



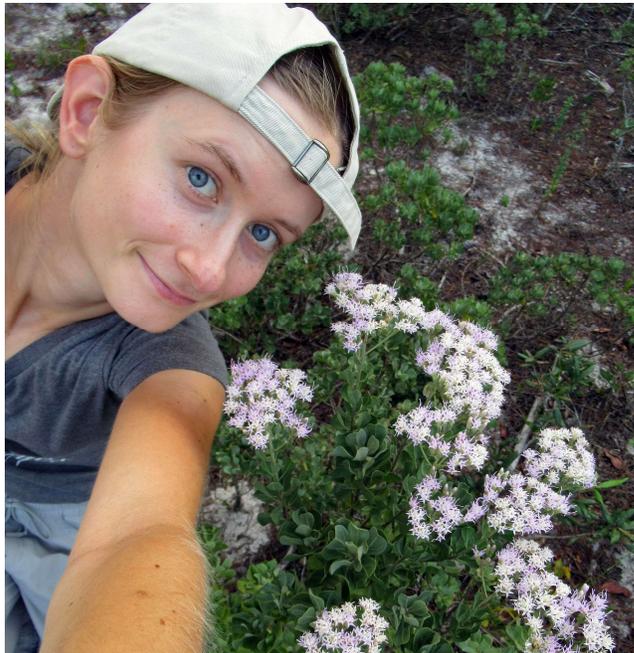
ARCHBOLD MARCH 2021 NEWS for curious minds



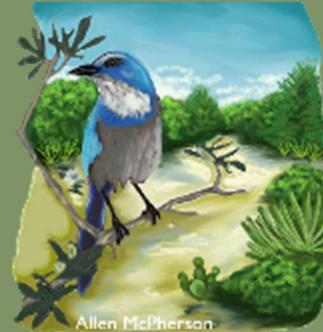
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Garberia Flower Hunter



Erin Stewart with *Garberia heterophylla*.



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When Erin Stewart arrived at Archbold last September for her Plant Ecology internship, the budding conservation ecologist was struck by many things. First, the spiders in Florida were huge compared to those in the Pacific Northwest. Second, many plants were blooming outside of expected windows. The timing of flowering, known as phenology, is a hot topic for climate change research. However, the relationships between local disturbances, like habitat fragmentation, and phenology is less known. To fill this knowledge gap, **Stewart studied the relationship between phenology, proximity to firebreaks/edges, and seed set in one of our showiest shrubs, *Garberia heterophylla*.** A state-threatened species found only in Florida, *Garberia* delights insect pollinators (bees, butterflies, beetles) every October-December with clusters of lavender-pink flowers. Stewart analyzed over 36,000 *Garberia* fruit capsules to assess seed set and insect damage. She discovered *Garberia* plants along firebreaks/edges produce the most flowers and seeds. And, *Garberia* within the more intact Florida scrub matrix had slightly higher synchrony (individuals flowering at same time) and greater larval insect damage to the seeds. Early blooming plants also produced more seeds. She shares, "The timing of flowering and edge effects impact the fitness of *Garberia*. Seed set and seed predation both contribute to the overall number of seeds produced by a plant." This suggests life on the edge for this fire-adapted shrub has survival benefits. There is still much to learn about when a plant blooms considering the complex interplay of environmental factors (temperature, length of day, precipitation), genetics, physiology, microsite, animal interactions, and so on. Watch Stewart present her study [here](#).

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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

Amazing Ants of Florida



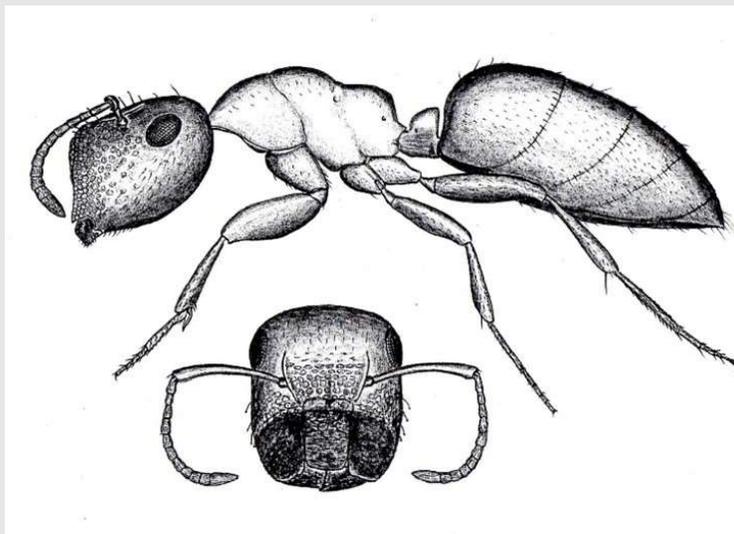
Discover the
Florida Scrub
Virtual Field Trip

Thursday,
March 11, 2021
9:30 a.m.

Join us once a month through April
for more fun virtual field trips!
Register at savetheirt.org

Photo by [Renee Bowman](#)

Logos for Florida Ants, MRC, and University of Florida are visible at the bottom.



Drawing of the Common Stopper Ant (*Camponotus impressus*) by Mark Deyrup.

There are more kinds of ants living in Florida than any other state in the East—over 240 species! Yet, the public remains unaware of their remarkable lives. The big exception to this rule is **Dr. Mark Deyrup, Archbold Emeritus Entomologist, who has been cataloguing and describing the ants of Florida at Archbold since 1982.** Deyrup is author and illustrator of the book 'Ants of Florida: Identification and Natural History'. He shared, "If there were a zoo for Florida ants, here are a few species that might be on display. It would be a miniature zoo, as the animals are only 2-4 millimeters in length. **1) The Florida Rosemary Big-Headed Ant (*Pheidole adrianoi*)** digs deep burrows in open sand around Florida Rosemary shrubs. Workers of this species come in two sizes; the smaller individuals probably gather tiny seeds that the large ones grind up with their massive jaws. **2) The Common Stopper Ant (*Camponotus impressus*)** lives in hollow dead twigs up in living trees. Some larger workers have an enlarged head used to plug the entrance hole into the twig if the ant colony is attacked. Another twig-inhabiting ant introduced from the tropics might be threatening Florida Stopper Ants, but this has not been studied. Threats to ant species don't get much attention from conservationists. **3) The Woolly Pygmy Snapping Ant (*Strumigenys lanuginose*)** is a rare species found in layers of dead leaves. Its long jaws can snap shut in a fraction of a second to impale creatures even

Discover the Florida Scrub Virtual Field Trip

Join the City of Melbourne and Archbold Biological Station on March 11 at 9:30 AM for a free virtual field trip exploring and contrasting the coastal scrub on the Atlantic Ridge to the inland scrub on the Lake Wales Ridge. [Register here!](#)

smaller than itself. The long, curved hairs on its abdomen are unique to this species; their function is a total mystery." To learn more about Florida's ants, visit the [Archbold Entomology website](#) and [AntWeb](#), the world's largest online database for ants.

Bon Voyage Becky



Chelsea Wisner Folmar

Becky Windsor holding a Florida Grasshopper Sparrow nestling after banding.

Becky Windsor is well-acquainted with some of the rarest birds in Florida. She first arrived at Archbold in 2012 as a bright intern in the Avian Ecology Program. She learned to navigate the sandy Florida scrub on ATV #4 which is still her favorite vehicle today, nine years later. Like the Federally Threatened Florida Scrub-Jay, she chose to live in Florida year-round. She did her graduate work at the University of Southern Florida illuminating the effects of environmental conditions and stress on ultraviolet reflectance in Florida Scrub-Jay feathers at Archbold. After graduating with her Master's degree in 2016, she became a Research Assistant to oversee Archbold's Florida Grasshopper Sparrow monitoring on a private ranch for three

Online Events

**Mar 9, Mar 16, Mar 23,
Mar 30: 9:30 AM**

Florida Nature Walks with
Mr. Dustin

Join Dustin Angell, Archbold's Director of Education, on Tuesday mornings at 9:30 AM EST as he live-streams from the outdoors in sunny Florida using a selfie-stick and smartphone.

[Register here](#)

Mar 25: 3:30 PM

'Cabbage Palm Patches: The Effects of Palm Patch Size on Proximal Plant Communities Embedded in Semi-native Pastures on a Subtropical Cattle Ranch'

Abe Steinberger,
Archbold Agro-Ecology
Intern

[Register here](#)

seasons. Becky worked tirelessly on the demography and conservation of this endangered species. Becky shared, "My favorite part of working at Archbold was the community of scientists and collaborators. We all share a common passion for the conservation of Florida ecosystems and the unique and rare species found within them. **My time at Archbold helped craft me into the biologist I am today.**" Becky is migrating west to California for a new Department of Defense position. We are grateful for her hard work and dedication to the rare birds of central Florida. We wish her continued success, and hope she continues to make return migrations back to Archbold.

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

Watch the New Film 'The Wild Divide'



Map of the Florida Wildlife Corridor.

Archbold Biological Station is situated atop the Lake Wales Ridge, a ribbon of ancient sand dunes and home to rare scrub

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habitat and many rare and endangered species. Archbold scientists work to understand and preserve the rare scrub habitat and unique biodiversity found on the ridge. Archbold also works on the importance of connecting conservation lands and waters regionally and statewide via wildlife corridors to better protect Florida's larger animals roaming across Florida in search of mates and habitat.

In 2019, to amplify awareness for wildlife corridors, three Florida Wildlife Corridor Expedition trekkers traveled along the Lake Wales Ridge. The trekkers, conservation photographer Carlton Ward, Jr., seventh-generation Floridian and Archbold Board Member Mallory Lykes Dimmitt, and Archbold's newest research scientist Joe Guthrie, made their way across the landscape tapestry of the ridge on horseback, foot, and paddleboard. This 'Ranch to Ridge' Expedition was a 7-day trek from Highlands Hammock State Park to the Tiger Creek Preserve in Polk County. Dr. Reed Bowman, Archbold Avian Ecology Program Director, and Becky Windsor, Archbold Research Assistant, met with [Grizzly Creek Films](#) and filmmaker [Danny Schmidt](#) at a state-owned conservation area near Sebring as they banded threatened Florida Scrub-Jays. Stephanie Koontz, Archbold Plant Ecology Research Assistant, talked with the expedition team at The Nature Conservancy's Saddle Blanket



Archbold Facebook Event Calendar

Scrub Preserve north of Avon Park showing them the threatened plant, Avon Park Harebells (*Crotalaria avonensis*). **Archbold scientists emphasized that wildlife corridors provide critical habitat and critical linkages for many plants and animals, not only large species such as bears and panthers.** Watch 'The Wild Divide' [here](#).

Florida Ziziphus: A Conservation Collaboration



Florida Ziziphus in fruit.

Florida Ziziphus (*Pseudoziziphus celata*) is one of the most endangered plants in the world. The extreme rarity and lack of genetic diversity among the known populations means this plant is vulnerable to extinction. For more than 20 years, Archbold has collaborated with [Bok Tower Gardens](#) to study this rare plant and reintroduce plants back into suitable habitats on the Lake Wales Ridge. There have been years of hard work with our collaborators and Archbold staff including Carl Weekley, Stacy Smith, and Stephanie

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.



Koontz. **Recently, in what has been called a milestone in the recovery of Florida Ziziphus, one of the transplanted populations has produced fruit and germinated a second-generation seedling.** There is now new hope for the plant's long-term survival. As a result, Archbold plant ecologists are introducing Florida Ziziphus into multiple new sites including The Nature Conservancy's Tiger Creek Preserve and the Lake Wales Ridge National Wildlife Refuge. Dr. Eric Menges, Archbold Plant Ecology Program Director, shared, "We need to be long term stewards for imperiled species. We can't just walk away from rare species like the Florida Scrub-Jay or Florida Ziziphus." The future of Florida Ziziphus and other endangered species depends on the dedicated work of Archbold scientists and their conservation partners, backed by the generosity of loyal friends like you. Click [here](#) to support our work.

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