



Dustin Angell

ARCHBOLD JANUARY 2018 NEWS for curious minds



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Research Feature



Dustin Angell

Museum specimens can reflect major ecological events. Six species of tiny beetles, each a new record for Archbold, were found by Dr. Mark Deyrup in the hidden rotten heart of oaks split by Hurricane Irma on September 10, 2017.

Archbold's massive undertaking to digitize our rich Natural History Collection got a [beautiful spotlight in the Research Features December magazine issue](#). A complete holdings list and many specimen records from the **270,000 specimens representing more than 10,000 species will be made available to the world in a searchable database. About 250,000 of the total specimens are insects. Most are from the ancient Lake Wales Ridge. Dr. Mark Deyrup, Archbold Entomologist, said, 'We all believe that natural areas teem with biodiversity. Here is proof. For**



Allen McPherson

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example, more than 1,500 species of beetles live on this single site at Archbold.' Research Features authors write, 'Overall, it is **one of the largest collections for any North American site** and includes a wide variety of arthropods, plants, mammals, birds, fish, reptiles and amphibians. It also houses specimens of threatened and endangered plants and animals, giving scientists a unique opportunity to study these rare species. **And it includes specimens of many newly arriving species, some of which are invasive, thus tracking changes in Florida's diversity over time.** With funding from a National Science Foundation Collections in Support of Biological Research (CSBR) award, Dr Hilary Swain and colleagues, aim to share the Natural History collection with a much wider audience, putting Archbold on the global stage.' Research Features is all about 'Making complex science beautifully accessible'. Read the full magazine available online [here](#).

Archbold Year in Review



Dr. Betsey Boughton appreciating some fish found in one of the 600+ seasonal wetlands at Buck Island Ranch.

2017 began with a drought and finished with seasonal ponds still wet after a hurricane-impacted wet season. [Archbold Land Management](#) completed multiple prescribed burns including a complex sandhill restoration burn. [Archbold Herpetology](#) wrapped up a three-year study of the Gopher Tortoises at Avon Park Air Force Range finding 'one of the most robust tortoise populations in peninsular Florida'. [Archbold Entomology](#) took a big bite out of an enormous digitization project of sorting, photographing,

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

Jan 11: 3:30pm-5:00pm
Heroes in the Headwaters
Artist Talk & Reception
Dustin Angell, Dustin Angell
Photography

Jan 21: 1:30pm-3pm
Amphibious Adventure
Talk & Walking Tour
Betsie Rothermel, Archbold

Feb 3: 9am-11am
Family Nature Day
Dustin Angell, Archbold

Feb 24: 9am-11am
Walk Around a Recent
Prescribed Fire
Walking Tour
Eric Menges & Kevin Main,
Archbold

Mar 10: 3:30pm-4:30pm
30 Years on the Trail of
Ants
Book Signing & Talk
Mark Deyrup, Archbold

and uploading to the internet our rich, regional collection of pinned insects. 'This list gives a face to conservation. If we don't know about biodiversity, we won't care about it, and if we don't care about it we won't save it' Mark Deyrup. [Archbold Avian Ecology](#) completed their 49th season studying Florida Scrub-Jays and 30th season collecting acorn data, a food critical to the winter survival of jays. They also completed their 26th season studying Red-cockaded Woodpeckers at Avon Park Air Force Range finding the highest population in recent times mostly as a result of intensive cavity management, translocations, and prescribed fire. [Archbold Plant Ecology](#) continued monitoring rare and endangered scrub plant populations in addition to six papers published or in press in scientific journals. One innovative paper accepted by the American Journal of Botany analyzes the dynamics of plant species in over 800 gaps in the scrub between 2003 and 2012. The [Archbold Agro-ecology Program at Buck Island Ranch](#) continued to generate knowledge about maintaining biodiversity and ecosystem processes on an economically productive cattle ranch. One long-term project is the largest of its kind to study the interactions of grazing, fire, and pasture management on wetland diversity and ecosystem services. Archbold Operations installed miles of new fence along the Old SR 8 property line. And, Archbold Education introduced scores of youth and adults to the wonders of the scrublands and ranchlands of central Florida.

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

All Grown Up



'Moonlight on the Marsh' Lectures in Naples



Florida Gulf Coast University's Everglades Wetland Research Park in Naples presents five preeminent national and international speakers in its

Nick Swain and his mom, Hilary Swain, at his Florida Institute of Technology graduation, December 16th 2017.

Nick Swain, son of Director Hilary Swain, started at Archbold in 1995 when he was one year-old. He and his older sister, Alex, enjoyed a feral childhood exploring the 'Wonders of Wonderland' including Lake Annie, the Archbold Reserve, and Buck Island Ranch. Growing up, Nick was a Summer Scrub Camp attendee and then Camp counselor for 15 continuous years. At the Ranch, he was a teenage trainee cowboy who became a reliable day-rider, a maintenance crewman, and all-around go-to-person for visitors. Recently, he volunteered as apprentice engineer on a large wetland restoration project on the Reserve. There are many funny stories about Nick at the Station. Just ask his mother about the bear mace evacuation incident or the major hog scene outside the dining room. Last month, **Nick graduated from the Florida Institute of Technology in Melbourne with a degree in Civil Engineering and a minor in Biology.** He soon begins a new engineering job with the Suwannee River Water Management District in Live Oak, FL. Nick said, 'I couldn't have asked for a better childhood. I got to gaze at thousands of sunrises and sunsets over Archbold. Every experience, whether it was tough, funny, or even unbelievable, developed my passions. All the people I worked with at Archbold helped make me who I am. **Archbold has set me up to become an engineer who works with nature instead of against it.'**

sixth annual "[Moonlight on the Marsh](#)" [Distinguished Lecture Series in 2018](#). The free lectures (Jan. 18-March 15) will explore timely topics including climate change, coastal sustainability and Southwest Florida mangroves.

Rosemary Revival



Check out our Youtube Videos!

Rosemary seedling next to a dead rosemary skeleton in a rosemary bald at Archbold.

After a fire in Archbold's second largest patch of rosemary scrub in 1985, all the rosemary died.

Then after 2 years, just a handful of rosemary seedlings emerged from seeds stored in the soil. This is what Dr. Eric Menges, Archbold Plant Ecologist, saw when he first hiked to Burned Ridge Bald. He became concerned, saying, 'Florida Rosemary is a foundation species on these high and dry rosemary balds. Losing rosemary from this area would have been a major change. I systematically followed individual rosemary plants for decades after the fire, as I do for many rare and imperiled plants here. **I discovered tiny Florida Rosemary seedlings have high survival after fire. Over 95% annually.** So a few seedlings can become another stand of Florida Rosemary. But, there is a catch. Rosemary needs 5-10 years to reach flowering maturity, produce fruits, and replenish the seedbank. If Rosemary is burned before maturity, then you have fewer seeds trickling down into the soil for safekeeping. I shared my findings with other land managers on the ridge to better protect the few and far between rosemary stands remaining.' **Rosemary depends on its offspring, its seeds, to keep their genes living. Lots of plants use this 'reseeder' strategy.** We can learn from the Florida Rosemary how to respond to life's disturbances.

Humbled by YOU



Blueberry flower buds *Vaccinium* spp about to open on Archbold's restored sandhill.



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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.



Heading into our 2017 Year-end Fundraising Campaign, Archbold announced an exciting '\$100,000 Matching Gift Challenge'—every gift up to \$100,000 would be matched through December 31, 2017. We have been humbled by the overwhelming enthusiasm and support we had from so many of our loyal friends and supporters. **We are so happy to announce that we have not only hit our 2017 Year-end fundraising goal, but we have happily surpassed this matching gift goal.** How has this been accomplished? One word: YOU. YOU are the many nurturers of nature, lovers of learning, supporters of science, enthusiasts of education, interested individuals, devoted partners and steadfast staff, loyal friends, fearless community, and lastly, the strong, supportive and committed Board. We thank you all and are in awe of ALL you do to support Archbold. Happy New Year—Happy Best Year!

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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