



Phone 863.465.2571
123 MAIN DRIVE ★ VENUS, FLORIDA 33960

From: Archbold Biological Station

Date: 28 November, 2018

Archbold's Annual Symposium: lessons in scientific hope

Archbold Biological Station scientists are akin to any other like-minded group on Earth: when they gather together—call that a gaggle, a sample, or maybe a confluence (surely a favorite) of scientists—there is a passion for sharing stories, results, and what the findings mean for science and society. On November 15th, 2018 the 3rd Annual Archbold Research Symposium was held at the Station, an occasion for science staff and visiting researchers to give presentations on their current research. Many of their talks have also been presented this year at other meetings, from Florida to Tennessee, Wisconsin, Louisiana, Minnesota, Montana, and as far afield as Australia.

This year's program, a total of 23 presentations, 10 of which were posters, was organized by research assistant Emily Angell who works for Archbold at the Avon Park Air Force Range. Emily said, "Assembling this meeting is like providing a one-day sample of the broad span of Archbold's ongoing research." Dr. Hilary Swain Executive Director agreed and added, "The recurring theme from Archbold's work this year might be termed 'scientific hope.'"

Hope that comes from sheer persistence in the face of challenges such as Becky Windsor and co-author's talk, "Every sparrow counts: recent advances in management strategies used in Florida Grasshopper Sparrow conservation" with the encouraging result that more endangered sparrows have fledged after non-stop work fencing, treating for fire ants, and lifting nests out of the danger zone of flooding.

Hope instilled by open-minded science, with seven presentations in total stemming from the research by Dr. Betsey Boughton and her colleagues at Archbold's Buck Island Ranch which "shows the many ways in which ranch management can be compatible with conservation goals for plant communities, wetland restoration, and carbon uptake in soils".

Hope that comes from deploying new technologies, such as Florida International University faculty Dr. Evelyn Gaiser and co-author Hilary Swain's description of the "next-generation instrumented buoy planned for Lake Annie, which will allow us to collect rich scientific data about the lake - particularly algae, color, temperature, and light, 24 hours a day, 7 days a week, and at depths that were never even envisaged a few years ago".

Hope that comes from scientific curiosity that was exemplified by Dr. Mark Deyrup's closing talk on 'dark or hidden biodiversity', when he revealed that he has now, "Collected and identified a total of 78 undescribed species of a type (genus) of parasitic wasp called *Heterospilus* and that 47 of these are found at the Archbold Biological Station—so far". These *Heterospilus* wasps are mostly specialized parasites of beetle larvae concealed in plant tissue, such as dead wood. He added, "That so many undescribed species are potentially known from Archbold is even more amazing if one knows that the number of described species in this genus to date *worldwide* is about 130 species. We have clearly so much more to learn about Archbold and the world's biodiversity".

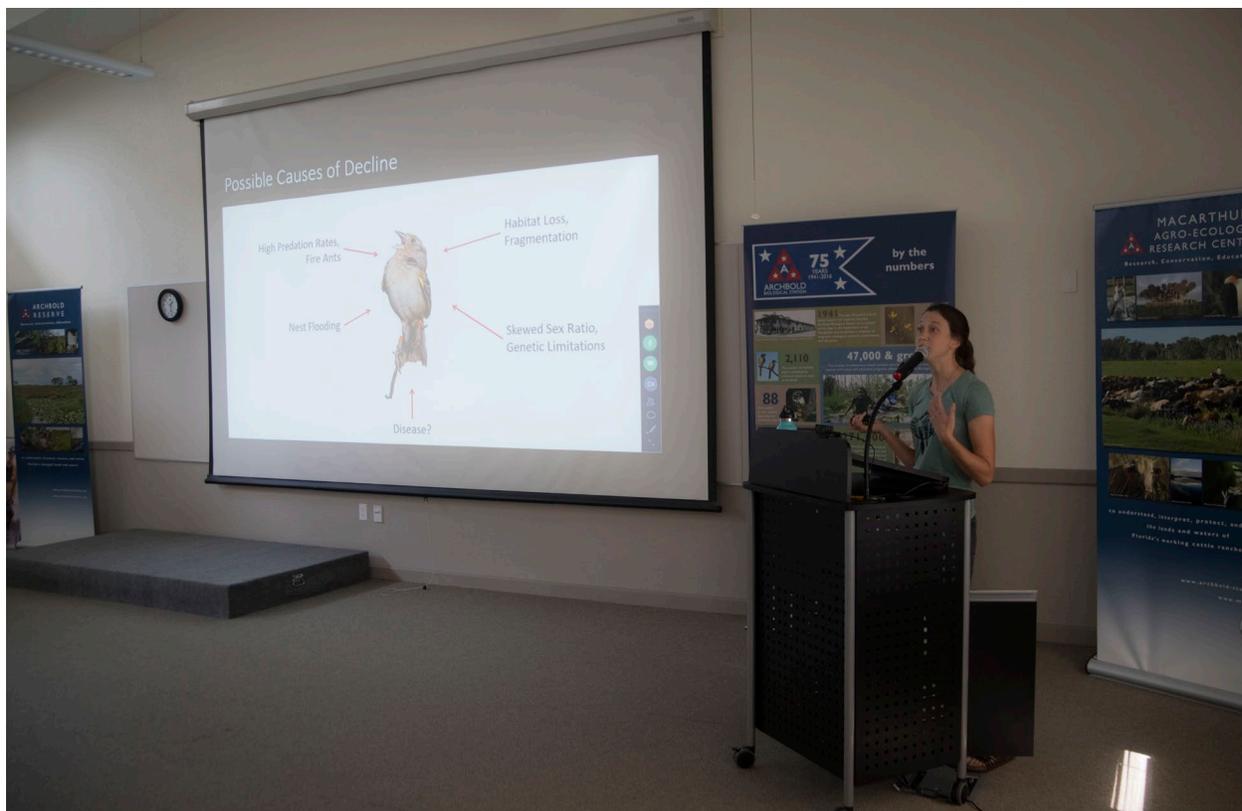
Although not a scientific research presentation per se, there was nonetheless a lot of hope in Education Coordinator Dustin Angell's summary of long-term data about Archbold's school and summer camp programs. He explained how more donations and community support are enabling participation by increasing numbers of children from families that are often under-represented in the sciences at college and in careers. His talk emphasized that, "Archbold wants every child who is interested in nature and ecology to have the opportunity to learn here."

Nearly 75 people were in attendance at the Symposium including staff, students, and research interns as well as colleagues from universities, conservation organizations, and state and federal agencies. Executive Director Hilary Swain, who welcomed the assembled crowd noted, "I was delighted to see many familiar faces including a good number of our local volunteers and interested citizens from Highlands County. This is our third year of presenting an Annual Symposium and it's already very popular. We tried something new this year, and offered a 'live' broadcast of the symposium online so that out-of-town Board members, such as our Chair Mary Hufty, could join remotely. It was successful and next year we plan to use this approach and advertise more widely in advance for others interested in attending online". Dr. Hufty, who lives in California added, "This meeting is like an annual check-up, taking Archbold's science pulse, and a chance for all of us to learn about some of the new things that are going on in our own organization. It's a yearly reminder of the sheer depth and breadth of the work that is conducted here, and a time to reflect on why it's so important for Florida and around the world".

Photo 1: Archbold Director Hilary Swain and Symposium Coordinator Emily Angell welcoming the crowd the 3rd annual Archbold Research Symposium. Photo by Dustin Angell



Photo 2: Becky Windsor talks about the results of recent advances in management strategies used for the endangered Florida Grasshopper Sparrow. Photo by Dustin Angell



**Photo 3: Research Posters filled the room, much to the enjoyment of those attending.
Photo by Dustin Angell**

