Audubon | florida

Jay Watch Volunteer Training Manual









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Jay Watch Program Goals



- ♦ Conduct annual statewide assessments of the Florida Scrub-Jay populations using a standardized protocol for mapping locations of Scrub-Jay groups and counting the number of adults and juveniles in each group.
- ♦ Develop a better understanding of the ecological consequences of management actions such as the application of prescribed fire and mechanical thinning of overgrown scrub vegetation.
- ♦ Educate volunteers who will educate their families and friends about Florida Scrub-Jay biology, the unique Florida scrub ecosystem, and the critical need for prescribed fire to restore and maintain habitat for Scrub-Jays and other scrub-dependent animals and plants.

Volunteer Job Description

Position Title: Jay Watcher / citizen-scientist

Location: Various sites in Florida

Supervisor: Site-dependent March 30, 2016



"The Florida Scrub-Jay is one of North America's most endangered birds. Even in its few remaining strongholds, its numbers are declining steadily and rapidly. The species will win its desperate fight for survival only if we (1) curtail the destruction of Florida scrub, and (2) protect all remaining habitat

patches with active management," said John Fitzpatrick, the director of Cornell Laboratory of Ornithology.

Florida Scrub-Jays live primarily in oak-dominated scrub. This habitat is found on eight coastal and inland ridges throughout Florida, including the Lake Wales Ridge where Jay Watch began. More than 85 percent of original Lake Wales Ridge scrub habitat has been lost, with an estimated 15 percent of the number of Scrub-Jays that once lived along the Ridge having enough habitat to survive. To reverse the downward trend, a combination of buying scrub and restoring it is in progress. To determine if these solutions are successful, it is necessary to monitor Scrub-Jays. Volunteers are needed in this important project. We are looking for citizen scientists to help monitor Scrub-Jays at more than 40 conservation sites from northern Volusia County to Palm Beach County in the southeast and Sarasota County in the southwest. Volunteers may adopt a particular site or several sites and return on an annual basis for a period of at least three mornings to map and survey adult and juvenile Scrub-Jays.

Summary of Position

This position will assist land management agencies by monitoring Florida Scrub-Jays. The project will continue as long as the Scrub-Jay is threatened with extinction and will require recurring visits to a site. Volunteers should consider this a long-term commitment. Volunteers will work closely with a biologist or land manager but may become more independent at some sites.

Specific Duties

Each volunteer Scrub-Jay monitor will work with field biologists and land managers and also independently. Volunteers will:

- Become familiar with the assigned site.
- Observe and identify Florida Scrub-Jays.
- Count and accurately record the number of Scrub-Jays observed in each family, distinguishing the difference between adults and juveniles.
- Identify whether birds are banded and identify color-band combinations on banded birds.
- Accurately record data on provided data sheets, including volunteer hours, and submit data sheets to biologist or land manager in a timely manner

Requirements

- Attendance at training session to learn the tasks described above, especially accurate data reporting.
- Ability and willingness to work outdoors in scrub habitat in variable, especially hot, weather conditions.
- Willingness and ability to work independently at some sites.
- Willingness to commit to recurring visits to sites.
- Ability and willingness to drive 4-wheel-drive vehicle at some sites.
- Ability to use, or willingness to learn, navigating use of an aerial map and the use of binoculars.
- Keen sense of humor and tolerance for the unusual.

Benefits

This rewarding program will allow the volunteer to learn about the habits and unique family structure of this threatened species. Monitoring data gathered by volunteers is essential for land managers who develop scrub management plans to achieve the goal of habitat recovery and species survival.

Length of Project

This is a long-term, on-going project that has been under way across the Lake Wales Ridge area and beyond since 2002 and continues expanding. We strongly encourage volunteers to become familiar with a site and continue the monitoring for years to come. Monitoring will be required at least three times each year between mid-June and mid-July. We ask that each volunteer participate in a minimum of three survey sessions annually.

Training

Each volunteer will be trained. Both classroom and field training will include: biology of the Scrub-Jay and habitat needs, bird identification, the how-what-when-where-why of recording data and much more.

Contact Person

General questions or concerns should be directed to <u>Audubon's Jay Watch Coordinator</u>:

Jacqui Sulek Jay Watch Coordinator Audubon Florida

Office: 386-497-4185

Email: jacqui.sulek@audubon.org

Audrey DeRose-Wilson, Ph.D. Director of Bird Conservation Audubon Florida

631-365-3856

Email: audrey.derosewilson@audubon.org

Volunteer Guidelines

Jay Watchers play a critical role in securing the future of the Florida Scrub Jay. That is why it is important to follow these guidelines when representing Audubon's Jay Watch program.

<u>Respect your commitments</u>. If you sign up for a survey and cannot make it please let your land manager know in advance. There is a team of people depending upon you.

<u>Be courteous</u>. Every encounter with another person should be seen as an opportunity to educate the public. Even when someone is doing the "wrong" thing a courteous approach will produce the best results.

<u>Be respectful</u>. We have many partners in Jay Watch with various levels of involvement. We are grateful for those partnerships so remain respectful.

<u>Be professional.</u> Jay Watchers, while volunteers, are the face of the Audubon Jay Watch program and should behave in a professional manner whenever in the field, doing outreach or advocating for the Florida Scrub Jay.

Jay Watch Monitoring Protocol

(Designed by the Lake Wales Ridge Ecosystem Working Group Listed Species committee)

Establishing a Survey Route

In Natural Areas

We use guidelines found in the "Ecology and development-related habitat requirements of the Florida Scrub-Jay" by Fitzpatrick et al. (1991), pages 13-15, as a reference. A transect or route should be established either in areas jays inhabit or where potential habitat occurs and a known jay population occurs nearby. Roads and trails may be used. Playback points where monitor(s) play a Scrub-Jay call tape should be established along the route. The points along the route should give access to all potential jay habitat in the prescribed area so that Scrub-Jays can hear the Scrub-Jay call tape and be heard by surveyors. Recommended distances between points, as well as transects, should be 100 to 200 meters apart, with longer distances in open areas where sound will carry easily and shorter distances in areas with taller and/or denser surroundings. GPS coordinates for all survey points must remain the same from year to year. Survey routes and playback points must be marked or mapped so they may be easily found by surveyors. A map of the area surveyed and the survey points should be submitted with the data to the Jay Watch Coordinator.

In Suburban Settings

Same as above, but recommended distances between points, as well as transects, will depend upon the potential lot area and habitat availability. As a general rule, place monitoring points at the intersection of every 2-3 blocks.

Materials

- Data sheets (one set per team)
- Site data maps (one set per team)
- Clipboard (one per team)
- Pens or pencils
- Binoculars
- Tape player or mp3/iPod
- Florida Scrub-Jay taped calls one playback unit per team
- List of band combos used at the site -optional
- GPS unit optional
- Photo of adult and juvenile optional
- Color band sheet with alpha codes-optional
- Faded color bands sheet-optional

Survey Period

Surveys in natural and suburban areas will be conducted **between June 15 and July 15.** To ensure accuracy of data collection, each point needs to be visited a **minimum of three times on separate days.** Three consecutive days is ideal. Coordinate with the land manager and other Jay Watchers at the site to try to make this possible. If monitoring cannot be conducted three days in a row, make the days as close together as possible.

Additional Surveys (at the land manager's discretion)

Monitoring at other times throughout the year may improve survey accuracy. If there is a discrepancy in the number of jays counted, revisiting a point may help to clarify the situation. Other surveys may be conducted later in July as well as in March (nesting season) and throughout the year at the discretion of the land manager.

Survey Methods

Surveys should be started in the morning about **one hour after sunrise** and end before noon. This is the time when jays are most likely to respond. Surveys should **not** be conducted during foggy or misty conditions, or in rain heavier than a light, intermittent drizzle.

At the start of the survey, monitor(s) should **complete all information** on the data sheet(s) and map with the monitor(s) name, area & transect number (if applicable), date, temperature, and wind speed at the start of the survey.

At each station, the monitor(s) will look for **predators** like hawks (noting whether they are seen on the datasheet, including species if possible). **If predators are present, do not survey at that location.** Return after predators have left. In the absence of predators, play the tape for one minute, pointing it in all four directions. If jays respond the tape should be stopped and the guidelines below should be followed. If jays do not respond, the monitor should look and listen for two to three minutes and then repeat the procedure following the guidelines below.

<u>If no jays respond</u> during the one-minute playback period, the monitor(s) will stop the tape, then watch and listen for jays for two to three minutes after the tape has stopped. To ensure that no jays are missed, the monitor(s) should repeat the playback/observation cycle for a total of three cycles (a minimum of nine minutes total) at each playback station. Note any comments on the data sheet. If no jays respond during the nine-minute window, place zeroes in the columns for number of adults and juveniles; do not leave cells blank.

If javs respond to the tape, monitor(s) will stop the tape and begin observing and recording. Monitor(s) should spend as much time as needed to observe the area used by the Scrub-Jay group, how many birds there are (including how many adults and how many juveniles), band color combinations, and any significant behavior that may help with the survey (ex. note individuals that are hiccing or chasing each other). Monitors are encouraged to follow the birds (leave the survey station) to obtain more detailed information when necessary. Do not be concerned with the amount of time spent at the station when birds are observed but do keep in mind the time needed to finish your entire survey route before mid-day heat renders the birds inactive. Collect as much information as possible. After all data has been collected and recorded, play the tape again. Repeat the process, to try to attract any birds that did not respond to

earlier broadcasts and to ensure you have seen all birds sufficiently to age them as adult or juvenile. Stay a minimum of ten minutes before moving to the next playback station.

Data Sheet Recording

- Names of all monitors present must be PRINTED on the data sheet. **Indicate which team members** are paid staff versus volunteers.
- **Overall start time** is the time at which your survey team left the parking area to travel to the first survey point. **Overall end time** is the time at which your survey team returns to the parking area.
- **Location/survey point** name, number, or other designation, including transect number if there are multiple survey routes on the property
- Observation/Scrub-Jay call play-back start time at each survey station
- **Number of adult jays** and juvenile jays observed. If jays are heard but not observed, estimate the number of birds heard and note that they were not (all) observed. If no birds are observed or heard make some note of this in the comments section and enter "0" in the boxes for adults and juveniles.
- Number of unknown age jays (#UNK) Move away from the survey station along the road or into the scrub and make every effort to determine the age of all Scrub-Jays in each family group. Record the number of Scrub-Jays for which age cannot determined by your survey team.
- **Bands** Bands should always be recorded if present and visible. Bands are always recorded as bird's right leg, top to bottom then the bird's left leg, top to bottom (example: RW-OS = red over white on the bird's right leg and orange over silver/metal on the left leg). If no bands are visible on a leg, record "X" for the band combo on that leg. If one leg isn't visible, record "?" for the band combo on that leg. If only part of a band combo is visible on one leg, use "?" for any band you cannot read. For example, R?-YS indicates there is a band on the bird's right leg below a red band for which the observers could not determine color.
- Map Ref ID In this box, record the letter you have assigned to each Scrub-Jay family group you encounter on your survey route beginning with Group A and continuing alphabetically as you encounter additional family groups.
- Comments regarding weather, jay behavior, movements, or other pertinent information. There is no such thing as too much information although you do not need to record birds other than Scrub-Jays at each station unless they are predators.
- Mark on the map provided the locations of any jays seen or heard. Sketch in approximate territory boundaries if possible, especially if you observe more than one group at the same, or adjacent, survey points. If two or more groups show up, draw in the direction and estimated distance from which the birds flew. If there's a question about whether or not the group was recorded at a previous point, backtrack and replay the tape. If the birds follow you and there is no sign of other jays, it is probably the same group. Make notes on your observations in the comments section. If you have any question about whether a group may be one you counted earlier, note that. If you are certain the group is the same as one recorded previously, note that and indicate at which survey stations you

saw the same group. Record direction and estimated distance for jays that fly away from the survey station while you are there.

- On the second survey date, reverse the station order so that the stations will be surveyed at different times of the day. On the third survey date, begin the route somewhere other than you did on the first and second survey days.
- After the survey is complete, make sure all information on the data sheet(s) and map(s) are complete and legible. Return the survey forms and maps to the site manager or Jay Watch Coordinator as soon as possible.

Literature Cited

Fitzpatrick, J.W., G.E. Woolfenden, and M.T. Kopeny. 1991. Ecology and development-related habitat requirements of the Florida scrub jay (*Aphelocoma coerulescens coerulescens*). Florida Game and Fresh Water Fish Commission, Nongame Wildlife Program Technical Report No. 8.

Jay Watch Survey Data Sheet

MONITOR N	IAME(S) PI	ease print						Pageof DATE:
Overall start	time:		Overall en	d time:	AC 15	4	SITE NAM	E:
TRANSECT:					WEATHER:			
SURVEY POINT	START TIME	Predators	# ADULTS	#JUVS	#UNK (unknown age)	BANDS	MAP REF ID	COMMENTS (including direction jays traveled from & towards, behaviors, interactions, predators seen)
	G	38	9 3	3			/G :	

Weather Definitions are listed on the reverse side of the data sheet.

Comments Section

Record information on any behaviors observed, especially:

- Hiccing Sound a female will make this sound indicating conflict or annoyance (note who made the sound if the bird is banded)
- Chasing two or more birds appear to be chasing each other (note who's chasing whom)
- Tail Flicking a bird is obviously flicking its tail up and down or back and forth

Reading Scrub-Jay Bands

When looking for bands on birds, be sure to look on both legs. There may be a band or bands on one or both. When reading or recording band colors, always read the **jay's right** leg first and go **top to bottom**. Then read the **jay's left** leg, again going from **top to bottom**. To distinguish between legs when recording the band colors always use a dash "-" to separate the legs. See the data sheet example below.

All banded Scrub-Jays will have a silver band that may be either on the right leg or left leg, in any position (top, middle, or bottom). This band is a federal band issued by the U.S. Geological Survey's Bird Banding Lab. The band has a unique, nine-digit number on it that identifies the bird. Listed below are the abbreviations for all of the banding colors shown on page 12 of this manual. This sheet can be helpful to refer to in the field (put on clipboard behind datasheet and map).

K = BLACK

W = WHITE

R = RED

G = DARK GREEN

Y = YELLOW

B = DARK BLUE

O = ORANGE

P = PURPLE

L = LIGHT GREEN (LIME)

A = LIGHT BLUE (AZURE)

F = PINK (FLESH)

- S = ALUMINUM USGS BBL NUMBERED BAND
- X = NO BAND
- ? = UNKNOWN (could not see leg or could not determine color)

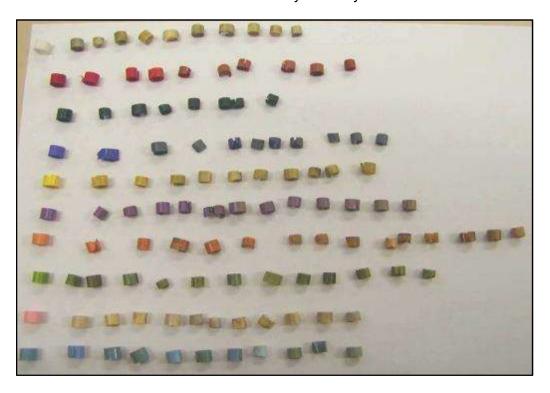


This example indicates there is a blue over blue over silver band on the bird's right leg with no bands on the left leg.

COLOR BANDS USED ON FLORIDA SCRUB-JAYS

ALPI	IA-CODE		COLOR	
	w	100	WHITE	
	R	=	RED	
	G	300	DARK GREEN	
	Y	= 0	YELLOW	
	В		DARK BLUE	
	O	<u>~</u>	ORANGE	
	P	200	PURPLE	
	L	=	LIGHT GREEN (LIME)	
100 00	A		LIGHT BLUE (AZURE)	
	F	=	PINK (FLAMINGO)	
	н	20	HOT PINK (HOT)	
	к	-	BLACK	
3	U	-	MAUVE	
100	1	=	LIGHT GREY (IRON)	*Note: most banders do not
	s	-	ALUMINUM UNITED STATES FISH AND WILDLIFE SERVICE BAND	use Mauve or Iron.

Faded color bands can be difficult to identify correctly:



Biology of the Florida Scrub-Jay (Aphelocoma coerulescens)

(Summarized from the Birds of North America account for the Florida Scrub-Jay: Woolfenden, G.E., and J.W. Fitzpatrick. 1996. Florida Scrub-Jay (*Aphelocoma coerulescens*), *In* the Birds of North America, No. 228 (A. Poole and F. Gill, eds.). The Academy of Natural Sciences, Philadelphia, and The American Ornithologists' Union, Washington, D.C.)

Florida Scrub-Jays are the only avian species occurring only in Florida. They are non-migratory and are one of the most sedentary and habitat-restricted birds in North America. Although they may live up to 15 years, most never travel more than a few kilometers from their birthplace. However, occasionally they will disperse to greater distances (a bird from Avon Park Air Force Range flew 33 miles to Archbold). They predominantly inhabit oak scrub with sandy soils. Optimal habitat consists of 60% trees and shrubs of one to two meters in height, 20% open ground (sand) and no more than 20% pines and canopied trees over three meters in height. Overgrown scrub that consists of too many trees usually contains no jays due to increased predator abundance. To maintain optimal habitat for jays, historically fire-maintained scrub needs to be burned every 5 to 20 years, though this interval may vary by region and scrub habitat composition.

Territory

Each Scrub-Jay family group, including two breeders and up to six helpers, defends an average of 25 acres of scrub habitat.

Diet

Scrub-Jays are omnivores. For most of the year, jays eat mostly grasshoppers, crickets and caterpillars but they will also take spiders, tree frogs, lizards, small snakes, mice, eggs and berries. During the fall and winter their diet consists mainly of acorns. A Scrub-Jay will bury between 6,500 and 8,000 acorns each year. They recover and consume about 75% of these acorns.

Communication

There are two basic types of calls: loud calls used in defense of territory (7 types) and low amplitude guttural vocalizations used in social interaction (5 types).

Predators

- Eggs & nestlings: snakes, gray and flying squirrels, raccoons, fox, bobcat, crows, owls and hawks.
- Fledged juveniles and adults: large snakes, bobcats, hawks, owls and automobiles.

Sexual Behavior

- Successful pair formation requires "ownership" of a territory
- Permanently monogamous, divorce rate 6% (suburban 15%)
- Extra-pair copulation very rare. Limited to cases where pair bonds not fully formed.
- Inbreeding: Out of 960 pairs studied at Archbold only three instances of mother-son pairing, no father-daughter pairing.

Nest Building

- Time Frame: February through June, 1st clutch laid 55% March, 41% April, 4% May
- Site Characteristics: Nest built near edge of low dense oaks or shrubs, under vines, leaf clumps.
- Nest Height: Usually 1 to 2 meters, sometimes higher
- Construction: Male & female build nest with female spending most time building cup. Exterior made of oak twigs with inside cup made of scrub palmetto fibers.
- Scrub-Jays only use natural fibers, no paper, plastic etc.
- Dimensions: Eight inches in diameter with inside cup about three inches in diameter.



Female lays one egg per day for a total of two to five eggs, with an average of four. Eggs are usually laid in the morning. The female starts incubation after all the eggs are laid. Eighteen days later all the eggs usually hatch on the same day, though sometimes the fourth or fifth egg hatches a day later. If the nest fails, the pair will rebuild in a different location and egg-laying will start about 10 days after the nest failure.



Nestling Feeding

Nestlings are fed only animal protein (primarily insects) - no acorns, berries etc. Male, female and helpers all assist with feeding the nestlings. Male helpers feed more than female helpers. Female helpers sometimes visit the nest without food. For four nestlings, there are 14 feeding visits per hour, from morning until mid-afternoon. Feeding slows to seven visits per hour until late afternoon, and increases again to 14 visits per hour until dark.

Fledglings

Nestlings fledge at 18 days post-hatch. Young birds become independent at about 85 days. They can be distinguished from the adults by grayish-brown plumage covering their head and nape. Older fledglings may have some blue feathers showing on the top of their head.

Frequently Asked Questions

Q. Can I bring my dog to monitor Scrub-Jays?

A. No, you should not bring any type of pet while doing Scrub-Jay monitoring. Other animals may be perceived as predators and could disturb the birds or keep the birds away and prevent you from getting accurate data for the monitoring program.

Q. Can I feed the Scrub-Jays peanuts or other food?

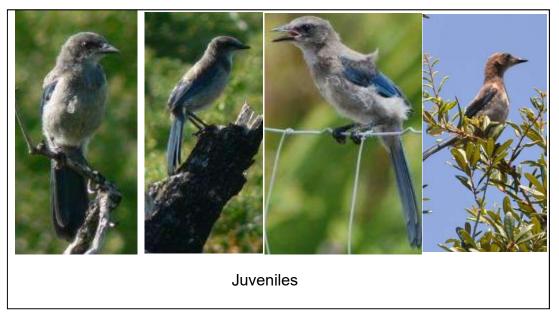
A. No, please do not feed anything to Scrub-Jays either while doing your Jay Watch monitoring or at home. It is illegal and feeding jays can make them become dependent on humans for food, lose any fear they may have of humans and change the timing of reproduction in a negative way. Someone like you may not do harm to the birds but there are others who may. Feeding or any other interactions with jays requires federal and state permits and should be restricted to research and monitoring of the species for conservation purposes. Please see your site leader if you have further questions.

Q. Can I play the Scrub-Jay call tapes whenever and wherever I want?

A. No, please only play the tapes for the purpose of our Jay Watch monitoring program, with the approval of your Jay Watch leader. Playing the tape can be disturbing to the birds and should only be done for specific research or management purposes. Playing the tapes, especially during nesting season — February, March, and April — should be avoided. Luring the adult birds away from their nests may make the nests vulnerable to predators.

Q. Can I approach Scrub-Jay nests?

A. No, approaching a nest may not only be disruptive to the birds, but it is also illegal without a permit from the U.S. Fish & Wildlife Service. Furthermore, there have been some instances where nest visiting by humans has resulted in leading predators to the nest.





Juveniles and adults in both good and bad lighting conditions

Sample Datasheet

This datasheet shows most of the scenarios you may encounter. The circled letters refer to the map on the next page.

VOLUNTEER S		signifying you v		hours):		and (E) could be the same group
OVERALL STAR				ND TIME: 0	00 am	Wind-light ; variable, clear
JAY WATCH DA	TA SHEET	MONIT	OR NAME(S): Claure	Surguist	Pagelofl
SITE/TRANSECT	ONF -	27406		DATE: 5/12/	TEMP: 79°F	WEATHER (see weather key on reverse side):
SURVEY POINT LOCATION			# ADULTS	# JUVENILES	BANDS	COMMENTS (anything you see, including direction jays traveled from & towards, behaviors (see reverse side), type of predators seen
1	0732	0	0	0		No birds seen, neard calls from Southwest
2	0743	0	2	0	× -×, × -×	A) 2 unbanded adults first seen 75 m SW, flew NE, then west 50 m, flew chary SW
3	0758	0	3	0	RS - LA x - x , x -x	B) Unable to maintern visual, probably same as (A) seen 50 m NW, flew W approx 150 m
4	0810	Hawk	_	_		Coopers Hawk arrived after 30 sec of playbac point not surveyed
5	0820	0	3	2	5 - X , X - X X-X , X - X , X - X	O Seen 50 in West, flew to snew SW 2 100 in unbanded JUV in tree 50 m W of point
6	0835	0	2	0	×-× ×-×	Then flew Sw 50 m
7	0852	0	0	0		Nobirds heard or seen @ point, one unknown bird seen in tall pine 200 in West of pt
8	0905	0	2_	1?	RS-P? x-x, x-x	D) First scen 75 m north, adoits flew 100 in NW possible pot unconfirmed juvenile
9	0920	0	١	0	RS-P?B?	E unable to maintain contect, could be some as (D) seen 75 m Nwof part, undulating flight backs
9	0923	0	2	0	× -× , × -×	Flow 25 in N then 100 in WNW
10	0939	0	١	4	x -× x -x, x -x, x -x, x -	(F) Followed to next point - 4 un banded juv in
						flapping wings when adolf approached, second
10	0945	0	1	0	2. UNKNOWN	(G) I unknown adult (sentind) in tree 150m South of point

Ocala National Forest -Sample Unit 27406 Claire Sunguist 5/12/2011

<u>Sample</u> <u>Map</u>

This map corresponds to the datasheet on the previous page and shows the jays' movements. Please put your name on the maps as well.