

ARCHBOLD SEPTEMBER 2021 NEWS for curious minds



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Grazing as a Tool



From left to right: Jessica Bertine (NRCS Agricultural Economist), Grégory Sonnier (Archbold Assistant Research Biologist), Clarence Morgan (NRCS Rangeland Management Specialist), and Shane Jacobs (NRCS Rangeland Management Specialist) apply the first herbicide treatment to experimental plots in a Buck Island Ranch wetland. Photo by Betsey Boughton.

Originally from the West Indies, Central America, and South America, West Indian Marsh Grass (Hymenachne amplexicaulis) was first recorded at



Archbold Biological Station Website

Buck Island Ranch in 2006. Archbold research intern Elizabeth Bouchard revealed the invasive grass is present in over 50% out of a survey of 158 seasonal wetlands at the ranch. In 2020, Bouchard and fellow Archbold researchers published a study showing this clonal wetland plant spreads rapidly overland during seasonal flooding and via ditches. Without management, this productive species outcompetes native plants with the potential to create large monocultures in wetlands. West Indian Marsh Grass is highly palatable to cattle with a forage value better than Bahiagrass (Paspalum notatum). In 2021, Dr. Betsey Boughton, Archbold Agroecology Program Director, and Dr. Grégory Sonnier, Archbold Assistant Research Biologist, began a new research project in collaboration with the USDA Natural Resources Conservation Service (NRCS) to evaluate controlling the invasive marsh grass using cattle grazing. Boughton shared, "Our NRCS-funded research will test the efficacy and costeffectiveness to control West Indian Marsh Grass using three methods: 1) Herbicide only; 2) Grazing only; 3) Herbicide + Grazing. Over three years, we will monitor how wetland plants respond to these treatments and a control (no herbicide or grazing) at Buck Island Ranch, Archbold Reserve, and Santa Rosa Ranch. Our goal is to control the species to prevent monocultures. We are looking for a management strategy that balances conservation and ranching."

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Archbold Press

"Archbold Biological
Station is one of
America's iconic
centers of continuous
research and education
in field biology. It is a
prototype of what we
need all across
America."
— Edward O. Wilson

Virtual Ecological Society of America



The Signs of Archbold



In honor of our 80th anniversary, we welcome you to take a virtual tour of the educational signs used in Archbold's Walk Through Time trail. Follow this <u>link</u> to a StoryMap created by Archbold

volunteer and conservation communicator Bill Parken.

Landscape view of the fire-adapted Florida scrub. Photo by Meredith Heather.

This year's Ecological Society of America Annual Conference was held virtually. One of the great pleasures of a society meeting are the field trips guided by an expert ecologist and in the company of fellow ecologists. Dustin Angell, **Archbold Education Director, assembled an** excellent virtual trip video to Archbold as a substitute for the field trip experience. Viewers journeyed through our 20,000 acres to visit Florida scrub and seasonal wetlands featuring researchers Scott Ward (Plant Ecology), Mandy West (Herpetology), Dr. Reed Bowman (Avian Ecology) and Dr. Hilary Swain (Executive Director) and then switched to the grasslands and wetlands at Buck Island Ranch with Dr. Betsey Boughton (Agroecology) and Dr. Grégory Sonnier (Agroecology). Viewers learned about Gopher Tortoises, Florida Scrub-Jays, endemic plants, and major research themes including agroecology and fire ecology. The video ends with a recording of Archbold scientists responding to real time questions. Watch the video here.

Fine Portrait of the Scrub-Jay



Online Events

Sept 9: 3:30 PM

'Ham in Hams on Cam: Habitat use analysis of Sus scrofa using camera trap data'

Sriram Narasimhan, Archbold Intern

Register here

Sept 16: 3:30 PM

Meredith Heather records observations of foraging Florida Scrub-Jays on her iPad in the scrub. Photo by Zach Forsburg.

After three years tracking Florida Scrub-Jays at Archbold, Meredith Heather knows the Florida scrub **like her own backyard.** This was not always the case. In the beginning, she shared, "I immediately told myself to never wear anything nice because the scrub will tear it up! It was tough to walk through. Dew soaked my clothes. It's all sand, no shade. I didn't yet see the beauty." Heather began as an intern in the Archbold Avian Ecology Program in 2018. Now, she is a research assistant and Florida Gulf Coast University graduate student studying which habitat Florida Scrub-Jays prefer in the scrub and why. "By following jays, I learn what types of vegetation structure they prefer or avoid. I am combining my behavioral data on their foraging success with drone vegetation mapping and arthropod surveys to better understand food resource availability in different habitat structures. This information will help us better manage fire in the scrub for scrub-jays." Heather mastered the art of keeping her eyes on the hopping/weaving/flying jays while herself negotiating palmettos and prickly pears. Still, accidents happen. A cactus collision, tripping, or a branch slap to the face. Despite this, she says, "I now see the Florida scrub as absolutely beautiful. I appreciate everything here found nowhere else in the world. There's nothing like the peace and solitude of a sunrise or sunset over the scrub. Spending four breeding seasons now with these jays, I know them like friends with individual personalities. Before coming here, I wondered how it was possible to still have questions after studying the same system for 50 years. Now, I see questions for study here will never end."

Avian Ecology Intern
Double Feature

 'The effect of habitat structure on the social learning of a novel foraging task in the Florida Scrub-Jay'

> Bryce Loschen, Archbold Intern

2. 'Causes and impacts of the 2021 boom year for Florida Scrub Jays at Archbold Biological Station'

Tori Bakley, Archbold Intern

Register here

Watch all past virtual events <u>here</u>.

New Director of Conservation



Photo of Josh Daskin.

"We are delighted to welcome Dr. Josh Daskin to **Archbold as our first Director of Conservation.**" Dr. Hilary Swain, Executive Director, continued, "Archbold is a homecoming for Josh. Before he launched his career in conservation, he was a Research Assistant in Restoration Ecology and Land Management at Archbold from 2011-2012. He knows Archbold. He brings the skills and experience to propel our science into conservation action at multiple scales." Daskin has a PhD in Ecology and Evolutionary Biology from Princeton University, Masters degree in Zoology from James Cook University, and Bachelors degree in Biology and Environmental Studies from Brandeis University. He is leaving his position as a biologist with the US Fish & Wildlife Service where he led conservation status assessments for foreign (non-US) species being considered for listing and protection under the Endangered Species Act. Earlier in his career, Daskin helped reestablish scientific capacity in Mozambique's Gorongosa National Park during a post-war period of ecological and social restoration. Daskin documented how decades of poaching and subsequent recovery of large wildlife in the park affected Gorongosa savannas. **At** Archbold, Daskin will advance large-scale conservation projects, especially the ambitious statewide Florida Wildlife Corridor. He shared, "It is an honor to be trusted with the task of bringing Archbold's science to the world. Many ecologists know what a great place Archbold is and what expertise its staff hold; now we have the opportunity to showcase that expertise in the course of developing policies and programs that will benefit wildlife, water quality, and people's wellbeing." This new position is made possible thanks to the generous support of Bellini Better World, a champion of conservation efforts to save wild Florida.

80th Anniversary



Dr. Zach Forsburg, Archbold Communications and Philanthropy Coordinator, models our new limited edition 80th anniversary design on a tee available for purchase $\underline{\text{here}}$.

Archbold achieved yet another remarkable milestone...our 80th anniversary! Thanks to the steadfast support of loyal donors, the hard work of numerous staff/scientists, and a long-devoted board, Archbold has grown substantially since our founding into an internationally recognized organization dedicated to exploring and understanding the precious biodiversity and ecosystems of our region. We are putting this science into conservation action throughout Florida and beyond. To celebrate this momentous occasion, we created two limited edition 80th anniversary Archbold designs. The designs feature the Archbold triangle logo in tribute to our founder, Richard Archbold, and the iconic Florida Scrub-Jay. 80th anniversary apparel including tees and tanks are available in several colors at our bonfire.com storefront from September 1-21. Your purchase will support Archbold's mission as we continue to grow as

The Scrub Blog

Nature and Science from Florida's
Heartland

Explore <u>The Scrub</u> <u>Blog</u> by Archbold creative staff.



Directions to Archbold Biological Station

Eight miles south of Lake Placid. Entrance is 1.8 miles south of SR 70 on Old SR 8. an exceptional organization for research, conservation, and education well into the future. We still have much work ahead. <u>Click here</u> to make a special gift to Archbold today. We are grateful for your support over all these years. Thank you.

If you enjoy these stories from Archbold, please consider a gift to support our research and education programs. <u>Donate now</u>. Your gift really makes a difference.

<u>Archbold Biological Station</u> | <u>Buck Island Ranch</u> | <u>Archbold Reserve</u> <u>Contact Us | Directions | Newsroom | Donate</u>

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