## ARCHBOLD SEPTEMBER 2023 NEWS



for curious minds

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#### In Memoriam: Reed Bowman



Dr. Reed Bowman in the Florida scrub at Archbold. Photo by Dustin Angell.

Dr. Reed Bowman, beloved bird biologist at Archbold, passed away unexpectedly on September 18th in Sebring, Florida. Reed joined Archbold in 1991 while finishing his Ph.D. at the University of South Florida. He succeeded Dr. Glen Woolfenden as the Director of Avian Ecology in 2007. For more than 30 years, he focused his research on the biology and ecology of Florida Scrub-Jays in the Florida scrub at Archbold and throughout Florida, including seminal work on the impacts of fire and urbanization. He led Archbold's science team at Avon Park Air Force Range for the U.S. Department of Defense focused on monitoring and conserving Florida Scrub-Jays, Red-cockaded Woodpeckers, and Florida Grasshopper Sparrows at the Range. His research integrated multiple scientific disciplines and resulted in nearly 100 publications. In 2018, he received the Margaret M. Nice Medal for lifetime contributions to Ornithology by the Wilson Ornithological Society. Reed Bowman dedicated his life to conserving Florida's imperiled birds and their habitats. Florida Audubon honored Reed in 2021 with the Guy Bradley Award for his 'life's work growing our understanding of some of Florida's most imperiled bird species, guiding their conservation, and training the next generation of researchers'. His legacy will endure through the incredible scrub-jay dataset, the next generation of scientists he trained, his exquisite photography, and in the hearts and minds of all who knew him. We will miss him more than words can say. Our deepest sympathies go out to Reed's family, wife Charlotte, son Seth, and daughter Mei. Please share your condolences with the family here. Please see our extended obituary on our website. We invite friends and colleagues to email us any

memories, which we will compile into a book of memories.



"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

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### Female Buds



Florida Scrub-Jay family group. Photo by Reed Bowman.

Florida Scrub-Jay pairs live in home territories resembling a jigsaw puzzle on Florida scrub aerial maps. Home territory means more than acorns to eat and oak canopy for shade. Archbold Avian Ecology Research Assistant Sarah Beres says, "Territory is the required currency for breeding and reflects social standing". To mate, you must own and defend a territory. Beres explored territory budding in Florida Scrub-Jays for her previous intern research **project.** Budding happens when a young jay establishes a new territory with a mate carved out from their parent's and neighbor's territories. Males do more budding, while females often disperse farther from their homes after becoming independent. Tori Bakley, Archbold Avian Ecology Research Assistant, encouraged Beres to investigate whether female budding is more common than reported in the literature. Previous data found just six records of female buds. Beres analyzed scrub-jay lineages and annual territory maps to reveal 148 buds (117 male and 31 female) from 1977-2022. 21% of buds were females. Their hypothesis was correct. **Female budding was more** common than anyone realized. The likelihood of budding for females and males increased when there was less competition from siblings. At her recent seminar, Beres says, "Many studies focus on males, so it is good to increase studies on females. Still, this study begs the question of why more females choose to disperse away from home instead of budding." This is the first research project to study territory acquisition and female budding in Florida Scrub-Javs.

### Job Announcements

FL Wildlife Corridor Applied Science Fellowship

Predator-Prey Program Research Internship

Archbold Visiting Scholar 2024

Agroecology Postdoctoral Research Associate

Avian Ecology Research Internship

### New Film Features Indigo Rescue



Watch our new film Team Indigo about the rescue and rehab of a Federally Threatened Eastern Indigo snake.

Kate Marthens, Archbold Avian Ecology Intern, hoped to find a Florida Scrub-Jay nest one morning in mid-April. Instead, she came across an Eastern Indigo snake with a plastic zip tie cinched around her body. The snake evaded capture, but Archbold researchers kept hoping they would have another chance to aid this animal. That chance came three months later when Tori Bakley. Archbold Avian Ecology Research Assistant, visited the same scrub-jay territory and spotted the 6-foot Indigo. Bakley called in Dr. Betsie Rothermel, Archbold Herpetology Director, and Rachel Fedders, Archbold Herpetology Research Assistant. Together, they captured the non-venomous Indigo and removed the zip tie. Indigos range over large territories, so it was remarkable that researchers found her in the same location a second time. Kim Titterington of Swamp Girl Adventures Reptile Rehabilitation agreed to receive and treat the injured Indigo. Rothermel says, "Eastern Indigos are extirpated or declining from most of their range as urbanization reduces their upland habitats. Though the southern Lake Wales Ridge supports a healthy population, the future of this Federally Threatened species is uncertain given projections for human population growth and development." After two months of expert care from Titterington, everyone enjoyed watching the stunning Indigo snake return to her home in Archbold's Florida scrub in early September. Watch our new short film, Team Indigo, created by Jennifer Brown of Into Nature Films to see the release and learn the whole story. If you encounter injured reptiles or other wildlife, please find a wildlife rehabilitator here.

### **Public Events**

Nov 9: 3:30 PM-4:00 PM

Dr. Chris Wilson

Details coming soon here

**Nov 16**: 8:00 AM-3:00 PM

Environmental Stewardship Field Day

Buck Island Ranch

Learn more here

Dec 1: 3:30 PM-4:00 PM

Eric Liu, Archbold Plant Ecology Intern

Details coming soon here

Watch all past virtual events here.

### **Best Dissertation Award**



Dr. Yuxi Guo working at Buck Island Ranch.

Dr. Yuxi Guo first came to Archbold's Buck Island Ranch in 2018 for her University of Florida Ph.D. research. Under the supervision of her thesis advisor, Dr. Jiangxiao Qiu, Guo studied the complex ecology of grazed grasslands and seasonal wetlands at the Ranch. connecting the dots on everything from tiny microbes to big landscape changes. One component of her work was to synthesize extensive Ranch datasets compiled over decades by Archbold's Dr. Betsey Boughton, Dr. Gregory Sonnier, and many collaborating scientists. She asked how critical ecosystem services, like carbon storage and nutrient retention, are influenced by grazing, burning, and pasture management. This work revealed a complicated portrait of pastures and wetlands over time and space. This past Spring, the University of Florida awarded Dr. Guo the 2022 Excellence for Graduate Research (Best Dissertation Award) in the School of Forest, Fisheries, and Geomatics Sciences. She said, "Receiving this award is a great honor and a testament to the dedicated guidance and mentorship provided by my advisors Jiangxiao and Betsey, as well as the strong research foundation established by the Agroecology research team at Buck Island Ranch. It fuels my commitment to advancing ecological research focused on enhancing agricultural sustainability." Guo now works with Dr. Qiu as a post-doc at the University of Florida exploring the drivers, processes, and complex interactions underpinning soil organic carbon dynamics and agricultural productivity.



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### We Need Your Help to Protect Wild Florida



Endangered Red-cockaded Woodpecker. Photo by Greg Thompson.

This year marks the 50th anniversary of the Endangered Species Act, which established protections for fish, wildlife, and plants listed as Threatened or Endangered. As we reflect on this historic legislation for rare species, we cannot help but acknowledge the urgency to continue fighting. For more than 82 years, Archbold scientists have been working to understand and protect the ecosystems and species in the Headwaters of the Everglades, like the Endangered Florida Grasshopper Sparrow, Threatened Redcockaded Woodpecker, Endangered Florida Ziziphus, and so many more. Please help us continue fighting for Florida's rarest ecosystems and species by making your most generous gift today. With your help, our science can continue to progress urgently needed action to save rare species, sustain grasslands and working lands, connect landscapes and wildlife corridors, and address climate change. Put your gift to action right away, by donating online at https://www.archbold-station.org/donate/.

# The Scrub Blog

Nature and Science from Florida's Heartland

Explore The Scrub Blog 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.

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Archbold Biological Station | <u>Buck Island Ranch</u> | Archbold Reserve

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