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# Environmentally Endangered Lands Program

# Selection and Management Committee Zoom Meeting

Florida Scrub-jay Population Viability Analysis Workshop

# August 3, 2020 **Minutes**

## Attendance

### SELECTION AND MANAGEMENT COMMITTEE MEMBERS

* Elizabeth Becker
* Dave Breininger
* Tamy Dabu
* Tammy Foster
* Oli Johnson
* Paul Schmalzer
* Lisa Toland
* Kim Zarillo

### ENVIRONMENTALLY ENDANGERED LANDS PROGRAM (EEL) STAFF

* Mike Knight
* David DeMeyer
* Damien Keene
* Ray Mojica
* Jonny Baker
* Jenny Warner

### Guests and Attendees

* Bob Lacy
* Geoffrey Carter
* Robbyn Spratt
* Ross Hinkle
* Karl Miller
* Marlys Breckle
* Vince Lamb
* Angela Tringali
* Eric Stolen
* Lydia Moreland
* Rob Aldredge
* Rick Follet
* Shannon Jameson
* Amy Reaume
* Mary Bowman
* Margaret Broussard
* Sandra Sullivan
* Glenn Turner
* Bill Klein
* Gian Basili
* Jeanne Ryba

Doug Sphar

Mary Sphar

Keith Winsten

Dani Bowers

Bo Platt

Michelle Smurl

Todd Mecklenborg

Marianne Korosy

Milton Heiberg

*Protecting and Preserving Biological Diversity*

*Through Responsible Stewardship of Brevard County’s Natural Resources*

## Meeting Minutes

### CALL TO ORDER AND ROLL CALL

Oli Johnson called the meeting to order at 1:00 PM.

### PUBLIC COMMENT

Sandra Sullivan, a Satellite Beach resident, is concerned about impacts to Hightower Park and sea turtles. Sandra requested that people attend the County Commission meeting on August 5 to support these concerns about the park. Bill Klein inquired as to whether or not scrub-jays have returned to the Scottsmoor Flatwoods property.

Karl Miller with the Fish and Wildlife Research Institute is interested in learning more about this project.

Milton Heiberg expressed concern about the status of the Florida scrub-jay and encouraged attendees to visit his website and read his article on the topic.

### MINUTES

None

### ADMINISTRATIVE REVIEW

### None

### COMMITTEE MEMBER REPORTS

None

### Land Acquisition Report

None

### AGENDA ITEM

**Florida scrub-jay Population Viability Analysis Presentation and Discussion**

David Breininger introduced Dr. Bob Lacy, Senior Conservation Scientist Emeritus, with the Chicago Zoological Society. Dr. Lacy has been working with the Kennedy Space Center, the Brevard Zoo, the United States Fish and Wildlife Service, the Nature Conservancy and the EEL Program to complete a Population Viability Analysis of Brevard County’s Florida scrub-jay populations.

**Dr. Bob Lacy provided a presentation that included the following topics, discussion points and conclusions:**

-A definition and summary of a Population Viability Analysis.

-An assessment of what is generally required to keep a Florida scrub-jay population healthy.

-The current projected viability of the three Brevard County scrub-jay metapopulations.

-Habitat and population management scenarios.

-Conditions that lead to extinction of species

-Overview of the model structure that includes the complexity of the Florida scrub-jay social system.

-Overview of the local scrub-jay populations in Brevard County.

-Comparisons of possible outcomes related to increased habitat preservation and existing habitat improvement.

-Findings related to what it takes to ensure a population can stabilize and remain viable long-term.

-Overview of optimal scrub habitat conditions.

-Variations in impacts related to the quality of the habitat.

-Projections of population viability related to various habitat quality scenarios.

-Individual transition between helper and breeder status.

-Minimum viable population overview.

-Minimum requirements to prevent extinction of a population.

-Isolated populations require a minimum of 75 potential family territories to remain viable for 50 years, but 100 territories are advisable due to uncertainties and longer-term genetic health.

-Inbreeding causes population decline but can be delayed or even prevented through immigration.

-Connectivity of local populations is very important for long-term sustainability.

-A goal of maintaining 70% of scrub habitat in optimal condition would lead to population growth.

-Kennedy Space Center and Merritt Island National Wildlife Refuge populations will decline if habitat is not improved and will start to see inbreeding trouble in about 50 – 100 years.

-South and central mainland Brevard populations are at significant risk of extinction within 30-years if strong efforts are not made to improve habitat quality, connectivity.

-North mainland Brevard populations are at severe risk of inbreeding troubles due to small population size and limited habitat options.

Lisa Toland inquired if the model included all remaining existing habitat and / or habitat inholding. David Breininger confirmed many of the scenarios are based on what we have with some exceptions in the Grant / Valkaria and mega parcels as well as other possible scenarios. David Breininger added the land managers identified habitat that could be bought and there were some scenarios based on that. Lisa Toland stated in respect to the North Brevard population with the current configuration the viability is poor unless we can add additional habitat. David Breininger added there is a limited amount of habitat available in North Brevard with the exception of the large amount of habitat around the TICO Airport (Titusville-Cocoa) vicinity and that industrial area has been unavailable for decades. He added some habitat in that area had to be sold to the airport and that scenario was not included but could be.

Lisa Toland asked the number of birds required for supplementation in the different populations. Bob Lacy responded the model used different numbers of birds as needed to stabilize the groups.

Lisa Toland asked if the committee would utilize the no action model as the baseline. Considering future referendums, without both management and acquisition money, here is where we will be in 20 – 30 years. Bob Lacy confirmed the northern metapopulation will be in really bad shape at that time and the south and central populations will be affected because they are isolated and too small individually.

Mike Knight asked if the baseline model assumes we are maintaining habitats in their current state now and if management ceased and couldn’t do any burning or management, the baseline would be lower. Bob Lacy confirmed this is accurate and the baseline has to be defined by the committee. David Breininger confirmed models could be generated with different levels of cessation and other scenarios.

Lisa Toland asked if management is guaranteed and if management is possible for perpetuity with donations and the money in the bank. David Breininger replied, no. Lisa Toland suggested forming a baseline based on management and perpetuity funds and what is in the bank.

Paul Schmalzer noted much of the scrub was not mitigation but direct purchase by the county and state and is managed by EEL funds and supplemented by grants. He mentioned once habitat is degraded it is harder to get back than maintaining and improving it from a better state. The cost of management is higher because long unburned scrub typically requires mechanical treatment and fire.

David Breininger suggested committee members make suggestions about defining the baseline.

Lisa Toland asked if specific models could be created to demonstrate the effect of connecting Fox Lake and Dicerandra. Bob Lacy stated this is possible, but one change will not demonstrate a large enough positive impact.

**PUBLIC COMMENT**

Charles Hinkle commented it was discouraging that the only bright spot is Kennedy Space Center. He said he was interested in the potential of going north of Brevard into Volusia and across the Miami Corporation Property to see what is there that may complement Brevard. David Breininger stated there may be some opportunity and confirmed these are recovery options that could be explored. Paul Schmalzer further stated there is potential going north depending on the amount of habitat. He is unsure of the scrub-jay habitat management requirement in Volusia.

David Breininger stated because of the tree canopy in north Brevard it would take a lot of time to determine what is on the ground. He suggested a ‘What would it take scenario’ to determine what the feasibility would be. Bob Lacy stated models could be run to predict how much habitat or other variables would be needed to stabilize the Northern Brevard / Southern Volusia population.

Lisa Toland mentioned concerns from an earlier meeting such as disease, optimal habitat, connectivity and supplementing through translocation. David Breininger responded if we got all of the habitat optimal, the question becomes where are the birds going to come from?

Lisa Toland inquired if the committee is trying to redo the reserve design or reestablish some conceptual plan to meet the goal of having the scrub-jays. David Breininger stated the biggest bang for the buck is to get all habitat in South Brevard and Northern Indian River optimal and look at translocation programs over time. He added there is limited land because of development, no referendum, and we haven’t had state matching funds. He believes the committee should look at the possibility of a new referendum that includes money for management and additional acquisition.

Lisa Toland asked if we don’t do all three prongs for North Brevard the supplementation with optimization and the connections, do we put it out there the population is not viable? Lisa asked if the committee is being asked to help make the decision how to spend the management money. David Breininger stated the best bang for the buck is working in South Brevard and suggested the North Brevard population could be used for experimental work because there is nothing to lose and we have to learn how to manage populations through translocation, demographic and genetic rescue.

Paul Schmalzer stated the south and central populations have the best chance for viability but it requires management to be more directed than was needed in the past. He added we don’t want to abandon managing lands in the north or anywhere and scrub-jays are not the only species that occur in scrub. He further stated we need management funds after 2024 and this is an important part of any new referendum.

David Breininger stated we need to involve our regional partners. St. Sebastian Buffer Preserve has the most potential, St. John’s River Water Management District and Florida Fish and Wildlife Conservation Commission are all land managers in the region that have to be part of developing a conservation plan.

Mike Knight offered an opportunity for the Recovery Team Members to speak.

Karl Miller from the Recovery Team wanted to respond to the question, is one part of the three-prong approach most important or urgent? His opinion is habitat management and habitat acquisition / connectivity concerns are the ones that should take priority and he is not too concerned about translocation because we have learned so much in the last three years in the Ocala National Forest and there are thousands of birds in that population.

Todd Mecklenborg suggested determining the best options with limited resources and building up populations. He recommended increasing management and acquisition around St. Sebastian, Jordan, and Valkaria to build these populations for translocation down the road. He added North Brevard was removed out of the US Fish & Wildlife Service contribution towards potential species recovery because they thought it would take so much work to get there.

David Breininger asked if we move birds from Ocala into North Brevard, will they select the best habitat and breed since their natal habitats are different? Todd Mecklenborg suggested moving birds within a genetic unit in a sink area to a better optimal condition. He suggested coming up with priorities within a focal landscape as if we had endless birds and resources. Then come up with a strategy as resources become available to build local populations into a meta population and potentially get federal recovery money to assist the county to build the population.

Karl Miller asked David Breininger to speak on habitat states, planning acquisition targets, and how far along in your modeling are you in looking at spatially explicit patches that maybe aren’t within acquisition and management now. David Breininger stated all potential territory in conservation lands have a habitat state and management actions and at that level we are fairly far along. He added in general public lands require more intensive management than we thought twenty years ago.

Kim Zarillo was thinking along the lines of some of the things Todd brought up and was wondering over the next few years with the amount of management money and how we prioritize our actions to improve scrub habitat. She asked if all trained land managers can participate in active burns to get the burns done more frequently. Mike Knight responded our burn team works across all boundaries. Kim Zarillo mentioned land west of the mega parcel owned or under management by FWC that is part of the South Brevard Complex and we are looking for help getting that burned. Mike Knight responded the area on the west side of I-95 is under FWC management and the burning under Florida Forest Service is for wildfire mitigation. Kim Zarillo summarized the current state of acquisition and mentioned the FIND exchange will be important in terms of connectivity if approved by the board.

David Breininger stated we have to support the land managers because we need qualified, motivated managers. Mike Knight further stated the difficulty of burns in an urban interface environment. Mike Knight mentioned management constraints include a thirty percent reduction in funding resources, a thirty-five percent reduction in staff, and citizen concern regarding tree density reduction. David Breininger stated the FIND site is probably the single best scrub in Brevard. Lisa Toland asked what would you like the committee to do with the model. Mike Knight responded the committee has looked at our prioritization for tree density reduction and that is the primary focus in the southcounty. Lisa Toland stated she is asking about the big picture, where should the management dollars focus based on the model. Mike Knight suggested deferring this question to the committee members.

Paul Schmalzer stated management has been identified as to where to target restoration and that’s been pretty well identified. Lisa Toland asked if its a matter of putting it in the model to show what will happen if we keep moving forward. Paul Schmalzer thinks you are seeing a lot of that improved habitat in the South Brevard models and stated the challenge is not all of the parcels are managed.

Lisa Toland asked Todd Mecklenborg if we put that existing plan into the model and show there is recovery opportunity, is that required to go to the FEDS and try and get matching funds from the recovery fund? Are there any matching dollars in the recovery fund to go through the effort for? Todd Mecklenborg responded if you come up with strategies for your county such as how you want to build populations, where you want to build populations, and your overall goals we certainly can work with you. He further stated it does not even need to be matching dollars.

Lisa Toland asked how the donated dollars are targeted back in**.** Todd Mecklenborg stated the funds are allocated where they are needed for recovery most and Brevard County has received about five million dollars. Lisa Toland asked how the models are funded and to explain the distinction between the focal landscape and meta population. Todd Mecklenborg explained a focal landscape is a meta population. Lisa Toland asked Todd Mecklenborg if our plan is sufficient.

Todd Mecklenborg responded prioritizing, make a grocery list, and come to the US Fish & Wildlife Service and request help. Vince Lamb is most interested in upgrading scrub conservation areas to seventy percent optimum habitat and determine how much it would cost. He is looking at the referendum in 2022 since money runs out in the beginning of 2024 and we need to plan the referendum around allowing the EEL program to increase land management to preserve the scrub-jays. He further stated the need to think about increasing staff after the referendum to manage these properties and also think about land acquisition and what we can reasonably expect to acquire.

David Breininger stated we have a habitat state for every potential territory that’s on EEL land and we have an optimal action for each of those territories. If the land managers can come up with a cost of what to do, we can have a quantified series of metrics to produce cost estimates. The hard part is the equipment because land managers have to share critical equipment.

Vince Lamb asked Mike Knight if the annual ongoing budget needs to be increased for the land management side. Mike Knight responded EEL would benefit from more people on the ground, but more importantly is additional funding for initial land management actions. David Breininger stated more people are needed for more frequent burns. Mike Knight agreed and mentioned the biggest challenge is there is only so much equipment to go around.

Vince Lamb mentioned the public opposition to the FIND swap and encouraged citizens to attend the commission meeting and support the FIND project. Todd Mecklenborg stated in his opinion this is the most important population on EEL property. Mike Knight and David Breininger agreed.

Sandra Sullivan urged the committee to set up an agenda item with a presentation before the September 15th meeting because in her experience often before they get to the agenda item, their minds are made up. She asked if more funding is available in the Florida Forever fund to acquire large tracts. She mentioned Save the Lagoon has monies as well to stop run off by placing native plants. She encourages involvement on social media. Sandra Sullivan asked David Breininger if there are any scrub-jays on the Hightower Preserve, Pelican, or Canova. David Breininger stated he does not believe there are any on those sites. There were a couple single birds but the habitat is not large enough to be viable.

Milton Heiberg stated land acquisition is the most important and is needed to establish a greenbelt. He stated translocation doesn’t work and state backing is needed to establish a greenbelt. Translocation can be more easily done by the birds themselves if they have passage.

### NEXT MEETING

Staff will poll the committee for a future meeting date.

### ADJOURNED

The meeting was adjourned at approximately 2:20pm

### ACTION ITEMS

None