

ARCHBOLD JANUARY 2020 NEWS

for curious minds



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Transcending Scientific Borders



Presenters at the 4th Annual Archbold Research Symposium. Collaborators from the University of Florida, University of Miami and University of Central Florida joined Archbold scientists.

On December 12, Archbold staff, collaborators, and visitors gathered for the 4th Annual Archbold Research Symposium to learn what scientists at **Archbold discovered in 2019**. A crowd of nearly 60 people enjoyed talks and posters with a recurring theme of transcending scientific borders. Dr. Betsie Rothermel, Restoration Ecology Program Director, and Dr. Gregory Sonnier, Buck Island Ranch Postdoc, shared their restoration work on the Archbold Reserve. Sonnier said, "Even decades after ditches had been dug and non-native pasture grasses planted, native wetland plants returned when hydrology was restored". Rebecca Windsor, Archbold Avian Ecology Research Assistant, shared her diligent work monitoring the endangered Florida Grasshopper Sparrow on a private ranch. To everyone's surprise, the sparrow is breeding in both semi-native and improved pasture. Archbold scientists transcend borders through collaborations with scientists around the country including soil microbial research with the University of Miami and dung beetle research with Dr. Rosie



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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

Stanbrook at the University of Central Florida. Stanbrook shared, "I had no idea such a small beetle could have such an astounding effect on a large cattle ranch". The symposium closed with Dr. Mark Deyrup, Emeritus Research Biologist, who reminded everyone that our jobs are never done: "I described three new beetle species this morning alone. And we have only scratched the surface of those that remain unknown".

The Caterpillar Who Eats Sticky Lollipops



Pink Sundews live on pond edges at Archbold. **Dr. Tom Eisner wrote** about his first encounter with the carnivorous Pink Sundew plant (Drosera capillaris) at Archbold in his **book 'For Love of Insects'**: "I was particularly fascinated by the stickiness of the secretion. I had some familiarity with another biological glue, that responsible for trapping insects in spider webs". Eisner was Professor of Chemical Ecology at Cornell University. He visited Archbold almost vearly from 1958-2011. Eisner and his former student, Julian Shepherd, collected sundews to study in the Archbold lab. While marveling at the sundew's sticky droplets which trap insects, they discovered a caterpillar whose life history was previously unknown. "We watched the caterpillars night after night, as they devoured sticky lollipop after sticky lollipop". In their 'Science' publication 'Caterpillar Feeding on a Sundew Plant' (1965), they wrote, "The larva (caterpillar) eats the stalked glands with their sticky secretion, the leaf blades, and even dead insects trapped by the plant". They had no idea who the caterpillar was until it transformed into a beautiful Plumed Moth (Buckleria parvulus). Illuminating the life history relationship between the sundew and the Sundew Plumed Moth is one of many discoveries Dr. Tom Eisner made in the field of Chemical Ecology while at Archbold.

Jan 18: 6–8 PM

'Archbold Mini Film Festival'

Archbold Staff

Jan 25: 8–10 AM

'Bugs, Critters and Creepy Crawlers' Walking Tour

Mark Deyrup, Archbold

Jan 30: 6:15-9 PM

'Astronomy Night Hike' Walking Tour & Telescope

Kye Ewing & Archbold Staff

Feb 2: 9–11 AM

'Family Nature Day'

Archbold Education

Feb 8: 6–8 PM

'The Forgotten Coast'

Florida Wildlife Corridor Film

Archbold Staff

Lovely Linda



Linda Gette collecting Wiregrass data in the Florida scrub at Archbold during the first week of 2020.

Linda Gette's first trip to Florida was in the 1990's. She was drawn to Archbold Biological Station looking for Short-tailed Hawks and Florida Scrub-Jays. Years later, she shared, "I wanted to escape the winter cold of my home in the Blue Ridge Mountains of Virginia for the sunny nature of Florida. Archbold took me in as a resident volunteer in 2014. My arrival felt like entering a church intimidating and exciting! Everything was so different from the rolling farmlands up north. I've learned so much from all the brilliant people who work here including interns and other volunteers about the fascinating plants and animals living in the Florida scrub. This week, I am measuring Wiregrass as part of Archbold's ongoing research. Every day I learn something new! As a hyper-curious person, I love that. And, I love sharing the endangered Florida scrub with visitors, fellow snowbirds, and especially school groups. I always struggled with science in school. How did they make it so boring? Archbold gave me a new understanding and greater respect for how science works. This is the way to learn science. I am grateful to be a part of this wonderful place which now feels like a second home". Linda volunteers at Archbold for three months each winter. Hilary Swain, Archbold Executive Director, remarked, "She is a stellar volunteer, we are incredibly fortunate to have her here".

Feb 15: 6-9 PM

'Archbold Eco-Film Festival'

Journal Plaza in Lake Placid

Archbold Staff

Feb 26: 4:30-6 PM

Conservation Photography
Workshop

Dustin Angell, Archbold

Mar 8: 1:30-3 PM

'Digging Deeper: The Secret Lives of Gopher Tortoises'

Betsie Rothermel, Archbold

Mar 14: 8-10 AM

'Restoration of Sandhill/Scrub' Walking Tour

Eric Menges & Kevin Main,
Archbold

Mar 18: 4–5 PM

'Hicoria: Brief History of a Florida Ghost Town'

Joe Gentili, Archbold

Science Theater for Archbold Staff



Archbold staff participate in a table-read theater event.

Last month, fifteen Archbold staff and friends performed a reading of eight short plays as part of the international Climate Change Theatre Action (CCTA). CCTA features a selection of 50 five-minute plays by international writers about the environment. Around the world, about 275 productions were held in conjunction with the 2019 International Climate Conference in Spain. From lighthearted to serious, the plays explored everything from icebergs to a magazine photo-editing department to retellings of classic fairy tales. Chantal Bilodeau, the creator of CCTA, shared, "It was very meaningful to have a scientific institution such as the Archbold Biological Station participate in CCTA. It showed that it is possible to bridge the worlds of arts and sciences in beautiful ways". Joe Gentili, Archbold Librarian, reflected, "We all put real thought into a serious topic while having fun. It got everyone thinking about actionable things we can do going forward". Dustin Angell, Archbold Education Director, learned about CCTA while participating in an art-science workshop at the Ringling Museum of Art in Sarasota. The experience motivated Angell to better use art to address environmental challenges leading him to organize the theater evening at Archbold.

A Grateful New Year



Florida Mottled Duck takes flight at Buck Island Ranch.

Archbold is truly grateful for the support from nearly 300 faithful and new donors who stepped up to meet our year-end matching gift challenge, raising a tremendous record amount of nearly \$320,000! We are humbled by your generosity and commitment and pleased to have such strong and dedicated members on our team. Because of your support, we are able to continue a level of world-class scientific research that leads to cutting-edge discovery, meaningful contributions, and fact-based decision making. As we continue into this New Year, we look forward to amplifying the impact of good science, conservation, and education for future generations. 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.

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