

ARCHBOLD JANUARY 2019 NEWS

for curious minds



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2018 Salute



Sunset in Florida scrub at Archbold by Avian Ecology graduate student, David Sherer.

As we welcome the New Year after another spin around the sun, Archbold reflects on some science highlights from 2018. Archbold continues to restore Red Hill with fire and mowing while monitoring how resident Gopher Tortoises are responding. In the seasonal wetlands of the Florida scrub, a portrait of the fascinating ecology is emerging thanks to multiple studies looking into amphibians, nutrient cycling, annual sampling, not to mention the new species of Fairy Shrimp discovered by Ann Dunn, Archbold intern. Archbold Entomology continues to digitiize our vast insect collection including 3200 records of Lake Wales



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Archbold Press

"Archbold Biological Station is one of

Ridge endemics to **SCAN** while Dr. Mark Deyrup's studies show 370 species (and counting) emerging from, or associated with, downed or dead wood, a dependable resource in the scrub. The Red-cockaded Woodpecker population at Avon Park Air Force Range is at the highest number since we began our monitoring work mostly from intensive cavity management, translocations, and prescribed fire. After 50 years of studying everything about Florida Scrub-Jays (e.g., food, habitat, behavior, personality, genetics, populations), we are now banding jays on state properties while guiding Florida land management for this threatened species. Archbold Plant Ecology continues to elucidate the rare plants of the ridge from the ground and now from the air while adding new research into plants like the foundation shrub Florida rosemary. Archbold Agro-ecology learned more about improving water quality on ranchlands in the Headwaters of the Everglades with a nutrient removal forage harvest project in addition to efforts to understand ranchland ecology ranging from Florida Burrowing Owls to fire to management and restoration of seasonal wetlands. This is just the tip of the iceburg for the persistent scientists at Archbold dedicated to preserving, understanding, and sharing the wonders of central Florida.

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

Encourage-Mint



Field crew crowds into a long-unburned and overgrown site to collect monitoring data on a patch of Titusville Balm.

Nestled along a 13-mile range in northeastern Brevard County among the business developments and suburbs

Public Events

Jan 10: 3:30-4:30 PM

'Artificial Light at Night Affects Leopard Frog Physiology'

Zachery Forsburg, Texas
State University

Jan 24: 3:30-4:30 PM

'Recovery & the Fragile Future of North America's Carnivores'

> Josh Ginsberg, Cary Institute

of Florida's Space Coast and hidden within dense patches of hickory and oak trees, you can find the rare mint Titusville Balm (*Dicerandra thinicola*). Since 2001, Archbold Plant Ecology has studied the stateendangered Titusville Balm along with Suzanne Kennedy, President of FloraVista, Inc. While most populations occur on private land, the largest population occurs on public land at the city of Titusville's Wellfield. The only protected and managed population was introduced by Archbold and Kennedy in 2002 onto the Brevard County Dicerandra Scrub Sanctuary adjacent to the Titusville Wellfield.

Scientists are hopeful this rare plant will endure with a little encourage-mint from fire. Dr. Eric Menges, Archbold Plant Ecology Director, shared, 'After fire, the data indicates increased seedling recruitment and health, with individuals producing an abundance of branches and flowering stems. These traits are consistent with fire effects on the two Florida mint species we study in Highlands County, the Garrett's Mint (Dicerandra christmanii) and Scrub Balm (Dicerandra frutescens)'. Fortunately for Titusville Balm, the Dicerandra Scrub Sanctuary conducted a controlled burn on October 31. Now, everyone waits with minty dreams to see what emerges from the black.

Vitamin N



Group photo of Boy Scout Pack 141 from Palm Beach County.

Jan 26: 8:00-10:00 AM

'Bugs, Critters & Creepy Crawlers'

Walking Tour

Mark Deyrup, Archbold

Feb 16: 9:00-11:00 AM

Archbold Mini Film Festival

Archbold Staff

Feb 23: 9:00-11:00 AM

'How Your Photography Can Help Protect Florida's Wildlife & Wildlands'

Dustin Angell, Archbold

Mar 10: 1:30-3:00 PM

Digging Deeper: The Secret Lives of Gopher Tortoises

Betsie Rothermel, Archbold

Mar 16: 9:00-11:00 AM

Family Nature Day

Archbold Education

Year-round Archbold shares the gift of Vitamin N. Just one dose improves physical and emotional health, while prolonged exposure leads to increases in knowledge, changes in behavior, and civic engagement. This miracle vitamin is Nature (N). This December, Archbold shared the Florida scrub and Buck Island Ranch nature with a diverse community including school children, home school families, cub scouts, science fairs, gardening clubs, and teenagers undergoing drug rehabilitation. The life changing stories related to **Archbold outreach seems to come from multiple exposures.** Two of our interns, Alan Rivero and Lexi Siegle, credit their childhood summers at our summer ecology camp with inspiring their science careers. Another former camper, artist Shannon Cummings, donated a print of her Crested Caracara painting to our recent fundraising auction. She confesses her inspiration came from childhood experiences at Archbold, especially the time she helped feed an injured caracara with Dr. Joan Morrison (international caracara researcher) commenting that memory is 'one that I cherish and contributes to my profound love of animals and the Florida scrub I call home.' After participating in multiple Archbold educational experiences, including a classroom presentation from Archbold Avian Ecologist Emily Angell, a middle school student named Ashley told us, 'Now I want to be an Ornithologist. I've been going in my backyard to watch the birds.' Archbold Environmental Education, led by Dustin Angell, shared Vitamin N with about 7,000 people through 150 tours and other outreach events in 2018!

Mar 23: 9:00-11:00 AM

A Walk Through Time

Walking Tour

Joe Gentili, Archbold

Mar 30: 8:00-10:00 AM

'Rare Plants & Fire: A Hike through Rosemary Scrub'

Eric Menges & Kevin Main, Archbold

April 6: 8:00-10:00 AM

Natural History of the Florida Scrub-Jay

Walking Tour

Reed Bowman, Archbold

Archbold in Australia





Check out our Youtube Videos!



Connect with us on Instagram!

Dr. Hilary Swain giving a presentation about Lake Annie at the December GLEON meeting in Australia.

Archbold Biological Station's Lake Annie is a key player in an international scientific network of lakes called the Global Lakes Ecological Observatory Network (GLEON). In December, Archbold's Director Dr. Hilary Swain attended the 20th GLEON meeting held on Rottnest Island near Perth, western Australia. She was accompanied by Dr. Evelyn Gaiser, professor at Florida International University, who leads research programs on Lake Annie. GLEON's community of researchers combine data from about 80 lakes around the world to better understand how lakes work, what is happening to lakes worldwide, and how to keep them healthier. Swain presented a paper outlining instrumentation for the new buoy to be deployed on Lake Annie in 2019, which will provide new data for GLEON research groups working on lake metabolism, lake physics, carbon dynamics, and plankton. Gaiser gave a poster presentation, coauthored with her students, on plankton dynamics in Lake Annie. Gaiser commented, 'It was exciting to learn about recent progress with many GLEON projects using Lake Annie data.' Dr. Swain added, 'This was my first trip to Australia. I was completely smitten. Kangaroos, emus, quokkas, cockatoos, and so much more. Everything was just so Australian, even more wonderful than I'd anticipated.'



<u>Archbold Facebook</u> Event Calendar

Gratitude From All of Us



The Scrub Blog

Nature and Science from Florida's

Heartland

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

Florida Scrub-Jay harvesting an oak acorn to cache in the Florida scrub for later consumption.

Nature has the answers. Archbold discovers them. YOU make it possible. A new year gives us the opportunity to once again say 'thanks'—thanks for your continued support of Archbold's science, **research, and education.** Thanks for supporting us throughout the year as we discover answers in nature, and with your generous gifts that help fuel our work. We simply couldn't do it without you. The long-term, cutting-edge science that is aimed at understanding, interpreting, and protecting our world's natural heritage is why scientists like Dr. Warren "Abe" Abrahamson – one of the great cornerstones of Archbold's science and education—has continued his study of Saw Palmettos for over 46 years here. And why Cornell University and Yale University, among others, bring their students to study a biological hotspot, our precious and endangered Florida scrub ecosystem. Thank you for your ongoing and dedicated support—it means everything to us. Thanks to all of you who contributed to Archbold's Year-end Matching Gift Appeal.

Directions to Archbold Biological Station

Eight miles south of Lake Placid. Entrance is 1.8 miles south of SR 70 on Old SR 8.



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.

Archbold Biological Station | MacArthur Agro-ecology Research Center | Archbold Reserve

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