



ARCHBOLD JULY 2022 NEWS for curious minds



In This Issue:

1. Declining Dung Heroes
2. Enduring Treasure of Archbold
3. Back to Nature
4. Proper Ranch Welcome
5. Archbold Celebrates Pride Month

Declining Dung Heroes



Melanocanthon species of Dung Beetle in the Florida scrub at Archbold from our film [Gratitude for Tiny Wonders Underfoot](#) by Jennifer Brown/Into Nature Films.

Florida cattle ranchers know nothing good comes from a pasture with too many cow pies. Thank goodness for Florida's rich assemblage of Dung Beetles. 29 species of Dung Beetle make a living in Florida by dwelling below dung, rolling away dung to tunnel, or tunneling below the dung, like the Rainbow Dung Beetle (*Phanaeus*



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vindex). Dung Beetles perform critical ecological functions. In addition to dung removal, they improve nutrient cycling, soil fertility, secondary seed dispersion, and fly/parasite control. While Dung Beetles are declining worldwide, they began declining in Florida in the 1960s. [Dr. Roisin Stanbrook](#), **University of Central Florida**, began a **US Department of Agriculture (USDA) funded research study on the causes and consequences of Dung Beetle abundance and loss on three Florida ranchlands in 2018 including Archbold's Buck Island Ranch**. She compared two pastures where cattle are treated with antiparasitic drugs, like Ivermectin, to a pasture with lower stocking and no use of antiparasitics at Kissimmee Prairie Preserve State Park. The latter had a much higher abundance of Dung Beetles. She said, "Overall, when Dung Beetles have access, 70% of the dung is removed from the soil surface after three months. More Dung Beetles allow grazing to be extended in pasture by opening up the available pasture to graze." She estimates that Dung Beetles may contribute two million dollars per year in dung degradation services to Florida pastures. Her research showed **Dung Beetles thrive better on ranches with some tree canopy cover and without surrounding intensive agriculture** (e.g., citrus, sugarcane). Just like large mammals, beetles need habitat connectivity as stepping stones to interconnect source populations. **Stanbrook suspects the decline of Dung Beetles in central Florida is largely attributable to the widespread use of Ivermectin, an antiparasitic for cattle**. Ivermectin is a neurotoxin. Dung Beetles exposed to Ivermectin either die immediately or suffer sublethal effects like lower body weight, inability to reproduce, difficulty finding food, and loss of coordination in flight. Learn more about Stanbrook's excellent work with Florida's Dung Beetles in her [recent seminar here](#) and [paper here](#).

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"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

Enduring Treasure of Archbold

**Maehr Florida Wildlife
Corridor Applied
Science Fellowship**



Fred Lohrer presenting Archbold history in front of Archbold's main historic building on February 9, 2018. Photo by Jennifer Brown.

On June 1st, 1972, Fred Lohrer arrived at Archbold to meet Richard Archbold for his first day of work. He had been to Archbold before as a graduate teaching assistant with his University of South Florida advisor Dr. Glen Woolfenden. Lohrer earned his Master's degree working with Loggerhead Shrikes. Born in Brooklyn, New York, and raised in New Jersey, **Fred Lohrer found the perfect home at Archbold with his new job as Librarian and Research Assistant.** His arrival coincided with the early years of Archbold's now famous long-term research studies. Over the years, Lohrer published 46 papers ranging from field observations like 'Additional Records of Non-fish Prey Taken by Ospreys' to conservation reports like 'Trends in Numbers of Loggerhead Shrikes on Roadside Censuses in Peninsular Florida'. Lohrer built and oversaw Archbold's library collection which now spans 7,500 volumes. Archbold's science, stories, and history are carefully curated with everything from publications to photos, correspondences, and personal records from Mr. Archbold's expeditions. He is also the friendly face to the community for generations of visitors from school children (1972-1989) to scientists (1972-2018). **After 50 years, Lohrer is a walking database of all things Archbold.** An accomplished writer, he publishes numerous narratives encapsulating Archbold like the elegantly crafted 'Archbold Biological Station: An Enduring and Evolving Florida Treasure' co-written with Dr. Hilary Swain, Archbold Executive Director, in 2007. In 2018, Lohrer narrated the fascinating history of

Apply for a new fellowship opportunity at Archbold to create innovative science solutions for Corridor land conservation. Deadline for submitting proposals is August 15, 2022. [Learn more here.](#)

Annual Giving Manager

We are seeking an individual to oversee activities related to annual gift fundraising and provide support to the Director of Philanthropy. [Learn more here.](#)

Archbold in our short film [Queen of Red Hill](#). Now retired, he continues to work on special projects. He said, "After 50 years, I still enjoy being at Archbold where my current project 'Archbold Biological Station-Red Hill Estate Timeline (1930-2020): Land, Facilities, and Equipment' and future history projects, interest me greatly." **Fred Lohrer, Archbold Emeritus Librarian, is an enduring treasure of Archbold.** Everyone at Archbold from past to present salutes his significant contributions.

Back to Nature



Campers explore and sample a seasonal pond in the Florida scrub at Archbold. Photo by Dustin Angell.

After running for 28 years, Archbold's weeklong day camp for the public took a break for two years. In 2020, Archbold ran virtual summer camps. In 2021, a sponsored two-day in-person camp was offered for families of Costa Farms. **This summer, our traditional camp has returned for the public with the theme 'Back to Nature'.** Archbold's ecology summer camp is an opportunity for local children, ages 7-12, to interact with Archbold biologists, visit a variety of Florida habitats, and build lifetime memories. This is Dustin Angell's, Director of Education, 10th summer running camp programs at Archbold. He is joined by Katie Caldwell, the Jill Abrahamson Memorial Environmental Education Intern. Science games, nature scavenger hunts, skills challenges, and more were run by biologist pairs

Online Events

July 18: 3:30 PM-4:30 PM

'Fire-dependent infection by *Exobasidium ferrugineae* on *Lyonia fruticosa* in the Florida scrub'

Elan Tran,
Archbold Plant Ecology Intern

[Register here](#)

July 21: 3:30 PM-4:30 PM

Title TBD

Jack Christie, Archbold Restoration Ecology & Herpetology Intern

[Register here](#)

representing different research areas, including fish, tortoises, birds, and plants. Wildlife photographer [George McKenzie Jr.](#), a National Geographic Society award-winning visual storyteller, taught the campers about remote camera photography. Volunteers Pat Talbott and Lexi Siegle helped with camp, as well as over a dozen Florida teens, most from Highlands County. Angell said, "**As an environmental educator, there is nothing that compares to getting the kids outside into nature. Parents, campers, and volunteers all expressed their appreciation for the return of camp.** Our two-year gap meant that many of our campers are here for the first time. I loved watching them learn the camp traditions and fall in love with the land."

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

Proper Ranch Welcome



8th International Greenhouse Gas and Animal Agriculture Conference attendees on the Buck Island Ranch field trip. Photo by Haoyu Li.

Archbold hosted a field trip on June 8th for the 8th International Greenhouse Gas and Animal Agriculture Conference which took place in Orlando. Dr. Grégory Sonnier, Assistant Research Biologist at Buck Island Ranch, said, "We welcomed nearly 90 visitors from more than 20 different countries for a perfect day on the ranch. The visitors were split into three groups and rotated among three activities including: 1) A swamp buggy tour; 2) Presentations on how management influences forage quality and potential impacts on greenhouse gases; and 3) Trip to the cow pens for a

discussion with Gene Lollis, Buck Island Ranch Manager. Keeping everyone on schedule was important". Sonnier helped coordinate the logistics and presented an overview of past-present research at Buck Island Ranch. He continued, "**Visitors were curious about our research on greenhouse gases and how a cow-calf ranch operates in Florida.** They were also keen to learn how we use prescribed fires as a management tool in pastures and wetlands. The field trip provided a special opportunity for attendees to connect with each other, especially under the oak hammock at the Ranch headquarters during lunch. It is not every day you can sit around a picnic table with researchers from Cameroon, Brazil, and Japan at the same time! This tour was long in the making. We received positive feedback from the conference organizers and attendees who said they had a memorable and unique experience."

Archbold Celebrates Pride Month



Archbold staff gathered to celebrate and support our LGBTQIA+ staff and colleagues. Photo by Zach Forsburg.

We are gradually lifting our restrictions for COVID to provide opportunities for staff and interns to join in Archbold community events. June is Pride Month and this year **Archbold held our first Pride event to celebrate and support our LGBTQ+ (or LGBTQIA+) staff and colleagues.** Thanks to a generous donation from Archbold's Dr. Zach Forsburg, our staff enjoyed a fun morning of outdoor field day style events followed by a barbeque. Zach said, "I am out and proud at

The Scrub Blog

Nature and Science from Florida's
Heartland

Explore [The Scrub Blog](#) by Archbold creative staff.

[Archbold Facebook Event Calendar](#)



Archbold because I think visibility and representation are important. It was my honor to sponsor the first Pride event at Archbold." Dr. Hilary Swain, Archbold Executive Director, said, "**Archbold strives to be a welcoming and inclusive environment and understands that we can do more to promote a more diverse workplace.** Archbold's Diversity, Equity, and Inclusion Committee works to foster diversity and inclusion, and to increase opportunities, accessibility, and meaning for all. By adding voices to leadership and decision making teams, improving job recruitment for broader reach, and addressing internal communications for transparency, Archbold is on its way to making changes that shift the culture. We want to ensure that people of all backgrounds, including the LGBTQ+ community, feel welcome here."

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. [Donate now](#). Your gift really makes a difference.

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