



## ARCHBOLD AUGUST 2017 NEWS for curious minds



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### Burrow Apron Lizards



Florida Scrub Lizard hatchlings.

University of Georgia graduate student Nicole White made an exciting discovery while studying the mating system of Gopher Tortoises at Archbold. In collaboration with Archbold Herpetology Program Director Dr. Betsy Rothermel, White writes in the [2017 Herpetological Review journal](#), 'On 8 July 2015, while searching for Gopher Tortoise (*Gopherus polyphemus*) eggs, we unearthed two clutches of lizard eggs (three in each



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clutch). One clutch was near the mouth of the burrow and the other was in the apron of another burrow.' Three weeks later, a hatchling Six-lined Racerunner (*Aspidoscelis sexlineata sexlineata*) emerged from one clutch. On the same day, White found three recently hatched Florida Scrub Lizards (*Sceloporus woodi*) among tiny broken eggshells in another burrow apron. **This was the first documentation of Florida Scrub Lizards using the apron of sand outside a Gopher Tortoise burrow as a nest site.** Tortoise burrows are well-known for housing other cohabiting, or commensal species, like Florida Mice, Eastern Indigo Snakes, Gopher Frogs, and many insects including the Gopher Tortoise Burrow Fly. White and Rothermel write, 'We suggest the aprons of tortoise burrows may be prime nesting habitat for Florida Scrub Lizards because they provide well-drained sandy soils, suitable incubation temperatures, and insulation from high temperatures associated with natural or prescribed fires.'

## Ranchland Amphibians



A Two-toed Amphiuma found during a survey at Buck Island Ranch by the Searcy Lab.

Students and assistants from [Dr. Christopher Searcy's Lab](#) at the University of Miami are busy surveying the diverse amphibian community of 139 seasonal ponds at the [MacArthur Agro-ecology Research Center](#) (Buck Island Ranch). They are looking at whether wetlands with higher visitation rates of cattle host

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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

## Public Events

**Aug 10:** 3:30 pm-4:00 pm

'Getting to the Root of It: Hog Rooting in Relation to Landscape and Wetland Characteristics'

Archbold Intern Seminar

**a different amphibian community than wetlands with low cattle visitation rates.** Searcy said, 'We are also comparing our results to previous surveys in 2001 by Kim Babbitt to see if amphibian communities have changed over the last 16 years.' Kim Babbitt was a former University of Florida PhD student and is now Associate Dean at the University of New Hampshire. Searcy continued, 'So far, our most interesting result is finding the Florida Cricket Frog (*Acris gryllus*) which was not found in any of Babbitt's surveys.' The big question for Dr. Searcy is whether all wetlands produce large cohorts of amphibians in the same years. Or, will some wetlands be productive in one set of years, while other wetlands are productive in different years. 'This is very important for how we model amphibian population dynamics, and thus how we go about conserving these species.' While it has been a relatively dry year in central Florida for aquatic surveys, some exciting species found so far include Greater Siren, Two-toed Amphiuma, and Northern Dwarf Siren. 'Little is known about all three of these species due to their cryptic habitat (shallow water with lots of vegetation).'

Elizabeth Shadle

**Aug 17:** 3:30 pm-4:00 pm

Entomology Research  
Title TBD

Archbold Intern Seminar

Dylan Ricke

## Ecological Journeys to South Florida



Dr. Travis Wilcoxen's students enjoy a swamp buggy ride at Buck Island Ranch.

[Dr. Travis Wilcoxen](#) brought his 'Ecological Journeys to South Florida' class all the way from Millikin University in Illinois to Archbold in early July. This is Wilcoxen's third trip as faculty leading field studies into



Watch '[Tortoise TV: Morning Show](#)' from [Archbold Facebook](#) featuring a motion sensor video of a Gopher Tortoise at Archbold by Nicole White.

subtropical south Florida. He said, '**I loved Archbold so much when I was a graduate student working there from 2006-2010, that I wanted to give my undergraduate students an opportunity to experience the Station, the scrub, and the amazing natural areas that surround it.**' Wilcoxon previously studied [Florida Scrub-Jay physiology at Archbold for his PhD](#) publishing 14 articles. He said, 'The most satisfying part is observing the students transition from initially overwhelmed by the number of organisms that they must identify to knowledgeable individuals at the end of the trip.' Undeterred by long walks in the hot and humid sandy scrub and an American Alligator encounter by the Archbold laundry room, 'The students loved Archbold Biological Station.' Wilcoxon added, 'I am already planning to bring a group of students back in 2019.' We look forward to your return!

## Congratulations Dr. Betsey Boughton



Dr. Betsey Boughton collecting water data in a marsh at the MacArthur Agro-ecology Research Center (Buck Island Ranch).

**Dr. Elizabeth (Betsey) Boughton was promoted to Associate Research Biologist at Archbold. She also serves as Research Director at our [MacArthur Agro-ecology Research Center](#) at Buck Island Ranch. Reviewers had plenty of revealing feedback in support of her promotion including: 1) 'Her record is**



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remarkable for her stage of career, even without considering all of the leadership, coordination, and service she also does for Archbold.' 2) 'Her research is truly outstanding, addressing exciting questions that are also critical for management, on a diverse array of subjects. This breadth of topics would be worthy of a full career!' 3) 'Betsey has clearly facilitated a vibrant and exciting community of collaborators and researchers.' 4) 'Her leadership of the large effort to assess ecosystem services has both regional and global significance.' 5) 'Many conservation and agriculture groups have been grateful for her generosity of knowledge.' 6) 'Betsey has advanced the education of numerous students. She includes being an effective mentor among her many priorities.' 7) 'Her career is on the trajectory to be a model for all of those working to link exciting ecological questions with critical environmental management.' Archbold is so proud of your accomplishments, Betsey. Congratulations!

[Archbold Facebook Event Calendar](#)

## Cornell Pilgrimage



Click above to learn more about the Cornell University Department of Ecology and Evolutionary Biology Florida field course!

The [Cornell University Department of Ecology and Evolutionary Biology](#) has been offering graduate student field ecology courses at Archbold Biological Station since 1970. Cornell professors write, 'Because the Florida field course has been taught for nearly 50 years, we hear about the impact of the course on the careers of generations of professional scientists. It is a common refrain among alumni of the course to state that the Florida field course was one of the defining

## Directions to Archbold Biological Station

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



experiences they had in graduate school. Ecology and Evolutionary Biology students commonly describe the biannual pilgrimage to Florida as the spark that ignited their academic career.' **The newly formed [Root-Marks Fund for Field Teaching](#) will serve to endow field courses offered at Archbold into perpetuity.** Click [here](#) to watch an excellent video about their Florida field course and learn more!

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