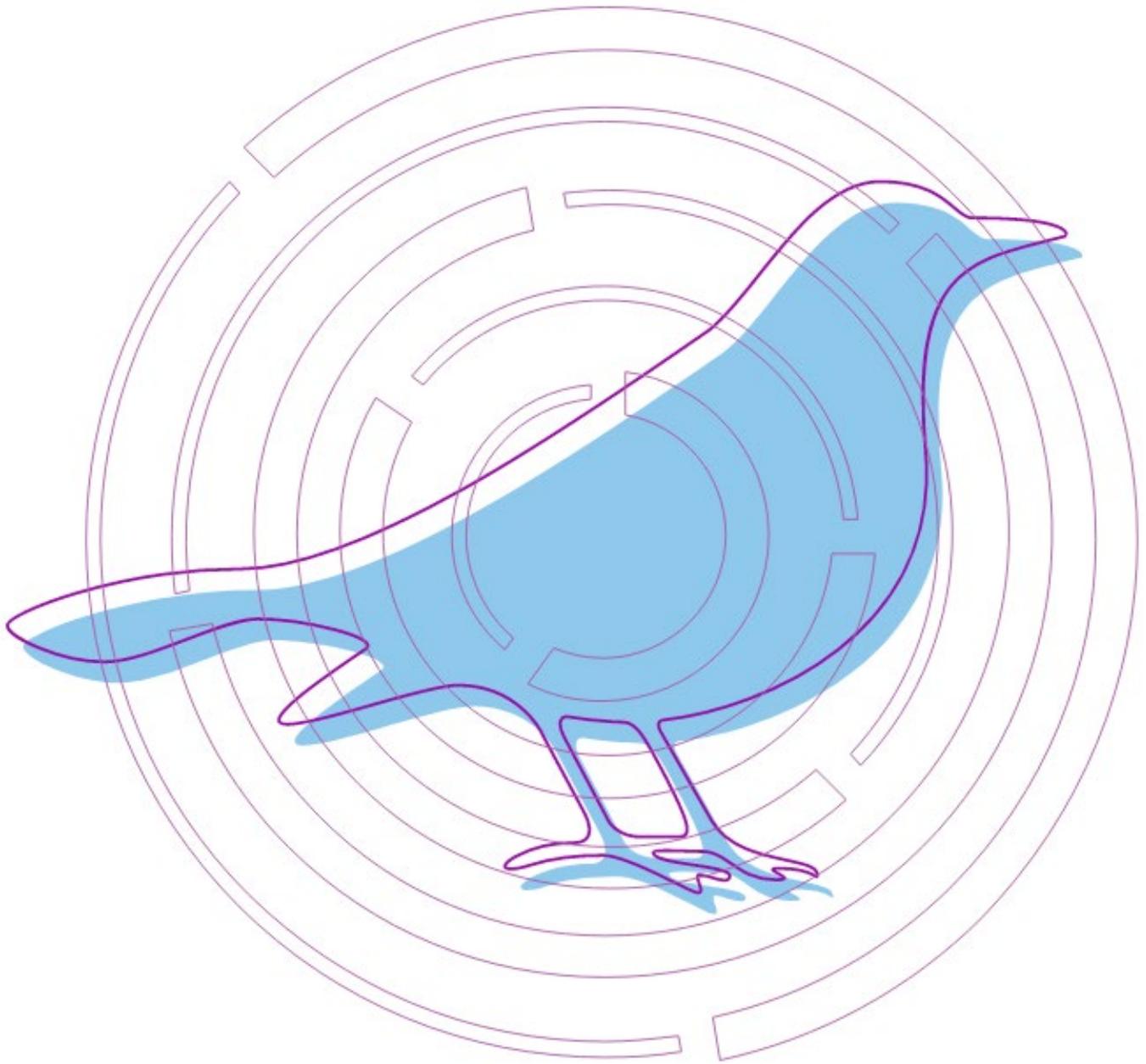


AFTER-CLASS REFLECTIONS: LEAVING THE NEST

What makes the Florida Scrub Jay
a unique bird?



NOVEMBER 14TH, 2017



ANATOMY OF THE FLORIDA SCRUB JAY



INTRODUCTION

An excerpt from John James Audubon, an ornithologist who formed one of the finest documentations of birds in America in 1829.

On the Florida Scrub Jay:

"This beautiful and lively bird is a constant resident in the south-western parts of Florida, from which country it seldom if ever removes to any great distance. It is never seen in the State of Louisiana, far less in that of Kentucky, and when CHARLES BONAPARTE asserts that it occurs in these districts, we must believe that he has been misinformed. It is so confined to the particular portions of Florida which it inhabits, that even on the eastern shores of that peninsula few are to be seen..."

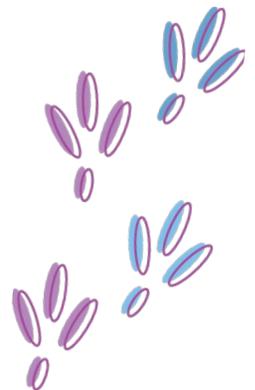
"The flight of the Florida Jay is generally performed at a short distance from the ground, and consists either of a single sailing sweep, as it shifts from one tree or bush to another, or of continuous flappings, with a slightly undulated motion, in the manner of the Magpie (*Pica melanoleuca*) or of the Canada Jay (*Garrulus canadensis*). Its notes are softer than those of its relative the Blue Jay (*Garrulus cristatus*), and are more frequently uttered. Its motions are also more abrupt and quicker. It is seen passing from one tree to another with expanded tail, stopping for a moment to peep at the intruder, and hopping off to another place the next minute. It frequently descends to the ground, along the edges of oozy or marshy places, to search for snails, of which, together with berries of various kinds, fruits and insects, its food consists. It is easily approached during the breeding season, but is more shy at other times."

- [John James Audobon's Birds of America](#)



CLASS STARTER: EARLY BIRD

List several ways you think birds help the environment.



TODAY'S LESSON

Purpose:

This lesson will provide general information on bird's and their anatomy that is helpful to being able for identification. The lesson also provides information on what the Florida Scrub Jay looks and sounds like as well as an overview to the project.

Lesson:

1. The night before this activity assign students to read the brief article titled "[A Bird Up Close](#)" and highlight at least one they will share with their shoulder partners the following day. The teacher may post the [link](#) on the class website or print copies for each student.
2. At the beginning of class ask students to share their facts then project the link above and review the parts of the bird's anatomy.
3. Project image of the Florida Scrub Jay and ask a volunteer to describe and compare to image mockingbird.
 1. 1st slide Florida Scrub Jay
 2. 2nd slide Florida Scrub Jay next to Mockingbird
4. Next, play the audio of the Florida Scrub Jay call found at [this link](#). Ask volunteers to describe the call and compare to that of the mockingbird.
5. Review the definition of endemic and explain to students that the Florida Scrub Jay is the only bird that is endemic to our state.

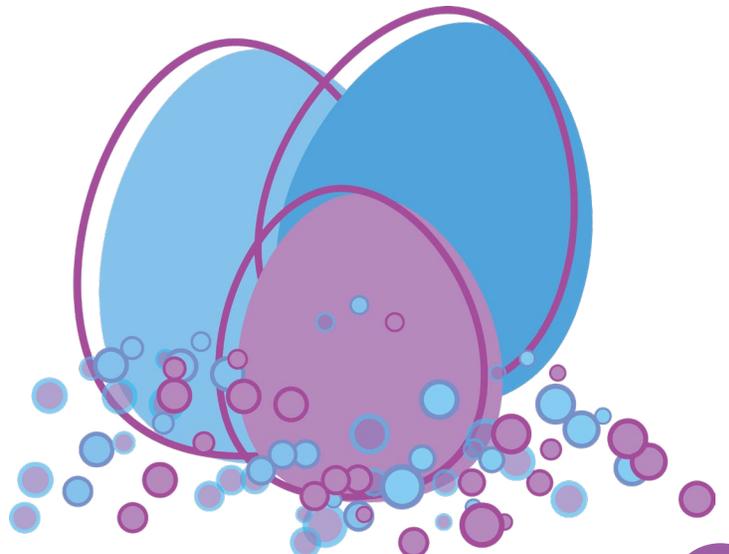
After the lesson, navigate to the following websites and open a discussion about identifying birds based on their anatomy, behaviors, and calls. Use these resources to provide open reading, or have your students take turns reading aloud.

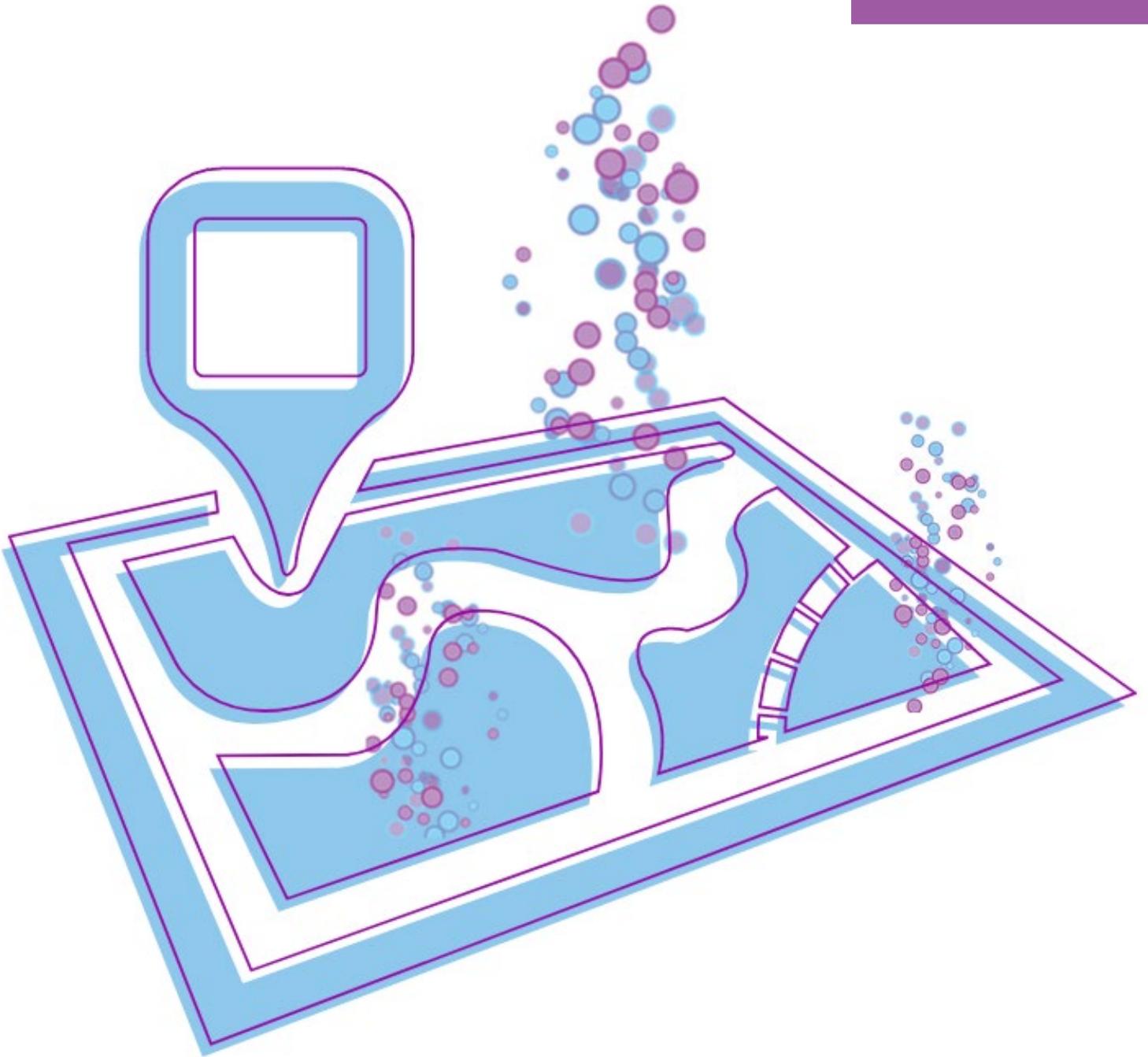
- ["The Inquisitive Florida Scrub Jay" - NASA](#)
- [Plate 87: Florida Jay - John James Audubon's Birds of America](#)
- [Florida Scrub Jay Calls - All About Birds](#)



AFTER-CLASS REFLECTIONS: LEAVING THE NEST

In your opinion, what is the most important role of birds?





MAP ANALYSIS (GIS)

WHAT'S HAPPENING TO THE FLORIDA SCRUB JAY?



INTRODUCTION

An excerpt from the Florida Natural Area Inventory's *Atlas of Florida's Natural Heritage*

"Continuing loss, fragmentation, and degradation of scrub habitat has resulted in a loss of 80 to 90% of Florida scrub-jays. A greatly increased rate of decline has occurred in recent decades, dropping from a range-wide estimate of 10,700 birds in 1993 to roughly 6,930 birds in 2005. The largest remaining populations are found on federal lands (Merritt Island National Wildlife Refuge/Kennedy Space Center and Ocala National Forest) and scattered locations on the Lake Wales Ridge in Polk and Highlands counties. The Florida scrub-jay is listed as threatened by both the federal and state governments."

"Jay Watch helps everyone keep track of Florida scrub-jays. The program, developed by The Nature Conservancy in conjunction with Archbold Biological Station, tracks populations of scrub-jays across many public and some private lands. Jay Watch data also strengthen calls for increased use of fire to improve scrub-jay habitat on conservation lands. In 2009, vegetation was too dense to be suitable for jays at more than half of survey points. Jay Watch volunteers covered 63 sites in 18 counties in 2009, and the information they gather is critical to our understanding of the health of one of Florida's most unique species."

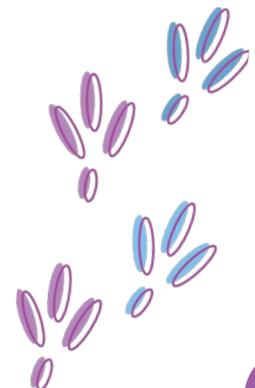
By using map data, scientists and other nature conservationists are able to take better actions toward saving endangered species like the Scrub Jay. What other ways can we analyze maps to help our Florida birds? Using map analysis, what are other changes we can make in our behavior towards the environment?

- *Atlas of Florida's Natural Heritage: Biodiversity, Landscapes, Stewardship, and Opportunities*



CLASS STARTER: EARLY BIRD

How can maps help us to learn about birds and where they live?



TODAY'S LESSON

Directions:

Project [this map](#) and [this map](#) of the Florida Scrub Jay's habitat range.

Provide 1-3 minutes for students to analyze the map and then ask the following questions:

1. Where is the most of the range found for the Florida Scrub Jay? North, South, East, West, and/or central Florida?
2. Do the scrub jays seem to live more in one area(s) than another?
3. What do you think their habitat might look like?
4. Review the following key ideas: habitat, Florida Scrub Jay, and scrub oak and have students draw visual memory clues for each.
5. Once this is completed, provide each student with a copy of the map found at the link above and glue to the bottom half of a piece of paper.
6. Reflection Question: Based on what you have learned so far explain how and why the Florida Scrub Jay is endemic to our state? Record this reflection at the bottom of the paper.

Assign each student the following:

1. [Tampa Bay Times Newspapers in Education tabloid: Celebrating Tampa Bay's Wildlife and Habitats](#)
2. Legal size manila folders (student's name recorded on them); students may keep their papers, the wildlife and habitat newspaper in their manila folders and file in the milk crates.

Group students into triads and introduce the title page of the tabloid and then ask students to briefly skim pages, 2,3 and 10.

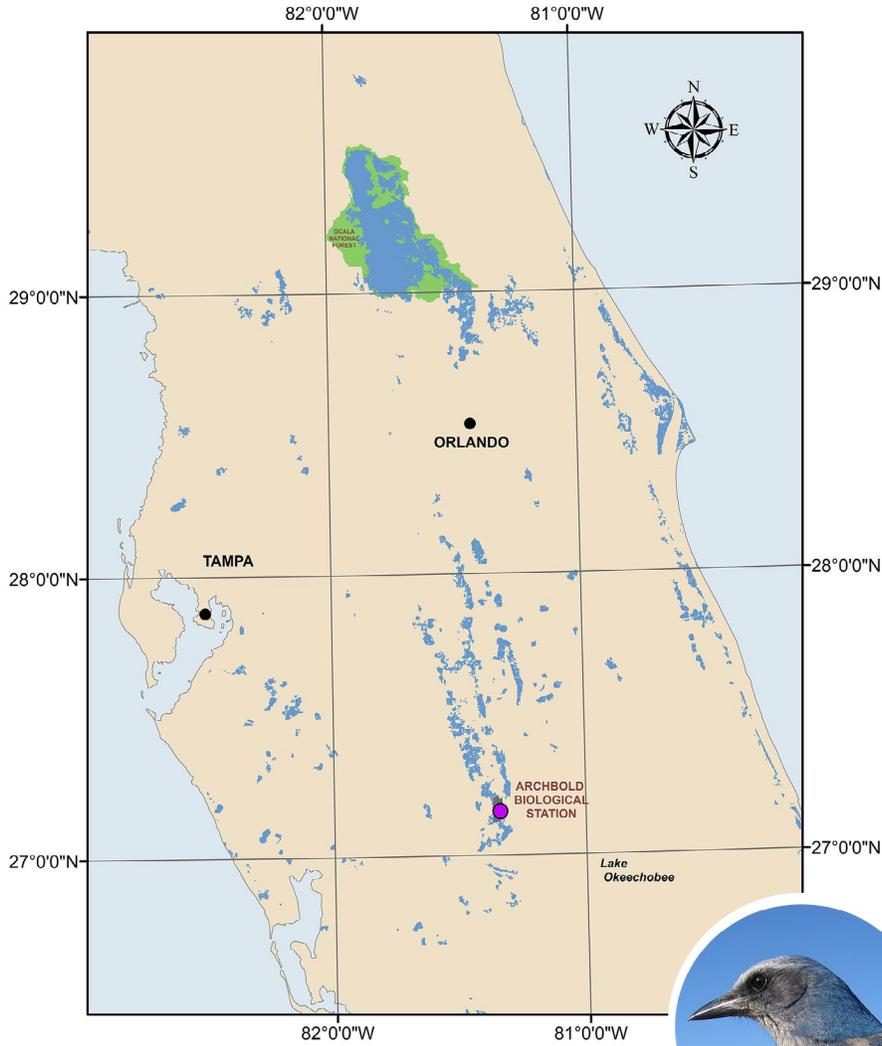
Assign each student a page to record three facts on their handout. Example: Student #1 assigned pg 2; Student #2 assigned pg 3; Student #3 assigned pg 10.

Reading independently each student will read their assigned page and record three facts they will record on their papers and then share with their triad. Example: once their facts are recorded and the other triad members have completed theirs, students will have 3 minutes each to share their facts while others in the triad record these facts on their own handout.

Informal Assessment:

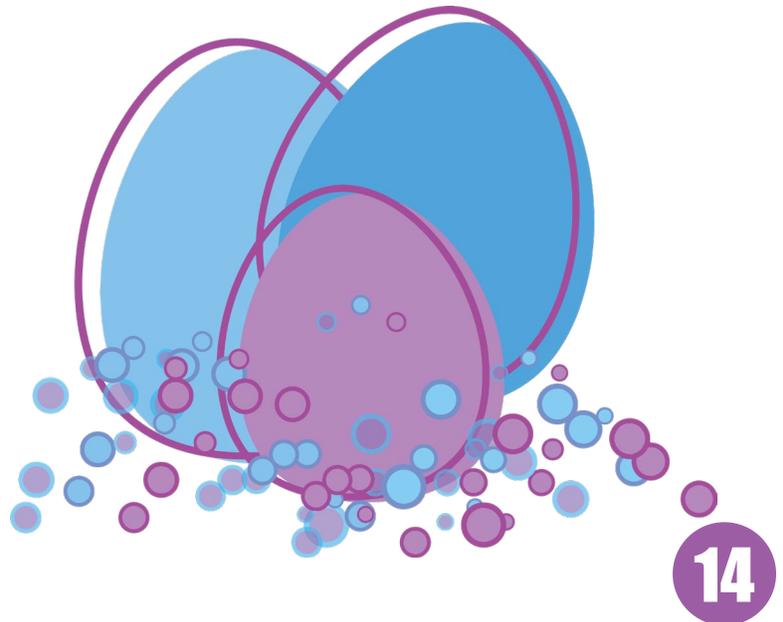
Reflection: Identify and highlight the most important fact you learned about Florida's natural environment and share with your triad.

Habitat Zones of the Florida Scrub Jay

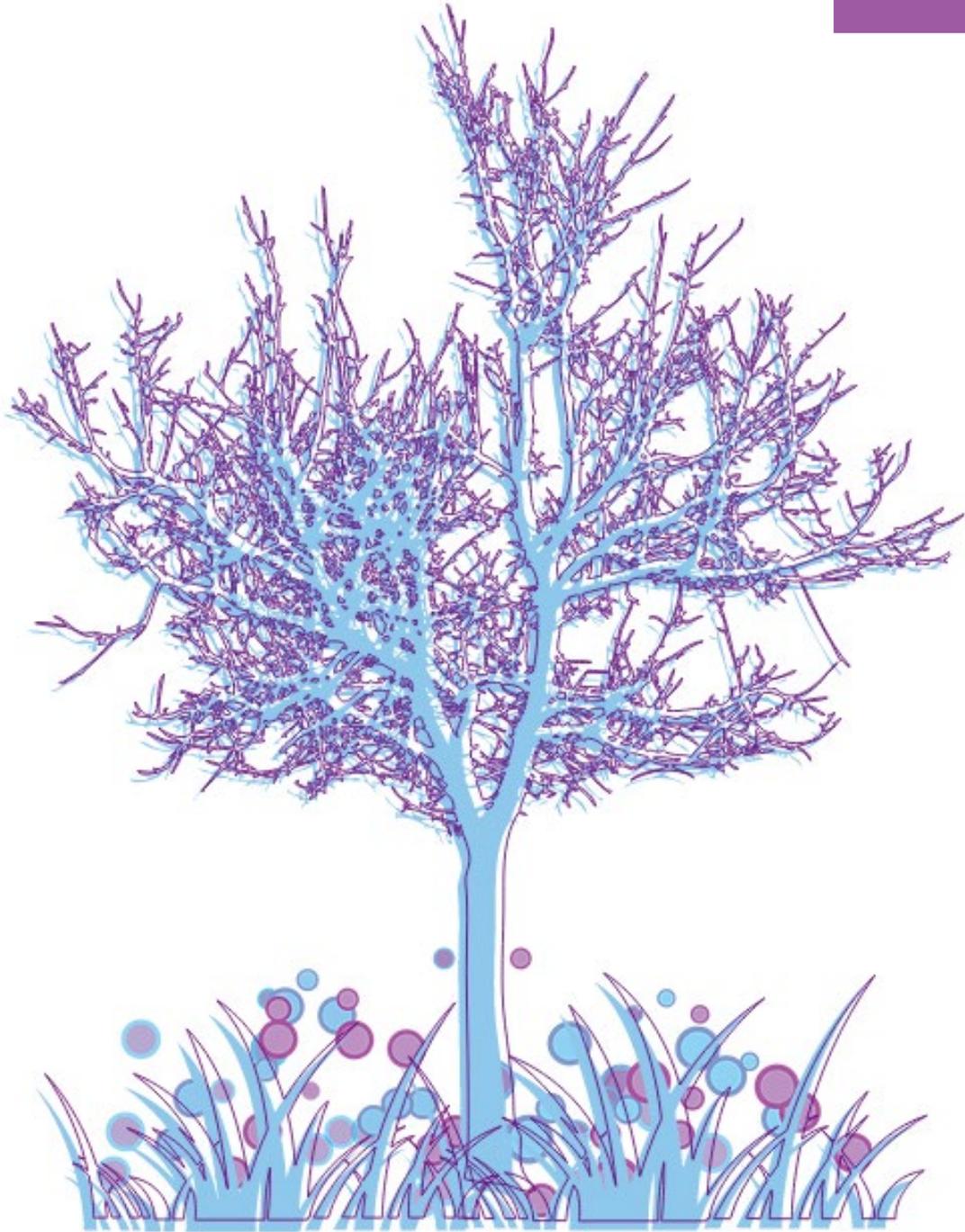


AFTER-CLASS REFLECTIONS: LEAVING THE NEST

How can maps help us to learn about birds and where they live?



NOVEMBER 16TH, 2017



HABITAT OF THE FLORIDA SCRUB JAY



INTRODUCTION

An excerpt from the [Florida Fish and Wildlife Conservation Commission's Entry on The Florida Scrub Jay](#)

"The Florida scrub-jay is the only species of bird that is unique to Florida. Scrub-jays inhabit sand pine and xeric oak scrub, and scrubby flatwoods, which occur in some of the highest and driest areas of Florida – ancient sandy ridges that run down the middle of the state, old sand dunes along the coasts, and sandy deposits along rivers in the interior of the state. Scrub-jays do best in areas that contain large quantities of oak shrubs that average 3.28-6.56 feet (one to two meters) (C. Faulhaber pers comm. 2011)."

"The primary threats to the Florida scrub-jay are habitat destruction, fragmentation, and degradation from development and agriculture. Much of the scrub-jay's habitat has been altered for agricultural lands and development (C. Faulhaber pers comm. 2011). Habitat fragmentation is steadily increasing, and in turn causes populations to become smaller and more isolated. Increasing fragmentation causes populations to spread further apart. As populations become further apart, fewer scrub-jays are able to travel between the patches of habitat as they typically do not travel long distances (C. Faulhaber pers comm. 2011). Small populations are at risk of disappearing because of this. Fire suppression degrades the scrub-jay's habitat, as the habitat becomes too dense and tall to support the species. The scrub-jay population has declined 90% in the past century due to these threats (Florida Natural Areas Inventory 2001). Vehicle strikes are particularly dangerous to the population as the rate at which breeders die exceeds the rate at which young scrub-jays are produced (Johnson et al. 2009)."

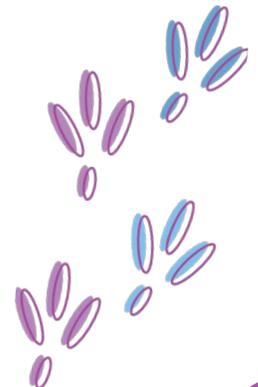
The Florida scrub-jay is protected by the U.S. Migratory Bird Treaty Act. It is also protected as a Threatened species by the Federal Endangered Species Act and as a Federally-designated Threatened species by [Florida's Endangered and Threatened Species Rule](#). Prescribed burning is an essential element to conserving the Florida scrub-jay.

- [Florida Fish and Wildlife Conservation Commission](#)



CLASS STARTER: EARLY BIRD

Using their device students will look up the word "habitat" and record the definition here.



TODAY'S LESSON

Purpose:

Students will watch the [Archbold Biological Station](#) video titled "[At Home in the Florida Scrub](#)" to learn more about the Florida Scrub Jay and the habitat that is critical to its survival. (Special Note: The teacher should view the video first to make sure they can clarify any questions students may ask.)

Literature Connection:

To reinforce what students learned in the video they will complete a reading activity using a [Tampa Bay Times Newspaper in Education tabloid](#) that focuses on the Florida Scrub Jay and its habitat.

Learning Outcomes:

- Students will learn about the habitat that the Florida Scrub Jay needs to survive
- Students will learn about what makes the Florida Scrub Jay unique
- Students will identify the location of the Florida Scrub Jay's habitat

Materials:

- Blue Book
- Glue Sticks
- Scissors

Directions:

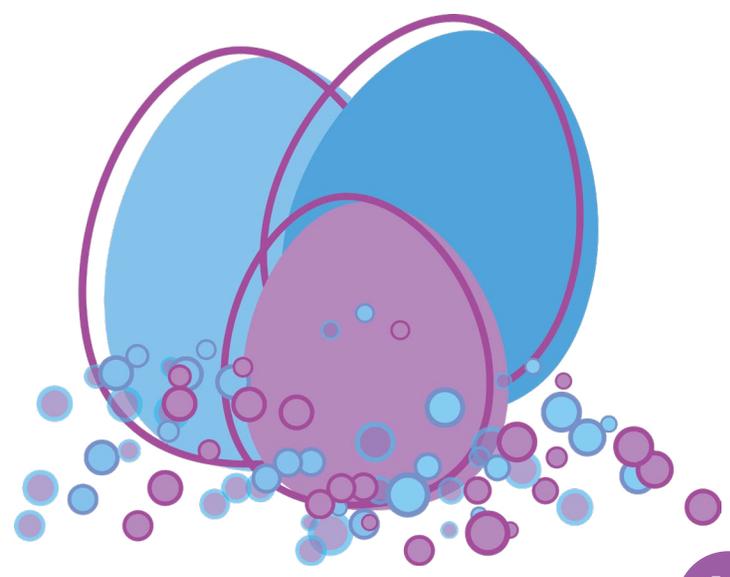
1. Have students read [Tampa Bay Times Newspapers in Education tabloid: Celebrating Tampa Bay's Wildlife and Habitats](#)
2. Reread the definition of "Habitat" and direct students to share with their shoulder partner their Memory Clue for "Habitat."
3. Ask for volunteers to share with whole group.
4. Explain to students they will view the video called "[At Home in the Florida Scrub.](#)" This video provides information on the bird itself, the Florida scrub habitat, and research conducted to help with its survival.
5. Provide each student with the [Video Viewing Guide Handout](#) and direct them to glue the handout into their notebooks.
6. View the video and allow time for students to complete the Viewing Guide.
7. Once completed ask students to share their answers with whole group; clarify any questions they may have.
8. Post the video so students may watch again on their own device.



Photos of the Archbold Biological Station by Elizabeth Smith

AFTER-CLASS REFLECTIONS: LEAVING THE NEST

What's the most difficult part of Memory Clue? Thinking of idea? Or drawing the idea? How can you be more successful at thinking or drawing the idea?





WHAT CAN YOU DO?



INTRODUCTION

An excerpt from the [The Audubon Climate Report](#):

“Climate change threatens 314 species of birds in North America. But you can help them have a brighter future. Below are [a few] ideas to get started...”

“Show Your Community That Birds Matter: Ask your local leaders what they are doing to protect wildlife in the face of climate change. Share memories of your favorite birds with your community groups, or consider a field trip to a local [Important Bird Area \(IBA\)](#) to emphasize the species at home that need our help. Reach more people by writing a letter to your newspaper, speaking at a community event, or visiting a local school and sharing why birds are important to you.

Start at Home: Create safe places for birds to rest and nest in your yard and community by using fewer pesticides, letting dead trees stand, installing bird baths, and converting lawns and gardens to native plants. School grounds, parks, vacant lots, and common areas can all be “bird-scaped,” too. Consider a [DIY birdbath](#) or [turning breakfast into a bird feeder](#).”

- [The Audubon Climate Report](#)

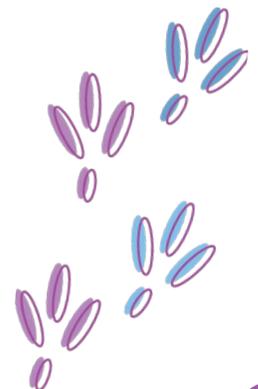
Finally, simply talking about the Florida Scrub Jay with your peers can spread awareness in leaps and bounds. A little love goes a long way for helping our environment. Draw a picture of the Florida Scrub Jay and write a pledge saying one way you can try to help the environment today. Post a picture of your pledge on Instagram and tag it [#FLGeoWeek](#).

The Florida Scrub Jay is a unique bird with an incredible story. Thank you for sharing this week with us and learning about our avian friends in the Florida Scrub - let's work together to keep their habitat safe and healthy for many years to come!



CLASS STARTER: EARLY BIRD

Why should Florida residents care and act on conserving the Florida Scrub jay habitat?



TODAY'S LESSON

Special Note: There are four articles for students to read during this lesson. Time constraints may be present a challenge to read all four. We suggest that you begin with the two Tampa Bay Time articles and, if time allows, follow-up with the two National Geographic Articles.

Purpose:

Students will watch the [Archbold Biological Station](#) video titled "[At Home in the Florida Scrub](#)" to learn more about the Florida Scrub Jay and the habitat that is critical to its survival. (Special Note: The teacher should view the video first to make sure they can clarify any questions students may ask.)

Informational Texts:

- "[Threatened Scrub Jay May be Only Four in Hillsborough](#)" by Phillip Morgan
Newspaper Article-Tampa Bay Times
Originally published Friday, December 23, 2016
- "[Make the Florida Scrub Jay the State Bird](#)" by Mark Pafford
Editorial-Tampa Bay Times
Originally published: Thursday, December 31, 2015
- [Article: "Last One"](#)
National Geographic Society Explore
By Verlynn Klinkenberg
Adapted from "Last One," in , January 2009
Photographs by Joel Sartore
Pages 18-25 [here](#), and text only [here](#).
- [Article: "Right Whales: On the Brink, On the Rebound"](#)
National Geographic Society Explore
By Douglas H. Chadwick
Adapted from "Right Whales: On the Brink, On the Rebound," in National Geographic, October 2008
Photographs by Brian Skerry
Pages 26-31 [here](#), and text only [here](#).

Learning Outcomes:

- Students will learn the concepts of: endangered, threatened, vulnerable, and Endangered Species Act
- Students will learn the difference between a newspaper article and an editorial; and compare and contrast the two

Vocabulary:

- Endangered
- Threatened
- Vulnerable
- Endangered Species Act
- Newspaper Article
- Newspaper Editorial

Directions:

1. Project the definitions of newspaper article and newspaper editorial on the board:
Newspaper Article
Article sharing information, using facts and data.

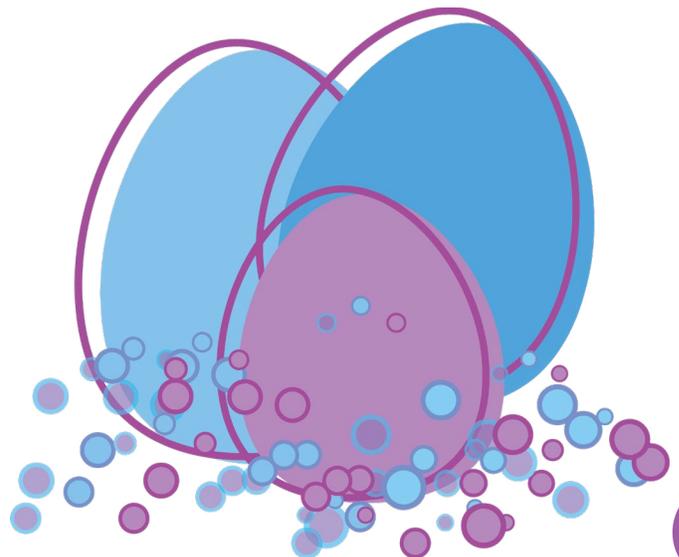
Newspaper Editorial
A column or editorial that provides information but told with bias and opinion.
2. Ask students to brainstorm examples of both; it may be helpful to provide a copy of the local paper to students and have them locate examples and share with the class.
3. Explain to students they will read an example of both article and editorial and provide each student with their own copies.
4. Direct students to number the paragraphs on both documents.
5. Begin with the newspaper article, "[Threatened Scrub Jay Population May be Only Four in Hillsborough](#)," and guide students to do the following:
 - Briefly skim the article.
 - Highlight or box challenging or unfamiliar words or concepts.
 - Read the article.
 - Once this is completed students may add words or concepts to their vocabulary handout.
6. Repeat the same steps with the newspaper editorial, "[Make the Florida Scrub Jay the State Bird](#)."
7. Debrief both by completing a Venn Diagram that compares and contrast information found in both articles.
8. While the teacher is completing the Venn Diagram on the board with student responses, students will follow along and complete their own copy.

Informal Assessment:

"In your opinion, based on information provided in the article and editorial, what is the biggest challenge to the survival of the Florida Scrub Jay and why should it be protected?"

AFTER-CLASS REFLECTIONS: LEAVING THE NEST

Identify one way you can influence a person to take action in conserving vulnerable habitats found throughout Florida.



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Florida Geography Awareness Week



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