



Reed Bowman

ARCHBOLD DECEMBER 2017 NEWS

for curious minds



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Make to Appear



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[PhenoCam Tower view of a wetland](#) at Buck Island Ranch. Image on left from wet season September 10 2016. Image on right from early dry season November 7 2016.

The heartbeat of [Archbold's Buck Island Ranch](#) is under surveillance by traffic cameras turned phenology cameras. Phenology is the study of plant and animal life cycle events (e.g., leaf emergence, flowering, wildlife migration) in relation to seasons, variations in climate, and habitat. Pheno derives from Greek meaning 'make to appear'. **Six 'Pheno Cameras' on towers across the ranch snap a photo**

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every half-hour uploading color and infrared images to the global PhenoCam network. Each [PhenoCam on the Ranch](#) is in a different land use area including improved pasture, semi-native pasture, and a wetland, each with different fire management. Dr. Amartya Saha, Archbold Ecohydrologist and Instrumentation Specialist at the Ranch, shared, 'We are in the process of relating the [Green Chromatic Coordinate](#) (GCC) which is a quantitative measure of how green an image is (i.e., amount of chlorophyll in leaves) with season, climatic variables like rainfall, soil moisture and carbon dioxide fluxes. Comparing these across different pasture types can indicate how pasture management may affect carbon dioxide uptake/emission.' The six Archbold PhenoCams are submitting image data to the global PhenoCam Network, funded by the National Science Foundation. **Big science helping to build a greater understanding of the drivers of phenological events by tying changes in phenology to daylength, temperature, precipitation and responses to climate change.** Our PhenoCams are also contributing to evaluating phenology in agricultural ecosystems with our USDA NIFA research project and the USDA Long-term Agroecosystem Research network. Check out the view for yourself [here](#).

Archbold's Annual Research Symposium



Dr. Reed Bowman presenting at Archbold's Research Symposium.

Archbold's research starpower was on display last month at our second Annual Research Symposium. This was our chance to "strut our

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

Public Events

Dec 7: 3:30pm-4:30pm
Special Speakers Seminar
[Raelene Crandall](#), University of Florida

Dec 9: 9am-11am
Family Science Hike
Dustin Angell, Archbold

All events meet in/at the Frances Archbold Hufty Learning Center.

research stuff" and share some top presentations that Archbold staff, students, and collaborators gave during 2017 at conferences everywhere from Florida to Hawaii, Argentina, and the UK. An assembled crowd of 73 included 32 staff and interns, visiting scientists, agency staff, and several attendees from the local community. **11 talks and 7 posters spanned the Archbold gamut. Some highlighted the value of long-term studies** such as those on the plants *Hypericum cumulicola* (Pedro Quintana Ascencio) and *Dicerandra thinicola* (Eric Menges). It was surprising to hear **multiple talks using new approaches in "networking analysis"** to tackle everything from Florida Scrub-Jay social behavior and personalities (Reed Bowman, Angela Tringali), Gopher Tortoise social behavior (Nicole White), flower-insect visitor networks (Stephanie Leon and Mark Deyrup), and changing phytoplankton communities in Lake Annie (Evelyn Gaiser, Kristen Dominguez). **Fire and water were recurring themes** in everything from ecosystem services in grasslands (Betsey Boughton), wetland restoration (Greg Sonnier), and pond communities and nutrient dynamics (Betsie Rothermel). Thanks to Reed Bowman for organizing this year's program. Our annual symposium is becoming a must-attend "crash course" to learn about new science at Archbold.

Scrub Springboard



David Sherer (center) in Florida scrub as Avian Ecology Intern in 2016 with fellow Avian Ecology staff (Dr. Angela Tringali photo left) and student (Becky Windsor photo right).

Before coming to Archbold as an [Avian Ecology Intern in 2016](#), David Sherer was still figuring stuff out. He shared, 'While I've always been

Archbold Plant Ecology Internships Available



Interns will work in the Plant Ecology laboratory of Dr. Eric Menges which emphasizes conservation biology, plant demography, restoration ecology, fire ecology, landscape ecology, and fire management. Click [here](#) for additional

passionate about birds, my experiences at Archbold profoundly affected my trajectory.'

Before his internship, he had never designed a research project, published any cool observations, engaged with much outreach or even cooked for large groups. That has all changed. Sherer began his Master's studies this Fall at the University of Central Florida with Dr. Reed Bowman and Dr. Patrick Bohlen co-advising his now specific research interests in Florida Scrub-Jay ecology. Sherer said, 'Archbold is a very special place. The Florida scrub is an underappreciated and unique habitat. The potential for discovery, even if it's not related to my work with jays, is constant. Matt Furst (fellow Archbold Intern) and I even published a natural history note about a Swallow-tailed Kite capturing a young squirrel, an observation we made while having lunch! Behind the science, there are fun and interesting people who have helped me grow as an individual. I'm now well-practiced at cooking for large groups of people. **Because of my time at the Station, I feel much more connected with fellow researchers and I have a new appreciation for research non-profits and their role in conservation'**.

information and instructions for applying.

11 Women You Should Know



Hilary Swain at Buck Island Ranch.

We know one of these amazing 11 women, and so might you. **Archbold Executive Director Hilary Swain was featured as one of the '11 women you should know, who have made their careers by**



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communicating and inspiring nationwide interest in environmental issues facing Florida' in a [blog story by Authentic Florida](#). Hilary is our tireless champion of the Florida scrub and Florida ranchlands. She continues to inspire with her vision and dedication. Read the [11 inspiring stories written by guest writers](#) from the new blog called [The Marjorie](#). The Marjorie aims to 'carry on the legacy of women who have helped shape Florida's environment and reclaim the hashtag #FloridaWoman.' Hilary shares, 'Archbold does represent everything I truly love. It represents great science. It represents active conservation—preserving and protecting many of the rare species—and it also represents education opportunities, everything from school children to adults.' Always humble, Hilary added, 'I am sure there are many other deserving women not on this list but I am proud for Archbold that I was selected for such a wonderful group.'

End of a Great Year



Dustin Angell, Archbold Education Coordinator, on a swamp buggy ride at Buck Island Ranch with the enthusiastic youth from our community.

As our year draws to a close, we thank you for being a diligent, and faithful supporter of Archbold. Archbold believes that answers are found in nature—right outside our door. **With our spectacular [Matching Gift Challenge](#), we received over \$24,000 on #GivingTuesday alone to successfully launch our Year-end Giving Campaign. It is not too late to take advantage of the [Matching Gift Challenge](#).** Any gift you make between now and December 31, 2017 will be matched dollar-for-dollar up to \$100,000, and have twice the impact to Archbold. Thank you for

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Directions to Archbold Biological Station

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



considering a [gift](#) to Archbold, and for supporting us throughout the year.

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