



Jennifer Brown

ARCHBOLD JANUARY 2023 NEWS for curious minds



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14-Year Wetland Study



Wetland in semi-native pasture at Buck Island Ranch. Photo by Gregory Sonnier.



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Archbold's Buck Island Ranch is home to over 600 seasonal wetlands. These wetlands are embedded within intensively managed improved pastures (IMP) or extensively managed semi-native pastures (SNP). IMPs contain large ditch networks for drainage and non-native grass plantings that require fertilizer. In contrast, SNPs retain a majority of native vegetation and lower cow stocking. These contrasting environmental conditions affect the composition of wetland plant communities. A [new study published in the journal Ecological Applications](#) by **Dr. Gregory Sonnier, Archbold Assistant Research Biologist, Dr. Betsey Boughton, Archbold Agroecology Director, and previous intern Ruth Whittington, evaluated a 14-year data set to assess pasture management, livestock grazing, and prescribed fire impacts on wetland vegetation.** The study showed that SNP wetlands had a higher number of native plant species, whereas IMP wetlands had lower overall diversity with a few dominant species and a significant proportion of non-native species. The study also showed that 14 years of cattle exclusion and frequent prescribed fires were not enough to restore IMP wetlands highlighting the importance of not converting SNP to IMPs. **In their study, grazing promoted plant species richness in both IMPs and SNPs because it allows short forbs to coexist with larger clonal grasses while controlling tree and shrub encroachment.** They found a higher functional diversity (i.e., diversity in plant life history traits) in grazed wetlands because grazing selects different life history strategies. They write, "To our knowledge, this represents one of the longest-running experiments testing the effects of cattle removal, management intensity, and prescribed fires on 40 whole wetlands."

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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 prototype of what we need all across America."

— Edward O. Wilson

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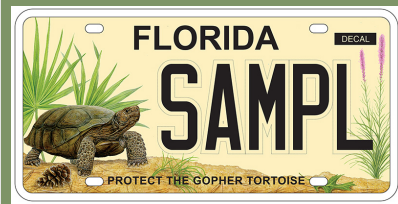
Christmas Bird Count



Lake Placid Christmas Bird Count team on Lake Istokpoga. From top left and clockwise: Dr. Hilary Swain, Dr. Paul Gray, Sandra Sneckenberger, and Liberta Scotto. Photo by Sandra Sneckenberger.

The 34th annual Lake Placid Christmas Bird Count occurred on December 19, 2022. Twenty-one birders from nine teams rose before dawn to find birds for 12 hours within a 7.5-mile radius centered around Lake Placid. Emily Angell, Archbold Research Assistant, restarted the count after a two-year hiatus due to COVID. She said, "Dr. Glenn Woolfenden, previous Archbold Avian Ecology Director, initiated the Lake Placid Christmas Bird Count in 1987. This count once had among the highest number of species of any inland count east of the Mississippi River. **We counted over 16,000 birds from 123 species this year.** One highlight was the first-ever sighting of a Gull-billed Tern by Patrick Blake. The Christmas Bird Count is known as endurance birding since we work all day long chasing that next bird. Many of us gathered at Archbold for dinner and a rehash of the beautiful day. **We are grateful to the Highlands County Audubon Society, local landowners who allowed us access to their property, and the dedicated birders who made this count possible.**"

Hundreds of [National Audubon Society Christmas Bird Counts](#) occur across North America between December 14 and January 5. The data from Audubon's vast citizen science project contributes to our understanding and conservation of bird populations.



The Gopher Tortoise plate with artwork by [Matt Patterson](#) will be produced once 3,000 vouchers are purchased. Vouchers cost \$33 each. \$25 will go directly towards Gopher Tortoise conservation. [Get yours here.](#)

Job Announcements

[Florida Grasshopper Sparrow Research Assistant \(Full-time\)](#)

[Florida Grasshopper Sparrow Research Assistant \(Seasonal\)](#)

Public Events

The Wonder of a Job Well Done



Lupe Gonzalez stands on the new deck of Pine Cottage built by him and Bert Crawford. Photo by Jennifer Brown.

When Archbold's Senior Crewman, Lupe Gonzalez, was a 14-year-old boy from Venus, he and his buddy were biking the sandy trails of Red Hill. Not knowing any better, they took some shiny tree tags from a plant research project. This no-no landed them each 160 hours of community service during summer under the supervision of Bert Crawford, Archbold Operations Manager. **Trimming trails for Dr. Jim Layne's small mammal project in 1984 was the beginning of Lupe's life journey with Archbold.** He said, "I began learning my work ethic from Bert. There are no shortcuts. You do it, you do it right." After graduating from Lake Placid High School, Lupe did four years of military service. Upon his return, Bert offered him a full-time job. Initially, he did not understand what was so special about the Gopher Tortoise and Florida Scrub-Jay. He says with a laugh, "Isn't the Cardinal just as pretty?" Now, he understands the critical role of tortoises in scrub ecology and the value of threatened/endangered species, like the scrub-jay. He's built cattle exclosures around Florida Ziziphus (*Ziziphus celata*), the rarest plant in the Florida scrub. **Lupe has contributed much to Archbold's mission over 25 years, gaining proficiency in a variety of roles, including upkeeping Archbold's grounds, buildings, and vehicles.** To support land management and research, Lupe became a state-certified Burn Boss. He takes great satisfaction in completing long-duration projects for the science labs, like updating the lighting system to LED. His interaction with the labs evolved over the years, too. He says, **"In the beginning, this was just a job. Now, I understand more, and I care. I interact with the biologists and**

Archbold is now open to the public every Thursday-Sunday.

Join us for seminars in-person or online.

Jan 27: 3:30 PM-4:30 PM

Claire Christiana,
Archbold Agroecology Intern

[Register here](#)

Feb 2: 3:30 PM-4:30 PM

Iris Kennedy, Archbold Plant
Ecology Intern

[Register here](#)

Watch all past virtual events [here](#).

interns because I'm curious. I ask more questions."

Lupe is now rebuilding fences he first built in the 1980s. "I've enjoyed my years here. I know what Bert needs done before he says a word. He has taught me a lot. I am thankful for that. I hope whoever comes after us pays the same attention to detail."

Archbold Flock



Dr. Bowman organized a lunch during the conference with past and present Archboldians. Left to right: Dr. Angela Tringali, Dr. Jennifer Smith, Tori Bakley, Kelly Roberts, Samantha Apgar, Lyn Brown, Natasha Lehr, Meredith Heather, Dr. Reed Bowman, and Charlotte Wilson. Photo by Reed Bowman.

Members of Archbold's Avian Ecology program flew northeast to Plymouth, Massachusetts recently for the [Association of Field Ornithologists meeting](#). **Dr. Reed Bowman, Archbold Avian Ecology Director, said, "Since I am retiring this winter, this will be the last flock of lab mates I will get to mentor at such meetings. I will miss that more than anything but this was a great group to end on!"** Meredith Heather, Archbold Research Assistant IV, said, "I had the opportunity to share my thesis research with professionals for the first time and receive helpful feedback on my work." **Heather received an honorable mention for her exemplary presentation on the use of drones for data collection on Florida Scrub-Jay habitat use.** She defended her master's thesis in December and graduated from Florida Gulf Coast University on December 18, 2022. **Archbold Research Assistants Kelly Roberts and Tori Bakley presented their study of extra-pair paternity in Florida Scrub-Jays.** Bakley said, "The opportunity to be exposed to more than ten research projects a day is as exciting as it is overwhelming. I appreciated that the conference was



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not limited to North America because I have a special interest in tropical species." Roberts and Bakley spotted three new birds during the daily field trips including Red-throated Loon, White-winged Scoter, and a Cory's Shearwater. As always, the conference provided an opportunity for staff to exchange ideas and information within the greater ornithology community.

Season of Giving



Florida Black Bear in the Florida scrub at Archbold. Photo by Meredith Heather.

The start of a new year is a time to reflect, give thanks, and look toward the future. We reflect on all that Archbold has accomplished in the past year – protecting the rarest of the rare, sustaining natural and working grasslands, turning our science into conservation action, and connecting landscapes and wildlife corridors. **We are thankful to work in unique ecosystems and for generous supporters that help us achieve far more than we could alone.** We look toward the future – a future of groundbreaking science and a more resilient Florida. We look forward to continuing our mission, to build and share the scientific knowledge needed to protect the life, lands, and waters of the heart of Florida and beyond. **Thank you to our loyal donors for your generous gifts in 2022** – you help us continue to protect natural areas and rare species found nowhere else in the world. From all of us at Archbold, we wish you a happy and healthy New Year and thank you for your [continued support](#).

The Scrub Blog

Nature and Science from Florida's Heartland

Explore [The Scrub Blog](#) by Archbold creative staff.

[Archbold Facebook Event Calendar](#)



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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