



Haoyu Li

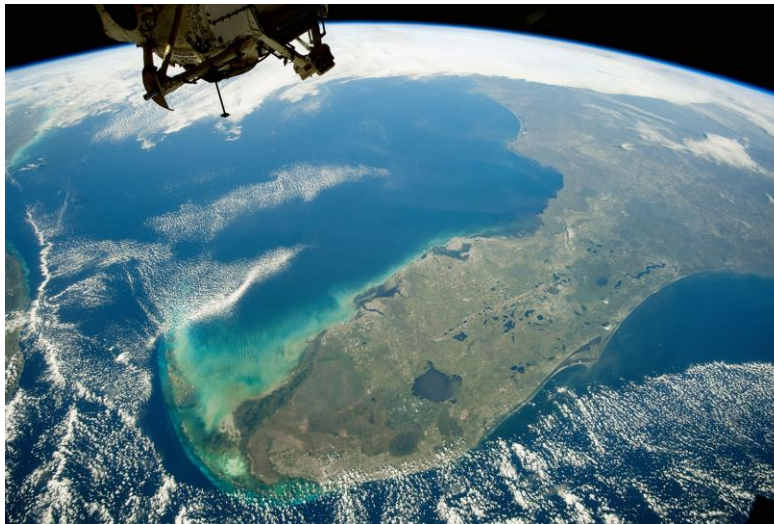
# ARCHBOLD JANUARY 2022 NEWS for curious minds



### In This Issue:

1. Remote Sensing Ranches on Earth
2. Generous 2 Million Dollar Gift
3. Bert and Archbold
4. 2021 Year in Review
5. High Five

## Remote Sensing Ranches on Earth



View of Florida from space. Photo by NASA.

Dr. Xukai Zhang, Archbold Postdoctoral Research Associate, arrived at Buck Island Ranch in March 2019 with eight years of experience in remote sensing. Satellite-based remote sensing detects and monitors the energy reflected or emitted from Earth's surface with special cameras. In collaboration with Dr. Nuria Gomez-



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Casanovas, University of Illinois Visiting Researcher, and Dr. Betsey Boughton, Research Director at Archbold's Buck Island Ranch, and others, **Zhang is building a remotely-sensed model to study how much plants grow each year (i.e., gross primary productivity) that incorporates years of plant field data collected by ranch researchers.** Funded by USDA LTAR, the study spans a range of vegetation in south-central Florida from managed pastures to wetlands, native grasslands, and woodlands in collaboration with the University of Florida Range Cattle Research and Education Center at Ona, University of Illinois Urbana-Champaign, USDA, and Cornell University. Zhang said, "The model produces a vegetation index to help us detect photosynthesis and duration of the plant growing season. Accurate estimates of plant growth will help us understand the carbon cycle from the atmosphere to plants, soil, and back up to the atmosphere. This project will also contribute to a regional and national portrait of how much plants grow each year in the USDA Long-Term Agroecosystem Research (LTAR) network." In a state with frequent satellite-blocking cloud cover, Zhang had to overcome many technical difficulties to achieve a remotely-sensed model with high accuracy. Boughton said, **"Estimating plant productivity keeps our finger on the pulse of our subtropical grazing lands to guide sustainable ranch management."**

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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

## Generous 2 Million Dollar Gift



Dr. John W. Fitzpatrick and Dr. Reed Bowman, the first John W. Fitzpatrick Director of Avian Ecology at Archbold. Photo by Dustin Angell.

**Archbold is the grateful recipient of a generous two million dollar endowment from philanthropist K. Lisa Yang to support our important bird research, with a focus on the Federally Threatened Florida Scrub-Jay.** Her gift establishes the John W. Fitzpatrick Director of Avian Ecology permanent position with Dr. Reed Bowman honored as the first recipient. Yang first visited Archbold in 2019 with Dr. John Fitzpatrick, former Archbold Executive Director and current Board member/Research Associate. She got a front-row seat to the endearing Florida Scrub-Jay and our team of excellent Avian Ecology researchers. Yang was fascinated and inspired by our commitment to conservation and science. The Florida Scrub-Jay study is the longest continuous study of banded birds in North America. Dr. Hilary Swain, Archbold Executive Director, said, "Lisa Yang's enduring gift builds on Archbold's 50-year investment in Florida Scrub-Jay research which has advanced studies of animal behavior and ecology around the world. Long-term studies of animals constantly transform by drawing from legacy data and new technologies across generations of scientists. Her gift will bear scientific fruits in the future we cannot foresee today. The endowment honors Dr. John Fitzpatrick who recently retired after 26 years as Director of the Cornell Lab of

## Nature Wonder Alive

Join Dustin Angell, Archbold Director of Education, for live-streamed outdoor nature tours on the second Tuesday of every month from 9:30 AM- 10:15 AM (Eastern Time) from November through April.

[Register here](#)

Ornithology. Since 1972, a significant part of Fitzpatrick's work has been studying the behavior, ecology, and conservation genetics of the Florida Scrub-Jay with Archbold colleagues, including Dr. Reed Bowman. We celebrate Lisa Yang for tying together the threads of her philanthropic generosity in such a remarkable fashion. She loves birds. She holds Dr. John Fitzpatrick in the highest esteem. She is committed to science and technology. We offer Lisa our eternal gratitude. Her gift to Archbold is a gift that will keep on giving."

## Bert and Archbold



Bert Crawford, Archbold Operations Manager, in front of a mature oak-cabbage hammock he purchased for a quarter apiece and planted as saplings in the 1970s. Photo by Jennifer Brown.

**Bert Crawford, Archbold Operations Manager, devoted his whole adult life to Archbold.** He grew up in Venus before moving to rural Lake Placid. His father and grandfather were men of the woods working in Florida's early pine sawmills. They passed their deep knowledge of the woods and hard work ethic to Bert. After Bert returned from serving in Vietnam with the Army in 1974, Archbold Biological Station hired him on the maintenance crew for \$3 per hour. **Bert worked alongside founder Richard Archbold and Dr. Jim Layne, Archbold's first Research Director.** When Bert married Jim's daughter, Kim, in 1974, Dr. Layne became his father-in-law. "Archbold was much different back

## Online Events

**Jan 27: 9:15 AM-4:30 PM**

Archbold's Annual Research Symposium

Archbold staff and collaborators

[Register here](#)

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

then," Bert says. For example, there were few roads or fences, no prescribed fires, one research lab, and significant ground maintenance. One of his first projects was building new roads through the sandy 'West Scrub' just purchased. To protect the entire property from unwanted visitors, Bert and his crew installed a wired fence. Bert's five-person maintenance crew ensured the grounds were immaculate for Mr. Archbold. He said, "We raked everything every Thursday and Friday during the winter. It was like a golf course." He continued, "All work from Archbold vehicles to electrical was done in-house. We had the manpower and the knowledge to do it." Though Archbold would soon understand and study the benefits of fire management, Bert began his job during an era of full fire suppression. He took part in Archbold's first prescribed fire in 1977. With over 400 fires under his belt, Bert plays an integral role in Archbold's fire operations. To prevent escapes from prescribed fires, Bert and his crew mow and burn firebreak perimeters reducing flammable scrub vegetation. Bert learned his sophisticated skill-set to maintain Archbold vehicles and unique infrastructure from mentors like Bob Nagel, who was Richard Archbold's aircraft mechanic. Everything else, he taught himself. After 11 years of hard work and dedication, Bert was promoted to Superintendent of Maintenance. 25 years later, he advanced to Operations Manager. His biggest achievement is a major renovation of the Bird, Plant, and Bug Labs in 2007 and new metal roofs on the cottages. As the seasons, staff, and scrub cycle through changes, Bert is steady in his work commitment to Archbold. **He said, "I've been working since I was six years old. Over the years, I've sweat enough here to float a battleship. It has been fun. This place has been good to me."**

## 2021 Year in Review



Sunset at Archbold. Photo by Rebecca Windsor.

**2021 was a year of adaptation, growth, and conservation successes at Archbold.** A diverse group of interns explored nature and science in the Florida scrub and Buck Island Ranch culminating in virtual seminars broadcast live on Facebook. [Watch here](#). Archbold Education, led by Dustin Angell, launched the 2021 Virtual School Year [website](#) and continued offering online scrub tours and lessons reaching a global audience. Dr. Eric Menges retired after a remarkable 33 years as Archbold's Plant Ecology Program Director leading innovative research, long-term monitoring of endangered plants, and mentoring the next generation. Dr. Aaron David, a former Plant Ecology Program intern, returned to Archbold to assume the position of Director of Plant Ecology. Thanks to a generous donor, Archbold hired a new Director of Conservation, Conservation Cartographer, and Communications Coordinator. We celebrated the signing of the Florida Wildlife Corridor Act, as well as the budget allocation of \$400 million toward land conservation by the Florida House and Senate. Gene Lollis, Buck Island Ranch Manager, completed his year as President of the Florida Cattlemen's Association where he forged connections between the industry, science and the public. Archbold staff received several well-deserved awards highlighting their work and dedication. Gene Lollis appeared on [NBC Nightly News with Lester Holt Kids Edition](#) featuring a story on the Florida Panther. Dr. John Fitzpatrick appeared on the [NBC Today Show](#) with Kerry

Sanders featuring Archbold's work with the Florida Scrub-Jay. Although Archbold remains closed to the general public for now, stay tuned for upcoming public hikes and tours. **Join our virtual Annual Research Symposium from 9:15 AM-4:30 PM on January 27th.** [Register here](#). Archbold staff and Board wish everyone a happy and healthy New Year!

## High Five



Archbold Board of Directors in December 2021. Photo by Dustin Angell.

**Archbold is truly grateful for the support from more than 400 faithful and new donors who stepped up to meet our year-end matching gift challenge, raising a tremendous record amount of more than \$400,000!** We are humbled by your generosity and commitment and pleased to have such strong and dedicated board members, friends, colleagues, family, donors, and staff. Your contributions help us achieve our mission and turn our science into conservation action to do our part to keep Florida wild. We are also delighted to announce Archbold's strengthening board by welcoming five highly accomplished individuals to Archbold's Board of Directors: financial investor, conservationist, and philanthropist Amy Conlee (Vero Beach and North Carolina); communicator, media critic, and journalist David Tereshchuk (New York and Ireland); dairyman, rancher, and businessman Woody Larson (Florida);

## 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.

global business strategist and software integration Burr O'Connor (Maine); scientist, professor, and educator Luanna Prevost (Florida). As we continue into this New Year, we look forward to amplifying the impact of good science, conservation, and education for future generations. Thank you.

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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