



Reed Bowman

ARCHBOLD MARCH 2017 NEWS for curious minds



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Persistent Science and the Palmettos of Archbold



Dustin Angell

Dr. Warren "Abe" Abrahamson and his wife Chris Abrahamson measure the height of palmettos along a transect line.

'My fascination with palmettos began in 1972 during my first visit to Archbold. The ubiquity of palmettos across the landscape made me wonder what attributes enabled their tremendous success.' 45 years of research later, [Dr. Warren Abrahamson \(Bucknell University, Archbold Research Associate\)](#) and his wife Chris continue to reveal fascinating truths to the persistent palmetto including: 1) The nutritional berry fruit may disagree with the human palette but wildlife loves and depends upon them. Yet, palmettos reproduce mainly via clonal resprouts (branch off nearby palmettos from underground stems); 2) Saw palmettos in scrubby flatwoods at Archbold grow on average just 0.4 inches per year; 3) Using genetics, growth rates, and mathematical modeling, Abrahamson and his collaborators found the living ancestor to **each palmetto clone ranges from 1,000 to 10,000 years**



Allen McPherson

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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

old; 4) It can take 200 years for Saw Palmettos to become mature adults; 5) Fire stimulates Saw Palmetto flowering; 6) Adult palmettos can easily tolerate drought or the combination of drought and fire. Abe and Chris are not finished. They spent February at Archbold resampling 11 populations (over 940 plants) of individually marked palmettos they have followed for 37 years, while recording their precise location. They said, 'Archbold research staff decades from now will be able to continue our evaluation of palmetto survival, growth, and reproduction.' [In the Florida scrub and in research, persistence pays over the long term!](#)

Patch Burn Pastures



Caption: Dr. Betsey Boughton during one of the patchy prescribed burns. She is standing in front of one of the four Eddy Flux towers in this study that are measuring carbon cycling.

The [MacArthur Agro-ecology Research Center](#) research and ranch crews along with collaborators from University of Illinois, US Department of Agriculture USDA, and Cornell University recently completed experimental prescribed fires in 16 40-acre research pastures. **This USDA funded project is comparing the common practice of completely burning a full pasture once every 3 years with an alternative practice of 'patch burn' grazing (burning 1/3 of the pasture each year).** Biologists and managers want to know if manipulating patterns of grazing and fire affects the delivery of ecosystem 'provisioning services' (e.g., forage production and quality) and 'regulating services' (e.g., greenhouse gas cycling and water use efficiency) from subtropical humid grasslands used for beef cattle production. One of the goals of patch burn management is to create a mosaic of vegetation heights within a pasture that range from short (burned/grazed) to tall (unburned/ungrazed). **It is expected that patch burn management will result in more grass growth overall and therefore more carbon sequestration.** With help from the [USDA LTAR Long-term Agroecosystem Research](#)

prototype of what we need all across America."

— Edward O. Wilson

Upcoming Events

Mar 16: 3:30 pm-4:30 pm

Documentary Photography
Talk: Saving the
Endangered Florida
Grasshopper Sparrow

Dustin Angell, Archbold

Mar 25: 8:00 am-10:00
am

Natural History of the
Florida Scrub-Jay

Walking Tour

Reed Bowman, Archbold



Archbold's New Film

Go for a virtual hike
through the sandy

[network](#) and Dr. Raoul Boughton from University of Florida, biologists also put GPS collars on cows in the study to better understand how fire affects grazing behavior. This is truly a collaborative study!

Amphibious Adventure



Exploring a still wet seasonal pond in the Florida scrub during the 'Amphibious Adventure' event on February 26th.

32 people of all age groups (5–80) hopped out into Archbold's Florida scrub on February 26th for an adventure with Dr. Betsie Rothermel, [Archbold's Herpetology Program](#) Director. Rothermel extolled the importance of seasonal ponds adjacent to terrestrial uplands as breeding and foraging grounds for many amphibians. She played recordings of male frogs broadcasting to attract mates while participants tried to 'Name That Frog'. Some calls were obvious like the pig grunts of male Pig Frogs. Others had people stumped like the ear-piercing peeps of the diminutive Oak Toad. **By February, most of the ponds embedded in Florida scrub and flatwoods have dried out, an annual cycle important to reduce fish predators that might prey on tadpoles later in the year.** But, a few ponds were still wet. Rothermel said, 'From the Learning Center, we hiked ¼ mile to a grass-covered pond that is home to a population of Lesser Sirens (large aquatic salamanders). A 5-year-old boy grabbed a net and waded right in with his mom in tow. Yep, that was me when I was his age! I guess I never grew out of it.' Check out our 'Upcoming Events' for more popular scientist-lead public tours.

scrub with '[Exploring the Florida Scrub: Archbold's Nature Trail](#)'. Watch full 10 minute film [here](#).

Restoration Ecology Internship

Unique opportunity: An internship in restoration ecology at Archbold. Internship begins May 2017. Applications due March 6. Click [here](#) for full description.

Assistant Data Manager

Archbold seeks a bright, intellectually curious person to fill this technical support position reporting to the GIS/Data Manager. Applications due March 10. Click [here](#) for full description.

Development Assistant

Archbold seeks a person enthusiastic about nature and people to support the Development Director in a part-time position. Watch our [job website](#) for upcoming position announcement.

Birth of a Logo



The burgee flag in the upper left inspired Richard Archbold's logo design for Archbold Expeditions/Archbold Biological Station.

[Richard Archbold](#) created the emblematic Archbold triangle logo around 1938 for use on his 3rd Archbold Expedition to New Guinea. His seaplane, the Guba, wore the logo on her 1938-1939 round-the-world flight. The elements of the logo were derived from the burgee flag of his father's yacht "Hibiscus". People with a nautical background recognize the signal-flag elements. Today, the flag flies over the entrance to Archbold Biological Station in homage to Richard Archbold. Richard Archbold used the same logo for Archbold Biological Station as it was (and still is) under the aegis of the not-for-profit corporation, Archbold Expeditions. He also incorporated the logo into the Archbold library bookplate. **Nowadays, we like to claim that the three red triangles and stars symbolize our science, education, and conservation programs nurtured by the capital A.** The capital A within the blue triangle represents the land, facilities, and endowment gifted so generously by Richard Archbold. The nautical genesis of the logo still embodies the idea of biological exploration in the heart of Florida.



Check out our Youtube Videos!



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[Archbold Facebook Event Calendar](#)

Special Gifts - Significant Impact



Archbold Trustees in the shade of the Love Pavilion at the dedication ceremony, December 2016. Lela Love is seated center.

Archbold was built on passion, generosity, and philanthropy. Today, Archbold continues to exist because of the tremendous people who partner with us to support these same principles. Understanding, conserving, and thriving within the precious Florida scrub ecosystem and surrounding lands is a strategic priority. With your help, our important work will continue, and you will be a part of our impact. Not too long ago, Archbold received a generous gift from the Love Foundation. Archbold trustee Lela Love wanted their gift to make a difference. **By making a contribution to Archbold, the Love Foundation gift helped fund our new Love Pavilion.** This shady pavilion, which will soon be cloaked with native Coral Honeysuckle, welcomes all visitors to the head of the [Archbold Nature Trail](#). Now you can stand in its dappled light to read the orientation sign before heading out on the trail, or relax on the benches and listen to the wind whistling through the pines above. Thank you Lela Love and the Love Foundation for your generosity and partnership. Learn more about partnering with Archbold to make an impact [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.



[Archbold Biological Station](#) | [MacArthur Agro-ecology Research Center](#) | [Archbold Reserve](#)

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