

GCSC Seminar Series

Tuesday, February 11, 2020
4:00-5:00 PM

210 ASB
(Aline Skaggs Building)

ALL ARE WELCOME

Refreshments &
meet the speaker
at 3:45

Hilary Swain

Executive Director, Archbold Biological Station

"The confluence of biodiversity, ecosystem processes, and socio-economic factors in Florida ranchlands"



This talk will discuss the synergies and tradeoffs among cattle production and other ecosystem services on working ranches, and the path towards sustainable intensification.

Abstract

The talk will introduce Archbold Biological Station and describe its operations, from ridge to ranch to river, in the vast south-central Florida watershed north of Lake Okeechobee known as the headwaters of the Everglades. I will focus on scientific research on Archbold's Buck Island Ranch, established in 1988, which is a 3,000-head working cattle ranch representative of the region's subtropical ranchlands. Archbold's focus is long-term research to understand the interactions among key agroecosystem components at the whole system level. The talk will address synergies and tradeoffs among agricultural production and other ecosystem services. I will describe how science at the ranch includes: systematic tracking of ecosystems over time; embedding research into operations; long-term experiments; and approaches to data management. Features of the ranch include an abundant and rich biodiversity, and the ecosystem processes that the ranch supports, as well as the complex linkages of these values for conservation. Brief case studies will be presented to describe fire, grazing, carbon sequestration, nutrients, wetland restoration, and invasive species, and the implications for agricultural production. I will end with a discussion of how Buck Island Ranch, as one of 18 nationwide USDA Long-Term Agroecosystem Research network LTAR sites, is drawing from and contributing to this emerging network; and the opportunities to scale from plot, to site, to region, to network. As part of LTAR we are helping address critical and emerging questions about linkages among agroecosystems across the USA.

Bio

Dr. Hilary Swain has been Executive Director of Archbold Biological Station in Florida since 1995. She oversees research, monitoring, K-12 education, student training, outreach, land management, and conservation on Archbold's 20,000-acre property. Her research interests are in reserve design, land management, and conservation planning. She collaborates extensively with government agencies, global networks, conservation groups, and private landowners.