

UF/IFAS

Range Cattle Research & Education Center NEWS

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IN THIS ISSUE

Wildlife Diversity on the DeLuca Preserve

by Dr. Hance Ellington, Assistant Professor

The DeLuca Preserve is a living laboratory where UF/IFAS researchers and our partners can conduct research to better understand Florida's rangelands. The DeLuca Preserve, near Yeehaw Junction in Osceola County, has a wide variety of landscapes including pastures, wet and dry prairie, citrus, oak hammocks and pine stands, and wetlands. The Rangeland Wildlife Ecology Lab is conducting several research projects at the DeLuca Preserve, many of which are anchored by the Florida

Wildlife Corridor Observatory project. The Corridor Observatory project is a collaborative effort between the Rangeland Wildlife Ecology Lab and the Predator-Prey Program at the Archbold Biological Station. The objectives of the Corridor Observatory project are:

- 1) Establish a scalable wildlife diversity monitoring system to determine baseline wildlife diversity metrics and patterns of wildlife space use in Florida's rangelands.



Figure 1. Members of the UF/IFAS Rangeland Wildlife Ecology Lab and the Archbold Predator-Prey Program installing and maintaining the Corridor Observatory project at the DeLuca Preserve.

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Click on the images below to check us out on:



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2) Serve as a testbed for combining imagery data, acoustic data, and machine learning to effectively monitor and collect data on wildlife.

3) Assist in launching new and innovative research focused on rangeland wildlife in Florida.

Together with our colleagues at Archbold, we deployed 48 wildlife diversity monitoring stations (trail cameras and acoustic recording units) at the DeLuca Preserve in the summer of 2022 (Figure 1). This monitoring network has allowed us to develop several additional projects at the DeLuca Preserve, including studies examining how cattle grazing impacts rangeland birds, coyote behavior and space use in Florida's rangelands, and how wild pig management impacts native wildlife. But in this newsletter, I want to focus on the baseline wildlife diversity we have observed after one year of monitoring wildlife at the DeLuca Preserve.

The Corridor Observatory at the DeLuca Preserve has collected over 500,000 photos and over 350,000 hours of acoustic data. So far, our cameras have recorded 19 wild mammal species at the DeLuca Preserve. We are excited that we have detected both of Florida's large, rare, and charismatic carnivores: Florida black bear (*Ursus americanus floridanus*) and Florida panther (*Puma concolor cougar*; Figure 2). Our cameras and acoustic recording units have detected 70 bird species and counting. Even with machine learning to identify bird calls on the recording units, it takes time to process 350,000 hours of acoustic data. Our cameras and acoustic recording units have detected some of Florida's notable bird species, including the northern crested caracara (*Caracara plancus cheriway*), wood stork (*Mycteria americana*), Florida grasshopper sparrow (*Ammodramus savannarum floridanus*), and Eastern meadowlark (*Sturnella magna*; Figure 3).

This newsletter provides just a quick glance at the wildlife diversity that occurs at the DeLuca Preserve - many more species also occur here but have not yet been detected on our cameras or acoustic recording units. Small animals, including rodents, bats, songbirds, reptiles, and amphibians, are not easily detected by our trail cameras. For example, over the course of our field work we have happened upon many other wildlife species at the DeLuca Preserve that we have not yet captured on camera, including hispid cotton rats (*Sigmodon hispidus*), swallow-tail kite (*Elanoides forficatus*), Florida pine snake (*Pituophis melanoleucus mugitus*), and eastern narrow-mouthed toad (*Gastrophyne carolinensis*).

By establishing these baseline wildlife diversity metrics and patterns of wildlife occurrence, we are well situated to examine how wildlife responds to prescribed fire, grazing, and invasive wild pigs in Florida's rangelands (Figure 4).

* * *

Questions, contact Dr. Ellington at e.ellington@ufl.edu.



Figure 2. Florida black bear (a) and Florida panther detected at the DeLuca Preserve in October 2022.



Figure 3. Northern crested caracara (a), wood stork with a heron and an egret in the background (b), spectrograms showing the calls of an eastern meadowlark and sandhill crane (c), and a Florida grasshopper sparrow (d) detected at the DeLuca Preserve between June and November 2022.

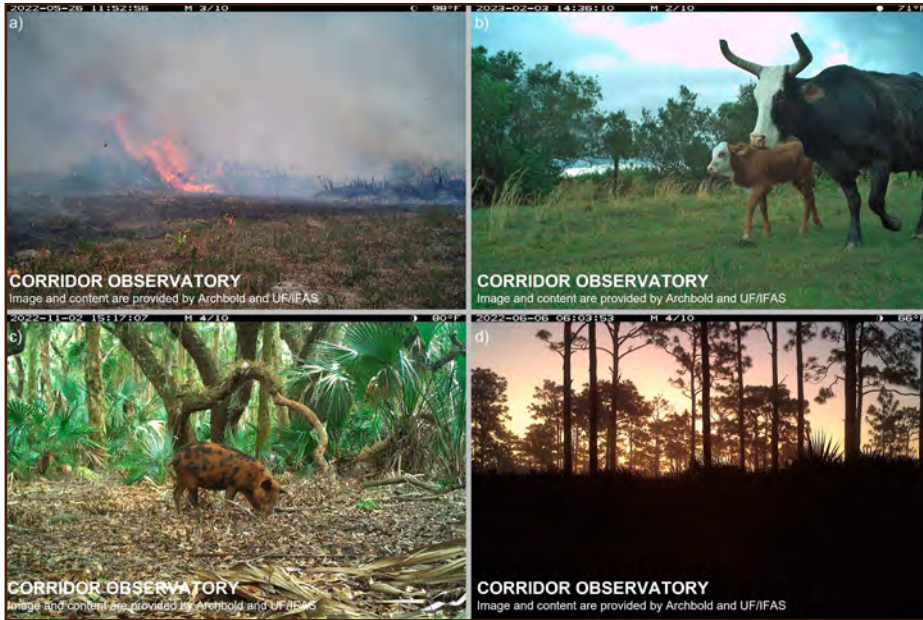


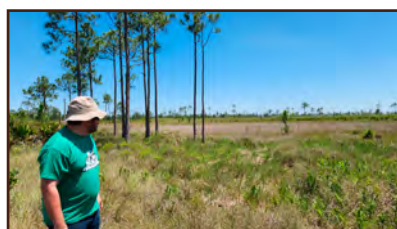
Figure 4. Prescribed fire (a), cattle (b), and invasive wild pigs (c) can all impact wildlife diversity on Florida's rangelands (d).

Professional Development Tours

In early May, 8 UF/IFAS RCREC faculty, staff and students, 2 staff from UF/IFAS PSREU, and 1 from Deluca took part in tours of Archbold Biological Station and Buck Island Ranch, in Venus. The day began with a swamp buggy tour at the ranch lead by Program Director, Dr. Betsey Boughton and her assistant Megan Abram and concluded with a walking tour of Archbold Biological Station with Director of Education, Dustin Angell. We learned about the history of the properties and how they work together to benefit Florida through their research and conservation efforts.

Pictured at right are those taking part in the tours: L to R Dr. Brent Sellers, Debora Siniscalchi, Julie Warren, Natalia Fonseca, Andre Miranda, Jeremy Hall, Giovanna Santos, Denise Howell, Dr. Priscila Cruz, and Andrea Dunlap. In front, at right are Dr. Betsey Boughton and Megan Abram. Not pictured, joining us from Deluca was Brian Beasley.

A huge THANK YOU to the folks who made the trip a success.



Center News

Hurricane Ian Recovery

It has been eight months since Hurricane Ian's damaging flood, and recovery efforts continue. In May, our new office furniture was delivered and we were all able to move back into our offices. Yay! Most of our office and lab buildings are now restored, however, we are still waiting on cabinets for our breakroom kitchen, the kitchen in the grazinglands education building, the LTAR and pasture weed science lab, and the built in desks in one of our student office rooms. Storm damage to the roof of the farm fuel shelter will be repaired in the near future.



Forage and Soil & Water Lab bldg. after the flood damaged walls and cabinets were removed.



The labs fully restored.



Front office during restoration.



Front office today, back in operation.

Field Day Highlights

Our April 20th field day was well attended with 127 cattle producers, industry professional, extension staff, and others joining us for the warm spring day. Attendees enjoyed visiting amongst themselves and with our sponsors at their trade show booths, morning and afternoon faculty presentations, and a delicious steak lunch. Click the links below or [visit our website](#) to access the field day handouts.

Video recordings available -

[Welcome - Dr. Brent Sellers](#),
Professor and Center Director

[Guest Speaker - Dr. Scott Angle](#),
VP for Agriculture and Natural
Resources

[Guest Speaker - Wes Carlton](#),
President of the Florida Cattlemen's
Association

['Heat Mitigation During Gestation:
What do we know so far?'](#)
- [Dr. Philippe Moriel](#)

['Updates on Groundwater Level
and Quality'](#)

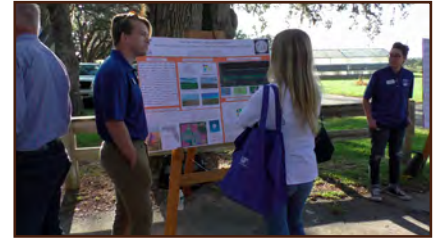
- [Dr. Golmar Golmohammadi](#)

['Invasive Animal Species in Florida's
Rangelands'](#)
- [Dr. Hance Ellington](#)

['Broomsedge Management in Ba-
hiagrass Pastures'](#)
- [Dr. Brent Sellers](#)

['The Role of Pastures in Soil Carbon
Sequestration'](#)
- [Dr. Maria Silveira](#)

['Updates on Limpograss Manage-
ment in South Florida'](#)
- [Dr. Joao Vendramini](#)



A big THANK YOU to our sponsors -

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Farm Credit of Florida - [visit](#)

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Faculty & Staff News

Hannah Baker



Hannah Baker, state specialized extension agent II - beef cattle and forage economics comes on board this month. If you

haven't done so already, reach out to Hannah and introduce yourself at h.baker@ufl.edu.

Hannah is originally from Adel, Georgia. She obtained a dual bachelor's degree in Agribusiness and Agriculture with an emphasis in Livestock Production from Abraham Baldwin Agricultural College and a master's degree in agriculture economics from Oklahoma State University.



Randy Crawfis, maintenance generalist II, receives award

Randy was recognized for his dedicated response to Hurricane Ian damage recovery. He worked with UF/IFAS-FPO to get temporary office and research space up and running post-hurricane Ian which allowed important science to continue at RCREC-Ona.

On May 25, Randy received the award at the 16th Annual FAES Research Awards Ceremony, in Gainesville.

Extension Agent In-Service Training (IST) Held

April 4, eight UF/IFAS Extension personnel took part in IST with RCREC faculty. Informative topics included: Soil carbon sequestration in grazinglands, effective wild pig control in rangelands, weed identification and herbicide selection, body condition score evaluation and pre-calving supplementation, groundwater level and quality issues, and native forage identification and management.



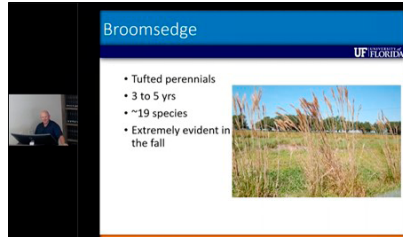
CONNECT WITH US

Ona Highlight Webinar Recordings

Save the date and join us for an upcoming Ona Highlight webinar. These informative presentations are held each month. They begin at 11:00 a.m. and last about 45 minutes. See our online calendar for upcoming webinars, [here](http://rcrec-ona.ifas.ufl.edu).

Recordings of recent webinars:

‘Broomsedge Management in Bahiagrass Pastures’ with Dr. Brent Sellers, professor & center director - Pasture and Rangeland Weed Management 3/14/2023 - Run time: 33.11 minutes



‘South Florida Beef Forage Program (SFBFP) Opportunities’ with Laura Bennett and Kalan Royal, extension agents with the SFBFP 4/11/2023 - Run time: 20.20 minutes



‘The Importance of Forage Testing to Supplementation Program Design’ with Dr. Joao ‘Joe’ Vendramini, professor, Forage Management 5/9/2023 - Run time: 42.25 minutes



Ona Reports - published in the Florida Cattleman & Livestock Journal:

View these on our website at: <https://rcrec-ona.ifas.ufl.edu/news-and-publications/>

Mar. 2023 - ‘Avian biodiversity on Florida’s rangelands’ by Zach Holmes, MS student and Dr. Hance Ellington, assistant professor – Rangeland Wildlife

Apr. 2023 - ‘DuraCor for Weed Control in Pastures’ by Dr. Brent Sellers, professor & center director - Pasture and Rangeland Weed Management

May 2023 - ‘South Florida Range Management for Cattle Production’ by Dr. Joao ‘Joe’ Vendramini, professor, Forage Management and Rob Kalmbacher, professor (retired), Range Management & Forage Crops



Upcoming Events

View our online calendar for more info on events and links to register: <http://rcrec-ona.ifas.ufl.edu/calendar-of-events/>

Ona Rangeland Wildlife Program Highlight with Dr. Hance Ellington
– June 13, 11:00 - 11:45 AM
Dr. Ellington will present, “Invasive Species in Rangeland.”

14th Annual Youth Field Day
– June 29, 8:30 AM - 1:40 PM
UF/IFAS Range Cattle REC, Ona
7:00 - 8:30a.m. - birding tour (optional)
8:30 - 10:00 a.m. - educational learning expo
10:00 a.m. - 1:20 p.m. - class & lunch rotations
1:20 - 1:40 p.m. - closing assembly

Ona Watershed Hydrology Program Highlight with Dr. Golmar Golmohammadi
– July 11, 11:00 - 11:45 AM
Dr. Golmohammadi will present, “Conservation Practices for Groundwater Quality Improvement.”

Ona Highlight with Guest Presenter Pat Durden, President of the Florida Cattlemen’s Association
– August 8, 11:00 - 11:45 AM
Learn about Florida Cattlemen’s Association’s history, structure, and get an activity report on state and federal legislation and other news.

Pictured below is Dr. Sellers with the students who won the poster contest at our 4/21 Field Day. Left to right, 3rd place Caetano Sales, 2nd place Leandro Vieira-Filho, and 1st place Vinicius Izquierdo.



Caught on Camera

A monthly feature with images collected from RCREC game cameras as mounted throughout the UF/IFAS RCREC property in Ona, FL.

[View online](#)



UF News

Florida remains #1 for Higher Education in U.S. News and World Report rankings for the Seventh Year

U.S. News & World Report has once again named Florida the top state in the country for higher education. Florida's higher education system has held the top ranking since the inception of the rankings in 2017. This achievement can be credited to the collective commitment of our elected leaders, the Board of Governors, and the state universities to student success and affordability.

"Florida's success would not be possible without the exceptional leadership at our 12 public universities, Governor DeSantis's commitment to excellence in higher education, and the unwavering support of our legislative leaders. I am truly grateful for their investment and continued support," said Brian Lamb, chair of the Board of Governors, which oversees the State University System. "Florida has long been a national leader in higher education, and retaining this #1 ranking proves the Florida way is working. By prioritizing student success, with an emphasis on providing all students a high-quality, low-cost education, Florida's universities are leaning in to produce top-tier talent to meet workforce needs, increase research capabilities, and retain the best and brightest faculty whose excellence and expertise provide the platform from which we create the future."

View the full article at: [Univeristy of Florida News](#)

UF/IFAS Range Cattle REC Faculty -

Dr. Brent Sellers, sellersb@ufl.edu - Pasture and Rangeland Weed Management

Dr. Maria Silveira, mlas@ufl.edu - Soil and Water Science

Dr. Joao Vendramini, jv@ufl.edu - Forage Management

Dr. Philipe Moriel, pmoriel@ufl.edu - Beef Cattle Nutrition & Management

Dr. Hance Ellington, e.ellington@ufl.edu - Grazinglands Wildlife Specialist

Dr. Golmar Golmohammadi, g.golmohammadi@ufl.edu - Watershed Hydrology and Biogeochemistry

Hannah Baker, h.baker@ufl.edu - Beef Cattle and Forage Economics

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ABOUT THIS NEWSLETTER

This newsletter is a publication of the UF/IFAS Range Cattle Research and Education Center (RCREC) located in South Central Florida in the heart of Florida's cattle country. Our goal is to keep you up to date on RCREC happenings, publications, research, faculty & student news, upcoming events and bring you beneficial information you can use in your beef cattle or forage operation.

CONTACT INFORMATION

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UF/IFAS RANGE CATTLE
RESEARCH AND EDUCATION CENTER

*14th Annual
Youth Field Day*

THURSDAY
June
29

Birding tour (optional)
7:00 a.m. - 8:30 a.m.
Learning Expo
8:30 a.m. - 10:00 a.m.
Class Rotations & lunch
10:00 a.m. - 1:30 p.m.

3401 Experiment Station
Ona, FL

Our 2023 theme...

"Florida Land and Cattle - Treasures Worth Protecting"

The goal of this event is to excite students about agriculture and science, reveal future opportunities in those fields, and foster a love of learning which will promote agriculture and good stewardship in this and future generations. Students, ages 8 and up, parents, & youth leaders, are invited to attend! Register by 6/9 to pre-order a t-shirt!

See details & register: <https://rcrec-2023-yfd.eventbrite.com>

For more information email: ona@ifas.ufl.edu

An Equal Opportunity Institution.



Register by 6/9 - \$15
Thereafter until 6/27 - \$20





2023 UF/IFAS Range Cattle REC Youth Field Day

T-SHIRT CONTEST

Contest Rules

- Only one (1) entry per person, open to all ages.
- All entries must include "UF/IFAS Range Cattle REC Youth Field Day", "Ona, Florida" and the year "2024" in the design.
- Designs must be in black ink or pencil.
- Approximate dimensions: 10" wide by, no more than, 11" long.
- Submit a high-resolution scan or photo of your design as a jpg file with your t-shirt design release form to ona@ifas.ufl.edu by June 16.

This year's Youth Field Day attendees will get to view all the entries and vote for their favorite during the morning check-in time and the winner will be announced at the end of the day. The Field Day Committee will choose the best t-shirt and imprint color for the winning design. Imprint will be in one color, either black, white, orange, or blue dependent upon the t-shirt color. Prizes: 1st place- Design will be featured on the 2024 Youth Field Day shirt and booklet, receive a free t-shirt in 2024, and a UF Block & Bridle Club cap. 2nd and 3rd place winners will also receive prizes.

Scan the QR code below to register for the field day. It will be held on June 29, at the Center in Ona, from 8:30 AM to 1:30 PM.



2022 Winning Design



The University of Florida is an Equal Opportunity Institution

Enter this year's t-shirt contest!

Send a jpg of your design and your completed entry/release form to ona@ifas.ufl.edu by June 16.

[Click here](#) to view this flyer and the entry form on our website or scan the QR code at right

