



ARCHBOLD NOVEMBER 2020 NEWS

for curious minds



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Rare Bee Survey



The Scrub Giant Plasterer Bee (*Caupolicana floridana*) is primarily a nectar thief when visiting Scrub Balm (*Dicerandra frutescens*).

Dr. Chase Kimmel and associates from the [Daniels Lab](#) at the Florida Museum of Natural History came to Archbold this Fall to survey for a rare bee first identified at Archbold in the 1980s, and formally described and named as a new species *Caupolicana floridana*, the Scrub Giant Plasterer Bee, by Dr. Mark Deyrup and Dr. Charles Michener in a [2004 publication](#). Deyrup conducted comprehensive surveys for this bee, along with ~80 other rare insects, on the Lake Wales Ridge from 2008-2010. Deyrup and Dr. James Carrel's 2012 [report](#) on this work for the Florida Fish and



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Wildlife Conservation Commission noted this attractive, large bee visits Partridge Pea (*Chamaecrista fasciculata*), Scrub Balm (*Dicerandra frutescens*), and Forked Bluecurls (*Trichostema dichotomum*). Kimmel shared, "After talking to Dr. Deyrup, we were motivated to expand upon Archbold's work to increase understanding of the range as well as floral and nesting preferences of this rare bee." Kimmel's group surveyed Florida scrub and sandhill locations throughout Florida that have high densities of the bee's floral hosts. Kimmel continued, "The bee is mainly active in the early morning and late afternoon/evening. With funding provided by the Florida Biodiversity Foundation, bees are hand netted and released or photographed to verify their identity, location, and host plant. The survey is going much better than we anticipated. We are finding *C. floridana* in both previously recorded and many new locations. We have also been fortunate enough to find a nest. We hope to build upon this information in the future to better understand this rare bee."

"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

Boots on the Ground



Elysia Dytrych, a Florida Fish & Wildlife Conservation Commission biologist, at a site burned the day before as part of the agency's land management.

Photographic portraits of Archbold's staff and the local conservation community are on display until the end of the year at Bok Tower Gardens in Lake Wales, Florida. The exhibit '**Boots on the Ground**' consists of 18 large metal prints from **Dustin Angell**, owner of [Dustin Angell Photography](#), and also Archbold's Director of Education. Angell shared, "Working at Archbold immersed me into a community of people who spend their days working outdoors in Florida's wild places. Heat and humidity, ticks and mosquitos, alligators and snakes, and flooded roads and thunderstorms are a regular part of their jobs—and they love it! Their dedication to understanding and preserving Florida's natural heritage is an inspiration to me. I really felt, and still feel, that my proximity to them gave me a responsibility to create this photo project. I hope the photos will surprise and delight viewers with the variety of occupations and habitats represented." A short video showing a behind-the-scenes look at one of Dustin's portrait sessions is online [here](#). On Thursday, November 5th at 3:30PM, Dustin will present a free Zoom seminar on the project called 'Sweaty Brows: Stories and portraits

Online Events

Nov 5: 3:30 PM

'Stories and portraits documenting conservation jobs and habitats in the Headwaters of the Florida Everglades'

Dustin Angell, Archbold

[Register here](#)

Nov 12: 3:30 PM

'Four decades of research on the Florida panther: From the edge of extinction to population expansion'

Dr. Dave Onorato, Florida Fish & Wildlife Conservation Commission

[Register here](#)

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

documenting conservation jobs and habitats in the Headwaters of the Florida Everglades'. Register [here](#).

A Story of Resilience



Dr. Eric Menges on a Florida rosemary bald at Archbold by Dustin Angell.

As a child growing up in New York, Eric Menges found joy hiking in nature with his father. His grandfather, who was a botanist, taught him about plants in Maine. After getting his PhD in Botany at the University of Wisconsin, Eric left the Midwest for his new job at Archbold Biological Station. Here in the ancient sand dunes on the Lake Wales Ridge with rare plants that occur nowhere else on Earth, he found his life's work studying plants in the Florida scrub. **Our 16-minute film 'Surviving Fire: In the Florida Scrub' (2018) produced by Into Nature Films features three decades of discovery by Dr. Eric Menges into the elegant and unexpected ways plants survive fire.** He shares in the film, "To understand how scrub plants survive, I listened to them over many generations. Under the sun. In the rain. Along with scores of curious interns and outstanding research assistants." Watch the film [here](#) to appreciate how palmettos, oaks, pines, Florida rosemary and even delicate scrub plants survive flame. He reflects, "Fire shapes the Florida scrub, but also, the Florida scrub shapes fire. Each influences the other. Trimming branches, stimulating seed germination, triggering flowering, and selecting for those that can survive." **The stunning landscape after the fire passes is a compelling story of resilience with a lesson we all need to learn.** No matter how powerful the disturbance, there is a way to survive well. There are other lessons in the [film](#) that transcend tedious measurements and data. The story of dedication and commitment and a legacy of mentorship. A story we can all learn.

Grant-In-Aid of Research

\$2,000 award to be given to two visiting scholars for work involving field research at Archbold.

[Learn more here.](#)

Deyrup Scholars Shine



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Variety of oak gall wasps collected by Dr. Miles Zhang at Archbold.

COVID slowed down but did not stop Archbold's two 2020 Deyrup Visiting Scholars. **First, Dr. Miles Zhang is still identifying all the small oak gall wasps he collected in February.** Last month, he and co-authors submitted a manuscript solving a 160-year-old taxonomic confusion of gall wasps in the genus *Belonocnema* using a combination of morphological, ecological, and molecular data. **The gall wasp found only on Sand Live Oak (*Quercus geminata*) at Archbold is *Belonocnema fossoria*.** This species has large claws on the front legs to aid in burrowing as the tiny wasp induces galls on the oak rootlets in the sandy soil. The wings of the asexual generation of *Belonocnema fossoria* have atrophied which is likely an adaptation to their underground (i.e., fossorial) lifestyle. Zhang's manuscript recognizes three species of *Belonocnema* in the southeastern USA and provides an identification key to both asexual and sexual generations. **Second, Federico Lopez Borghesi deployed 20 data loggers in March to collect soil temperature and moisture data associated with Florida rosemary balds.** Borghesi shared, "Collecting this type of data at such small spatial and temporal scales is key to identify the conditions that favor recruitment events." In August and September, **Borghesi initiated plots and seed studies to better understand the life cycle of the endangered plant Highlands Scrub Hypericum (*Hypericum cumulicola*).** He concluded, "By combining our small-scale analysis with Archbold's long-term demographic and environmental data, we seek to improve population models evaluating long term persistence."

Support for Predator-Prey Research



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Archbold Facebook Event Calendar



Explore The Scrub Blog by Archbold creative staff.



Florida Black Bear by Carlton Ward.



Directions to Archbold Biological Station

Eight miles south of Lake Placid. Entrance is 1.8 miles south of SR 70 on Old SR 8.

Archbold is thrilled to announce a major gift to re-establish our predator-prey research program—one of the steps we are taking to #KeepFloridaWild. The program will couple scientific research and conservation efforts to better understand and protect large predators, such as the Florida Black Bear and Florida Panther, and the landscapes upon which they depend. Archbold’s recent strategic planning has focused on the pressing need for us to apply more of our vital scientific research to conservation action. With that priority, Archbold aims to engage more directly, informing conservation decisions across the state and specifically to support designation of a state-wide [Florida Wildlife Corridor](#). We will be working with conservation partners, the [Florida Wildlife Corridor](#) organization and [Florida Wild](#), to help build a growing coalition of other organizations. **Designating the Florida Wildlife Corridor presents an opportunity to meet the needs of all Floridians and nature, and will take all partners working together—and that includes YOU.** Your [support](#) will help us continue our vital work and share what we learn to #KeepFloridaWild. Thanks to yet another enthusiastic donor, [any gift you make to Archbold between today and December 31, 2020, will be matched, doubling your support!](#) We are so excited to re-establish predator-prey research at Archbold and offer this wonderful opportunity to double your gift. 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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