



ARCHBOLD JUNE 2021 NEWS for curious minds



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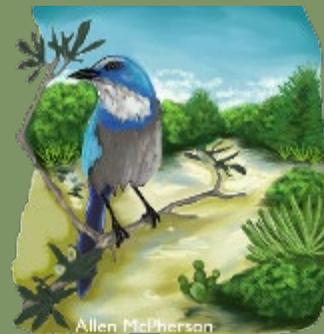
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The Science of Resilience



Two oak species resprouting in the Florida scrub after a prescribed fire.
Photo by Eric Menges.

Organisms ranging from Highlands Scrub Hypericum to Gopher Tortoises are adapted to take advantage of conditions shortly after fire in the Florida scrub. After a fire passes, shrubs like palmettos, oaks, and even herbaceous plants resprout from remaining plant organs that survive temperatures averaging 549 degrees



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Celsius. **Research by Dr. Eric Menges, Archbold Plant Ecology Program Director, explored whether fire temperatures and residence times (i.e., how long the fire lingers) predicts survival and regrowth of 46 resprouters in the Florida scrub.**

Menges and current and former Archbold research assistants Stacy Smith, Stephanie Koontz, and Gretel Clarke summarized in a new [Fire Ecology](#) publication, "Across all species affected by fire, 86% of plants survived and resprouted post fire. Burn season, habitat, and species group did not significantly affect survival. On average across all species, post-fire growth recovered to pre-fire heights within four years. Growth was not significantly affected by species group or burn season." So, no matter when you burn, how long the fire lingers, how hot, or what habitat, these plants will survive. Overall, their results speak to the hardiness of resprouting plants in Florida. Good news for the wildlife and rare plants who return to the regenerating scrub to thrive in the low shrubs and bare sand patches. Read the full publication [here](#).

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

DeLuca Preserve



Archbold Field Biologists monitoring Florida Grasshopper Sparrows at the DeLuca Preserve. From left to right: Nicole Rita, Fabiola Baeza, Hannah Landwerlen. Photo by Jeff Beal/Ducks Unlimited

November 20th 2020 was a conservation milestone for Florida. On this day Elizabeth DeLuca and family conveyed the 27,000-acre DeLuca Preserve to the University of Florida, one



Story of a Bird Lover in Florida

The short film 'Story of a Bird Lover in Florida' reveals the wonderful relationship between ranching, Archbold Biological Station, and the raptor biologist who fell in love with the Crested Caracara. [Watch here!](#)

of its largest land donations. Just southwest of Yeehaw Junction, the Preserve has a conservation easement held by [Ducks Unlimited](#). The story and images of the vast expanse which encompasses both managed pastures and citrus as well as extensive dry prairies, innumerable seasonal wetlands, and longleaf pine savannas are captured in this [beautiful video](#). Archbold Biological Station scientists played a key role in the science behind this conservation success. Since 2017, Dr. Reed Bowman and research staff from [Archbold's Avian Ecology Program](#) have been studying a population of the Federally Endangered Florida Grasshopper Sparrow on the Preserve. Supported by funding from US Fish and Wildlife Service through the Florida Fish and Wildlife Foundation, this is the only study of this listed species on a working landscape where it's recovery may depend on understanding how to achieve successful coexistence of birds and cattle.

Archbold looks forward to working with the University of Florida and all the conservation partners as they develop the DeLuca Preserve into a flagship research and education center for sustainable agriculture, natural resource management, a critical linkage for connectivity in Florida's Wildlife Corridor and helping to save the Florida Grasshopper Sparrow.

Rock Star



Dustin Angell holding a trap with an amphiuma in a seasonal wetland.

Over eight years ago, Dustin Angell arrived from New York to lead Archbold's Environmental Education program. His first impression of Archbold was all the smart and committed people on staff. He recalls, "The scientists all seemed a bit like rock stars to me." No surprise that one of Angell's biggest achievements is his [Florida Stewards photography project](#). He shares, "I was meeting scientists, volunteers, artists, and others in conservation. **So in 2014, I started work on a long-term photo portrait project to document them and their important work. My access to this community honors me with a responsibility to make these photos.**" In addition to his development as a conservation photographer, Angell has shared the wonders of nature and science with thousands of children through school tours and summer camps. He reflects, "When I'm standing in nature, everything around me is telling stories. Each creature (e.g., animal, plant, fungi, etc...) has a life, a species history, a role in the ecosystem, a history in scientific research, and thousands of years of human relationships. Archbold is the cipher that decodes these stories. Instead of teaching only theoretical science concepts to students, we can share how specific discoveries were made right here on our property. Students get to interact with researchers in person. This is really special

Online Events

June 3: 3:30 PM

'Spatial and size dependent dynamics in an arid plant community: Implications for drought recovery'

Maria Miriti, Ohio State University

[Watch here](#)

June 10: 3:30 PM

'Exploring the Virtual Field: A Review of Archbold Biological Station's Virtual School Year'

Margaret Davenport, Archbold Education Intern

[Register here](#)

Watch all past virtual events [here](#).

for education." **Archbold is changed because of Dustin Angell.** And Angell is changed because of Archbold. It takes a rock star to know one.

Remodeling for Research



Bert Crawford and Lupe Gonzalez working on the new research building.

Dr. Sarah Fitzpatrick from [W.K. Kellogg Biological Station](#) at Michigan State University is setting up a 2-year experiment at Archbold to investigate the genetic factors that facilitate or limit adaptation to environmental change. With support from a National Science Foundation grant, Dr. Betsie Rothermel, Archbold Herpetology & Restoration Ecology Director, is Co-Principal Investigator on the project. Their experiment using Eastern Mosquitofish requires a shaded workspace for ~36 large outdoor tanks to hold fish with different amounts and types of genetic diversity. Initially, a temporary

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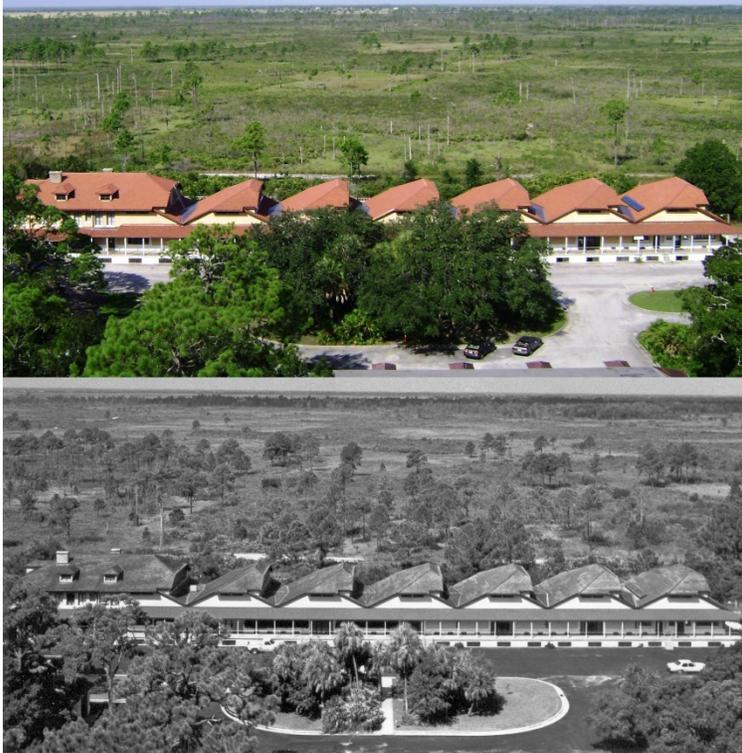
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shade structure behind the cottages was proposed. Then **Archbold's Operations Manager Bert Crawford suggested a far superior solution to meet the needs of this experiment and to house other projects for years to come.** Bert proposed repurposing a garage, which itself was repurposed from an old greenhouse. Bert's email reads, "I suggest a 12' extension on both the north and west side of the existing building, that would give us roughly 33x45', a floor space of 1485 sq ft, for the 36 tanks." Bert and Lupe Gonzalez completed the construction by installing new posts and beams, extending the roofline, and overseeing the pouring of concrete floors. **Sarah and the research team are excited to move into the new facility** (temporarily dubbed the 'Minnow House') so they can measure changes in fish genes and population dynamics over several years in shady comfort and with convenient access to power and water. **Thank you Bert and Lupe!** Terrific project!

It Began with a Gift



The Station buildings 1940's and 2000's.

In 1941, aviator and biological explorer Richard Archbold acquired the Red Hill Estate as a gift from John A. Roebing II. **As World War II raged in the Pacific, Richard Archbold began to implement his ideas for a biological field station.** By the end of the war, he was fully committed to Archbold Biological Station. Richard lived on site as a full-time resident and very active leader for the next 35 years. Throughout the years, Richard built a tradition of scientific excellence by inviting scientists from around the world to visit. The list of scientists who stayed at the Station reads like a who's who of mid-century ecologists. Richard also invested in conservation and stewardship. Beginning in 1967, the Station started mapping fires systematically and the scientific data began to reveal that fire is vital for scrub species and crucial to the stewardship of the land. In 1973, Richard purchased 2,773 acres of adjacent, important scrub habitat. In the spring of 1976, facing terminal cancer, Richard

The Scrub Blog

Nature and Science from Florida's Heartland

Explore [The Scrub Blog](#) 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.



Archbold was hospitalized in Palm Beach County. **With the future of Archbold Expeditions and the Station unclear, Richard typed a new will that ensured the land, buildings, and his personal fortune would be dedicated to the Station.** His sister, Frances Archbold Hufty, agreed to serve as Chairman of the Board of Trustees of Archbold Expeditions. So began the next era of Archbold Biological Station. Cheers to the past 80 years and cheers to the next 80 years!

If you enjoy these stories from Archbold, please consider a gift to support our research and education programs. [Donate now](#). Your gift really makes a difference.

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