

# ARCHBOLD APRIL 2019 NEWS

for curious minds



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### P is for Patchy Polygonella



Florida Jointweed blooming in uncluttered Florida scrub at Archbold.

Fire ecologists and land managers often debate what sort of deliberate or 'prescribed' burn is best for their goals. While complete burns have a tidy and aesthetic



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appeal, patchy burns are increasingly supported as an approach to maximize diversity and keep lots of different species with different responses to fire in the landscape. Patchiness means greater heterogeneity with some areas completely burned and other areas missed or lightly scorched. Yet, there are few quantitative demonstrations of this effect. Archbold Plant Ecology intern Riley Book conducted an ambitious independent research project to assess the role of unburned patches as 'refugia' for post-burn recolonization of a federally endangered rare plant: Florida Jointweed (Polygonella *basiramia*). This species is killed by fire and has no long-term seed bank in the soil. Jointweed recolonizes burned areas through windblown dispersal of high viability seeds. Book mapped burned and unburned patches in Florida rosemary scrub while counting jointweed in these patches. Working with Vivienne Sclater, Archbold Data Program Manager, she used computer spatial mapping tools, or GIS, to analyze the connectedness (e.g., contiguous, nearby, or far away) of burned patches to local unburned patches or refugia. Book discovered that nearby refugia, and refugia with many plants, contributed to jointweed's ability to recolonize after fire. For Florida Jointweed, patchy fires are better. This research shows that patchy burns help keep this fire-sensitive rare plant in the landscape offering important direction to land managers on how to manage fires for this plant.

#### **Cornell Lab of Ornithology Tour**



"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

#### Grants-In-Aid of Research for Visiting Scholars

New field research opportunity for young scholars at Archbold. Archbold will award two grants-in-aid of research by visiting scholars in 2019. Applications are due by April 4th at 5PM awarded by April 30th, and available for the 2019 field season. <u>Click here</u> for more information and instructions for applying. Cornell Lab of Ornithology Chariman's Council birding in a Buck Island Ranch hardwood hammock.

The Cornell Lab of Ornithology Chairman's Council is a generous group of leaders who enable the Lab to pursue excellence in international scientific discovery, education, citizen science, and conservation. Each year, the Council takes a birding eco-tour led by the Executive Director of the Lab and Archbold Board of Trustee Dr. John Fitzpatrick and his wife Molly. On March 22 & 23, the Lab brought these adventurers to Archbold with the well-respected Victor Emanuel Nature Tours. The group spent their first two days in the Fort Myers area visiting Babcock-Webb Wildlife Management Area. Archbold's Avian Ecology Program Director Reed Bowman accompanied the tour sharing, 'We were treated to one of the most cooperative Red-cockaded Woodpeckers I've ever watched, foraging within 20-30 feet of the group for nearly 20 minutes. A real treat for many who were seeing this species for the first time'. The group then headed to the renowned Ding Darling National Wildlife Refuge to watch for waterfowl, wading birds, and shorebirds. Inland to Archbold, the adventurers spent two days exploring the unique habitats of interior Florida, a world apart from coastal metropolitan areas learning about Archbold's famous studies on the Florida Scrub-jay and the role that fire plays in the Florida scrub ecosystem. Then to Buck Island Ranch where the quests experienced the science, conservation, and beauty of Florida's ranchlands with Wood Storks, Limpkins, and Crested Caracaras. Bowman added, 'As the sun set, John Fitzpatrick called in a pair of caterwauling Barred Owls who watched us as we watched them! A BBQ under the stars capped the evening. The opportunity to showcase Archbold to such a dedicated group was delightful, and memorable for all.'

#### **Special Librarians for a Special Library**



Joe Gentili with National Geographic issues from the early 1900s featuring the favorite book binding style of founder Richard Archbold.

Joe Gentili was looking for a library job to advance his career. But, an early career position in library science is not so easy to find. Fortunately for Gentili, his path led him to Archbold. He shared, 'Archbold's library is a "Special Library" which means the collection heavily leans towards one area of interest in support of a specific user base (e.g., science). My training is in special libraries as opposed to public libraries. Part of the appeal of a special library is working with a small number of people closely to help them reach their goals. A chance to work with a collection like Archbold's, with its long and fascinating history, along with the opportunity to work with retired Emeritus Librarian Fred Lohrer, led me to working here'. Gentili has been visiting Archbold since 2007 with his wife, Dr. Angela Tringali (Archbold Avian Ecology Post-doc Fellow). Gentili has a Masters in Library Science/Information Studies and a BA in History. With Fred Lohrer's retirement in 2018, Gentili began working part-time as the Archbold Librarian while continuing his previous volunteer work as the Special Collections Archivist of the Dr. James N. Layne Collection (Archbold's first Research Director). Gentili continued, 'Fred is my colleague and mentor. He went above and beyond over the last three years to further my career. Archbold has had a profound impact on my life. Working here in a special library with a large

# Public Events April 6: 8:00-10:00 AM Natural History of the Florida Scrub-Jay Walking Tour Reed Bowman, Archbold April 27: 9:00-11:00 AM A Walk Through Time Walking Tour Joe Gentili, Archbold

archival component is where all of my interests overlap providing gratifying work that I truly enjoy'.

#### Greater Everglades Ecosystem Excursion

FIU students surveying on Red Hill during their 'Geology Field Excursion' class.

In mid-March, a Florida International University class set a northwest compass bearing for Archbold traveling from their home base in Miami and the coastal Everglades up to the ridges, rivers, and ranches of the headwaters of the **Everglades.** Dr. Mike Ross and Dr. René Price along with Rodolfo Rego and Susana Stoffella immersed their 'Applied Ecology Field Excursion' and 'Geology Field Excursion' students into the local ecology and hydrogeology to 'get in touch with the environment for an extended period' while gaining practical field work experience studying the Greater Everglades Ecosystem. Ross shared, 'After a great introduction to Archbold from Hilary Swain (Executive Director), we did some vegetation/soil sampling and groundwater well monitoring on Archbold's Red Hill before learning about the importance of fire and fire management from Eric Menges (Archbold Plant Ecology Director).' Later, Mark Deyrup (Archbold Emeritus Entomologist) led the curious students through the sugar sands in the Florida scrub before they went 'downhill' for a tour of Archbold's Buck Island Ranch research with Dr. Amartya Saha (Archbold Ecohydrologist) and Dr. Gregory Sonnier (Archbold Post-doc Plant Ecologist). The



wonder-filled week culminated with independent student research projects looking at everything from sundews (insectivorous plants) and insect-plant relationships to oak and palm distributions at the Ranch. On their final day, the group got a proper send off from the Florida Scrub-Jays thanks to a field trip lead by Angela Tringali (Archbold Avian Ecology Postdoc Research Fellow).

#### **One Big Announcement, Plus Two Films**



Buck Island Ranch Manager Gene Lollis heads out to work for the day. Image by Grizzly Creek Films.

April brings VERY exciting news from Archbold's Buck Island Ranch. Look out for a BIG announcement during the week of April 15-20. And to support the big announcement, we will release two new films created to share the exciting work by our scientists and collaborators at Buck Island Ranch on the important ranchland ecosystems of the Headwaters of the Everglades. The first film, "Cowboys and Scientists" (8 min/Grizzly Creek Films) will be released on April 15th – This film will bring you the story of how the partnership between Archbold Biological Station and Buck Island Ranch inspired a new mission: cowboys and scientists working together to advance scientific discovery on a ten thousand acre working cattle ranch. Our second film, "The Science of a Florida Ranch" (9 min/Into Nature Films) will be released on April 20th - This film will provide you the clear overview of our science at the Ranch which helps decision makers, agencies, and other ranchers make

# The Scrub Blog

Nature and Science from Florida's Heartland

Explore <u>The Scrub 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.



informed decisions, and have deeper understanding of our own lands. We are delighted to bring you these films, as well as make a significant and meaningful announcement during the week of April 15th. We hope you will be pleased with all three of the events.

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

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#### <u>Archbold</u>

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