

ARCHBOLD MARCH 2019 NEWS for curious minds



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Unmuddling Mottled Ducks



A hybrid Mallard/Mottled Duck photographed in central Florida with green laser dots to measure the white wing bars. Photo provided by Ron Bielefeld.

Casey Weissburg and Alice Morris are on the hunt to photograph Florida Mottled Ducks shooting with cameras and lasers for science. Using Archbold as a comfortable base camp, Weissburg and Morris are surveying the central Florida population of Florida Mottled Ducks for the Florida Fish and Wildlife Conservation Commission (FWC) to better understand the degree of hybridization with Mallard ducks (Anas platyrhynchos). The Florida



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Mottled Duck (Anas fulvigula fulvigula) is nonmigratory occurring only in central to south Florida. Even with major loss of the mottled duck's freshwater wetland habitat (almost 50%) in Florida due to urban/rural development and agriculture, the greatest threat, according to Ron Bielefeld (FWC lead biologist for the mottled duck), is hybridization with feral Mallard ducks. Bielefeld writes, 'Historically, mallards occurred in Florida only as migrants. However, released mallards from domestic stock now breed throughout Florida. These mallards are interbreeding with mottled ducks and observations of mottled duck - mallard hybrids are widespread and common (FWC 2011).' A primary objective for Morris and Weissburg's surveys in the remaining wetlands of central Florida is capturing photographic samples of individuals to assess the degree of hybridization. Weissburg shared, 'The green laser dots projected onto the duck allow us to measure the width of any white wingbars on the speculum, a trait which is linked to Mallard genes. Results from this research will inform future management for both Florida Mottled and Mallard ducks'.

"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

New Grants-in-Aid of Research



Kim Drager (here, a PhD student) and Dr. Adrian Smith hold a partial cast of a Trap-Jaw (*Odontomachus relictus*) nest colony on Red Hill in 2016. Future graduate student work at Archbold will be eligible for these grants.

Archbold announces a new program of grants-inaid of research to increase the number and diversity of graduate students and postdoctoral scientists conducting fieldwork at Archbold (including the Station, Reserve and Buck Island Ranch). Thanks to a generous challenge gift from Mark and

Plant Ecology Research Internships

Seeking individuals with undergraduate degrees interested in ecology and botany, and preparing themselves for graduate school. Click here to apply.

Public Events

Nancy Deyrup and many matching gifts received last year, Archbold will start awarding two grants-in-aid of research by visiting scholars in 2019. Students enrolled in a graduate program and those appointed as a postdoctoral scientist and studying in any area of field biology are eligible. The awards will provide each successful applicant with \$2,000 annually to defray research-related expenses. The proposed work must involve field research conducted at Archbold and/or the immediate area and include at least four weeks based on-site at Archbold. Full application details are here. The request for applications will be announced in March 2019 with applications due by April 4th at 5 PM, awarded by April 30th, and available for the 2019 field season.

Prairie Education



Chelsea Wisner and Greg Thompson, her field mentor, in the Florida Dry Prairie at Avon Park Air Force Range.

With a Bachelor of Science from New York in her back pocket, Chelsea Wisner was eager to launch herself into the professional world of conservation. She said, 'After a lackluster experience in the Midwest, and a stint as a hostess at P.F. Chang's, I was offered the opportunity to join the Archbold family in February of 2017 as a seasonal field biologist. The coming months at Archbold proved to be a profound extension of my education and milestone for my blossoming professional career.' Wisner worked on the Florida Grasshopper Sparrow monitoring project at Avon Park Air Force Range under the tutelage of Greg Thompson. The work was 'mentally and physically

Mar 10: 1:30-3:00 PM

Digging Deeper: The Secret Lives of Gopher Tortoises

Betsie Rothermel, Archbold

Mar 16: 9:00-11:00 AM

Family Nature Day

Archbold Education

Mar 23: 9:00-11:00 AM

A Walk Through Time

Walking Tour

Joe Gentili, Archbold

Mar 30: 8:00-10:00 AM

'Rare Plants & Fire: A Hike through Rosemary Scrub'

Eric Menges & Kevin Main,
Archbold

April 6: 8:00-10:00 AM

Natural History of the Florida Scrub-Jay

Walking Tour

Reed Bowman, Archbold

demanding' waking up before the sun to collect data on an 'extremely reclusive bird' including erecting predator deflection fences around each nest. Wisner continued, 'The range is home to a very small, but reliable population of sparrows. Since Greg and I had so few birds to monitor, we became well acquainted with each individual (the males especially).' Wisner moved on with a whirlwind field job tour out West for a year with her partner, whom she met at Archbold. The two returned to Florida in 2018. The student has become the teacher as Wisner accepted a permanent job with Archbold in 2019 to lead the Florida Grasshopper Sparrow field project at the range. 'I am incredibly excited to be back on the range working side-by-side with my friends and colleagues on such a challenging and rewarding project'.

SEREPENS: An Art-Science Collaboration



Installation view of 'Clonal Phoenix' in Robert Chambers' SEREPENS exhibit in the AIRIE Nest at Everglades National Park. Photo by Steven Brooke courtesy of AIRIE.

Robert Chambers, Miami-based sculptor, visited Archbold in 2018, together with artists from the Artists in Residence in Everglades, or AIRIE. He was enthralled by Dr. Warren Abrahamson's studies of palmettos that show palmetto clones are ~ 5,000 years old, with some more than 8,000 years. Chambers delved into our insect collections to learn that more than 300 species visit palmetto flowers. Inspired, he dedicated his AIRIE residency to creating an exhibit SEREPENS: Serenoa repens. In a major divergence from his past work with large-scale metal sculptures, for SEREPENS he created a collection of 'massive alien shapes' in plastic. Working



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with the Robotics and Digital Fabrication Lab at Florida International University, he designed and printed 3D plastic (PLA) exhibits including two huge pyramidal studded black tubular forms, representing palmetto stems, massive model insects rising out of milled tabletops, and magnified 3D shapes of berries with geometric surfaces inspired by the underlying fruit structure. You can visit SEREPENS at the Everglades National Park Coe Visitor Center until June 1st. Click to learn more about the exhibit, the recent panel discussion about the exhibit at Miami's Perez Art Museum, and listen to a SEREPENS podcast interview by Cathy Byrd.

Archbold Facebook Event Calendar

Spring for Education



Dustin Angell, Archbold Education Coordinator, with a local school group visiting Archbold.

More than 1,300 children take advantage of Archbold's Environmental Education programs annually from Highlands County and surrounding areas. In 2018, our Summer Camp program served a record attendance having over 104 students with a focus on reaching deserved children who would otherwise be underrepresented. Archbold strives to reach even more children and have greater impact. But, we can't do that without you! Thankfully, Archbold Board of Trustee Robert Lloyd George and his wife Donna of Palm Beach, along with Costa Farms have once again made possible a special camp for the children of Costa Farms employees. For the last four years, they have helped to fund this special camp. And this year they are launching

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.



a \$5,000 gift to help kick-off our "Spring for Education" appeal. An additional generous gift for Archbold Education was received from Warren "Abe" and Chris Abrahamson which will help reprint our Scrub Coloring Book enabling Archbold to continue providing these beautiful coloring books to children who visit Archbold for the next several years. Look for the "Spring for Education" appeal this April on social media and email. Please consider helping Archbold's Education program as we get ready for Ecology Summer Camp, now in its 28th year.

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.

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