CENTER FOR CONSERVATION INITIATIVES
6TH ANNUAL RESEARCH & MONITORING REPORT

2026

A COMPILATION OF RESEARCH AND MONITORING CONDUCTED BY AGENCY, ACADEMIC, AND OTHER INVESTIGATORS IN COORDINATION WITH THE NATURE CONSERVANCY'S CENTER FOR CONSERVATION INITIATIVES
2025-2026

The Nature Conservancy | CENTER FOR CONSERVATION INITIATIVES

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INTRODUCTION

THE NATURE CONSERVANCY

Founded in the District of Columbia in 1951, The Nature Conservancy (TNC) currently impacts conservation in 79 countries, including all 50 states of the US. We have over one million members and have protected more than 125,000,000 acres of land and thousands of miles of rivers worldwide. TNC also operates more than 100 marine conservation projects globally. Our work focuses on the global priorities of Lands, Water, Climate, Oceans, and Cities. The Nature Conservancy's mission is to conserve the lands and waters on which all life depends.

CENTER FOR CONSERVATION INITIATIVES (CCI)

The Florida Chapter of The Nature Conservancy has established the Center for Conservation Initiatives (CCI) to address the state's environmental issues through four initiatives:

- Public Outreach - Connecting People & Nature
- Conservation Education & Training - Our Future Conservationists
- Science & Strategies - An Environment for Discovery & Solutions
- Natural Resource Stewardship - Advancing Natural Resource Management

Vision: The Center for Conservation Initiatives' vision is for the conservation of nature to be a fundamental and integral value of our community that is informed and underpinned by science and research.

Mission: The Center for Conservation Initiatives' mission is to advance conservation knowledge and action and inspire the next generation of conservation leaders.

CCI Campus Preserves

Four preserves within the Florida Chapter serve as CCI campuses, where the majority of on-the-ground programs, events, and strategies are implemented. Each campus reflects a unique conservation focus based on its location, history, and ecological strengths, which are integrated across all four CCI initiatives.

Campus Preserve Focal Themes

- Apalachicola Bluffs & Ravines Preserve: Working Forests
- Disney Wilderness Preserve: Connected Land, Water, and Communities
- Tiger Creek Preserve: Florida's Rare & Ancient Wilderness
- Blowing Rocks Preserve: Marine and Coastal Environment

Science & Research

Research is a cornerstone of the CCI Science & Strategies initiative, which serves as a networked, site-based platform for TNC and its partners to investigate critical conservation questions, demonstrate effective strategies, and engage key audiences. The Conservancy's Florida Chapter has supported research and monitoring on its lands for more than 30 years,

engaging academic institutions, government agencies, and other partners. During the early development of CCI in 2018, research tracking and reporting were identified as essential for establishing the campuses as leading research hubs. In response, the Chapter began compiling comprehensive annual research and monitoring reports in 2020. This sixth annual report documents projects that were initiated, ongoing, or completed in 2025 through May 2026.

To further strengthen the research network, CCI is expanding research activity across its campus preserves with the goal of establishing them as prominent regional and national research sites. In addition, seven other Conservancy preserves are open to researchers, providing expanded access to diverse ecological, hydrological, geological, and species-based research opportunities across Florida (Figure 1).

Report Overview

This report is organized into four sections:

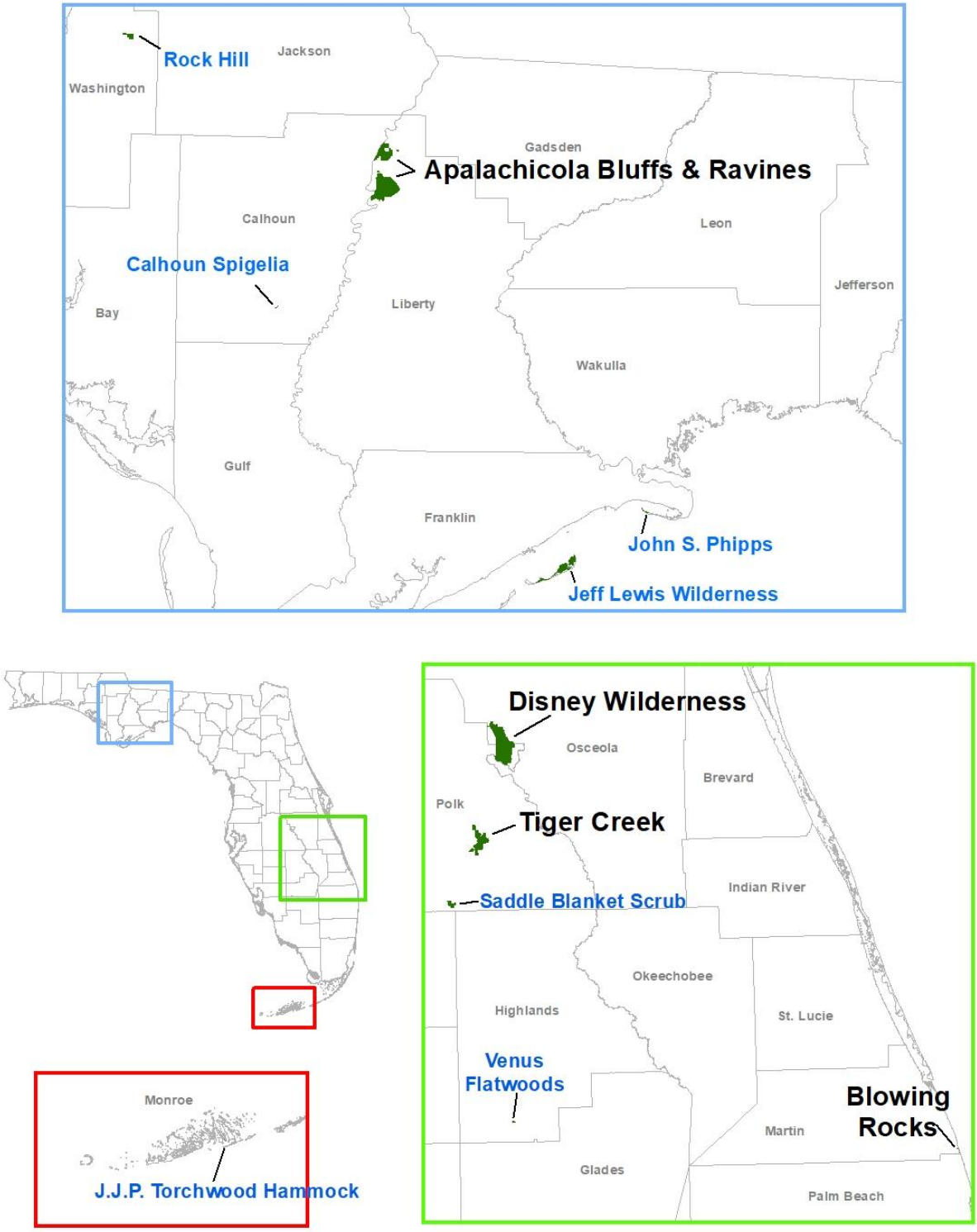
External Research: The first section provides brief descriptions of research projects conducted by external (non-TNC) researchers using non-TNC funding. Projects are organized by preserve and then alphabetically by project title. A total of 20 projects is included, of which 16 are ongoing and four have been completed. Researchers represent 11 universities and colleges, one agency, and four private science or conservation organizations.

CCI Sponsored Research: The second section highlights two studies funded through CCI grants awarded in 2024 and 2025. These projects involve researchers from the University of Florida, the University of Central Florida, and the University of South Florida. They represent the first efforts emerging from CCI's Directed Research program, which is designed to address critical scientific knowledge gaps and support large-scale conservation management and action through collaborative partnerships with academic and agency researchers.

Long-term Monitoring Projects: The third section describes seven active monitoring projects conducted by local, county, state, and federal agencies. Projects are organized by preserve and then by project title. Where available, links to online data sources are provided.

Reports and Publications: The final section presents a comprehensive list of reports and publications generated from research and monitoring conducted on TNC lands in Florida since 1980 by academic, agency, and Conservancy researchers. The list includes 654 reports and publications organized by preserve, then chronologically (most recent to oldest) and alphabetically by author. Copies and web links to these resources are available through the Chapter's Research Reports and Published Works Web Map.

Figure 1. The Nature Conservancy preserves open to research in Florida.



EXTERNAL RESEARCH

Apalachicola Bluffs and Ravines Preserve

Community level effects of longleaf pine savannah restoration

Dr. Carolina Baruzzi, University of Florida/IFAS North Florida Research and Education Center, Quincy, FL
Kathleen Carey, Graduate Research Assistant, University of Florida/IFAS North Florida Research and Education Center, Quincy, FL

Duration: 2023-2025

Objectives: The goal of this study was to understand the contribution of wildlife to the maintenance of the longleaf pine savannah habitat. The study had the following objectives:

1) Identifying patterns of wildlife site use (abundance and occupancy) depending on time since restoration.
2) Understanding the effects of wildlife on longleaf pine savanna restoration outcomes through microbial dispersal.

Methods: Staff from the UF/IFAS North Florida Research and Education Center sampled large and small mammal communities in longleaf pine savanna in restored and control sites. They selected sites with similar time since fire to not confound time since restoration with time since fire.

To determine presence and abundance of large mammals, the researchers placed eight cameras per site, 200 or more meters apart, in September to November 2023. From each camera trap photo, the following data was collected: date, time, individual species, and number of individuals.

Small mammals were trapped in the fall of 2023 and 2024 using Sherman live traps placed in 7x7 grids with 20-m spacing between each trap (49 traps per grid). The traps were baited (e.g., a peanut butter/whole oats mixture, sunflower seeds) set at dusk, checked at dawn, and closed during the day. This procedure was repeated for a total of four nights each month. When a small mammal was found in a trap, it was marked with an ear-tag, swabbed, and had individual data collected (i.e., species, sex, age, and weight). Any fecal samples left in the traps were collected. Trapped small mammals and any feces left in the traps were swabbed for microbial samples. Using a DNA amplicon approach, samples were tested for both fungi and bacteria to understand patterns of microbial dispersal by small mammals.

Progress/Results: COMPLETED. In 2023-2024, data was collected for the following: 1) small mammal community responses to longleaf pine savanna restoration, 2) fire ant bait testing, which originated from issues during the small mammal trapping, and 3) vertebrate community responses to longleaf pine savannah restoration.

Small mammals and longleaf pine restoration: Researchers trapped and marked (via ear tags) five small mammals across four sites at ABRP in the fall of 2023 and three small mammals across two sites in 2024. Each individual was swabbed and fecal samples were collectd for microbial dispersal. Microbial DNA extraction and analyses will be completed in spring 2025. This dataset is part of a larger project across 13 longleaf pines sites in the Florida panhandle. The sites are categorized into one of four groups: unrestored sites (n = 2), reference sites (n = 4), long-term restoration sites (n = 4), and early-phase restoration sites (n = 3).

From the researchers' progress report submitted in 2025 (Baruzzi 2025): [Across the 13 panhandle sites], "the capture rate (number of captured rodents / number of traps set) was low (2023 = 0.004 capture rate, 2024 = 0.002 capture rate). Overall, we did not find a difference in the microbiomes of scat and swab samples, suggesting that small mammals may be facilitating similar microbes through both dispersal modes. Moreover, we found a significant difference in the bacterial gut microbiome between hispid cotton rats (*Sigmodon hispidus*) and oldfield mice (*Peromyscus polionotus*) in the long-term restoration sites (i.e., sites restored around 20 years ago), suggesting trait variations between the two species may be driving these microbial differences, such as diet (e.g. omnivores versus granivores, respectively), habitat breadth, or behavior. Lastly, our results found a significant difference in the fungal community between long-term restoration sites and unrestored, pine plantations sites. Thus, restoring pine plantations back to savannas may be a driving factor of the fungal community. Overall, this study highlights the impact small mammals have on a historic Florida ecosystem through their microbiome."

Fire ant bait testing: In 2023, the researchers looked at the influence of bait type and the use of ant spray around Sherman live traps when trapping for small mammals. At four ABRP sites, they tested 5 different bait types and ant spray around the perimeter of half the traps and then recorded the occurrences of fire ants. Insecticide significantly reduced the occurrence of fire ants with peanut butter, peanut butter/oat mixture, or sunflower seed baits. There was no significant difference in fire ant abundance in traps baited with vanilla spray. These results were published in Wildlife letters, a peer-reviewed journal.

Vertebrate communities and longleaf pine savanna restoration: Camera traps were deployed at four sites in the fall of 2023. Data from this project were used to supplement the Snapshot USA project. Dr. Baruzzi is currently using ABRP and other SnapShot USA data to estimate wild turkey abundance across different habitats. Snapshot USA is a nationwide, collaborative camera trap survey of a wide range of taxa, primarily focused on medium to large mammals, across every state in the United States. The survey is led by the Smithsonian Institution and North Carolina Museum of Natural Sciences.

Publications:
Carey K.A., Cove M.V., Liao H.-L., et al. 2026. Small mammal gut microbiome composition associated with grassland restoration. Mammal Research 71:42.

Rooney B., Kays R., Cove M.V., et al. 2025. SNAPSHOT USA 2019–2023: The first five years of data from a coordinated camera trap survey of the United States. Global Ecology and Biogeography 34(1):e13941.

Carey K.A., McDonald B.W., Pietras A., et al. 2024. Guidelines to reduce invasive fire ant interference of small mammal trapping. Wildlife Letters 2024:1-5.

Presentations:
Carey, K.A., Moore N., Cove M.V., and Baruzzi C. Where are all the rodents? Florida Fish and Wildlife Conservation Commission Florida Mammal Conclave. Gainesville, Florida (November 11th, 2024).

Carey K.A., McDonald B.W., Cove M.V., and Baruzzi C. Evaluating small mammal trapping techniques in the presence of fire ants. North Florida Research and Education Center Graduate Student Spring Showcase, Quincy, FL (April 5th, 2024).

Carey, K.A. M.V. Cove, D.L. Miller, and C. Baruzzi. Exploring the microbiome of low rodent populations in longleaf pine savannas. Spring Meeting of the Florida Chapter of The Wildlife Society. Tallahassee, Florida (April 17th, 2025).

Effects of single season seed collection on longleaf pine (*Pinus Palustris*) sandhill community restoration

Ross Barreto, Master's Student, School of Forestry, University of Florida, Gainesville

Duration: 2025-2026

Objectives: This study will compare restored and natural sites using seasonal vegetation surveys to determine whether current restoration practices—especially single-season seed collection—fail to restore full plant diversity, particularly C3 graminoids. The objectives are

1) Assess restoration success of longleaf pine ecosystems by comparing restored sites to a reference (undisturbed) site.
2) Evaluate seed collection strategies, specifically whether single-season seed collection (focused on C4 grasses like wiregrass) results in incomplete plant communities.
3) Examine understudied plant groups, especially C3 graminoids, forbs, and legumes, which are often missing from restoration efforts.
4) Determine differences in plant diversity and composition between seeded restoration sites, windrow (plug-planted) sites, and reference site.

5) Test prediction: restored sites will have lower species richness—especially fewer C3 graminoids—and be dominated by C4 grasses compared to the reference site.
6) Assess ecological implications, such as whether reduced plant diversity may impact higher trophic levels (e.g., insects).

Methods: The study will sample four sites: a restored site that was seeded at least three years prior, a windrow restoration site sampled both within wiregrass plantings and between planted rows, and a reference (undisturbed) site. At each site, three 30-meter transects will be established, and 1×1-meter plots will be placed every 3 meters along each transect, alternating sides based on a coin flip to ensure randomization. This design will yield 10 plots per transect, 30 plots per site, and 120 total plots across all sites. Each plot will be surveyed seasonally—fall, winter, spring, and summer—to capture changes in species composition and phenology throughout the year. Plots will be marked with pin flags placed at the top left and bottom right corners to allow relocation for repeated sampling, with flags removed after the final sampling period or prior to any prescribed fire. Disturbance from the study is expected to be minimal, limited primarily to foot traffic and minor soil disruption from flag placement, with only a slight potential for impacts such as small changes in soil chemistry from flag rusting or temporary attraction of pollinators to flag colors.

Progress/Results: ONGOING. Fieldwork began in winter 2025.

Florida torreya canker pathogen survey

Atlanta Botanical Garden, Atlanta, GA

Duration: 2026

Objectives: This project aims to identify and characterize the fungal pathogens responsible for canker disease in Torreya taxifolia (Florida torreya), a federally endangered conifer. The primary objectives are to document the diversity of fungal species associated with cankers, compare pathogen communities among wild, outplanted, and safeguarded populations, and build a curated collection of fungal isolates to support future research and management.

Methods: Field sampling will target symptomatic Torreya taxifolia individuals exhibiting visible cankers. At each site, up to 15 small tissue samples will be collected from the ակտիվ margins of cankers using sterile tools to minimize contamination. Each sample will be carefully labeled and accompanied by metadata, including geographic location, host condition, microhabitat characteristics, and collection date.

Following collection, samples will be plated on culture media in the field when feasible and transported to the Atlanta Botanical Garden (ABG) for laboratory processing. In the laboratory, fungal isolates will be cultured and purified prior to molecular identification using internal transcribed spacer (ITS) sequencing. Isolates will be preserved using appropriate short- to mid-

term storage methods, such as sterile water storage, mineral oil overlay, or refrigeration, depending on the taxonomic group.

Sampling will involve minimal disturbance and will be limited to small amounts of diseased tissue removal. No soil excavation, vegetation removal, or habitat alteration will occur. Field activities will consist of a single site visit (or limited follow-up visits if necessary), with impacts restricted to incidental foot traffic during sampling.

Progress/Results: PLANNED. Field work will be conducted in 2026.

Investigations of *Cordulegaster sayi*

Dr. John Abbott, Director of Museum Research and Collections, University of Alabama, Tuscaloosa, AL

Duration: 2025

Objectives: To describe the adults and nymphs of the dragonfly *Cordulegaster sayi* for a world manual of Odonata.

Methods: Adult specimens were captured using aerial nets while systematically walking the preserve and observing flight activity. Nymphs were collected from aquatic habitats using dip nets and small scoops, with sampling focused on the creek and adjacent microhabitats where larvae were likely to occur. All specimens were preserved and curated for subsequent identification and analysis.

Progress/Results: COMPLETED. Field sampling was completed in spring 2025. The collected material contributes to ongoing taxonomic work, including the description of *Zoraena sarracenia*, for which *Zoraena sayi* represents the closest known relative. Nymph specimens obtained during this study will be used to support morphological comparisons in the species description.

A total of the following species and individuals were collected:

- *Tachopteryx thoreyi* - 1 female (deposited at Mendel University, Brno, Czech Republic)
- *Zoraena sayi* - 2 males, 1 female, 2 nymphs (deposited at Mendel University, Brno, Czech Republic)
- *Zoraena sayi* - 1 male, 1 nymph (deposited in the University of Alabama Museum Collections)
- *Zoraena maculata* - 1 male (deposited at Mendel University, Brno, Czech Republic)

These collections provide important material for taxonomic comparison and represent verified records from the study site.

Why are Holbrook's southern dusky salamanders disappearing in Florida?

Florida Fish & Wildlife Conservation Commission, Tallahassee, FL.

Duration: 2026

Objectives: This project investigates why remnant populations of Holbrook's southern dusky salamander (*Desmognathus auriculatus*) (SDS) persist despite severe declines and high susceptibility to chytrid fungus (*Batrachochytrium dendrobatidis (Bd)*). By comparing sites where the species remains to those where it has been extirpated, the study will evaluate differences in disease prevalence, environmental conditions, and amphibian community composition to identify factors that support persistence and inform conservation strategies. Specifically, the project will

1) Compare Bd presence and infection intensity between sites where SDS persists and sites where it has been extirpated.
2) Assess amphibian community composition and diversity to evaluate the role of alternative hosts in pathogen maintenance and transmission.
3) Quantify environmental variables (e.g., temperature, pH, water quality) associated with Bd viability and SDS occupancy.
4) Evaluate seasonal variation in disease prevalence, environmental conditions, and amphibian activity.
5) Identify habitat and community characteristics that may confer resistance to Bd impacts and support SDS persistence**.**

Methods: This study will be conducted primarily within the Apalachicola National Forest, with additional sampling at Apalachicola Bluffs and Ravines Preserve (Sweetwater Creek and Little Sweetwater Creek). Three focal sites supporting extant SDS populations will be compared to three nearby sites on adjacent conservation lands where SDS has been extirpated but diverse amphibian assemblages remain.

Field surveys: Seasonal field surveys will be conducted from January 2026 through December 2026. Amphibian communities will be sampled using standardized methods, including dip netting, leaf-litter and muck raking, leaf-bag sampling, and cover-object searches. Sites may be revisited multiple times within a season to achieve a target sample size of approximately 50 individuals per site and to ensure adequate representation of the amphibian community.
All captured amphibians will be identified to species, and a subset will be processed for disease screening. Individuals will be skin-swabbed following standardized protocols to test for Bd presence. Tail-tip samples will be collected from a subset of individuals for genetic banking and additional pathogen screening. Symptomatic individuals will undergo gross health assessments and may be screened for co-occurring pathogens such as ranavirus. Moribund individuals may be humanely euthanized for histopathological examination.

Microhabitat temperatures at capture locations will be recorded using a handheld temperature probe. To prevent pathogen transmission among sites, all equipment will be disinfected between sampling locations using Virkon Aquatic in accordance with FWC protocols.

Environmental sampling: Environmental DNA (eDNA) samples will be collected seasonally through filtered water samples at each site to detect Bd presence in the aquatic environment. Concurrent measurements of air temperature, water temperature, pH, and other water-quality parameters will be recorded during each sampling event. HOBO data loggers will be deployed at each site to continuously monitor thermal regimes and capture temporal variation in environmental conditions relevant to Bd dynamics.

Laboratory analysis: All swab and eDNA samples will be stored at –20°C in the field and transferred to –80°C for long-term storage prior to analysis. Quantitative polymerase chain reaction (qPCR) assays will be used to detect and quantify Bd DNA from both amphibian swabs and environmental samples, providing measures of infection prevalence and intensity across sites and seasons.

Disturbance minimization: Field sampling will involve minor, short-term disturbance of microhabitats (e.g., lifting logs, raking substrate, sampling leaf packs). All disturbed materials will be returned to their original positions to minimize ecological impacts. These activities are not expected to result in population-level effects on amphibians or other organisms.

Progress/Results: PLANNED for 2026.

Blowing Rocks Preserve

Leatherback sea turtle tagging

Florida Leatherbacks Inc., Palm Beach Gardens, FL

Duration: 2014-present

Objectives: To mark, recapture, satellite track, and conduct genetic studies on leatherback sea turtles to better understand the size and health of the population as well as nest frequency, individual size, migratory pattern, and survival rates in Martin County. The project has four study areas: Jupiter Island/Blowing Rocks Preserve, Hutchinson Island, St. Lucie Inlet State Park, and Hobe Sound National Wildlife Refuge.

Methods: During the nesting season (March through June), nighttime surveys are conducted to locate nesting leatherbacks. Individuals are identified, tagged, and measured while nesting. Individuals not previously tagged are fitted with flipper and PIT tags, measured, and have a skin biopsy taken. Previously tagged leatherbacks are identified, checked for tag integrity, and measured. Tagging data is submitted to the Archie Carr Center for Sea Turtle Research at the University of Florida.

Progress/Results: ONGOING. Awaiting 2025 progress report. In 2024, Florida Leatherbacks Inc. (FLI) conducted nighttime surveys April 13-June 30, 2024. A total of 237 encounters were recorded along the Martin County study area. One hundred and sixty-two of the encounters were along the beach at Blowing Rocks Preserve (Table 1). Five leatherbacks were tracked via satellite during the 2024 season in collaboration with Dan Evans of The Sea Turtle Conservancy. The tracking maps for all turtles can be explored online at TrackTurtles - Live sea turtle tracking and/or http://www.tourdeturtles.com.

Table 1. Results of the 2024 FL leatherback turtle surveys by Florida Leatherbacks Inc. (Table from Florida Leatherbacks Inc. 2024).

Beach:	# Encounters	# Encounters with new (untagged) turtles	# Encounters with recaptured turtles
Hutchinson Island	2	0	2
St. Lucie Inlet State Park	52	8	44
HSNWR	21	0	21
Jupiter Island/Blowing Rocks	162	11	151

Calhoun Spigelia Preserve

Status survey of gentian pinkroot (*Spigelia gentianoides)* and damage assessment following Hurricane Michael; Jackson, Washington, and Calhoun Counties

Florida Natural Areas Inventory (FNAI), Tallahassee, FL

Duration: 2020-2025

Objectives: The project objective is to measure change in the density of gentian pinkroot stems over time along with habitat structure and composition at four sites: Calhoun Spigelia, Rock Hill, Three Rivers, and Apalachee. FNAI plans to incorporate the census data into its conservation database and utilize the data to update the global and state ranking of this species using the NatureServe Conservation Rank Calculator.

Methods: In 2021, FNAI established three permanent monitoring plots at Rock Hill and one at Callhoun Spigelia (Figure 2). The plots are 20-m radius circular plots (Figure 3) placed within known current or historic populations of gentian pinkroot. The center point of each plot was permanently marked and mapped with a submeter GPS unit. The plots were censused and habitat metrics for canopy (cover, height, DBH of trees rooted in the plot) and overall shrub structure (cover and height) were recorded at the 20-m plot level. Three smaller subplots (2.5m radius) within the 20-m plot were established, where additional shrub and herbaceous cover and structure data were recorded. The three subplots were placed 10 m from the center of the plot at 0, 120, and 240° (Figure 3). All shrub and herbaceous species within these subplots were identified; if it was not possible to identify a plant to species, FNAI recorded genus or family. Photos were taken at each plot.

Progress/Results: COMPLETED. At the Calhoun Spigelia, which consists of a single monitoring plot, gentian pinkroot showed very low abundance and an overall declining trend. The population dropped from 5 plants in 2021 to none detected in 2023, with only 1 plant observed again in 2025 (Table 2), indicating minimal recovery and persistently low numbers. Although the species reappeared in 2025, it remains at critically low levels similar to its historically small population. This site was salvage logged following Hurricane Michael, and the evidence suggests that logging has contributed to long-term population declines. Overall, the Calhoun population appears highly vulnerable and likely not viable without active management or augmentation (FNAI 2025).

Table 2. Gentian pink monitoring results at Calhoun Spigelia and Rock Hill Preserves 2021-2025 (from FNAI 2025).

Location	Number of Plots	Total Plant Count 2021	Total Plant Count 2023	Total Plant Count 2025	Flower Count 2021	Flower Count 2023	Flower Count 2025	Net Plant Change from 2021 to 2023	Net Plant Change from 2023 to 2025	Net Plant Change from 2021 to 2025
Calhoun	1	5	0	1	2	0	1	-5	1	-4
Rock Hill	3	792	1869	839	226	277	126	1077	-1030	47
Three Rivers	12	611	454	441	468	259	323	-157	-13	-170
Apalachee	8	2875	2094	1833	1646	1223	886	-781	-261	-1042
TOTAL	24	4283	4417	3114	2342	1759	1336	134	-1303	-1169

In contrast, the Rock Hill site (three plots) showed much larger populations with notable fluctuations driven primarily by fire. Stem counts increased substantially from 792 plants in 2021 to 1,869 in 2023 following a prescribed burn, then declined to 839 plants in 2025 when no recent burn occurred (Table 2). Two of the three plots experienced significant declines between 2023 and 2025, largely because 2023 counts were elevated by fire effects. Despite these short-term changes, the overall trend from 2021 to 2025 was relatively stable, with no major long-term declines. Unlike other sites, Rock Hill was not heavily impacted by Hurricane Michael or

subsequent salvage logging, which likely contributed to its more stable population dynamics (FNAI 2025).

Calhoun and Rock Hill differed from the other sites primarily in their disturbance history and resulting population trends. Calhoun was unique in having only a single plot and showed an extremely small, declining population, likely due to post - Hurricane Michael salvage logging, which was linked to long-term decreases at several sites. In contrast, Rock Hill was not heavily impacted by the hurricane or logging and therefore did not experience the same widespread declines seen at Apalachee and Three Rivers. Instead, Rock Hill populations were relatively stable over the long term, with fluctuations largely driven by prescribed fire, showing increases after burns and declines in years without fire (FNAI 2025).

Compared to the other sites - especially Three Rivers and parts of Apalachee, where many plots declined significantly due to logging - Calhoun represents a severely reduced and vulnerable population, while Rock Hill represents a more intact system where gentian pinkroot persists more reliably (FNAI 2025).

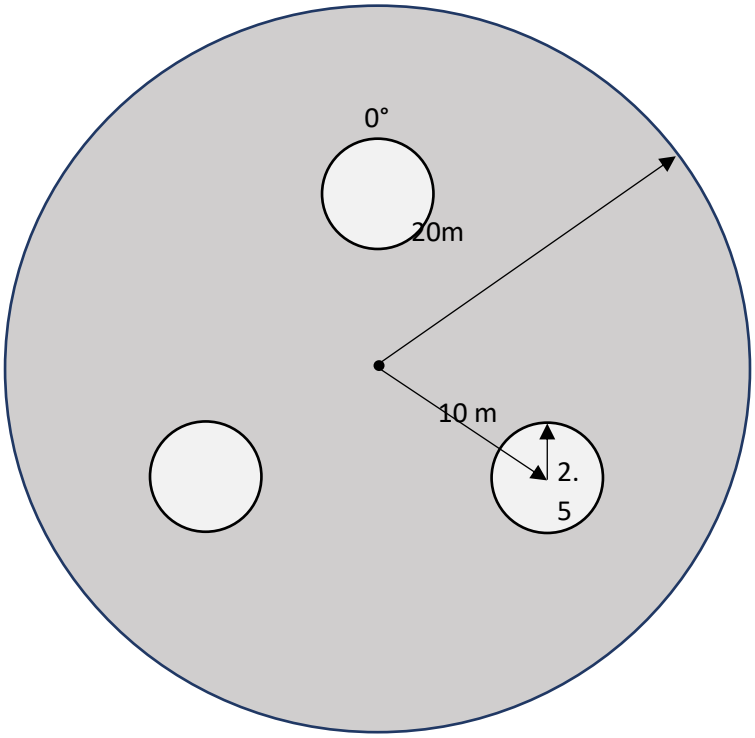
Gentian pinkroot is a critically endangered plant with a very limited range in northern Florida, making its conservation a high priority. Monitoring from 2021-2025 shows mixed population trends: some sites increased in abundance (often after prescribed burns), others remained stable, and many declined - especially those affected by post–Hurricane Michael salvage logging. Logging appears to have long-term negative impacts, though fire may aid partial recovery (FNAI 2025).

Population changes are influenced by habitat conditions. Higher shrub and vine cover are linked to lower plant abundance, while greater canopy and herbaceous cover are associated with higher abundance, indicating the species prefers higher-quality, less-disturbed habitats (FNAI 2025).

Researchers recommend continuing long-term monitoring, increasing frequency from every two years to annually, expanding studies to track individual plant life cycles (demographics), and further studying the effects of fire and logging. These actions will help guide habitat management and improve recovery efforts for the species (FNAI 2025).

Figure 2. Map of gentian pinkroot plots at Calhoun Spigelia (From FNAI 2021a).

Figure 3. 20-meter radius plot for gentian pinkroot, with 3 – 2.5meter subplots located at 0°, 120°, and 240° at Calhoun Spigelia (From FNAI 2021a).



Disney Wilderness Preserve

Assessing drivers of nitrogen fixing symbiosis at continental scale

Dr. Ryan Folk, Department of Biological Sciences, Mississippi State University, Mississippi State

Duration: 2024-2025

Objectives: To analyze the relationships between nitrogen-fixing plant communities, the corresponding microbial communities, and their environment to understand the driving evolutionary and environmental pressures that initially enabled and continues to cause change in nitrogen-fixing symbiosis.

Methods: This is a NEON Research Support Services (NRSS) project. NRSS makes components of NEON infrastructure to researchers for their own studies. This research study will perform DNA sequencing on extracts of nodules and surrounding roots and rhizopheres to determine how particular microbes are recruited into symbiosis and the influence of host species and

environment. Battelle field staff will collect roots with nodules at DWP and 39 other NEON terrestrial field sites. Collections will occur only in the destructive NEON soil sampling plots at each site. Forty target species will be collected at DWP, with three replicates of each.

Battelle staff will gently remove from the roots in the field and confirm the presence of nodules. The samples will then be placed on ice packs and then transported to the NEON domain facility where they will be processed for shipment to Mississippi State University for analyses.

Progress/Results: FIELDWORK COMPLETED. Lab analyses are in progress.

Combining NEON and remotely sensed habitats to determine climate impacts on community dynamics

Dr. James Clark. Nicholas School of the Environment, Duke University, Durham, NC
Dr. Roland Kays. College of Natural Resources, North Carolina State University, Raleigh, NC

Duration: 2018 – 2030

Objectives: To determine the impacts of climate change on forest seed production at three National Ecological Observatory Network (NEON) sites**:** the Disney Wilderness Preserve (DWP), Ordway-Swisher Biological Station, and the Talladega National Forest.

Methods: The Clark lab established six seed rain traps within each of three NEON plots in longleaf stands at DWP in June of 2018, amounting to 18 traps total. Each year a census is taken of trees greater than 2m tall in the 30x30 meter NEON plots surrounding the seed rain traps. The census includes growth measurements, light availability, and reproduction status. Seed traps are collected annually, along with observational crop counts of surrounding longleaf pines and other tree species found on the property. Observational data on seedling recruitment and growth is also collected throughout study area

To determine the wildlife that may be dependent upon seed production, 49 motion-activated trail cameras were deployed throughout DWP for the month of May 2019 and processed using Wildlife Insights, in collaboration with Dr. Kay's Lab from NCSU**.**

Progress/Results: ONGOING. Beginning in 2019, seed rain traps have been collected annually along with crop counts of longleaf found within the NEON plots.

In 2019 at DWP, the trail cameras collected 15,510 photos, capturing 1,038 animal detections. Seventeen species in total were photographed, with white-tailed deer by far the most abundant species at 58%. Wild boar appeared in 12% of the photographs and wild turkey in 10%. The camera surveys will not be repeated at DWP.

Seed and cone data from the three study sites are contributed to the continental Masting Interference and Forecasting (MASTIF) network, set up to evaluate how climate, habitat, and individual tree traits affect maturation and fecundity in trees. Using DWP and other MASTIF data from across the US, Dr. Clark led an analysis to determine how climate indirectly affects tree fecundity that comes through climate-condition interactions. A biogeographic divide was found, with the climate-condition interactions reducing fecundity in the western US and increasing it in the eastern US (Clark et al. 2021).

Publications: Thirteen papers have been published using data from this project: Journe et al. 2024; Kays et al. 2024, Qiu et al. 2024, Bogdziewicz et al. 2023a and 2023b, Parsons et al. 2023, Qiu et al. 2023, Journe et al. 2022, Qiu et al. 2022, Sharma et al. 2022, Clark et al. 2021, Qui et al 2021a, and Qui et al. 2021b.

Model-Guided Animal Prevalence Surveillance ("Project GAPS")

Dr. Kurt Vandegrift, Department of Biology, Pennsylvania State University, University Park, PA

Duration: 2025

Objectives: To expand the range of species screened for exposure to and infection with SARS-CoV-2.

Methods: This is a NEON Research Support Services (NRSS) project. NRSS makes components of NEON infrastructure to researchers for their own studies. Battelle staff will collect oronasal and anal swabs during their NEON small mammal sampling bouts at DWP and 13 other NEON sites during the 2025 season. Collections will occur at one small mammal diversity grid per site. Battelle staff will process the samples and ship them to the PI for lab analyses.

Progress/results: FIELDWORK COMPLETED**.** Field sampling occurred in spring and summer of 2025. Data analysis is in progress.

A functional model of soil organic matter composition at continental scale

Dr. Steven Hall, Plant and Agroecosystem Sciences, University of Wisconsin, Madison, WI
Dr. Samantha Weintraub-Leff, Terrestrial Biogeochemistry, National Ecological Observatory Network, Boulder, CO

Duration: 2024-2026

Objectives: To test two overarching hypotheses: 1) Abundances of soil organic matter (SOM) molecules covary predictably from site to continental scales along three axes of variation, which reflect tradeoffs in molecular composition corresponding to distinct mechanisms of SOM persistence linked to climate, geochemical, and biological drivers. 2) Axes of variation in SOM

molecules and biogeochemical drivers are predictably linked to short- and long-term rates of soil organic C decomposition and N cycling.

Methods: This is a NEON Research Support Services (NRSS) project. NRSS makes components of NEON infrastructure to researchers for their own studies. All field work will be conducted by Battelle staff within existing NEON plots. Soil will be collected from 10 NEON plots at each of the 47 NEON terrestrial sites. Lab analyses will be conducted at the University of Wisconsin.

Progress/Results: FIELDWORK COMPLETE. Field work was conducted in 2025. Data analyses are in progress.

Jeff Lewis Wilderness Preserve

Geographic patterns of mangrove species establishment and survival

Jenny Bueno, PhD student, Department of Geography, Florida State University, Tallahassee, FL

Duration: 2024-2025

Objectives: The research objectives are to understand red and black mangrove geographic patterns of establishment and distribution. Important local factors include tidal flooding frequency and duration, sedimentation, elevation, salinity, type of salt marsh vegetation present, nutrients, predation, and herbivory. This research will address if there are geographic patterns of establishment for each mangrove species by specifically focusing on the roles of elevation, salinity, and salt marsh presence of black and red mangrove establishment and survival across the Apalachicola Bay.

Methods: High resolution aerial imagery will be collected using an unoccupied aerial system (UAS, also known as drones). The UAS will be flown at a low altitude (~40-meters) to capture high-resolution imagery with 75-80% overlap. Additionally, within each site, the researcher will collect elevation data using a high-resolution GPS of randomly created points, which will also be used as validation of both mangrove species and salt marsh vegetation. At those same random locations, porewater salinity data will be collected. After fieldwork data collection, classified orthomosaics with distinct classes of each mangrove species and salt marsh vegetation will be created from the drone imagery. The orthomosaic will be used to determine whether either mangrove species is spatially correlated to a specific salt marsh species. The researcher will also analyze the elevation values of red and black mangroves to see if they fall within a specific range, similar to salt marsh vegetation zonation patterns.

Progress/Results: FIELDWORK COMPLETED. In June, the researcher conducted a field visit to the Jeff Lewis Wilderness to collect ground-truthing data using GPS. Activities included locating,

identifying, and assessing the condition of red and black mangroves, as well as documenting diverse salt marsh vegetation. The resulting data will be used to improve the classification of drone imagery acquired in 2021 and 2023.

Rock Hill Preserve

Conservation Seed Bank *Marshallia ramosa* seed collection

Atlanta Botanical Garden, Atlanta GA.

Duration: 2025

Objectives: The Atlanta Botanical Garden (ABG) Conservation Seed Bank project is dedicated to safeguarding threatened and endangered plant species through the collection, preservation, and study of seeds and genetic material. As part of the Center for Plant Conservation's Florida Plant Rescue (FLPR), ABG collaborates with the Florida Natural Areas Inventory (FNAI) and more than ten partner organizations to collect seeds and leaf tissue from priority species across Florida. This multi-institutional effort supports long-term conservation, restoration, and research by capturing broad genetic diversity and securing multiple populations of each species. The project aims to enhance species resilience to threats such as habitat loss, natural disasters, and climate change, with a long-term goal of safeguarding at least five populations per species. As part of this initiative, ABG collected *Marshallia ramosa* seeds from The Nature Conservancy's Rock Hill Preserve, contributing to the ex-situ conservation of this rare species.

The projects objectives are

1. Seed collection and preservation: Collect and preserve seeds from threatened and endangered plant species, prioritizing high genetic diversity by sampling at least 50 unrelated maternal lines per population where feasible.
2. Genetic diversity conservation: Represent multiple populations across each species' geographic range to maximize genetic variability and resilience.
3. Ex-situ safeguarding. Establish secure, maternally tracked seed collections for long-term storage, with backup storage at secondary facilities.
4. Viability and germination testing. Conduct initial and periodic testing to assess seed viability and inform optimal long-term storage strategies.
5. Conservation genetics research. Collect leaf tissue samples for DNA extraction and storage in ABG's Conservation Genetics Biorepository to support future genetic studies.
6. Support Restoration and Management: Provide germplasm resources to researchers, land managers, and conservation practitioners for restoration and recovery efforts.

Methods: Seed collections were conducted in accordance with Center for Plant Conservation (CPC) best practice guidelines, ensuring minimal impact on wild populations by collecting no more than 10% of available seed from each population. Efforts focused on capturing genetic

diversity by sampling seeds from multiple maternal plants across each site. Target species for the 2025 Florida Plant Rescue project included nine threatened and endangered plants distributed across Florida. In conjunction with seed collection, leaf tissue samples (1–3 leaves per individual) were collected from the same plants, when feasible and without causing harm, for preservation in the Conservation Genetics Biorepository. For populations exceeding 100 individuals, herbarium vouchers were collected to verify species identification and support future research. Following collection, seeds were cleaned and subjected to germination and viability testing to determine optimal storage conditions. Depending on species characteristics, seeds were preserved using conventional seed banking, cryostorage, or micropropagation techniques.

Progress/Results: COMPLETED. In September 2025 at Rock Hill Preserve, ABG staff collected seeds from 28 maternal lines after identifying over 100 flowering individuals. Approximately one-third to one-half of seeds were collected per maternal plant, following ethical collection standards. ABG and TNC staff visited the northern extent of the population along I-10 and found no individuals, perhaps due to lack of fire.

Status survey of gentian pinkroot (*Spigelia gentianoides)* and damage assessment following Hurricane Michael; Jackson, Washington, and Calhoun Counties

Florida Natural Areas Inventory (FNAI), Tallahassee, FL.

Duration: 2020-2025

Objectives: The project objective is to measure change in the density of gentian pinkroot stems over time along with habitat structure and composition at four sites: Calhoun Spigelia, Rock Hill, Three Rivers, and Apalachee. FNAI plans to incorporate the census data into its conservation database and utilize the data to update the global and state ranking of this species using the NatureServe Conservation Rank Calculator.

Methods: In 2021, FNAI established three permanent monitoring plots at Rock Hill (Figure 4) and one at Callhoun Spigelia. The plots are 20-m radius circular plots (Figure 5) placed within known current or historic populations of gentian pinkroot. The center point of each plot was permanently marked and mapped with a submeter GPS unit. The plots were censused and habitat metrics for canopy (cover, height, DBH of trees rooted in the plot) and overall shrub structure (cover and height) were recorded at the 20-m plot level. Three smaller subplots (2.5m radius) within the 20-m plot were established, where additional shrub and herbaceous cover and structure data were recorded. The three subplots were placed 10 m from the center of the plot at 0, 120, and 240° (Figure 5). All shrub and herbaceous species within these subplots were identified; if it was not possible to identify a plant to species, FNAI recorded genus or family. Photos were taken at each plot.

Progress/Results: Methods: In 2021, FNAI established three permanent monitoring plots at Rock Hill (Figure 4) and one at Callhoun Spigelia. The plots are 20-m radius circular plots (Figure 5) placed within known current or historic populations of gentian pinkroot. The center point of each plot was permanently marked and mapped with a submeter GPS unit. The plots were censused and habitat metrics for canopy (cover, height, DBH of trees rooted in the plot) and overall shrub structure (cover and height) were recorded at the 20-m plot level. Three smaller subplots (2.5m radius) within the 20-m plot were established, where additional shrub and herbaceous cover and structure data were recorded. The three subplots were placed 10 m from the center of the plot at 0, 120, and 240° (Figure 3). All shrub and herbaceous species within these subplots were identified; if it was not possible to identify a plant to species, FNAI recorded genus or family. Photos were taken at each plot.

Progress/Results: COMPLETED. At the Calhoun Spigelia, which consists of a single monitoring plot, gentian pinkroot showed very low abundance and an overall declining trend. The population dropped from 5 plants in 2021 to none detected in 2023, with only 1 plant observed again in 2025 (Table 2), indicating minimal recovery and persistently low numbers. Although the species reappeared in 2025, it remains at critically low levels similar to its historically small population. This site was salvage logged following Hurricane Michael, and the evidence suggests that logging has contributed to long-term population declines. Overall, the Calhoun population appears highly vulnerable and likely not viable without active management or augmentation (FNAI 2025).

Table 2. Gentian pink monitoring results at Calhoun Spigelia and Rock Hill Preserves 2021-2025 (from FNAI 2025).

Location	Number of Plots	Total Plant Count 2021	Total Plant Count 2023	Total Plant Count 2025	Flower Count 2021	Flower Count 2023	Flower Count 2025	Net Plant Change from 2021 to 2023	Net Plant Change from 2023 to 2025	Net Plant Change from 2021 to 2025
Calhoun	1	5	0	1	2	0	1	-5	1	-4
Rock Hill	3	792	1869	839	226	277	126	1077	-1030	47
Three Rivers	12	611	454	441	468	259	323	-157	-13	-170
Apalachee	8	2875	2094	1833	1646	1223	886	-781	-261	-1042
TOTAL	24	4283	4417	3114	2342	1759	1336	134	-1303	-1169

In contrast, the Rock Hill site (three plots) showed much larger populations with notable fluctuations driven primarily by fire. Stem counts increased substantially from 792 plants in 2021 to 1,869 in 2023 following a prescribed burn, then declined to 839 plants in 2025 when no recent burn occurred (Table 2). Two of the three plots experienced significant declines between 2023 and 2025, largely because 2023 counts were elevated by fire effects. Despite these short-term changes, the overall trend from 2021 to 2025 was relatively stable, with no major long-

term declines. Unlike other sites, Rock Hill was not heavily impacted by Hurricane Michael or subsequent salvage logging, which likely contributed to its more stable population dynamics (FNAI 2025).

Calhoun and Rock Hill differed from the other sites primarily in their disturbance history and resulting population trends. Calhoun was unique in having only a single plot and showed an extremely small, declining population, likely due to post - Hurricane Michael salvage logging, which was linked to long-term decreases at several sites. In contrast, Rock Hill was not heavily impacted by the hurricane or logging and therefore did not experience the same widespread declines seen at Apalachee and Three Rivers. Instead, Rock Hill populations were relatively stable over the long term, with fluctuations largely driven by prescribed fire, showing increases after burns and declines in years without fire (FNAI 2025).

Compared to the other sites - especially Three Rivers and parts of Apalachee, where many plots declined significantly due to logging - Calhoun represents a severely reduced and vulnerable population, while Rock Hill represents a more intact system where gentian pinkroot persists more reliably (FNAI 2025).

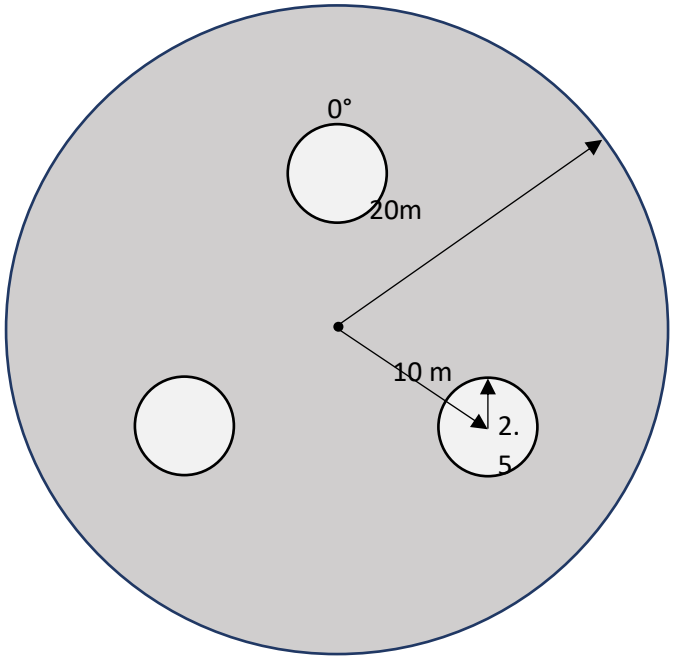
Gentian pinkroot is a critically endangered plant with a very limited range in northern Florida, making its conservation a high priority. Monitoring from 2021-2025 shows mixed population trends: some sites increased in abundance (often after prescribed burns), others remained stable, and many declined - especially those affected by post–Hurricane Michael salvage logging. Logging appears to have long-term negative impacts, though fire may aid partial recovery (FNAI 2025).

Population changes are influenced by habitat conditions. Higher shrub and vine cover are linked to lower plant abundance, while greater canopy and herbaceous cover are associated with higher abundance, indicating the species prefers higher-quality, less-disturbed habitats (FNAI 2025).

Researchers recommend continuing long-term monitoring, increasing frequency from every two years to annually, expanding studies to track individual plant life cycles (demographics), and further studying the effects of fire and logging. These actions will help guide habitat management and improve recovery efforts for the species (FNAI 2025).

Figure 4. Map of gentian pinkroot plots at Rock Hill (From FNAI 2021a)

Figure 5. 20-meter radius plot for pinkroot gentian, with 3 – 2.5meter subplots located at 0°, 120°, and 240° (From FNAI 2021a).



Saddle Blanket Scrub Preserve

Introduction of *Crotalaria avonensis* to Silver Lake

Aaron David, Program Director of Plant Ecology, Archbold Biological Station, Venus, Florida

Duration: 2025-2026

Objectives:
This project aims to enhance and expand existing populations of Crotalaria avonensis at the Silver Lake Tract of the Lake Wales Ridge Wildlife and Environmental Area while conserving genetic diversity from both protected and unprotected populations. Building on successful introductions in 2012, 2024, and 2025, this effort will further strengthen the population and safeguard genetic material from the unprotected Avon Park Lakes population through propagation and reintroduction. The project objectives are to

1) Increase the population size of Crotalaria avonensis at Silver Lake Tract.
2) Preserve and incorporate genetic diversity from the unprotected Avon Park Lakes population and protected populations at Carter Creek and Saddle Blanket Scrub.
3) Evaluate the effectiveness of different planting microhabitats to inform future restoration efforts.
4) Monitor survival, growth, and demographic performance of introduced plants.

Methods
Stem cuttings were collected from approximately 100 plants at Avon Park Lakes and 50 plants each from Carter Creek and Saddle Blanket Scrub in late spring 2026. Cuttings were transported to Bok Tower Gardens for propagation and later transplanted to the Silver Lake Tract in mid-summer using Waterboxx slow-release irrigation systems, which will be removed after approximately two months. Transplants will be established under three microhabitat conditions—open sandy gaps, near rosemary shrubs, and beneath palmettos—to assess habitat suitability. Plants will be monitored weekly during the first two months, with monitoring frequency reduced to bimonthly by spring 2027. A full demographic assessment, including stem and branch counts, will be conducted, and results will be analyzed and reported in a subsequent DPI report.

Progress/Results: FIELDWORK COMPLETED.

Tiger Creek Preserve

Dietary preferences of pygmy mole crickets

Brandon Woo, PhD Student, Department of Entomology, Texas A&M University, College Station, TX

Duration: 2025

Objectives: The purpose of this project is to answer the following questions:

1) What are the primary components of the diets of the pygmy mole crickets *Ellipes deyrupi, Neotridactylus apicialis,* and *N. archboldi*, and how are these dietary components associated with the ecosystems these insects inhabit? \
2) Do pygmy mole crickets forage in a generalized manner or do they actively select certain food items?
3) Do different species occupy different feeding niches where their ranges overlap?

Methods: Specimens of *N. apicialis* will be collected from northern Florida as well as in Texas; specimens of *N. archboldi* will be collected at the Archbold Biological Station in central Florida. Samples of *N. archboldi* and E. deyrupi will also be collected at the Tiger Creek Preserve in Polk County (~1.5 hours north of Archbold), a location on the northern Lake Wales Ridge which harbors sympatric populations of these two species. At each site, at least five adult male and five adult females of each species will be collected. Ecological data such as soil moisture, plant species composition, and pygmy mole cricket burrow density will also be collected, as well as 2-3 samples from the biological soil crust to serve as positive controls and to build a reference dataset. All specimens will be collected directly into 100% ethanol to keep DNA intact. Vouchers of all species will be retained at the Archbold Biological Station arthropod collection as well as the Texas A&M University Insect Collection (TAMUIC).

In the laboratory, the entire gut of each specimen will be extracted and used for subsequent DNA extraction. A DNA metabarcoding approach will be used to quantify the relative abundance and diversity of cyanobacteria and eukaryotic algae present in the guts of these insects. Total genomic DNA will be extracted from the gut of each specimen using the Qiagen DNA Microbiome kit, following the manufacturer's guidelines. A DeNovix Spectrophotometer and Qubit Fluorometer will be used to measure the concentration and quality of DNA extracts. A segment of the 16S rRNA gene will be used as a marker following previous studies targeting cyanobacteria, as well as a segment of the 18S rRNA hypervariable region for eukaryotic algae. PCR with standard primers will be used to amplify these gene regions in each sample. Library preparation and amplicon sequencing will be carried out at the Texas A&M AgriLife Genomics & Bioinformatics Service (TxGen). Following quality trimming of the raw sequence data, and alignment using MAFFT, BLAST searches will be used to identify prokaryotic and eukaryotic components of the samples. Resultant bar graphs will show the contribution of each major group of microorganisms to the total number of sequence reads in each sample, and similarities

of gut contents between each species will be visualized using principal component analysis (PCA).

The data will shed light on an understudied group of organisms, and can help us to better understand the evolution of novel lifestyles. More broadly, this project will highlight the vital importance of biological soil crusts to functioning ecosystems, by providing empirical evidence that a diverse community of microorganisms is essential for the perseverance of habitat-restricted arthropods.

Progress/Results: FIELDWORK COMPLETED. The researcher visited Tiger Creek Preserve on two occasions in May 2025. On May 24, they conducted a survey for pygmy mole cricket populations, traversing approximately 7.4 km (4.6 miles) on foot. They returned on May 25 to collect specimens of *Neotridactylus archboldi* and *Ellipes deyrupi* from previously identified localities within the preserve. For each species, five adult males and five adult females were collected alive and placed into Falcon tubes. In addition, a small sample of biological soil crust was collected.

In the laboratory, the entire gut of each specimen was dissected and preserved directly in 100% ethanol. These samples were subsequently sent to Novogene for DNA extraction, metagenomic library preparation, and low-coverage shotgun sequencing using the NovaSeq X Plus platform. Additional specimens of *N. apicialis* were collected in Brazos County, Texas, and specimens of *N. archboldi* were collected at Archbold Biological Station, following identical sampling and dissection protocols.

For downstream data analysis, the researcher is using the MOSHPIT toolkit within the QIIME2 platform, which is designed for shotgun metagenomics datasets. Adapter sequences are trimmed using CutAdapt, and low-quality reads are removed using the QIIME quality-score filtering function. Taxonomic classification and abundance estimation are conducted with MetaPhlAn4. The researcher is currently mapping assembled reads against the DOE Disney Wilderness Preserve database using STAR. Upon completion of these analyses, they plan to generate stacked bar plots, Venn diagrams, and principal component analysis (PCA) plots in R. Preliminary results are difficult to interpret, as approximately 99% of sequences remain unclassified. The researcher anticipates that additional filtering steps and comparisons with Florida-specific databases will improve taxonomic resolution. Nevertheless, it appears likely that a substantial portion of the soil crust community consumed by pygmy mole crickets represents previously undescribed diversity. Common and widespread bacterial taxa appear to constitute only a small fraction of the dietary profiles observed.

Publications: A manuscript is in preparation - Dietary partitioning in three species of pygmy mole crickets (Insecta: Orthoptera: Tridactylidae) provides insights into the evolution of ecological novelty.

Investigating impacts of mite color signals on the mate choice of the host species *Sceloporus woodi*

Hope Abercrombie, PhD Student, School of Life Sciences, Arizona State University, Tempe, AZ

Duration: 2024-2028

Objectives: This project investigates whether ectoparasites influence mate selection and intraspecific communication in the scrub lizard (*Sceloporus woodi*). Specifically, it examines how mite-induced color changes (blue, rust, or red) affect signaling and behavioral interactions among conspecifics. The broader goal is to determine whether parasite-associated coloration plays a functional role in communication, mate choice, or potential host–parasite interactions.

Methods: Field surveys are being conducted at Tiger Creek Preserve, focusing on adult male *S. woodi*. Behavioral trials involve repeated observations of individuals exposed to visual stimuli, including robotic lizard models and live females with experimentally manipulated coloration. Trials are video-recorded, and behavioral responses—such as head bobs, pushups, and proximity to stimuli—are quantified.

Captured individuals are measured using non-invasive morphometrics (e.g., snout–vent length, parasite load, reproductive traits) and marked for repeated observations. Additional methods include spectrophotometry to quantify color variation, hormone sampling, and DNA sequencing of mites to determine species identity.

Experiments also test male–female and female–female interactions using tethered females, as well as predation risk using clay lizard models representing different color morphs. Statistical analyses (e.g., ANOVA, correlation tests) are used to evaluate behavioral differences across treatments and relationships between parasite load and signaling.

Progress/Results: Initial fieldwork in 2024 established baseline behavior, morphology, and parasite prevalence, revealing that live females elicit stronger behavioral responses than robotic models and that female coloration varies seasonally. Mites were found to be common across individuals.

Ongoing fieldwork expands data collection to include hormonal analyses, detailed color measurements, and parasite distribution. Experimental trials using live, color-manipulated females are underway to assess behavioral responses in both males and females. Additional predation experiments using clay models aim to evaluate the ecological costs of parasite-associated coloration.

Preliminary findings suggest that parasite-induced color variation is common and potentially ecologically significant, supporting further investigation into its role in communication, mate selection, and adaptive strategies.

Publications: A note with Herpetological Review is in preparation.

Presentations: A poster was presented at The Animal Behavior Society 2025 symposium. The same poster was also presented at The 2026 AAAS Annual Meeting.

Lupinus cumulicola and *Trichostema Bridgesii-Orzellii* demography

Aaron David, Program Director of Plant Ecology, Archbold Biological Station, Venus, Florida
Isaac McPherson, Research Assistant, Archbold Biological Station, Venus, Florida

Duration: 2026-2031

Objectives: The Plant Ecology Lab at Archbold Biological Station is expanding long-term demographic studies of endemic Lake Wales Ridge species, focusing on *Lupinus cumulicola* and *Trichostema bridgesii-orzellii*, both of conservation concern. The project aims to identify and establish new monitoring sites at the Tiger Creek TNC property to better understand population dynamics and support conservation planning. The project has three objectives:

1) Identify and evaluate suitable habitats for *L. cumulicola* and *T. bridgesii-orzellii* within the Tiger Creek property.
2) Expand long-term demographic datasets to improve understanding of population trends and persistence.
3) Support conservation efforts by generating data on survival, growth, and reproduction of these at-risk species.

Field surveys will be conducted across the Tiger Creek TNC property to locate populations of *Lupinus cumulicola* and *Trichostema bridgesii-orzellii*. Where suitable populations are found, permanent demography plots will be established by marking individual plants with pin flags and small metal tags. These plots will be revisited on a long-term basis, with monitoring occurring two to four times annually to record data on plant survival, size, and reproductive output. All activities will be carried out with minimal disturbance to the site, involving no collection of plant material and requiring no resources from TNC beyond access to the property.

Progress/Results: ONGOING. Initial site survey at Tiger Creek Preserve conducted in May 2026.

Population genetics and reproductive biology of *Clitoria fragrans*

Dr. Amy Faivre, Department of Biological Sciences, Cedar Crest College, Allentown, PA
Dr. Vivian Negron-Ortiz, US Fish and Wildlife Service, Panama City, FL
Dr. Richard Moore, College of Art and Science, Miami University of Ohio, Oxford, OH

Duration: 2025

Objectives: This project aimed to (1) estimate genetic diversity within and among populations of *Clitoria fragrans*, (2) identify genetic structure and gene flow across its range in Florida, and (3) evaluate how fire history influenced the production of chasmogamous (outcrossing) versus cleistogamous (selfing) flowers.

Methods: Leaf samples (four per plant) were collected from approximately 30 individuals per population across multiple occurrences. Two leaves per plant were dried in silica gel and two were preserved cold for DNA extraction. Plants were mapped, flagged, and monitored, and reproductive output (numbers of chasmogamous vs. cleistogamous structures) was recorded. DNA was extracted from collected tissue, and plans were developed for ddRAD-Seq to generate genome-wide markers for population genetic analyses. Burn history records were incorporated to assess relationships between fire regimes and reproductive strategies.

Progress/Results: FIELDWORK COMPLETED. Field sampling was completed in May–June 2025, including 30 mapped individuals at Tiger Creek Preserve and additional collections from ten populations across Florida. All samples were archived, and initial DNA extractions were completed for a subset of individuals. Burn history data were obtained for most populations. Funding was pursued for ddRAD-Seq, and collaborations were established to support genetic analyses. A with full population genetic analyses is expected by 2028.

Presentations: Preliminary results are planned for presentation at the Botanical Society of America meeting (August 2026).

Wetland health analysis

Joshua Smith, Undergraduate Student, Florida Southern College, Lakeland
Dr. Lauren Griffiths, Biology Department, Florida Southern College, Lakeland

Objectives: This project aims to evaluate how different land use categories (urban, agricultural, and natural) influence wetland health and community structure in central Florida. The goal is to generate data that can inform wetland conservation and management.

Methods
Fieldwork will be conducted at nine freshwater marsh wetlands, including Tiger Creek Preserve. Wetland health will be assessed using the Wetland Rapid Assessment Procedure (WRAP). Soil, water, vegetation, and macroinvertebrate data will be collected with minimal disturbance. Soil

cores (1–2 inches) will be sampled to assess pH, hydric status, and saturation. Water samples (100–150 mL) will be analyzed for nitrogen, phosphorus, and heavy metals. Aquatic macroinvertebrates will be collected using dip nets, briefly identified in the field, and released within 10–20 minutes. Vegetation surveys and observational assessments will be conducted to characterize community structure. All methods are designed to avoid ecological disturbance, with no removal or destruction of organisms and no introduction of non-native species.

Progress/Results: FIELDWORK COMPLETED. Researchers conducted wetland assessments at Tiger Creek in May 2026. Assessments of other central Florida wetlands are ongoing.

CCI SPONSORED RESEARCH

Blowing Rocks Preserve

Directing the succession of shoreline habitat under changing water levels

Dr. Kelly Kibler, Department of Civil, Environmental, and Construction Engineering, University of Central Florida, Orlando, FL
Dr. Melinda Donnelly, Assistant Research Scientist, Department of Biology, University of Central Florida, Orlando, FL
Dr. Iacopo Vona, Postdoctoral Researcher, Department of Civil, Environmental, and Construction Engineering, University of Central Florida, Orlando, FL

Duration: 2025-2026

Objectives: The objective of this project was to develop an experimental design and monitoring protocol to test the following research question: Do assisted migration planting interventions enhance success of mangrove planting for shoreline restoration or natural infrastructure development? The researchers provided an experimental planting design for determining if where, and how mangroves can be planted upgradient so that they are well established in advance of sea level rise along the Indian River Lagoon at Blowing Rocks Preserve.

Methods: UCF worked directly with BRP personnel to create an experimental design and monitoring protocol that would rigorously address the research question and be feasible given constraints of the BRP project site, staff time for monitoring, and overall restoration resources. UCF completed an initial project site visit with BRP staff to assess the proposed project site. UCF also consulted with BRP to understand the resources available to undertake the research, including capacity of the nursery to provide mangrove plants (e.g. number of individuals at specific ages, species), resources available to procure additional plants, if necessary, and staff availability to undertake project monitoring. UCF then developed a robust experimental design to optimize the available resources to address as many treatment variants as possible, while ensuring the experiment had sufficient replication and would allow for statistically meaningful comparisons. Finally, UCF developed an implementation guide, a monitoring protocol for data collection, and a data management plan.

Progress/Results: COMPLETED. UCF delivered a final report on April 30, 2026.This report provided an experimental design and monitoring plan to test whether assisted migration—planting mangroves at higher elevations in anticipation of sea-level rise—can improve shoreline restoration success at Blowing Rocks Preserve in Florida. The project identified planting elevation as the key factor influencing mangrove survival and growth because it controls inundation patterns and exposure to hydrodynamic stress. To test this, the authors designed a randomized block experiment with three elevation levels (low, moderate, high), multiple

species treatments (red, black, white, mixed, and control), and approximately 720 seedlings planted across 45 plots.

The report outlined a comprehensive implementation plan, including site preparation, planting design, and use of nursery-grown seedlings, along with a monitoring protocol to track plant survival, growth, hydrology (water levels), and geomorphic changes (sedimentation and shoreline evolution) over time. It also incorporated site-specific constraints, particularly evidence that planting at lower elevations may fail due to boat wake stress, highlighting the importance of balancing scientific rigor with practical restoration goals. Finally, the report provided a data management and dissemination plan to ensure high-quality data collection, long-term storage, and sharing of results with the scientific and restoration community.

Disney Wilderness Preserve and Tiger Creek Preserve

Coupling forest management goals to increase water yield and carbon sequestration

Dr. Matt Cohen, Director of the UF Water Institute, University of Florida, Gainesville, FL
Dr. Katie Glodzik, Postdoctoral Associate, Water Ecology Lab, University of Florida, Gainesville FL
Dr. David Lewis, Department of Integrative Biology, University of South Florida, Tampa, FL

Duration: 2024-2026

Objectives: To test the hypothesis that aboveground carbon loss from upland tree thinning (through ecological or agricultural management) may be balanced or exceeded by resulting soil organic carbon (SOC) gains in embedded/nearby wetlands. Recent research by the researchers has documented strong links between tree density (specifically, leaf area index [LAI]0, and water yield as higher LAI increases evapotranspiration. This has led to conservation forestry management efforts to reduce tree density. However, forest biomass reduction conflicts with using forests to sequester carbon for climate change mitigation, resulting in a perceived trade-off between carbon and water priorities. The researchers contend that it is unclear whether this trade-off occurs. In Florida forests, embedded wetlands may function as carbon storage hotspots, even when they have aboveground biomass comparable to upland forests. In these wetlands, there is a strong link between hydrology and carbon storage: wet ground slows decomposition, speeding up SOC accumulation. Because hydrology of these wetlands depends on the surrounding forest, lower LAI may be balanced or exceeded by resulting SOC gains in wetlands.

The proposed research seeks to both investigate the scientific nature of carbon-water dynamics in depressional wetlands (questions 1 & 2), and to inform the level of effort (whether field-based or computer-based) required to accurately assess these dynamics (3 & 4). Results will be

compared with those from the researchers' ongoing DOE funded research at another Florida site using well monitoring and other intensive field data collection methods.

1. How do changes to upland forest LAI impact wetland hydroperiod and therefore wetland SOC? This tests the assumption of win-win situations between managing forest landscapes for both water yield and carbon sequestration.
2. How wetlands and forest patches where upland forest LAI reduction would be most beneficial for both water yield and carbon sequestration be identified?
3. How much are predictions improved at one study site by using an SOC predictive equation from that specific study site, versus one derived from another site?
4. Can reliance on depressional wetland well monitoring through the use of remote sensing be reduced? Based on the DOE data, how much is the accuracy of SOC predictions affected when our predictive metrics are remote sensing-based versus well monitoring-based?

Methods:

DEM-based predictor variables: The researchers will generate detailed maps of depressional wetlands within the TNC properties using digital elevation model (DEM) data and calculate metrics of basin shape (e.g., size, perimeter-to-depth, perimeter-to-area) for each wetland.

Remote sensing-based predictor variables: They will use Landsat 8 and Sentinel 2 remote sensing data to measure forest LAI and surface water inundation. Mean LAI will be calculated in forests around each wetland, over multiyear timespans. With surface water inundation, they will estimate annual hydroperiods as a function of elevation in each wetland.

Dependent variables: For soil core collection and SOC assessment, they will select study wetlands at each TNC site, spanning a range of geographic and hydrological conditions. Soil core sites will be selected to characterize SOC at each of the three elevation zones within each wetland.

Statistical model: The researchers will examine the relationship of SOC with basin shape metrics, surrounding forest LAI at different timespans, and estimated hydroperiods, using a Spatial Autoregressive (SAR) Model. Two versions of SAR modeling will be completed: one that maintains separation between elevation zones, and one aggregating data together by wetland.

Progress/Results. IN PROGRESS. The final report is due September 30, 2026.

LONG-TERM MONITORING PROJECTS

Statewide

Florida Automated Weather Network (FAWN) stations on TNC preserves

University of Florida's Institute of Food and Agricultural Sciences (UF/IFAS), Gainesville, FL

Duration: 2021-

Objectives: To obtain real-time weather from automated weather towers at Apalachicola Bluffs and Ravines Preserve (ABRP), Blowing Rocks Preserve (BRP), Disney Wilderness Preserve (DWP), and Tiger Creek Preserve (TCP). These towers will be installed and maintained by UF/IFAS as part of their state-wide FAWN network, which provides weather data from 42 stations to support the agricultural and research communities. In addition to the FAWN standard sensors, the towers will include equipment to provide KBDI and other data useful for prescribed fire and other preserve management.

Methods: A 30' fixed tower supporting sensor arrays and associated infrastructure including power and communication installation and use, to provide the following comprehensive data at each of the three preserves:

- Soil temperature at 10 cm
- Air temperature at 60 cm, 2 meters, and 10 meters
- Wind speed and direction at 10 meters; wind direction standard deviation, and min/max wind speed
- Global solar radiation
- Barometric pressure
- Wet bulb temperature at 2 meters
- Dewpoint temperature at 2 meters
- Vapor pressure, saturated vapor pressure, and vapor pressure deficit at 2 meters
- Fuel temperature and moisture at 30 cm
- Keetch-Byrum Drought Index (KBDI) sensors at 2 meters

Progress/Results: ONGOING. Installations of the towers and sensors at ABRP, DWP, and TCP were completed in 2022. The Blowing Rocks Preserve station was completed in 2023. The standard suite of FAWN data is available at FAWN - Florida Automated Weather Network (ufl.edu). Additional data only collected on the Conservancy's preserves (e.g., KBDI and fuel moisture) is available at https://fawn.ifas.ufl.edu/soil_moisture_dat/. The preserve weather stations have been designated as the Bristol (ABRP), Jupiter (BRP), Poinciana (DWP), and Tiger Creek (TCP) FAWN stations. The station locations at each of the three preserves are shown in Figures 6-9.

Figure 6. Location of the FAWN weather station at Apalachicola Bluffs and Ravines Preserve.

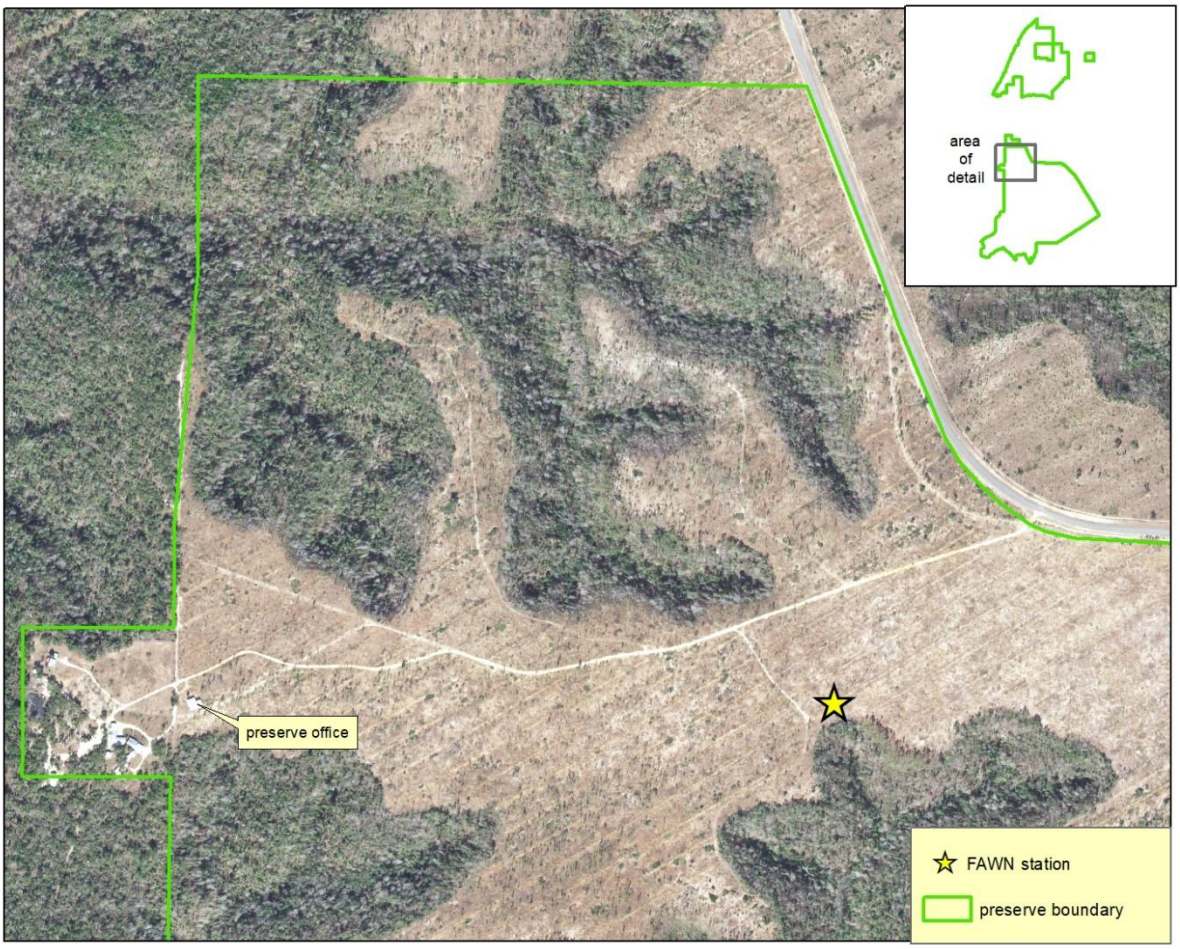


Figure 7. Location of the FAWN weather station at Disney Wilderness Preserve.

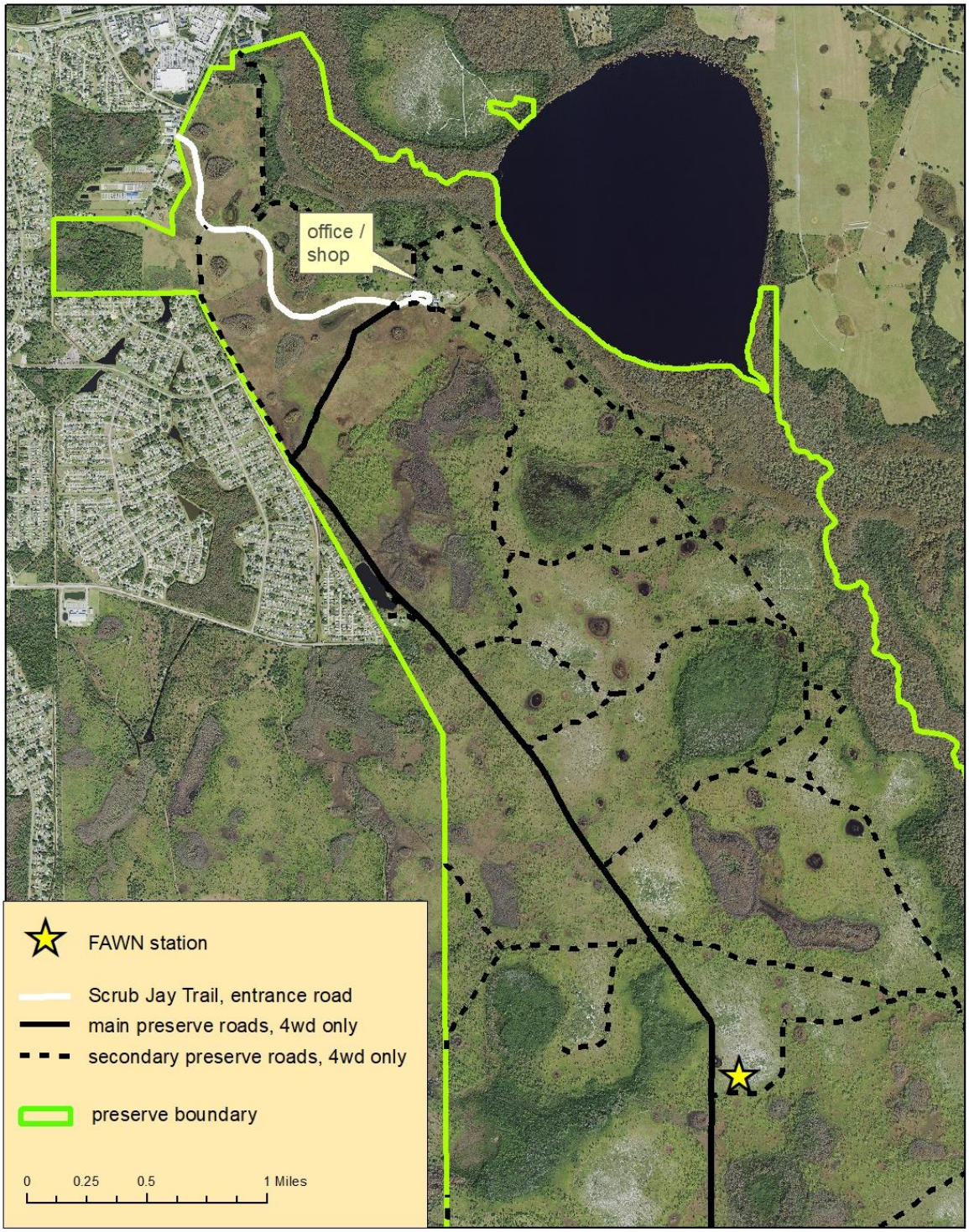


Figure 8. Location of the FAWN weather station at Tiger Creek Preserve.

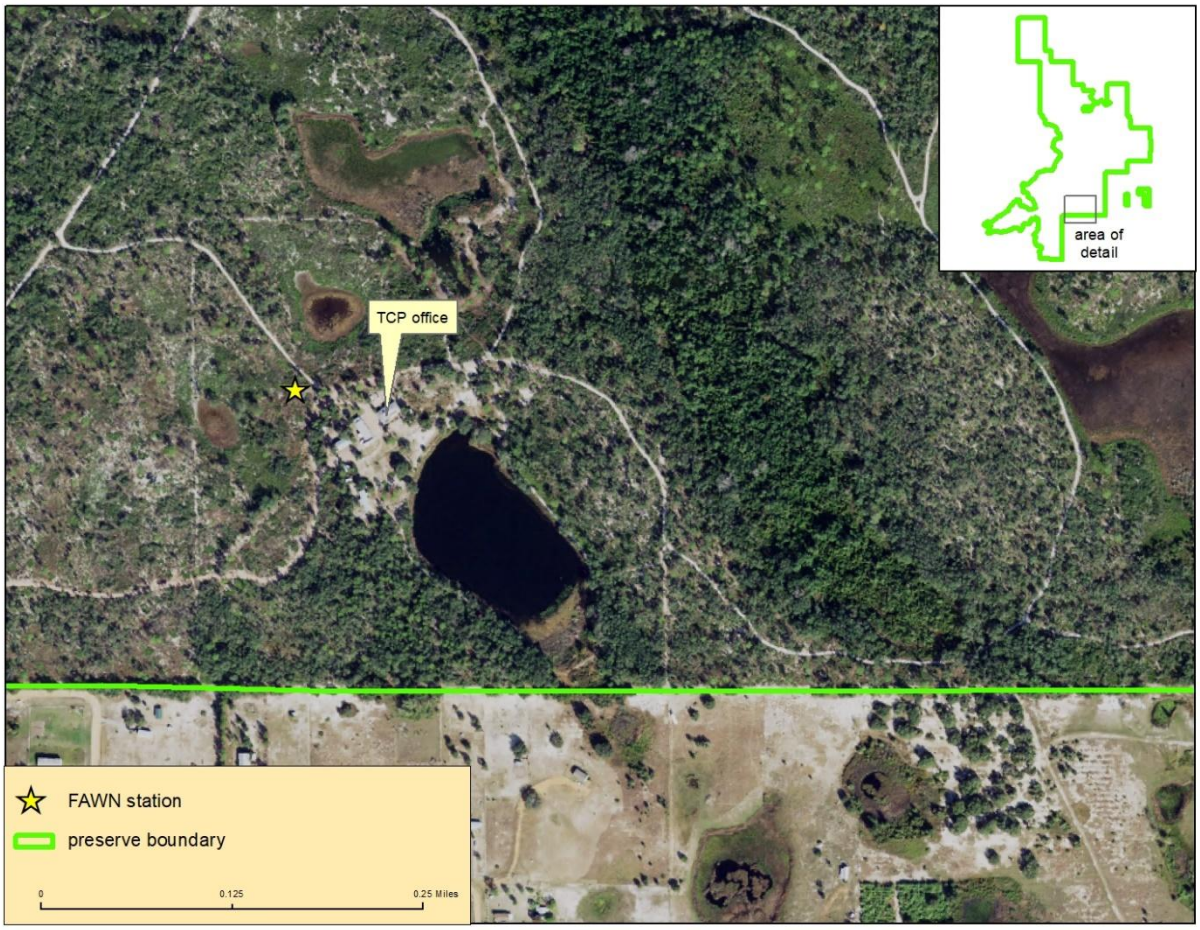


Figure 9. Location of the FAWN weather station at Blowing Rocks Preserve.

Disney Wilderness Preserve

Long-term isolated wetland monitoring on the Disney Wilderness Preserve

South Florida Water Management District, West Palm Beach, FL

Duration: 1995-present

Objectives: To document isolated wetland hydrology and the natural variation in hydroperiods and water levels due to seasonal and climatic changes. These wetland monitoring sites serve as reference sites for comparison with wetlands influenced by groundwater withdrawals from water supply well fields. The Disney Wilderness Preserve (DWP) is one of seven such sites that have been established throughout south Florida.

Methods: The project includes: 1) aerial photography analysis to determine past changes in vegetation communities in the vicinity of the wetland monitoring sites; 2) biological characterization involving field inventories of plants, macroinvertebrates, fish, and amphibians; 3) shallow groundwater monitoring wells that assess each wetland's hydrology; 4) water level recorders within each wetland monitoring well; 5) a complete weather station on the preserve; and 6) weather and water level data collection and compilation.

Six wetlands were selected for study at the preserve in 1995 (Figure 10). Initial sampling began in 1996, including the biological inventories. Installation of shallow groundwater monitoring wells, water level recorders and satellite feed weather station occurred in 1997. Surface water, groundwater and weather data continue to be collected at the Disney Wilderness Preserve (DWP). The weather data include rainfall, humidity, temperature, air pressure and light.

Additional water level monitoring wells were installed at deeper levels in the aquifer to further characterize the groundwater dynamics on a regional scale. These wells were constructed to depths of 10 ft, 36 ft and 90 ft in the surficial aquifer; 122 ft and 184 ft in the Mid Hawthorn; and 450 ft in the upper Floridan aquifer. Aquifer performance tests were conducted to determine interactions between the levels.

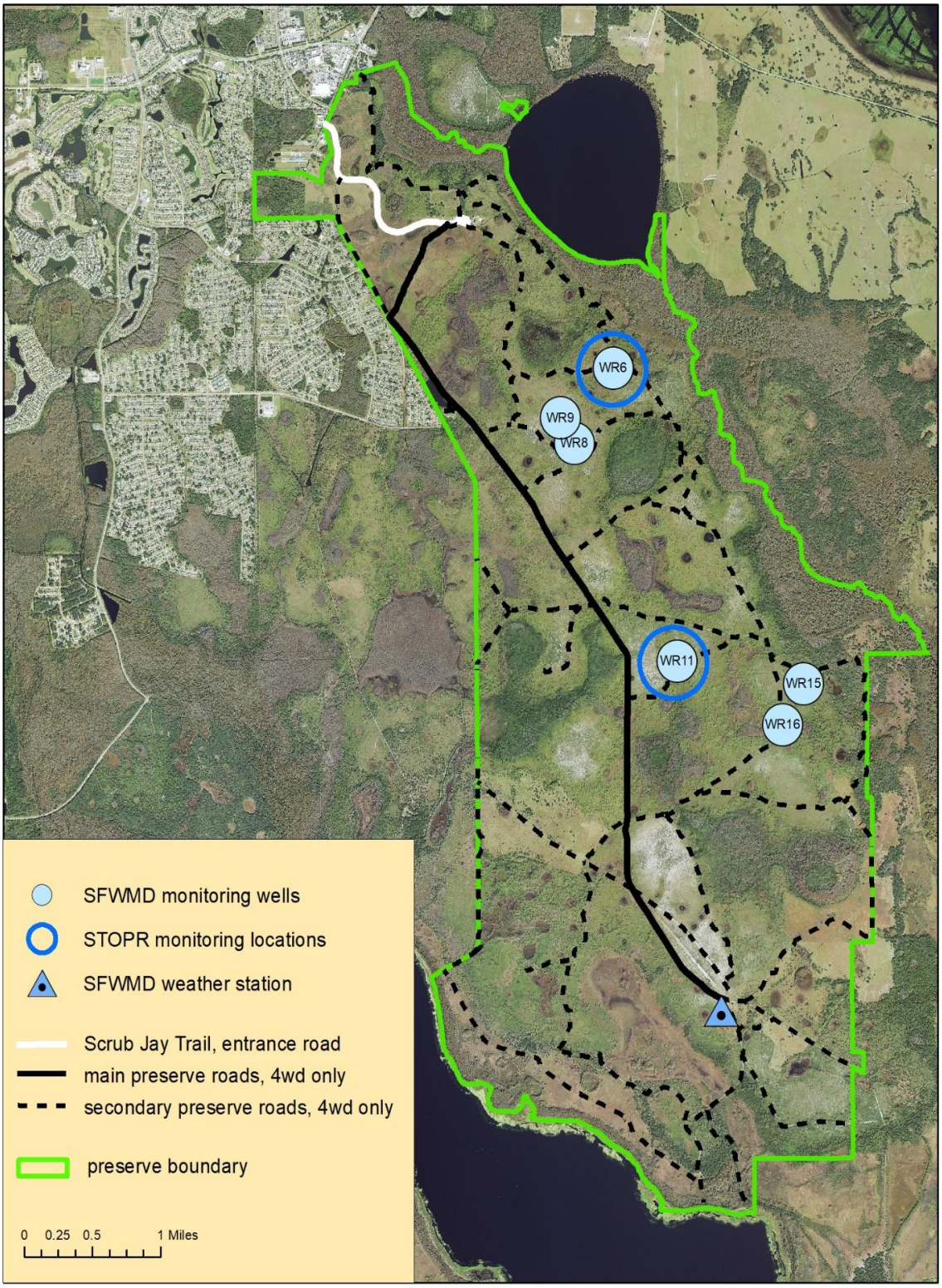
The water level data from these wells and others monitored by the South Florida Water Management District (SFWMD) are being used to develop a groundwater/surface water interaction model. This model will estimate impacts of future groundwater withdrawals occurring in metro-Orlando on the wetlands being monitored on the preserve. Results of the modeling will be incorporated into regional planning for the Kissimmee Valley.

In 2007, the SFWMD issued five different public water supply permits to five utility companies (collectively known as the STOPR Group) in the central Florida region and required the utility companies to construct a total of 39 monitoring wells throughout the Central Florida region. Two of these reference monitoring sites are located on DWP. The SFWMD agreed to allow the

STOPR group to use the existing well facilities within two wetlands (WR 6 and WR 5) that continue to be monitored by the District under the "Isolated Wetlands Program." Monitoring site WR 6 (a.k.a. Site 21 by the STOPR Group) is an herbaceous wetland located in Osceola County. WR 15 (a.k.a. Site 10 by the STOPR Group) is a cypress dome with a wet prairie fringe located in Polk County. The SFWMD continues to collect the water level data, and the STOPR Group is responsible for one vegetative transect within each wetland. If the SFWMD budget for continued monitoring within these wetlands is not approved in the future, then it will be the STOPR Group's responsibility to collect the water level data from these two sites.

Progress/Results: ONGOING. Well and vegetation monitoring data from the South Florida Water Management District is available by request. Weather data is publicly available at DBHYDRO (Environmental Data) | South Florida Water Management District. The DWP weather station ID is WRWX.

Figure 10. SFWMD and STOPR well and SFWMD weather station locations at Disney Wilderness Preserve.



National Ecological Observatory Network (NEON)

Battelle. NEON Program HQ, Boulder, CO

Duration: 2012 – present

Objectives: The National Science Foundation's National Ecological Observatory Network (NEON) is a continental-scale observation facility operated by Battelle to collect long-term open access ecological data to better understand how ecosystems are changing throughout the US. The Disney Wilderness Preserve (DWP) is one of NEON's 47 terrestrial field sites across 20 ecoclimatic domains. NEON has an additional 34 aquatic sites throughout the US.

Methods: NEON uses standardized data collection and processing methods at all field sites. As at all NEON terrestrial field sites, data is collected via three different methods: 1) airborne remote sensing, 2) automated instruments, and 3) observational sampling. NEON's data collection methods can be found at https://www.neonscience.org/data-collection.

Airborne remote sensing: Using payload sensors on light aircraft, surveys are conducted annually at each site during peak greenness to provide quantitative information on land cover and changes to ecological structure and chemistry (NeonScience.org). The primary sensors include

1. Discrete and full-waveform LiDAR, which provides three-dimensional structural landscape information.
2. Imaging spectrometer, which allows discrimination of land cover types and vegetation chemical content.
3. High-resolution digital camera for spatially accurate and detailed contextual information (NeonScience.org).

Automated instruments: A micrometeorological tower at all terrestrial sites, including DWP, collects continuous weather and climate data, including fluxes of carbon, water, and energy between the terrestrial ecosystem and the atmosphere (NeonScience.org). The tower location at the DWP is shown in Figure 11. Phenocams are mounted at the top and bottom of each tower to capture above- and below-canopy phenology (NeonScience.org). Soil sensors in an array near the tower measure soil chemical and physical properties at various depths and at the soil surface (NeonScience.org).

Observational sampling: Throughout the year, NEON scientists collect field data from permanent plots at DWP (Figure 11) and all other terrestrial sites. Data focuses on sentinel taxa that indicate ecosystem health and provide data relevant to public health (NeonScience.org). The sentinel taxa fall into six groups:

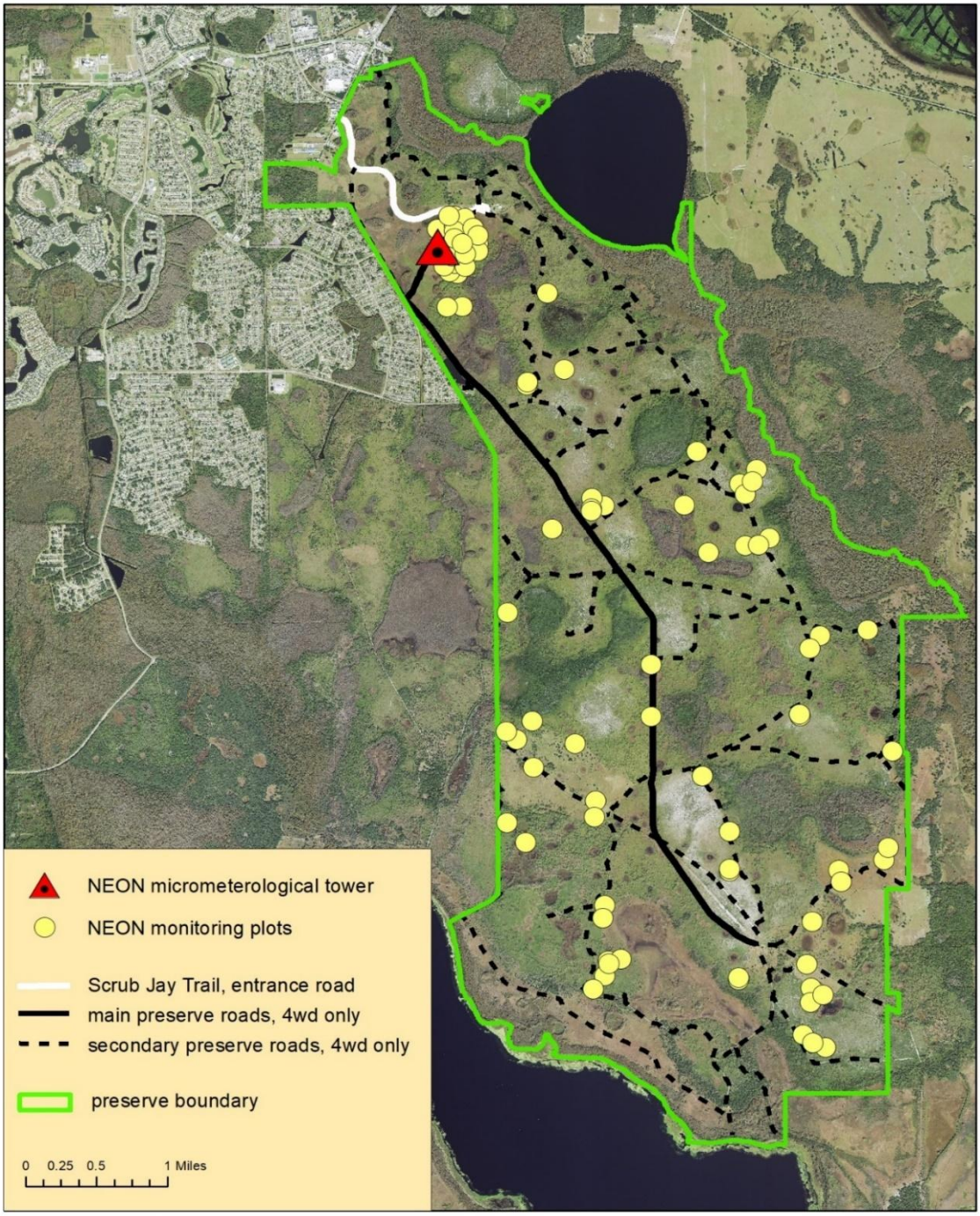
1. Breeding land birds: Bird observations are made to capture interannual variation in avian abundance, diversity, and distribution (NeonScience.org). All bird species observed are recorded using point count methods.

2. Ground beetles: NEON field scientists collect beetles with pitfall traps distributed across the site. Traps are deployed every two weeks during the time of year when beetles are most active. Each beetle is identified to species or morphospecies. A subset of the beetles is DNA barcoded.
3. Terrestrial plants: NEON collects data on plant biomass and productivity, plant diversity, plant phenology, and plant chemical properties within permanent 40 x 40-meter plots distributed across terrestrial field sites. NEON field scientists conduct field sampling annually, but data frequency and schedule vary among the data types, reflecting the requirements of specific data products and protocols (Neonscience.org).
4. Small mammals: NEON defines small mammals as nocturnal, flightless, above-ground foragers, and weighing 5-600 grams. NEON uses Sherman box traps deployed for one-three consecutive nights for at least four times per year. For each captured small mammal, species, sex, age, reproductive status, weight, hind foot length and other species-specific measurements are recorded. Blood is drawn from some individuals for pathogen testing, and the presence and abundance of ticks on each individual is determined. Individuals are tagged, using either ear tags or Passive Integrated Transponder (PIT) tags. All data collection is conducted in the field for quick release of the animals after capture. NEON collects a subset of the trapped animals for use as voucher specimens. All handling and processing have been approved by Battle' Institutional Animal Care and Use Committee (IACUC). After field collection, NEON scientists conduct lab analyses for DNA sequencing and rodent-borne pathogen status.
5. Soil microbes: NEON collects different types of soil data at different frequencies (1-5 years) depending on the data type. For each sampling, three soil cores are taken from 10 permanent plots. Up to three sampling periods may occur within a sampling year during peak greenness and during seasonal transitions. Data collection and analyses produce the following data products: soil temperature, litter depth, moisture, pH, stable isotopes, and inorganic nitrogen pools and transformations; and soil microbe biomass, marker gene sequences, community composition, and metagenome sequences.
6. Ticks: NEON field scientists collect ticks using 1 m^2 drag cloths dragged around the perimeter of each 40x40m vegetation plot. Ticks that cling to the cloth are counted and categorized by species, sex, and life stage (neonscience.org). Testing for pathogens is conducted on a subset of the ticks, and a smaller subset are archived.

Progress/Results: ONGOING. NEON is a 30-year project with data collection at the Disney Wilderness Preserve proposed for the entire project period. All data collected from DWP and other NEON sites is publicly available online at https://data.neonscience.org/data-products.

Papers published: As of April 2026, at least 160 papers have been published on studies using NEON data from DWP: Chen et al. 2026, Harris and Bardgett 2026, Hollian et al. 2026, Nicolini et al. 2026, Parsons et al. 2026, Thomas et al. 2026, Allred et al. 2025, Atkins et al. 2025, Barinas 2025., Biazzo and Quintana-Ascencio 2025, Bonucchi 2025, Bowman 2025, Bu and Xiao 2025, Cai et al. 2025, Chow 2025, Diehl et al. 2025, Gilbert et al. 2025, LaRue et al. 2025, Li et al. 2025, Malhotra et al. 2025, Pinto-Ledezma et al. 2025, Ravindran et al. 2025, Sandquist 2025, Sandquist et al. 2025, Schwartz et al. 2025, Shaoning et al. 2025, Simkin et al. 2025, Sweeney et al. 2025, Tiana et al. 2025, Uyekawa et al. 2025, Xu et al. 2025, Young et al. 2025, Yu et al. 2025, Zhu et al. 2025, Ayres et al. 2024, Bradfield 2024, Dallas et al. 2024, Dong et al. 2024, Doser et al. 2024, Gomarasca et al. 2024, Hansen et al. 2024, Hu 2024, Journé et al. 2024, Liu et al. 2024a, Liu et al. 2024b, Mahaur 2024, Masuda et al. 2024, Novick et al. 2024, Qiu et al. 2024, Rogers et al. 2024, Rooney and Possinger 2024, Tolan et al. 2024, Tran 2024, Wang et al. 2024, Wang and Fang 2024, Waterman 2024, Zahn and Bou-Zeid 2024, Biazzo 2023, Bogdziewicz et al. 2023a, Bogdziewicz et al. 2023b, Brown et al 2023, Chuckran et al. 2023, Dallas et al. 2023, Dynarski et al. 2023, Fulk 2023, Hakkenberg et al. 2023, Hernandez et al. 2023, Hu et al. 2023, Huang et al. 2023, Ibanez et al. 2023, Kaspari et al. 2023, Li et al. 2023, Lin et al. 2023, Lombardozzi et al. 2023, Parsons et al. 2023, Qin et al. 2023, Qui et al. 2023a, Qui et al. 2023b, Richardson 2023, Robertson et al. 2023, Sanchez-Zapero et al. 2023a., Sanchez-Zapero et al. 2023b, Santos and Herndon 2023, Scott 2023, Sipps and Magruder 2023, Wang et al. 2023a, Wang et al. 2023b, Weintraub-Leff et al. 2023, Xu et al. 2023, Yi et al. 2023, Armstrong et al. 2022, Atkins et al. 2022a, Atkins et al. 2022b, Biazzo and Quintana-Ascencio 2022a, Biazzo and Quintana-Ascencio 2022b, Doby et al. 2022, Donnelly et al. 2022, Gallo 2022, Gobron et al. 2022, Hall and Thompson 2022, Jones 2022, Journe et al. 2022, Li et al. 2022, Marconi et al. 2022, Moon et al. 2022, Musinsky et al. 2022, Paull 2022, Possinger et al. 2022, Qiu et al. 2022, Rishmawi et al. 2022, Robertson 2022, Schweiger and Laliberte 2022, Sharma et al. 2022, Tang et al. 2022, Ten Caten et al. 2022, Waterman et al. 2022, Ye et al. 2022, Yu 2022, Yu et al. 2022, Yuan et al. 2022, Zhang et al. 2022, Ayres et al. 2021, Brown et al. 2021, Clark et al. 2021, Delwiche et al. 2021, Fiorella et al. 2021, Hantak et al. 2021, Kang et al. 2021, Liu et al. 2021, Messer and Raber 2021, Parker 2021, Parra 2021, Patel et al. 2021, Pinto and Cavender-Bares 2021, Qui et al. 2021a, Qiu et al. 2021b., Stachewicz et al. 2021, Weinstein et al. 2021a, Weinstein et al. 2021b, Yang et al. 2021, Yu et al. 2021, Zhang et al. 2021, Brown et al. 2020, Egli 2020, Farella 2020, Fisher et al. 2020, Hall et al. 2020, Ritter 2020, Shu et al. 2020, Wang et al. 2020, Weinstein et al. 2020, Ayres 2019, Nave et al. 2019, Ritter et al. 2019, Sorensen 2019, Weiglein 2019, Gaynor et al. 2018, Kramer and Chadwick 2018, Hoekman et al. 2017, Ghabbour et al. 2015, and Loescher et al. 2014.

Figure 11. NEON tower and monitoring plot locations at Disney Wilderness Preserve.



USGS seismic station at the Disney Wilderness Preserve

US Geological Survey, Albuquerque Seismological Laboratory, Albuquerque, NM

Duration: 1997-present

Objectives: To maintain a seismic station in central Florida as part of the Global Seismograph Network (GSN). The objectives of the GSN are to provide real-time earthquake information for emergency response personnel, provide engineers with information about building and site response to strong shaking, and provide scientists around the world with high-quality data needed to understand earthquake processes and structure and dynamics of the solid earth.

Methods: The Disney Wilderness Preserve has one of over 100 GSN stations worldwide. The station ID is IU/DWPF and is located at the southern end of the Dorm Pond (Figure 12). Installation was conducted in 1997, and operation began in 1998. USGS installed IRIS Type II seismic sensors over a 162 m borehole. Data is transmitted real-time using satellite telemetry.

Progress/Results: ONGOING. Station data is available from the Incorporated Research Institutions for Seismology (IRIS) website: https://ds.iris.edu/ds/nodes/dmc/data/#requests.

Papers published: At least 63 publications have been produced using data from the DWPF station: Ringler et al. 2025, Chen and Romanowicz 2024, Sawade 2024, Aster et al. 2023, Ping et al. 2023, Guimaraes 2022, Gualtieri et al. 2021, Ringler et al. 2021, Baer 2020, Ringler et al. 2020, Sobolev et al. 2020, Yepaneshnikov and Yepaneshnikova 2020, Ritzwoller and Feng 2019, Braunmiller et al. 2019, Kim and Lekic 2019, Frietsch et al. 2019, Heyburn et al. 2018, Tary et al. 2018, Mancinelli 2016, Sobelev et al. 2016, Ye et al. 2016, McNamara et al. 2015, Ringler et al. 2015a, Ringler et al. 2015b, van Driel et al. 2015, Lou 2013, Obrebski et al. 2013, Ottemöller and Bormann 2013, Yuan 2013, Bogue 2012, de Azevedo 2012, Groos et al. 2012, Ringler et al. 2012, Trnkoczy et al. 2012, Yano 2012, Gonzalez et al. 2011, Molodenskii 2011, Groos 2010, Ringler et al. 2010, Baba et al. 2009, French et al. 2009, Tsai 2009, Bensen et al. 2008, Dewey and Dellinger 2008, Liang and Langston 2008, Tauzin et al. 2008, Bensen 2007, Bensen et al. 2007, Gonzalez et al. 2007, Ichinose and Goldstein 2007, Ishii 2007, Tsai and Ekström 2007, Hensen et al. 2006, Wilson 2006, Liu et al. 2005, McNamara et al. 2005a, McNamara et al. 2005b, Baptiste 2004, Fnais 2004, McNamara and Buland 2004, O'Leary et al. 2004, Benetatos et al. 2002, and McLaughlin et al. 2000.

Figure 12. Location of the USGS seismic station at Disney Wilderness Preserve.

Water quality monitoring on Reedy Creek and Lake Russell at the Disney Wilderness Preserve

Reedy Creek Improvement District (RCID), Lake Buena Vista, FL

Duration: 1998-present

Objectives: Water quality monitoring for routine ecological health and urban impact assessment. Sampling is part of RCID's program for is watershed analysis, total maximum daily load, National Pollutant Discharge Elimination System, and surface water monitoring.

Methods: RCID Environmental Services performs water quality monitoring on two sampling sites, collected quarterly at the Disney Wilderness Preserve (Figure 13). Analyses include chlorophyll, bacteria, general chemistry, metals, pesticides, volatile organic compounds, semi-volatile organic compounds, and field parameters.

Progress/Results: ONGOING. Data is available from the Reedy Creek Improvement District by request.

Figure 13. Location of RCID water quality monitoring at Disney Wilderness Preserve.

Jeff Lewis Wilderness Preserve and John S. Phipps Preserve

Shorebird and seabird monitoring

Florida Fish & Wildlife Commission, Tallahassee, FL

Duration: 2013 - present

Objectives: To determine the distribution, status, and trends of the 20 species of shorebirds and seabirds in Florida through long-term monitoring across the state. This project is part of FWC's Florida Shorebird Alliance, which consists of regional partnerships that work locally to survey and monitor important shorebird and seabird nesting sites.

Methods: FWC conducts monthly site visits in May through August of each year to determine the numbers of breeding pairs, nest locations, and outcomes as well as to determine the locations of brood-rearing habitat. Monitoring is conducted following FWC's Breeding Bird

Protocol for Florida's Shorebirds and Seabirds (https://public.myfwc.com/crossdoi/shorebirds/PDF-files/BreedingBirdProtocol.pdf).

Progress/Results: ONGOING. Data is publicly available from FWC's Florida Shore Bird Database at https://public.myfwc.com/crossdoi/shorebirds/.

Saddle Blanket Scrub Preserve and Tiger Creek Preserve

Central Florida Water Initiative (CFWI) long-term wetland monitoring

Southwest Florida Water Management District, Bartow, FL.

Duration: 2021 - present

Objectives: To collect ground water and wetland vegetation data to inform regional water supply planning and regulations. The Central Florida Water Initiative (CFWI) is a collaborative water supply planning effort among the Florida Department of Environmental Protection, the Florida Department of Agriculture and Consumer Services, water management districts, water utilities, and other stakeholders in Orange, Osceola, Polk, Seminole, and Lake Counties. Southwest Florida Water Management District (SFWMD) is the CFWI monitoring lead for Polk County. SFWMD personnel will maintain the recorders at Tiger Creek Preserve and conduct the vegetation and soil monitoring. The project is currently planned for a duration of twenty years or more.

Methods: Tiger Creek and Saddle Blanket Scrub are two of 107 sites to be established in the CFWI monitoring by 2025. Two surficial aquifer wells with continuous water level and rainfall recorders will be installed at each preserve in upland habitat within 50 m of a wetland (Figures 14 and 15). In addition, vegetation and soil data will be collected every five years along transects extending across the wetlands. The soils and vegetation data will be used in conjunction with the surficial aquifer water level and rainfall data to determine trends in wetland boundaries and for calibration and verification of regional water models.

Progress/Results: ONGOING. SWFWMD completed installation of the wells in 2021. The vegetation monitoring transects were established in 2022. Data available by request from the Southwest Florida Water Management District.

Figure 14. Location of CWFI monitoring wells at Saddle Blanket Scrub Preserve.

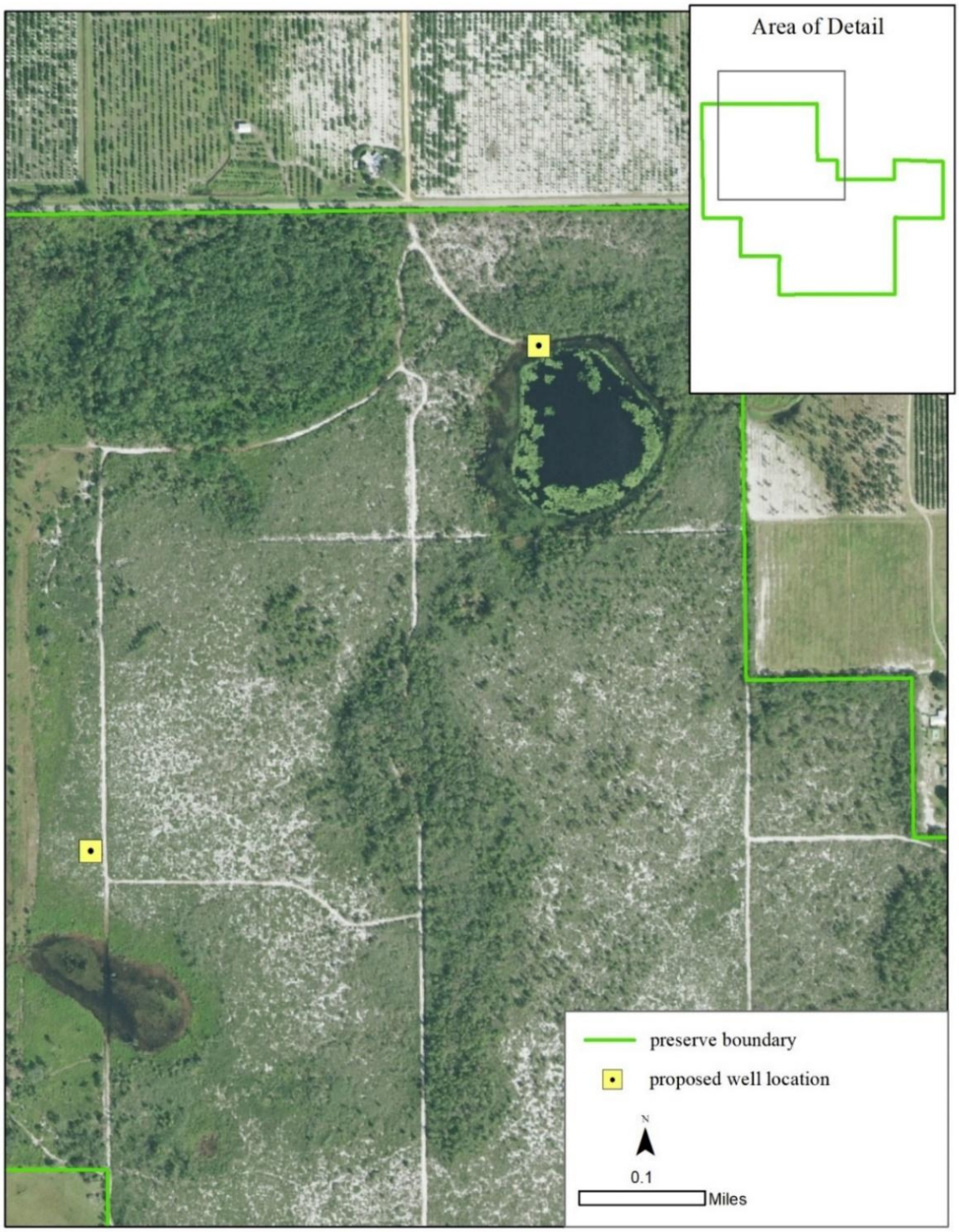
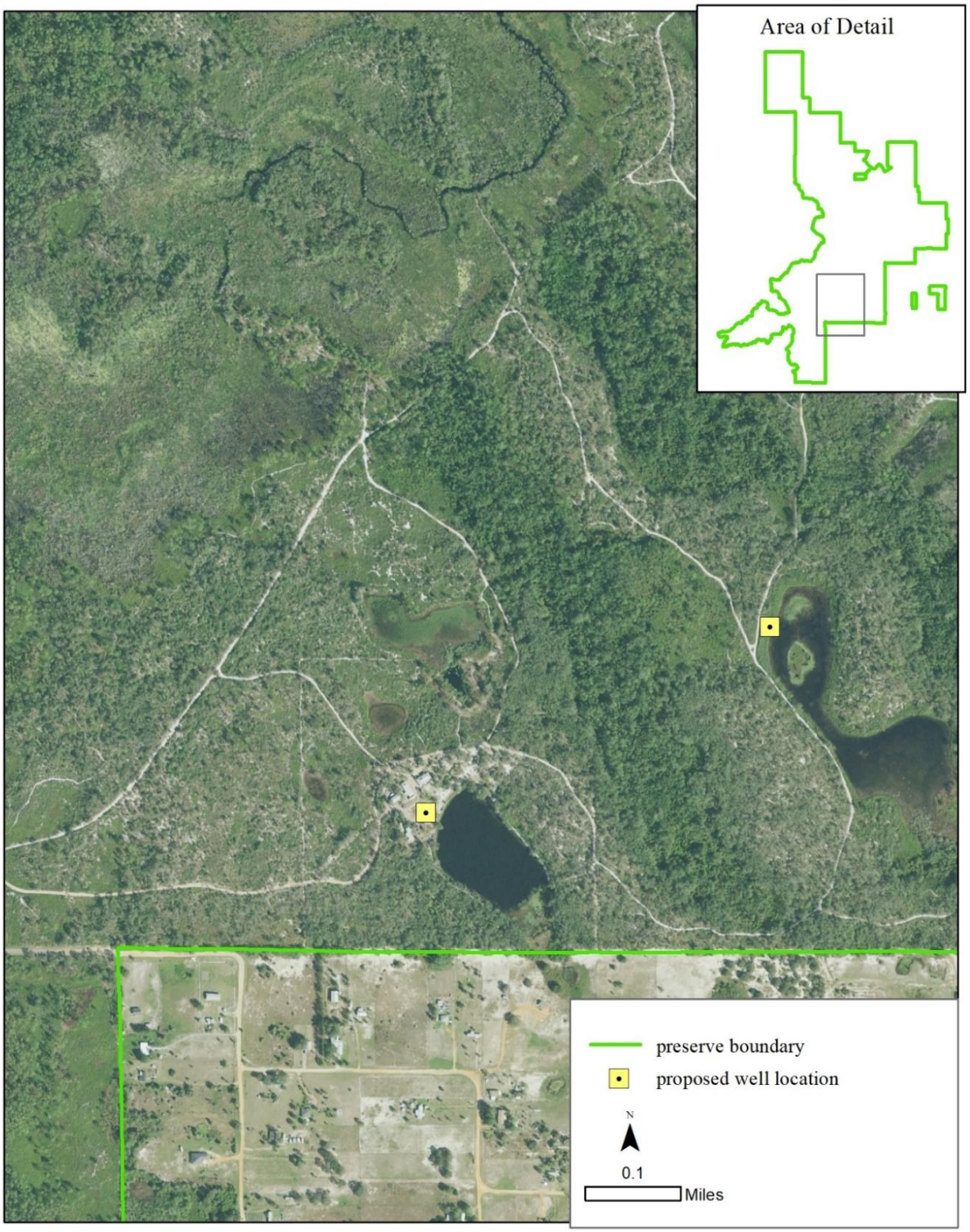


Figure 15. Location of CFWI monitoring wells and vegetation transects at Tiger Creek Preserve.



REPORTS AND PUBLICATIONS

Apalachicola Bluffs and Ravines Preserve

Carey K.A., Cove M.V., Liao H.-L., et al. 2026. **Small mammal gut microbiome composition associated with grassland restoration.** Mammal Research 71:42.

Smith L.L., Shea C.P., Dziadzio M., et al. 2026. **Using gopher tortoise monitoring data to inform habitat restoration and translocations.** The Journal of Wildlife Management 2026:e70221.

Baruzzi C. 2025. Research Summary 2024. **Final project report to The Nature Conservancy**. The Nature Conservancy, Bristol, FL.

Edmonds W.D. 2025. **Taxonomic review of the pilularius species group of the New World dung beetle genus *Canthon* Hoffmannsegg, 1817 (Coleoptera: Scarabaeidae: Scarabaeinae: Deltochilini).** Insecta Mundi 1117:1-43.

Mossa J. and Chen Y.-H. 2025. **Landslide at the river's edge: Alum Bluff, Apalachicola River, Florida.** Geosciences 15(4):130.

Rooney B., Kays R., Cove M.V., et al. 2025. **SNAPSHOT USA 2019-2023: the first five years of data from a coordinated camera trap survey of the United States.** Global Ecology and Biogeography 34(1):e13941.

Samuels L.R.N., Wilcox T., Hoffman M., et al. 2025. **Comparison of camera traps, eDNA, and visual encounter surveys for threatened species detection**. Journal for Nature Conservation 86:126948.

Schnepp K.E. 2025. **A revision of the genus *Tricodesma* LeConte, 1861 (Coleoptera: Ptinidae) in the United States and Canada.** The Coleopterists Bulletin 79(21):1-98.

Botero-Cañola S., Torhorst C., Canino N., et al. 2024. **Integrating systematic surveys with historical data to model the distribution of *Ornithodoros turicata americanus*, a vector of epidemiological concern in North America**. Ecology and Evolution 14(11):e70547.

Carey K.A., McDonald B.W., Pietras A., et al. 2024**. Guidelines to reduce invasive fire ant interference of small mammal trapping.** Wildlife Letters 2024:1-5.

Gompel N. 2024. **The Aderidae (Coleoptera: Tenebrionoidea) of the USA and Canada**. The Coleopterists Bulletin 78(20):1-88.

O'Keefe J.M., Pound M.J., Romero I.C., et al. 2024. **Summer-wet hydrologic cycle during the middle Miocene of the United States: New evidence from fossil fungi.** Research 7:0481.

Smith L. and Borkholder J. 2024. **White-nose syndrome (WNS) in bats: Enhancing Florida's capacity for responding to WNS.** Annual report to The Nature Conservancy, Apalachicola Bluffs and Ravines. Florida Fish and Wildlife Conservation Commission, Fish and Wildlife Research Institute, Gainesville, FL.

Chandler H.C., Steen D., Blue J., et al. 2023. **Evaluating growth rates of captive, wild, and reintroduced populations of the imperiled eastern indigo snake (Drymarchon couperi).** Herpetologica 79(4):220–230.

Edmonds W.D. 2023. Taxonomic review of the North American dung beetle genus Melanocanthon Halffter, 1958 **(Coleoptera: Scarabaeidae: Scarabaeinae: Deltochilini).** Insecta Mundi 1014:1-28.

Friend D.S., Anderson B.M., Altier E., et al. 2023. **Systematics and phylogeny of Plio-Pleistocene species of Turritellidae (Gastropoda) from Florida and the Atlantic coastal plain.** Bulletins of American Paleontology 2023(402):1-70.

O'Hanlon B.M., Bogan J.E., Godwin J.C., et al. 2023. ***Cryptosporidium serpentis* surveillance in free-ranging snakes to inform a reintroduction strategy for the eastern indigo snake.** Journal of Wildlife Diseases 59(1):176-180.

Reichgelt T., Baumgartner A., Feng R., et al. 2023. **Poleward amplification, seasonal rainfall and forest heterogeneity in the Miocene of the eastern USA.** Global and Planetary Change 222:104073.

Rounsaville T. 2023. **Conservation of *Magnolia ashei***. Project update to The Nature Conservancy, Kissimmee, FL.

Thomson R.E. 2023. **Catalog of the Hydroptilidae (Insecta, Trichoptera**). ZooKeys 1140:1-499.

Harrison E.J., McElroy B., and Willenbring J.K. 2022. **Quantifying rates of landscape unzipping.** Journal of Geophysical Research: Earth Surface 127:e2021JF00623.

Slattery J., Brown G.M., Harries P.J., et al. 2023. **Environmental and taphonomic controls on the shell beds and fauna of the mid-Miocene Chipola formation of Florida, USA**. Palaeogeography, Palaeoclimatology, Palaeoecology 642:111942.

Stansifer E.M. 2022. **Theory of the growth and shape of Laplacian stream networks.** Dissertation, Massachusetts Institute of Technology, Cambridge, MA.

Thompson D.C. 2022. **Relationships between the marine environment, predation intensity, and bivalve community diversity from the late Cenozoic Tamiami, Chipola, Jackson Bluff, and Bermont formations of Florida, U.S.A**. Thesis, Kent State University, Kent, OH.

Alqurashi A.S., Kerrigan J., and Savchenko K.G. 2021. **Morphological and molecular characterization of *Langdonia walkerae* sp. *nov*. infecting *Aristida stricta* and *A. beyrichiana* in longleaf pine-grassland ecosystems in the southeastern USA.** Fungal Systematics and Evolution 8:39–47.

Florida Natural Areas Inventory (FNAI). 2021. **Gopher tortoise survey of Apalachicola Bluffs and Ravines Preserve. Revised report to the Florida Fish and Wildlife Conservation Commission.**

Mossa J. and Chen Y-H. 2021. **Geomorphic response to historic and ongoing human impacts in a large lowland river**. Earth Surface Processes and Landforms 47:1550–1569.

Petuch E.J. and Breschauer D.P. 2021. **New fossil Scaphelline volutes from the Pliocene of Southern Florida.** The Festivus 53(2):101-108.

Rothman D. 2021. **Physics of channelization: Theory and observation**. Dissertation, Massachusetts Institute of Technology (MIT), Cambridge, MA.

Starnes D.D. 2021**. "It's about more than just the animals": Environmental politics of zoo-adjacent conservation(ists) in the U.S.** Dissertation, University of Kentucky, Lexington, KY.

Bicha W., Chiu Y., Nakamura T., et al. 2020. **Unusual scorpionfly (Mecoptera: Panorpidae) collecting techniques.** Proceedings of the Entomological Society of Washington 122(4):1001-1004.

Osborn A.S., Portell R.W., and Mooi R. 2020. **Neogene echinoids of Florida**. Bulletin of the Florida Museum of Natural History 57(3):237-469.

Piccolomini S.E. 2020. **Evaluation of movement patterns and space use in reintroduced eastern indigo snakes (*Drymarchon couperi*) in the Florida Panhandle.** Thesis, Auburn University, Auburn, AL.

Booher D.B. 2019. **Taxonomic clarification of two Nearctic *Strumgenys* (Hymenoptera: Formicidae).** Zootaxa 4664(3):401-411.

Folt B., McGowan C.P., Steen D.A., et al. 2019. **Modeling strategies and evaluating success during repatriations of elusive and endangered species.** Animal Conservation 23(3):273-285.

Gorchov D.L. 2019. **High winter temperatures facilitate invasion of *Tradescantia fluminensis* in the Apalachicola River Floodplain.** Southeastern Naturalist 18(1):76-98.

Harris S.C. and Rasmussen A.K. 2019. **Review of the *Orthotrichia* (Trichoptera: Hydroptilidae) of Florida, with descriptions of previously unknown females of three species.** Zoosymposia 14:215-230.

Lott T., Manchester S.R., and Corbett S.L. 2019. **The Miocene flora of Alum Bluff, Liberty County, Florida.** Acta Palaeobotanica 59(1):75-129.

McElroy B., Willenbring J., and Mohrig D. 2018. **Addressing time-scale-dependent erosion rates from measurement methods with censorship.** Geological Society of America Bulletin 130(3-4):381-395.

Schiefer T.L. 2018. **First record of the introduced ambrosia beetle *Ambrosiophilus nodulosus* (Eggers) in Mississippi, with notes on the distribution of *Ambrosiodmus minor* (Stebbing) (Coleoptera: Curculionindae: Scolytinae).** The Coleopterists Bulletin 72(2):384-385.

Bladow J.M., Bohner T., and Winn A.A. 2017. **Comparisons of demography and inbreeding depression in introduced and wild populations of an endangered shrub.** Natural Areas Journal 37(3):294-308.

Gompel N. 2017. **A review of North American *Elonus* species, with description of *E. gruberi* n. sp. (Coleoptera: Tenebrionoidea: Aderidae).** Zootaxa 4338(3):533-545.

Minogue P.J., Bohn K.K., Osiecka A., et al. 2017. **Japanese climbing fern (*Lygodium japonicum*) management in Florida's Apalachicola bottomland hardwood forests.** Invasive Plant Science and Management 3(3):246-252.

Yi R.S. 2017. **Emergent geometries of groundwater-fed rivers**. Dissertation, Massachusetts Institute of Technology, Cambridge, MA.

Yi R., Cohen Y., Devauchelle O., et al. 2017. **Symmetric rearrangement of groundwater-fed streams**. Proceedings of the Royal Society A. 473:20170539.

Yi R., Cohen Y., Seybold H., et al. 2017. **A free-boundary model of diffusive valley growth: Theory and observation.** Proceedings of the Royal Society A 473:20170159.

Anderson R.S. 2016. **A taxonomic revision of the genus *Lymantes* Schonherr, 1838 (Coleoptera: Curculionidae: Molytinae: Lymantini) in the United States of America.** The Coleopterists Bulletin 70(1):111-124.

Cohen Y., Devauchelle O., Seybold H.F., et al. 2015. **Path selection in the growth of rivers.** Proceedings of the National Academy of Sciences 112(46):14132-14137.

Deyrup M. 2015. **A new species of *Myrmecina* (Hymenoptera: Formicidae) from southeastern North America.** Florida Entomologist 98(4):1204-1206.

Hill J.V.G. 2015. **Revision of the *Melanopus scudderi* (Orthoptera: Acrididae: Melanoplinae) species group and a preliminary investigation into the grasshopper fauna of the grasslands of the southeastern United States.** Dissertation, Mississippi State University, Starkville, MS.

Kons H.L. and Borth R.J. 2015. **A new species of *Catocala* (Lepidoptera: Noctuidae) from Florida**. Bulletin of the Peabody Museum of Natural History 56(1):67-79.

McKee A.M., Calhoun D.L., Barichivich W.J., et al. 2015. **Assessment of environmental DNA for detecting presence of imperiled aquatic amphibian species in isolated wetlands.** Journal of Fish and Wildlife Management 6(2):498-510.

Thomas M.D. 2015. **A review of New World *Laemophloeus* Dejean: 3 Nearctic species.** Insecta Mundi 0450:1-35.

Heupel A. 2014. **Effects of stream impoundment and dam removal on aquatic insect communities in steephead ravines of the Apalachicola River Basin, Florida.** Thesis, Florida Agricultural and Mechanical University, Tallahassee, FL.

Perez H.E. 2014. **Do habitat and geographic distribution influence decreased seed viability in remnant populations of a keystone bunchgrass?** Ecological Restoration 32(3):295-305.

Jackson D.R. and Franz R. 2013. **Crayfishes of the Apalachicola ravines, northern Florida: A search for the fireback crayfish, *Cambarus pyronotus*.** Southeastern Naturalist 12(3):534-551.

Petroff A.P., Devauchelle O., Seybold H., et al. 2013. **Bifurcation dynamics of natural drainage networks.** Philosophical Transactions of the Royal Society A 371:20120365.

Smart A.G. 2013. **Hidden order emerges in stream networks.** Physics Today 66(2):12-13.

Devauchelle O., Petroff A.P., Seybold H.F., and Rothman D.H. 2012. **Ramification of stream networks.** Proceedings of the National Academy of Sciences Dec 2012, 109(51):20832-20836.

Harris S.C., Rasmussen A.K., and Denson D.R. 2012. **An annotated list of the caddisflies (Trichoptera) of Florida: Part 1. The family Hydroptilidae, with descriptions of five new species.** Insecta Mundi 0273:1-32.

Petroff A.P., Devauchelle O., Kudrolli A., et al. 2012. **Four remarks on the growth of channel networks.** Comptes Rendus Geoscience 344(1):33-40.

Devauchelle O., Petroff A.P., Lobkovsky A.E., et al. 2011. **Longitudinal profile of channels cut by springs.** Journal of Fluid Mechanics 667(25):38-47.

Petroff A., Devauchelle O., Abrams D., et al. 2011. **Geometry of valley growth.** Journal of Fluid Mechanics 673:245-254.

Somma L. A. 2011. **New collections and records for earwigs and scorpionflies in Florida.** Insecta Mundi 690.

Trusty J.L. and Ober H.K. 2011. **Determinants of successful groundcover restoration in forests of the southeastern United States.** Journal for Nature Conservation 19(1):34-42.

Jarzen D. M., Corbett S. L., and Manchester S.R. 2010. **Palynology and paleoecology of the Middle Miocene Alum Bluff flora, Liberty County, Florida, USA.** Palynology 34(2):261-286.

Morris A.B., Graham C.H., Soltis D.E., et al. 2010. **Reassessment of phylogeographical structure in an eastern North American tree using Monmonier's algorithm and ecological niche.** Journal of Biogeography 37(9):1657-1667.

Slapcinsky J.L., Gordon D.R., and Menges E. 2010. **Responses of rare plant species to fire in Florida's pyrogenic communities.** Natural Areas Journal 30(1):4-19.

Stevenson D.J., Ravenscroft K.R., Zappalorti R.T., et al. 2010. **Using a wildlife detector dog for locating eastern indigo snakes (*Drymarchon couperi*).** Herpetological Review 41(4):437-442.

Abrams D.M., Lobkovsky A.E., Petroff A.P., et al. 2009. **Growth laws for channel networks incised by groundwater flow.** Nature Geoscience 2:193-196.

Epler J.H. 2009. **More new distribution records for Florida water beetles (Coleoptera: Dytiscidae, Elmidae, Hydrophilidae, Scirtidae), with additional notes on *Scirtes oblongus* Guerin-Meneville.** Insecta Mundi 0087:1-4.

Somma L.A. and Dunford J.C. 2009. **Records for *Bittacus* hangingflies and *Panorpa* scorpionflies (Mecoptera: Bittacidae and Panorpidae) in Florida.** Insecta Mundi 0084:1-6.

Blaustein R.J. 2008. **Biodiversity hotspot: The Florida Panhandle**. BioScience 58(9):784-790.

Edwards C.E., Soltis D.E., and Soltis P.S. 2008. **Using patterns of genetic structure based on microsatellite loci to test hypotheses of current hybridization, ancient hybridization and incomplete lineage sorting in *Conradina*.** Molecular Ecology 17(23):5157-5174.

Morris A.B., Ickert-Bond S.M., Brunson D.B., et al. 2008. **Phylogeographical structure and temporal complexity in American sweetgum.** Molecular Ecology 17(17):3889-3900.

Beard K.H. and Depriest P.T. 2007. **Genetic variation within and among mats of the reindeer lichen, *Cladina subtenuis*.** The Lichenologist 28(2):171-182.

Dunford J.C., Kovarik P.W., Somma L.A., et al. 2007. **First state records for *Merope tuber* (Mecoptera:Meropeidae) in Florida and biogeographical implications.** Florida Entomologist 90(3):581-584.

Lobkovsky A.E., Smith B.E, Kudrolli A., et al. 2007. **Erosive dynamics of channels incised by subsurface water flow.** Journal of Geophysical Research 112.

Kons H.L. Jr. and Borth R.J. 2006. **Contributions to a study of the diversity, distribution, habitat association, and phenology of the Lepidoptera of northern Florida.** North American Journal of Lepidoptera Biodiversity 1:1-231.

Atchley E. 2004. **The effects of habitat alterations on growth and vitality of *Torreya taxifolia* Arn. in northern Florida, USA: A dendrochronological study**. Thesis. University of Tennessee, Knoxville, TN.

Corbett S.L. 2004. **The middle Miocene Alum Bluff flora, Liberty County, Florida**. Master's Thesis, University of Florida, Gainesville, Florida.

Cox. A.C., Gordon D.R., Slapcinsky J.L., et al. 2004. **Understory restoration in longleaf pine sandhills.** Natural Areas Journal 24(1):4-14.

Kwit C., Horvitz C.C., and Platt W.J. 2004. **Conserving slow-growing, long-lived tree species: Input from the demography of a rare understory conifer, *Taxus floridana*.** Conservation Biology 18(2):432-443.

Pescador M.L., Rasmussen A.K., and Harris S.C. 2004. **Identification manual for the caddisfly (Tricoptera) larvae of Florida.** Department of Environmental Protection, Tallahassee, FL.

Rasmussen A.K. 2004. **Species diversity and ecology of Trichoptera (caddisflies) and Plecoptera (stoneflies) in ravine ecosystems of northern Florida.** Dissertation, University of Florida, Gainesville, FL.

Segraves K.A. and Pellmyr O. 2004. **Testing the "Out of Florida" hypothesis on the origin of cheating in the yucca-yucca moth mutualism.** Evolution 58:2266-2279.

Stallins J. and Griggs J. 2004. **Influence of historic upland silviculture on the composition of ravine forests along the Apalachicola River.** Natural Areas Journal 24(3):242-250.

Anderson L.C. 2002. ***Liatris gholsonii* (Asteraceae: Eupatorieae), a new blazing star from the Apalachicola River Bluffs and Ravines in Florida.** SIDA, Contributions to Botany 20(1):97-103.

Rasmussen A.K. and Pescador M. 2002. **A Guide to the Megaloptera and aquatic Neuroptera of Florida.** Florida Department of Environmental Protection, Tallahassee, FL.

Vaughn E. 2001. **The Apalachicola Bluffs and Ravines Preserve in north Florida: A longleaf pine and wiregrass restoration project.** Restoration and Reclamation Review 7(1).

Kwit C. 2000. **Habitat and demography of understory trees in mixed species hardwood forests in northern Florida, United States of America.** Dissertation, Louisiana State University, Shreveport, LA.

Pescador M., Rasmussen A., and Richard B. 2000. **A Guide to the Stoneflies (Plecoptera) of Florida.** Florida Department of Environmental Protection, Division of Water Resource Management, Tallahassee, FL.

Schwartz M.W., Hermann S.M., and van Mantgem P.J. 2000. **Estimating the magnitude of decline of the Florida torreya.** Biological Conservation 95:77-84.

Schwartz M.W., Hermann S.M., and van Mantgem P.J. 2000. **Population persistence in Florida torreya: comparing modeled projections of a declining coniferous tree.** Conservation Biology 14:1023-1033.

Moulton S.R. and Harris S.C. 1999. **Redescriptions of the *Oxyethira aeola* group species in North America (Trichoptera: Hydroptilidae): Clarifications of a taxonomic enigma.** American Benthological Society 18(4):545-552.

Schwartz M.W. and Hermann S.M. 1999. **Is slow growth of the endangered *Torreya taxifolia* normal?** Journal of the Torrey Botanical Society 126:307-312.

Gordon D.R. and Rice K. 1998. **Patterns of differentiation in wiregrass (*Aristida beyrichiana*): Implications for restoration efforts.** Restoration Ecology 6(2):166-174.

Harris S.C., Pescador M.L., and Rasmussen A.K. 1998. **Two new species of microcaddisflies in northern Florida.** Florida Entomologist 81(2):221-224.

Kwit C., Platt W.J., Geaghan J.P., et al. 1998. **The distribution of tree species in steepheads of the Apalachicola River Bluffs.** Journal of the Torrey Botanical Society 125(4):309-318.

Means D.B. 1998. **Amphibians and reptiles of Apalachicola Bluffs and Ravines Preserve**. Final report to The Nature Conservancy, Bristol, FL.

Seamon G. 1998. **A longleaf pine sandhill restoration in northwest Florida.** Restoration and Management Notes 16(1):46-50.

Hattenbach M.J., Gordon D.R., Seamon G.S., et al. 1997. **Development of direct seeding techniques to restore native groundcover in a sandhill ecosystem.** Proceedings of the Longleaf Pine Restoration Session, Meeting of the Society for Ecological Restoration and Longleaf Alliance.

Isom P.S. 1997. **Pollination transfer between and within three translocated populations of the endangered mint, *Conradina glabra*, at the Apalachicola Bluffs and Ravines Preserve, Liberty County, Florida.** The Nature Conservancy, Bristol, FL.

Gordon D.R. 1996. **Apalachicola rosemary (*Conradina glabra*) reintroduction.** Pages 417-422 in Falk A., Millar C.I., and Olwell M., editors. Restoring Diversity: Strategies for Reintroduction of Endangered Plants. Island Press.

Gordon D.R. 1996. **Experimental translocation of the endangered shrub, Apalachicola rosemary (*Conradina glabra*).** Biological Conservation 77:19-26.

Schwartz M., Porter D., Hermann S., et al. 1996. **The occurrence of *Pestalotiopsis microspora* on *Torreya taxifolia*.** Plant Disease 80(5):600.

Kwit C. and Platt W. 1995. **The steephead habitat of *Taxus floridana* Nutt. (Taxaceae), a 'Rare' evergreen coniferous shrub.** The Nature Conservancy, Bristol, FL.

Lee J., Clardy J., Yang X., et al. 1995. **The relationship between an endangered North American tree and an endophytic fungus.** Chemistry and Biology 2(11):1-7.

Schumm S.A., Boyd K.F., Wolff C.G., et al. 1995. **A ground-water sapping landscape in the Florida Panhandle.** Geomorphology 12(4):282-297.

Schwartz M., Hermann S., and Vogel C. 1995. **The catastrophic loss of *Torreya taxifolia*: Assessing environmental induction of disease hypothesis.** Ecological Applications 5(2):501-516.

Flowers R.W., Furth D.G., and Thomas M.C. 1994. **Notes on the distribution and biology of some Florida leaf beetles (Coleoptera: Chrysomelidae).** The Coleopterists Bulletin 48(1):79-89.

Walters T., Decker-Walters D., and Gordon D.R. 1994. **Restoration considerations for wiregrass (*Aristida stricta*): Allozymic diversity of populations.** Conservation Biology 8:581-585.

Folk M. 1993. **Gopher tortoise and Sherman's fox squirrel densities in sandhill communities on three TNC preserves in Florida.** The Nature Conservancy, Kissimmee, FL.

Gordon D.R. 1993. **Population differentiation in wiregrass: A reciprocal transplant experiment.** The Nature Conservancy, Maitland, FL.

Redmond A. and Platt W. 1993. **Population ecology of the Florida yew.** Proceedings of the International Yew Resources Conference, March 12-13, 1993.

Schwartz M. 1993. **Allozyme variation of the endangered Florida torreya (*Torreya taxifolia*).** Canadian Journal of Forest Research 23(12):2598-2602.

Schwartz M.W. and Hermann S.M. 1993. **The continuing population decline of *Torreya taxifolia* Arn**. Bulletin of the Torrey Botanical Club 120(3):275-278.

Strobel G., Stierle A., and Hess W.M. 1993. **Taxol formation in yew - *Taxus*.** Plant Science 92:1-12.

Bryant J.D., MacFadden B.J., and Mueller P.A. 1992. **Improved chronologic resolution of the Hawthorn and the Alum Bluff Groups in northern Florida: Implications for Miocene chronostratigraphy.** Geological Society of America Bulletin 104:208-218.

Seamon P. and Myers R. 1992. **Propagating wiregrass from seed.** Palmetto 12(4):6-7.

Schmidt W. 1988. **Alum Bluff Liberty County, Florida**. In T.L. Neathery (editor), Southeastern Section of the Geological Society of America. Boulder, CO. Geological Society of America.

Drez P.E. 1981. **Olivinae (Mollusca, Gastropoda) from the Alum Bluff Group of northwestern Florida**. Tulane Studies in Geology and Paleontology 16:105–112.

Blowing Rocks Preserve

Vona I., Donnelly M., and Kibler K. 2026. **Directing succession of shoreline habitat under changing water levels.** Final report to The Nature Conservancy, Florida.

Hassler K. and Smith L. 2025. **Habitat use and diet of spotted skunks in a coastal environment.** Annual Report, Florida Fish and Wildlife Commission, Gainesville, FL.

Vona I., Donnelly M., and Kibler K. 2025. **Directing succession of shoreline habitat under changing water levels.** Interim report to The Nature Conservancy, Florida.

Kelly M. 2024. **Final report for activities conducted under Marine Turtle Permit 23-208**. Report to the Florida Fish and Wildlife Conservation Commission. Florida Leatherbacks Inc., Palm Beach Gardens, FL.

Welsh R.C. and Witherington B.E. 2023. **Spatial mapping of vulnerability hotspots: Information for mitigating vessel-strike risks to sea turtles.** Global Ecology and Conservation 46:e02592.

Harris R.J., Arrington D., Porter D., et al. 2020. **Documenting the duration and chlorophyll pigments of an allochthonous *Karenia brevis* bloom in the Loxahatchee River Estuary (LRE), Florida**. Harmful Algae 97:101851.

Wetterer J.K., Deyrup M.A., and Bryant A. 2018. **Spread of the non-native trap-jaw ant *Anochetus mayri* (Hymenoptera: Formicidae) in Florida.** Transactions of the American Entomological Society 144(2).

Roberts R., Richardson D.,Roberts L., et al. 2017. **Tropical hammocks of Florida: A historical and contemporary perspective.** Florida Scientist 80(2/3):77-116.

Marshall F.E., Banks K., and Cook G.S. 2014. **Ecosystem indicators for southeast Florida beaches.** Ecological Indicators 44:81-91.

Williams J.K. and Debelica A. 2008. **Analysis of the completeness of vascular plant records in Florida.** Journal of the Botanical Research Institute of Texas 2(9):1363-1371.

Stewart K.R. 2007. **Establishment and growth of a sea turtle rookery: the population biology of the leatherback in Florida.** Dissertation, Duke University, Durham, NC.

Missimer T.M. and Maliva R.G. 2005. **Diagenesis of the Anastasia Formation in eastern coastal Florida: Beachrock or bed-scale cementation.** Gulf Coast Association of Geological Societies Transactions 55:543-553.

Gordon D.R., Miller A., Renda M., et al. 2001. **Florida native turfgrass investigation.** The Nature Conservancy, Maitland, FL.

Lockhart C., Austin D., and Downey L. 1999. **Invasion of carrotwood in Florida natural areas.** Natural Areas Journal 19(3):254-262.

Steinitz M.J., Salmon M., and Wyneken J. 1998. **Beach renourishment and loggerhead turtle reproduction: A seven-year study at Jupiter Island, Florida.** Journal of Coastal Research 14(3):1000-1013.

Randall J.M., Lewis R.R., and Jensen D.B. 1997. **Ecological Restoration.** Pages 205-219 in Simberloff D., Schmitz D.C., and Brown T.C., editors. Strangers in Paradise. Island Press, Washington, D.C.

Lockhart C.S., Austin D.F., Jones W.E., et al. 1999. **The invasion of carrotwood (*Cupaniopsis anacardioides*) in natural areas.** A report to the Florida Department of Environmental Protection, Aquatic Plants Lab, Tallahassee, FL.

Steinitz M.J. 1996. **The effects of beach renourishment on the nesting behavior and hatching success of the loggerhead sea turtle on Jupiter Island, Florida: A seven-year study.** Thesis, Florida Atlantic University, Boca Raton, FL.

Renda M.T. and Rodgers H.L. 1995. **Restoration of tidal wetlands along the Indian River Lagoon.** Bulletin of Marine Science 57:283-284.

Folk M. 1992. **Wildlife use of restored areas at Blowing Rocks, Preserve.** Resource Management Notes 4(4):3-4.

Richardson D., Roberts R., and Woodbury R. 1992. **The vegetation of Blowing Rocks Preserve, Jupiter Island, Florida.** Florida Scientist 55(3):136-156.

Vare C.N. 1991. **A survey, analysis, and evaluation of the nearshore reefs situated off Palm Beach County, Florida.** Thesis, Florida Atlantic University, Boca Raton, FL.

Cox A.C. 1988. **Distribution and species composition of tree islands in Martin and Palm Beach Counties.** Dissertation, Florida Atlantic University, Boca Raton, FL.

Lovejoy D.W. 1983. **The Anastasia Formation in Palm Beach and Martin counties, Florida.** Miami Geological Society Memoir 3:58-72.

Calhoun Spigelia Preserve

Florida Natural Areas Inventory (FNAI). 2025. **Gentian Pinkroot (*Spigelia gentianoides*) Monitoring Report**. Report to the US Fish and Wildlife Service, Tallahassee, FL.

Florida Natural Areas Inventory (FNAI). 2023. **Gentian Pinkroot (*Spigelia gentianoides*) Monitoring Report**. Report to the US Fish and Wildlife Service, Tallahassee, FL.

Florida Natural Areas Inventory (FNAI). 2021a. **Gentian Pinkroot (*Spigelia gentianoides*) Monitoring Report**. Report to the US Fish and Wildlife Service, Tallahassee, FL.

Florida Natural Areas Inventory (FNAI). 2021b. **Status survey of gentian pinkroot (*Spigelia gentianoides*) and damage assessment following Hurricane Michael; Jackson, Washington, and Calhoun Counties, Florida – Annual Report.** Report to the Florida Forest Service, Tallahassee, FL.

Disney Wilderness Preserve

Chen H., Good S.P., Zahn E., et al. 2026. **Shifts in evapotranspiration components during heatwaves alter surface cooling.** Earth's Future 14:e2025EF006562.

Harris A. and Bardgett R.D. 2026. **Canopy reflectance as a predictor of soil microbial community composition and diversity at a continental scale.** New Phytologist 249:829-847.

Hollian L.A., Ten Caten C., and Dallas T.A. 2026. **Abundance-occupancy relationships are informed by species temporal occupancy.** Ecology and Evolution 16:e73214.

Nicolini G., Durden D., Di Fiore L., et al. 2026. **Bridging the energy balance gap in eddy-covariance measurements: insights from standardized network data.** Global Change Biology 32:e70892.

Parsons A.W., Clark J., and Kays R. 2026. **Dominant deer mice show the importance of abundance in competition.** Ecosphere 17:e70576.

Perez H.E., Tevlin S., Crandall R., et al. 2026. **Indentifying seed fill and health predictors to expand see-based restoration of a foundational bunchgrass.** Restoration Ecology 34(1):e70237.

Thomas L., Preetha M.M.S.J., and Grace K.S.V. 2026. **High-precision canopy height estimation using autoencoders with multisource RGB satellite imagery and LiDAR fusion.** IEEE Access 14:23894-23906.

Waterman T.S., Stiperski I., Chaney N., et al. 2026. **Evaluating anisotropy-based Monin-Obukhov similarity theory over canopies and complex terrain.** Quarterly Journal of the Royal Meteorological Society 2026:e70206.

Allred B.W., McCord S.E., and Morford S.L. 2025. **Canopy height model and NAIP imagery pairs across CONUS.** Scientific Data 12(1):322.

Atkins J.W., Alveshere B., Breland S., et al. 2025. **Individual tree and sapling aboveground biomass (AGB) estimates for 35 NEON terrestrial observation sites for 2014-2023.** JGR Biogeosciences 130:e2024JG008381.

Ayres E. 2025. **Meteorological and vegetation structure controls on liquid throughfall in US forests and shrublands**. Journal of Geophysical Research: Biogeosciences 130: e2024JG008519.

Barinas G. 2025. **Vegetation structure in hydrologic modeling: from interception loss to floodplain roughness.** Dissertation, Oregon State University.

Biazzo I. and Quintana-Ascencio P.F. 2025. **Prescribed fire leads a pine flatwoods specialist treefrog to seek local refugia.** Ecosphere 16:e70296.

Bonucchi J. 2025. **Utilization of artificial intelligence to predict surface energy budget.** Thesis, University of Alabama, Huntsville AL.

Bowman K. 2025. **Modeling West Nile virus and environmental drivers among *Culex* spp mosquitoes and multiple host species.** Dissertation, Ohio State University.

Bu J., and Xiao J. 2025. **Upscaling eddy covariance measurements of carbon and water fluxes to the continental scale by incorporating GEDI-derived canopy structural complexity metrics.** Remote Sensing of the Environment 329:114930.

Cai L., Wu J., Somsack I., et al. 2025. **Accurate estimation of forest canopy height based on GEDI transmitted deconvolution waveforms.** Remote Sensing 17:20:3412.

Chow S. 2025. **Investigating patterns and drivers of vegetation greenness decline during the growing season using high-resolution remote sensing data.** Honors Thesis, Cornell University, Ithica NY.

Corak N.K., Thornton P.E., and Lowman L.E.L. 2025. **A high resolution, gridded product for vapor pressure deficit using Daymet.** Scientific Data 12:256.

Diehl J.L., Javadian M., Koch G.W., et al. 2025. **Drivers of canopy temperature dynamics across diverse ecosystems.** Environmental Research Letters 20:104038.

Edmonds W.D. 2025. **Taxonomic review of the pilularius species group of the New World dung beetle genus *Canthon* Hoffmannsegg, 1817 (Coleoptera: Scarabaeidae: Scarabaeinae: Deltochilini).** Insecta Mundi 1117:1-43.

Fritsch P.W., Crowl A.A., and Manos P. 2025. **Evolution and taxonomic revision of the "residual highbush" blueberries of Vaccinium sect. Cyanococcus (Ericaceae).** Journal of the Botanical Research Institute of Texas 19(4):419-476.

Gilbert N.A., DiRenzp G.V., and Zipkin E.F. 2025. **Idiosyncratic spatial scaling of biodiversity-disease relationships**. Ecography 2025:e07541.

He K., Wenhong L., Zhang Y, et al. 2025. **Temperature and water levels collectively regulate methane emissions from subtropical freshwater wetlands**. Global Biogeochemical Cycles 39:e30334GB008372.

LaRue E.A., Rezendes K.M., Choi D.H., et al. 2025. Gradient surface metrics of ecosystem **structural diversity and their relationships with productivity across macrosystems.** Ecosphere 16:e70172.

Li J., Xiao Z., Sun R., et al. 2025. **Retrieval of leaf area index from the Landsat surface reflectance using multi=task adversarial transfer learning.** International Journal of Digital Earth 18(1):2520002.

Malhotra A., Moore J.A.M., Weintraub-Leff S., et al. 2025. **Fine root and soil carbon stocks are positively relate in grasslands but not in forests.** Communications Earth & Environment 6:497.

Pinto-Ledezma J.N., Schweiger A.K., Guzman J.A., et al. 2025. **Plant diversity across dimensions: coupling biodiversity measures from the ground and the sky.** Science Advances 11:eadr0278.

Ravindran R., Treitz Y., and Iwaszczuk D. 2025. **Investigation on dimensionality reduction methods for tree-crown segmentation in hyperspectral imagery using Segment Anything Model.** ISPRS Annals of the Photogrammetry, Remote Sensing, and Spatial Information Sciences 2025:705-712.

Ringler A.T., Holcomb A., and Rigler J.E., et al. 2025. **US Geological Survey geomagnetic variometer data: capitalizing on seismic infrastructure.** Seismological Research Letters 97:2179–2190.

Sandquist A.G. 2025. **Effect of vegetation structure on evapotranspiration and the prediction of evapotranspiration.** Dissertation, University of Nevado, Reno.

Sandquist A.G., Good S.P., Barinas G., et al. 2025. **Effectiveness of predicting event-level interception losses across diverse vegetated sites using statistical models.** Ecohydrology 18(3):e70050.

Schwartz E., Keppel-Aleks G., and Steiner A.L. 2025. **Diffuse fertilization or lack thereof: a multisite synthesis of water and carbon fluxes.** JGR Biogeosciences 130:e2025JG008757.

Shaoning L.V., Zhao T., Hu Y., et al. 2025. **Assessing the freeze-thaw dynamics with the diurnal amplitude variations algorithm utilizing NEON soil temperature profiles.** IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing.

Simkin S.M., Sokol E.R., Meier C.L., et al. 2025. **Optimization of the National Ecological Observatory Network root sampling design.** Ecological Indicators 181:114463.

Sweeney C.P., Peterman P., Zhao K., et al. 2025. **Three-dimensional habitat structure drives avian functional and trait diversity across North America**. Ecology and Evolution 15:e70988.

Tiana N., Koch B.S., Banta J.A., et al. 2025. **Consequences of climate change on the emergence of pathogenic, environmentally acquired nontuberculous mycobacteria**. Open Forum Infectious Diseases (p. ofaf232), Oxford University Press.

Uyekawa J., Leland J., Bergl D., et al. 2025. **Machine Learning-Based Prediction of Ecosystem-Scale CO_2 Flux Measurements.** Land 14(1):124.

Xu C., Huang J., Hartemink A.E., et al. 2025. **Pruned hierarchical random forest framework for digital soil mapping: evaluation using NEON soil properties.** Geoderma 459:117392.

Young A.M., Milliman T., Hufkens K., et al. 2025. **Tracking vegetation phenology across diverse biomes using Version 3.0 of the PhenoCam Dataset.** Earth System Science Data 17:6531-6556.

Yu W., Huang W., Hammel K.E., et al. 2025. **Microbial taxa and interactions can predict lignin mineralization in soil at continental scale.** Soil Biology and Biochemistry 2025:109763.

Zhu Y., Locke W., Yuan J., et al. 2025. **Leveraging SAM2 and LiDAR for automated individual tree crown delineation: A comparative evaluation of prompting methods.** Information Geography 1(2):100025.

Aguilos M., Sun G., Liu N, et al. 2024. **Energy availability and leaf area dominate control of ecosystem evapotranspiration in the southeastern US**. Agricultural and Forest Meteorology 349:109960.

Ayres E.A., Reichle R.H., Colliander A., et al. 2024. **Validation of remotely sensed and modeled soil moisture at forested and unforested NEON sites**. IEEE Journal of Selected Topics in Applies Earth Observations and Remote Sensing 17:14248-14264.

Bradfield S.J. 2024. **Dynamics of stress and mortality for grass dominated ecosystems: an interplay of water limitation, heat, and erosion**. Dissertation, Colorado State University, Fort Collins CO.

Chen L.W. and Romanowicz B. 2024. **On accounting for the effects of crust and uppermost mantle structure in global scale full-waveform inversion.** Geophysical Journal International *239*(1):662-674.

Dallas T.A., Holian L.A., and Ten Caten C. 2024. **Geographic and temporal distance-decay relationships across taxa.** Oikos 2024:e10269.

Dong L., Chen J.M., Yu W., et al. 2024. **A chlorophyll-constrained semi-empirical model for estimating leaf area index using a red-edge vegetation index.** Computers and Electronics in Agriculture 220:108891.

Doser J.W., Finley A.O., Kéry M., et al. 2024. **SpAbundance: an R package for single-species and multi-species explicit abundance models.** Methods in Ecology and Evolution 15:1024-1033.

Gomarasca U., Duveiller G., Pacheco-Labrador J., et al. 2024. **Satellite remote sensing reveals the footprint of biodiversity on multiple ecosystem functions across the NEON eddy covariance network.** Environmental Research: Ecology 3:045003.

Haas H., Kalin L., Sun G., et al. 2024. **Understanding the effect of afforestation on water quantity and quality at watershed scale by considering the influences of tree species and local moisture recycling**. Journal of Hydrology 640:131739.

Hansen P.M., Even R., King A.E., et al. 2024. **Distinct, direct and climate-mediated environmental controls on global particulate and mineral-associated organic carbon storage**. Global Change Biology 30(1):e17080.

Hu J. 2024. **Investigating the Soil-Plant-Atmosphere Interactions across National Ecological Observatory Network (NEON) Sites in the USA**. Dissertation, University of Wisconsin-Madison.

Journé V., Bogdziewicz M., Courbaud B., et al. 2024. **The relationship between maturation size and maximum tree size from tropical to boreal climates.** Ecology Letters 27:e14500.

Kays R., Snider M.H., Hess G., et al. 2024. **Climate, food and humans predict communities of mammals in the United States**. Diversity and Distributions 2024:e13900.

Liu S., Wang Z., Lin Z., et al. 2024. **Corrigendum to "Spectra-phenology of foliar functional traits using time-series Sentinel-2 data" [Remote Sensing of Environment 305:114082].** Remote Sensing of Environment 307:114171.

Liu S., Wang Z., Lin Z., et al. 2024. **Spectra-phenology of foliar functional traits using time-series Sentinel-2 data.** Remote Sensing of Environment 305:114082**.**

Mahaur A. 2024. **Aboveground biomass density estimation using deep learning: insight from NEON ground-truth data and simulated GEDI waveform.** Thesis, Michigan Technological University, Houghton MI.

Masuda Y., Mise K., Xu Z., et al. 2024. **Global soil metagenomics reveals ubiquitous yet previously-hidden predominance of Deltaproteobacteria in nitrogen-fixing microbiome**. Microbiome 12:95.

Novick K.A., Ficklin D.L., Grossiord C., et al. 2024. **The impacts of rising vapour pressure deficit in natural and managed ecosystems**. Plant, Cell & Environment 47:3561-3589.

Qiu T., Clark J.S., Kovach K.R., et al. 2024. **Remotely sensed crown nutrient concentrations modulate forest reproduction across the contiguous United States**. Ecology 2024:e4366.

Rogers J.A., Robertson K.M., Hawbaker T.J., et al. 2024. **Classifying Plant Communities in the North American Coastal Plain with PRISMA Spaceborne Hyperspectral Imagery and the Spectral Mixture Residual.** JGR Biogeosciences 129(9):e2024JG008217.

Rooney E.C. and Possinger A.R. 2024. **Climate and ecosystem factors mediate soil freeze-thaw cycles at the continental scale**. Journal of Geophysical Research: Biogeosciences 129:e2024JG008009.

Sawade L. 2024. **Global centroid moment tensor inversion in a heterogeneous earth**. Doctoral dissertation, Princeton University.

Tolan J., Yang H.-I., Nosarzewski B., et al. 2024. **Very high resolution canopy height maps from RGB imagery using self-supervised vision transforme and convolutional decoder trained on aerial lidar.** Remote Sensing of Environment 300(1):113888.

Tran K.H. 2024. **Generation of synthetic gap-free time series by bridging satellite and near-surface observation for advancing land surface phenology detections**. Dissertation, South Dakota State University, Brookings SD.

Wang C., He T., Song D.-X., et al. 2024. **Comparison of change-based and shape-based data fusion methods in fine-resolution land surface phenology monitoring with Landsat and Sentinel-2 data**. Science of the Total Environment 927:172014.

Wang Y. and Fang H. 2024. **Derivation and evaluation of LAI from the ICESat-2 Data over the NEON Sites: The impact of segment size and beam type**. Remote Sensing 16(16):3078**.**

Wang Z., Kumar J., Weintraub-Leff S.R., et al. 2024. **Upscaling soil organic carbon measurements at the continental scale using multivariate clustering analysis and machine learning**. Journal of Geophysical Research: Biogeosciences 129(2):e2023JG007702.

Waterman T.S. 2024. **Representing the heterogeneity of land-atmosphere interactions in earth system modeling**. Dissertation, Duke University, Durham NC.

Xiao H., Song C., Li S., et al. 2024. **Global wetland methane emissions from 2001 to 2020: Magnitude, dynamics and controls**. Earth's Future 12: e2024EF004794.

Zahn E. and Bou-Zeid E. 2024. **Observational partitioning of water and CO_2 fluxes at National Observatory Network (NEON) sites: A 5-year dataset of soil and plant components for spatial and temporal analysis**. Earth System Science Data 16:5603-5624.

Aster R.C., Ringler A.T., Anthony R.E., et al. 2023. **Increasing ocean wave energy observed in Earth's seismic wavefield since the late 20th century.** Nature Communications 14:6984.

Atkinson M.S. 2023. **Impacts of the protist pathogen amphibian Perkinsea on amphibian species and communities.** Dissertation, University of Central Florida, Orlando FL.

Atkinson M.S. and Savage A.E. 2023. **Widespread amphibian Perkinsea infections associated with Ranidae hosts, cooler months and Ranavirus co-infection.** Journal of Animal Ecology 92(9):1856-1868.

Biazzo I. 2023. **Responses of a pine flatwoods specialist treefrog to prescribed fire.** Dissertation, University of Central Florida, Orlando, FL.

Bogdziewicz M., Aravena Acuña M.-C., Andrus R., et al. 2023. **Linking seed size and number to trait syndromes in trees.** Global Ecology and Biogeography, 32, 683–694.

Bogdziewicz M., Calama R., Courbaud B., et al. 2023. **How to measure mast seeding?** *New Phytologist*, 239: 830-838.

Brown L.A., Morris H., Meier C., et al. 2023**. Stage 1 validation of plant area index from global ecosystem dynamics investigation.** IEEE Geoscience and Remote Sensing Letters, GRSL-00503-2023.R2.

Chuckran P.F., Flagg C., Propster J., et al. 2023. **Edaphic controls on genome size and GC content of bacteria in soil microbial communities.** Soil Biology and Biochemistry 178:108935.

Dallas T.A., Ten Caten C., and Holian L.A. 2023. **Temporal variability of carabid beetles as a function of geography, environment, and species.** Theoretical Ecology 2023:1-9.

Dellinger T.A., Bielefeld R.R., Sylvia A., et al. 2023. **Survivorship and productivity of Florida sandhill cranes on conservation lands and suburban areas in Florida**. Final Report to the Florida State Wildlife Grants Program. Florida Fish and Wildlife Conservation Commission, Tavares, FL.

Dynarski K.A., Soper F.M., Reed S.C., et al. 2023. **Patterns and controls of foliar nutrient stoichiometry and flexibility across United States forests**. Ecology 104(2):e3909.

Edmonds W. D. 2023. **Taxonomic review of the North American dung beetle genus Melanocanthon Halffter, 1958 (Coleoptera: Scarabaeidae: Scarabaeinae: Deltochilini).** Insecta Mundi 1014:1-28.

Fulk A.J. 2023. **The new age of fire: Exploring the effect of prescribed fire on tick propagation and distribution.** Thesis, University of Kansas, Lawrence, KS.

Hakkenberg C.R., Atkins J.W., Brodie J.F., et al. 2023. **Inferring alpha, beta, and gamma plant diversity across biomes with GEDI spaceborne lidar.** Environmental Research: Ecology 2(3):035005.

Hernandez D.J., Kiesewetter K.N., Almeida B.K., et al. 2023. **Multidimensional specialization and generalization are pervasive in soil prokaryotes**. Nature Ecology & Evolution *7*(9):1408-1418.

Hu J., Hartemink A.E., Desai A.R., et al. 2023. **A continental-scale estimate of soil organic carbon change at NEON sites and their environmental and edaphic Controls.** Journal of Geophysical Research: Biogeosciences 128(5):e2022JG006981.

Huang W., Yu W., Yi B., et al. 2023. **Contrasting geochemical and fungal controls on decomposition of lignin and soil carbon at continental scale**. Nature Communications 14(1):2227.

Ibanez I., Petri L., Barnett D.T., et al. 2023. **Combining local, landscape, and regional geographies to assess plant community vulnerability to invasion impact.** Ecological Applications 33(4):e2821.

Kaspari M., Marshall K.E., Weiser M.D., et al. 2023. **Geographic gradients in a functional trait: Drivers of body size and size diversity of ground invertebrate communities**. Ecosphere 15:e4785.

Kaspari M., Weiser M.D., Marshall K.E., et al. 2023. **Temperature–habitat interactions constrain seasonal activity in a continental array of pitfall traps.** Ecology 104:e3855.

Li J., Xiao Z., Sun R., et al. 2023. **A method to estimate leaf area index from VIIRS surface reflectance using deep transfer learning.** ISPRS Journal of Photogrammetry and Remote Sensing 202:12-527.

Lin W., Yuan H., Dong W., et al. 2023. **Reprocessed MODIS Version 6.1 leaf area index dataset and its evaluation for land surface and climate modeling.** Remote Sensing 15(7):1780.

Lombardozzi D.L., Wieder W.R., Sobhani N., et al. 2023. **Overcoming barriers to enable convergence research by integrating ecological and climate sciences: the NCAR-NEON system Version 1**. Geoscientific Model Development 16(20):5979-6000.

McNicol G., Fluet-Chouinard E., Ouyang Z., et al. 2023. **Upscaling wetland methane emissions from the FLUXNET-CH4 eddy covariance network (UpCH4 v1. 0): Model development, network assessment, and budget comparison.** AGU Advances 4(5):e2023AV000956.

Parsons A.W., Clark J.S., and Kays R. 2023. **Monitoring small mammal abundance using NEON data: are calibrated indices useful?** Journal of Mammalogy 104(2):292-302.

Ping J., Henglei X., Hongchun W., et al. 2023. **On the seismic source of function of an underwater explosion.** Geophysical Journal International 232:485-503.

Qin C., Pellitier P.T., Van Nuland M.E., et al. 2023. **Niche modelling predicts that soil fungi occupy a precarious climate in boreal forests.** Global Ecology and Biogeography *32*(7):1127-1139.

Qiu T., Bell A.J., Swenson J.J., et al. 2023. **Habitat-trait interactions that control response to climate change: North American ground beetles (Carabidae).** Global Ecology and Biogeography 2023:1-15.

Qiu, T., Aravena Acuña M.-C., Ascoli D., et al. 2023. **Masting is uncommon in trees that depend on mutualist dispersers in the context of global climate and fertility gradients**. Nature Communications 14:7998.

Richardson A.D. 2023. **PhenoCam: An evolving, open-source tool to study the temporal and spatial variability of ecosystem-scale phenology.** Agricultural and Forest Meteorology 342:109751.

Robertson K., Simonson E.M., Ramirez-Bullon N.R., et al. 2023. **Effects of spatial resolution, mapping window size, and spectral species clustering on remote sensing of plant beta diversity using biodivMapR and hyperspectral imagery.** Journal of Geophysical Research: Biogeosciences 128(7):e2022JG007350.

Sanchez-Zapero J., Camacho F., Martinez-Sanchez E., et al. 2023. **Global estimates of surface albedo from Sentinel-3 OLCI and SLSTR data for Copernicus Climate Change Service: Algorithm and preliminary validation.** Remote Sensing of Environment 287:113460.

Sanchez-Zapero J., Martinez-Sanchez E., Camacho F., et al. 2023. **Surface ALbedo VALedation (SALVAL) platform: Towards CEOS LPV Validation Stage 4 – Application to three global albedo climate data records.** Remote Sensing 15:1081.

Santos F. and Herndon E. 2023. **Plant-soil relationships influence observed trends between manganese and carbon across biomes.** Global Biogeochemical Cycles 37(1):e2022GB007412.

Scott N. 2023. **Relationships between vector mosquitoes and climate change derived from Long Term Ecological Data in the United States.** In BSU Honors Program Theses and Projects. Item 632. Bridgewater State University, Bridgewater, Massachusetts.

Sipps J. and Magruder L.A. 2023. **Modeling uncertainty of GEDI clear-sky terrain height retrievals using a mixture density network**. Remote Sensing 15(23):5594.

Wang C., Jia D., Lei S., et al. 2023a. **Accuracy assessment and impact factor analysis of GEDI leaf area index product in temperate forest.** Remote Sensing 15:535.

Wang J., Yan K., Gao S., et al. 2023b. **Improving the quality of MODIS LAI products by exploiting spatiotemporal correlation information.** IEEE Transactions on Geoscience and Remote Sensing 61:1-19.

Weakley A.S., Kees J.C., Sorrie B.A., et al. 2023. **Studies in the vascular flora of the southeastern United States.** Journal of the Botanical Research Institute of Texas, 17(1):191-257.

Weintraub-Leff S.R., Hall S.J., Craig M.E., et al. 2023. **Standardized data to improve understanding and modeling of soil nitrogen at continental scale.** Earth's Future 11(5):e2022EF003224.

Xu Y., Ding S., Chen P., et al. 2023. **Horizontal geolocation error evaluation and correction on full-waveform LiDAR footprints via waveform matching**. Remote Sensing 15(3):778.

Yi B., Lu C., Huang W., et al. 2023. **Resolving the influence of lignin on soil organic matter decomposition with mechanistic models and continental-scale data**. Global Change Biology 29(20):5968-5980.

Armstrong S., Khandelwal P., Padalia D., et al. 2022. **Attention-based convolutional capsules for evapotranspiration estimation at scale.** Environmental Modelling & Software 152:105366.

Atkins J.W., Stovall A.E.L., and Silva C.A. 2022. **Open-source tools in R for forestry and forest ecology**. Forest Ecology and Management 503:119813.

Atkins J.W., Walter J.A., Stovall A.E.L., et al. 2022. **Power law scaling relationships link canopy structural complexity and height across forest types.** Functional Ecology 36:713–726.

Babaeian E., Paheding S., Siddique, et al. 2022. **Short- and mid-term forecasts of actual evapotranspiration with deep learning.** Journal of Hydrology 612, Part A: 128078.

Biazzo I. 2022. **Treefrog responses to prescribed fire in a central Florida pine flatwoods-marsh complex.** Project update report to The Nature Conservancy, Kissimmee, FL.

Biazzo I.N. and Quintana-Ascencio P.F. 2022a. **Canopies, the final frog-tier: exploring responses of a specialist treefrog to prescribed fire in a pyrogenic ecosystem.** Fire Ecology 18:24.

Biazzo I. and Quintana-Ascencio P.F. 2022b. **Potential mechanisms of population decline: Anuran responses to prescribed fire.** Final Report to the Joint Fire Science Program. JFSP Project ID: 19-1-01-27.

Doby J.R., Daijang L., Folk R.A., et al. 2022. **Aridity drives phylogenetic diversity and species richness patterns of nitrogen-fixing plants in North America.** Global Ecology and Biogeography 31:1630–1642.

Donnelly A., Yu R., Jones K., et al. 2022. **Exploring discrepancies between in situ phenology and remotely derived phenometrics at NEON sites.** Ecosphere 22(23):e3912.

Gallo A.C. 2022. **Tracing sources of soil organic matter through time, across ecosystems, and down soil profiles.** Dissertation, Oregon State University, Corvallis, OR.

Gobron N., Morgan O., Adams J., et al. 2022. **Evaluation of Sentinel-3A and Sentinel-3B ocean land colour instrument green instantaneous fraction of absorbed photosynthetically active radiation.** Remote Sensing of Environment 270:112850.

Guimaraes M.F.S.B. 2022. **Environmental noise tomography: A contribution to the estimation of the crustal structure under the Pantanal Basin.** Final Paper (Bachelor's Degree in Geophysics), Federal University of Pampa, Caçapava do Sul, Brazil.

Hall S.J and Thompson A. 2022. **What do relationships between extractable metals and soil organic carbon concentrations mean?** Soil Science Society of America Journal 86:195-208.B

Hill J.G. 2022. **Revision of *Gymnoscirtetes* (Orthoptera, Acrididae, Melanoplinae): A genus endemic to the grasslands of the southeastern North American Coastal Plain**. ZooKeys 1134:101.

Jones A.B. 2022. **Utilization of blow files (Phormia regina) as vertebrate resource diversity indicators.** Thesis, Purdue University, West Lafayette, LA.

Journe V., Andrus R., Aravena M.-C., et al. 2022. **Globally, tree fecundity exceeds productivity gradients.** Ecology Letters 2022(00):1-12.

Khan H. 2022. **Investigating depressional features associated with sinkholes in deep-seated interstratal karst using near-surface seismic reflection techniques in central Florida.** Thesis, Florida Atlantic University, Boca Raton, FL.

Li S., Fang H., Zhang Y., et al. 2022. **Comprehensive evaluation of global CI, FVC, and LAI products and their relationships using high-resolution reference data**. Science of Remote Sensing 2022:1000066.

Marconi S., Weinstein B.G., Zou S., et al. 2022. **Continental-scale hyperspectral tree species classification in the National Ecological Observatory Network.** Remote Sensing of Environment 282(1):113264.

Musinsky J., Goulden T., Wirth G., et al. 2022. **Spanning scales: The airborne spatial and temporal sampling design of the National Ecological Observatory Network.** Methods in Ecology and Evolution 13:1866-1884.

Moon M., Richardson A.D., Milliman T., et al. 2022. **A high spatial resolution land surface phenology dataset for AmeriFlux and NEON sites.** Scientific Data 9:448.

Paull S.H. 2022. **Tick abundance, diversity and pathogen data collected by the National Ecological Observatory Network.** Gigabyte 2022:1-11.

Possinger A.R., Heckman K.A., Bowman M.M., et al. 2022. **Lignin and fungal abundance modify manganese effects on soil organic carbon persistence at the continental scale.** Geoderma 425:116070.

Qiu, T., Andrus, R., Aravena, MC., et al. 2022. **Limits to reproduction and seed size-number trade-offs that shape forest dominance and future recovery.** Nature Communications 13:2381.

Rishmawi K., Huang C., Schleeweis K., et al. 2022. **Integration of VIIRS observations with GEDI-Lidar measurements to monitor forest structure dynamics from 2013 to 2020 across the conterminous United States.** Remote Sensing 14:2320.

Robertson K. 2022. **Linking fire and biodiversity – Development of SBG remote sensing applications. Interim report for NASA grant 80NSSC21K1956.** Tall Timbers Research Station, Tallahassee, FL.

Schweiger A. and Laliberte E. 2022. **Plant beta-diversity across biomes captured by imaging spectroscopy.** Nature Communications 13:2767.

Sharma S., Andrus R., Bergeron Y., et al. 2022. **North American tree migration paced by contrasting east-west mechanisms.** Proceedings of the National Academy of Sciences 119(3):e2116691118.

Tang W., Qin J., Yang K., et al. 2022. **Mapping long-term and high-resolution global gridded photosynthetically active radiation using the ISCCP H-series cloud product and reanalysis data.** Earth System Science Data 14:2007–2019.

Ten Caten C., Holian L., and Dallas T. 2022. **Weak but consistent abundance-occupancy relationships across taxa, space and time.** Global Ecology and Biogeography 31(5):968-977.

Waterman T., Bragg A.D., Katul G., et al. 2022. **Examining parameterizations of potential temperature variance across varied landscapes for use in earth system models.** Journal of Geophysical Research: Atmosphere 127:e2021JD036236.

Ye C., Huang W., Hall S.J., et al. 2022. **Association of organic carbon with reactive iron oxides driven by soil pH at the global scale.** Global Biogeochemical Cycles 36(1):e2021GB007128.

Yu W. 2022. **Controls over soil carbon concentration, physical fractions, and decomposition at the continental scale.** Dissertation, Iowa State University, Ames, IA.

Yu W., Huang W., Weintraub-Leff S., et al. 2022. **Where and why do particulate organic matter (POM) and mineral-associated organic matter (MAOM) differ among diverse soils.** Soil Biology and Biochemistry 172:108756.

Yuan K., Zhu Q., Li F., et al. 2022. **Causality guided machine learning model on wetland CH_4 emissions across global wetlands.** Agricultural and Forest Meteorology 324:109-115.

Zhang Y., Freedman Z.B., Hartemink A.E., et al. 2022. **Characterizing soil microbial properties using MIR spectra across 12 ecoclimatic zones.** Geoderma 409(1):115647.

Ayres E., Colliander A., Cosh M.H., et al. 2021. **Validation of SMAP soil moisture at terrestrial National Ecological Observatory Network (NEON) sites show potential for soil moisture retrieval in forested areas.** IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing 14:10903-10918.

Brown L.A., Fernandes R., Djamai N., et al. 2021. **Validation of baseline and modified Sentinel-2 Level 2 Prototype Processor leaf area index retrievals over the United States.** ISPRS Journal of Photogrammetry and Remote Sensing 175:71-87.

Clark J.S., Andrus R., Aubry-Kientz M., et al. 2021. **Continent-wide tree fecundity driven by indirect climate effects.** Nature Communications 12:1242.

Davila A. and Bohlen P.J. 2021. **Hydro-ecological controls on soil carbon storage in subtropical freshwater depressional wetlands.** Wetlands 41:66.

De Jesus C. 2021. **Surveillance and ecology of tick-borne pathogens and tick-host associations of reptiles and amphibians in Florida**. Doctoral dissertation, University of Florida, Gainesville, FL.

De Jesus C., Bhosale C., Wilson K., et al. 2021. **Reptile host associations of *Ixodes scapularis* in Florida and implications for *Borrelia* spp. ecology**. Pathogens 10:999.

Delwiche K.B., Knox S.H., Malhotra A., et al. 2021. **FLUXNET-CH4: A global, multi-ecosystem dataset and analysis of methane seasonality from freshwater wetlands.** Earth System Science Data, 13:3607–3689.

Fiorella R.P., Good S.P., Allen S.T., et al. 2021. **Calibration strategies for detecting macroscale patterns in NEON atmospheric carbon isotope observations.** JGR Biogeosciences 126(33):e2020JG005862.

Gualtieri L., Bachmann E., Simons F.J., et al. 2021. **Generation of secondary microseism Love waves: Effects of bathymetry, 3-D structure and source seasonality.** Geophysical Journal International 226(1):192-219.

Hantak M.M., McLean B.S., Li D., et al. 2021. **Mammalian body size is determined by interactions between climate, urbanization, and ecological traits.** Communications Biology 4:972.

Kang Y., Oz Dogan M., Gao F., et al. 2021. **A data-driven approach to estimate leaf area index for Landsat images over the contiguous US.** Remote Sensing 258:112383.

Liu A., Cheng X., and Chen Z. 2021. **Performance evaluation of GEDO and ICESat-2 laser altimeter data for terrain and canopy height retrievals.** Remote Sensing of Environment 264:e112571.

Messer P.W. and Raber B.T. 2021. **A review of Neartic *Selenophorus* Dejean (Coleoptera: Carabidae: Harpalini) north of Mexico with new species, new synonyms, range extensions, and a key.** Coleopterists Bulletin 75(1):9-55.

Parker S. 2021. **Monitoring landscape and spectral dynamics of subtropical freshwater wetlands that have undergone hydrological restoration.** Thesis, University of Central Florida, Orlando, FL.

Parra A.S. 2021. **Quantifying and understanding vegetation change in the conterminous United States using geospatial data.** Dissertation, University of Nevada, Reno, NV.

Patel K.F., Fansler S.J., Campbell T.P., et al. 2021. **Soil texture and environmental conditions influence the biogeochemical responses of soils to drought and flooding.** Communications Earth & Environment 2:127.

Patel K.F., Smith A.P., Bond-Lamberty B., et al. 2021. **Spatial access and resource limitations control carbon mineralization in soils.** Soil Biology and Biochemistry 162:108427.

Pinto J.N. and Cavender-Bares J. 2021. **Predicting species distributions and community composition using satellite remote-sensing predictors**. Scientific Reports 11:16448.

Qiu T., Sharma S., Woodall C.W., et al. 2021. **Niche shifts from trees to fecundity to recruitment that determine species response to climate change.** Frontiers in Ecology and Evolution 9:863.

Qiu T., Aravena M.-C., Andrus R., et al. 2021. **Is there tree senescence? The fecundity evidence.** Proceedings of the National Academy of Sciences 118:e2106130118.

Ringler A.T., Mason D.B., Laske G., et al. 2021. **Why do my squiggles look funny? A gallery of compromised seismic signals.** Seismological Research Letters 92(6):3873-3886.

Stachewicz J.D., Fountain-Jones N.M., Koontz A., et al. 2021. **Strong trait correlation and phylogenetic signal in North American ground beetle (Carabidae) morphology**. Ecosphere 21(11):e03832.

Weinstein B.G., Graves S.J., Marconi S., et al. 2021. **A benchmark dataset for canopy crown detection and delineation in co-registered airborne RGB, LiDAR and hyperspectral imagery from the National Ecological Observation Network.** PLoS Computational Biology 17(7):e1009180.

Weinstein B.G., Marconi S., Bohlman S.A., et al. 2021. **A remote sensing derived data set of 100 million individual tree crowns for the National Ecological Observatory Network.** eLife 10:e62922.

Yang X., Sun H., Yang Y., et al. 2021. **Recent progress in multi-scaling modeling and simulation of flow and solute transport in porous media**. WIREs Water 2021:e1561.

Yu W., Weintraub S.R., and Hall S.J. 2021. **Climatic and geochemical controls on soil carbon at the continental scale: Interactions and thresholds**. Global Biogeochemical Cycles 35(3):e2020GB006781.

Zhang H., Dong X., Baike X., et al. 2021. **Retrieving high-resolution surface photosynthetically active radiation from the MODIS and GOES-16 ABI data**. Remote Sensing of Environment 260:112436.

Baer A.M. 2020. **Improvements in data quality in LIGO.** Thesis, Christopher Newport University, Newport News, VA.

Brown L.A., Meier C., Morris H., et al. 2020. **Evaluation of global leaf area index and fraction of absorbed photosynthetically active radiation products over North America using Copernicus axonomic error rates affect interpretations of a national-scale ground beetle monitoring program at National Ecological Observatory Network sites. Ground Based Observations for Validation data**. Remote Sensing of Environment 247:111935.

Egli L., LeVan K.E., and Work T.T. 2020. **Taxonomic error rates affect interpretations of a national-scale ground beetle monitoring program at National Ecological Observatory Network sites.** Ecosphere 11(4):e03035.

Farella M. 2020. **Evaluating soil microbial communities and foliar nitrogen across complex landscapes: Insights into terrestrial biogeochemical cycles**. Dissertation, University of Arizona, Tucson, AZ.

Fisher J.B., Lee B., Purdy A.J., et al. 2020. **ECOSTRESS: NASA's next generation mission to measure evapotranspiration from the International Space Station.** Water Resources Research 56(4).

Hall S.J., Ye C., Weintraub S.R. et al. 2020. **Molecular trade-offs in soil organic carbon composition at continental scale.** Natural Geosciences 13:687–692.

Lucardi R.D., Wallace L.E., and Ervin G.N. 2020. **Patterns of genetic diversity in a highly invasive species: Cogongrass (*Imperata cylindrica*) expansion in the invaded range of the southern United States (US).** Plants 9(4):423.

Luna Diaz N. 2020. **Determination of the seismic moment and dimensions of the seismic source by spectral analysis, applied to large earthquakes in Peru from 1997-2018.** Thesis, Universidad Nacional Mayor de San Marcos, Peru.

Onisko A.L. 2020. **Biology and management of two invasive *Scleria* species: *Scleria lacustris* and *Scleria macrocarpa*.** Thesis, University of Florida, Gainesville, FL.

Ringler A.T., Steim J., Wilson D.C., et al. 2020. **Improvements in seismic resolution and current limitations in the Global Seismographic Network.** Geophysical Journal International 220(1):508-521.

Ritter F. 2020. **The ecohydrological impacts of secondary precipitation processes.** Thesis, University of Illinois at Chicago, IL.

Shu S., Jain A.K., and Kheshgi H.S. 2020. **Investigating wetland and nonwetland soil methane emissions and sinks across the contiguous United States using a land surface model.** Global Biogeochemical Cycles 34(7).

Smith L.M., Oxenrider K.J., Hayman R.B., et al. 2020. **Refining the distribution of Rafinesque's big-eared bat in Florida.** Southeastern Naturalist 19(3):38-44.

Sobolev G.A., Zahrzhevskaya N.A., Migunov I.N., et al. 2020. **Effect of magnetic storms on low-frequency seismic noise.** Physics of the Solid Earth 56(3):291-315.

Wang Z., Chlus A., Geygan R., et al. 2020. **Foliar functional traits from imaging spectroscopy across biomes in eastern North America.** New Phytologist 228:494-511.

Weinstein B.G., Marconi S., Aubry-Kientz M., et al. 2020. **DeepForest: A Python package for RGB deep learning tree crown delineation.** Methods in Ecology and Evolution 11:1743–1751.

Yepaneshnikov V.D. and Yepaneshnikova I.V. 2020. **Method of early prediction of the moment of earthquake according to the noise of seismic stations**. IOP Conference Series: Earth and Environmental Science 459(3):032010.

Ayres E. 2019. **Quantitative guidelines for establishing and operating soil archives.** Soil Science Society of America 83:973-981.

Braunmiller J., Thompson G., and McNutt S.R. 2019. **The January 2014 northern Cuba earthquake sequence: Unusual location and unexpected source mechanism variability.** Bulletin of the Seismological Society of America 109(3):919-928.

Hinkle R., Benscoter B., Comas X., et al. 2019. **Carbon dynamics of the Greater Everglades watershed and implications of climate change. Final Project Report (7/1/2012-6/30/2019).** USDOE Office of Science, Biological and Environmental Research (SC-23).

Kim D. and Lekic V. 2019. **Groundwater variations from autocorrelation and receiver functions.** Geophysical Research Letters 46:13722–13729.

McClellan M.D. 2019. **Using hydrogeophysical methods for investigating carbon dynamics in the Greater Everglades watershed: Implications for the spatial and temporal variability in carbon stocks and biogenic gas fluxes.** Dissertation, Florida Atlantic University, Boca Raton, FL.

Nave L.E., Covarrubias Ornelas A., Drevnick P.E., et al. 2019. **Carbon-mercury interactions in spodosols assessed through density fractionation, radiocarbon analysis, and soil survey information.** Soil Science Society of America Journal 83(1):190-202.

Ritter F., Berkelhammer M., and Beysens D. 2019. **Dew frequency across the US from a network of *in situ* radiometers.** Hydrology and Earth System Sciences 23(2):1179-1197.

Sorensen J.W. 2019. **Disturbance ecology of soil microbial communities in response to the Centralia, PA coal fire.** Dissertation, Michigan State University, East Lansing, MI.

Ritzwoller M.H. and Feng L.I. 2019. **Overview of pre-and post-processing of ambient noise correlations**. In Nakata N., Gaultieri L. and Fichtner A. (eds): Seismic Ambient Noise, pp.144-187. Cambridge University Press.

Sorensen J.W. 2019. **Disturbance ecology of soil microbial communities in response to the Centralia, PA coal fire.** Dissertation, Michigan State University, East Lansing, MI.

Weiglein T.L. 2019. **A continental-scale investigation of factors controlling the vulnerability of soil organic matter in mineral horizons to decomposition.** Thesis, Virginia Polytechnic Institute and State University, Blacksburg, VA.

Frietsch M., Ferreira A.M.G., Vales D., et al. 2018. **On the robustness of seismic moment tensor inversions for mid-ocean earthquakes: The Azores archipelago**. Geophysical Journal International 215(1):564-584.

Gaynor M.L., Ng J., and Laport R.G. 2018. **Phylogenetic structure of plant communities: Are polyploids distantly related to co-occurring diploids.** Frontiers in Ecology and Evolution 6:52.

Hernandez F.A., Parker B.M., Pylant C.L., et al. 2018. **Invasion ecology of wild pigs (*Sus scrofa*) in Florida, USA: The role of humans in the expansion and colonization of an invasive wild ungulate.** Biological Invasions 20:1865-1880.

Heyburn R., Nippress S.E.J., and Bowers D. 2018. **Seismic and hydroacoustic observations from underwater explosions off the east coast of Florida**. Bulletin of the Seismological Society of America 108(6):3612-3624.

Kramer M.G. and Chadwick O.A. 2018. **Climate-driven thresholds in reactive mineral retention of soil carbon at the global scale.** Natural Climate Change 8:1104-1108.

Tary J.B., Herrera R.H., and van der Baan M. 2018. **Analysis of time-varying signals using continuous wavelet and synchrosqueezed transforms**. Philosophical Transactions of the Royal Society A: Mathematical, Physical, and Engineering Sciences 376(2126):20170254.

Wilson J.D. 2018. **Modeling microseism generation by inhomogeneous ocean surface waves in Hurricane Bonnie using non-linear wave equation.** Remote Sensing 10(10):1624.

Yan Z., Wang T., Wang L., et al. 2018. **Microscale water distribution and its effects on organic carbon decomposition in unsaturated soils.** Science of the Total Environment 644:1036-1043.

Bailey V.L., Smith A.P., Tfaily M., et al. 2017. **Differences in soluble organic carbon chemistry in pore waters sampled from different pore size domains.** Soil Biology & Biochemistry 107:133-143.

Hoekman D., LeVan K.E., Ball G.E., et al. 2017. **Design for ground beetle abundance and diversity sampling within the National Ecological Observatory Network.** Ecosphere 8(4):e01744.

Huber A. 2017. **Mucking about: Hydrologic regime and soil carbon storage in restored subtropical wetlands.** Thesis, University of Central Florida, Orlando, FL.

McClellan M., Comas X., Benscoter B., et al. 2017. **Estimating belowground carbon stocks in isolated wetlands of the Northern Everglades watershed, central Florida, using ground penetrating radar and aerial imagery.** Journal of Geophysical Research: Biogeosciences 122(11):2804-2816.

Smith A.P., Bond-Lamberty B., Benscoter B.W., et al. 2017. **Shifts in pore connectivity from precipitation versus groundwater rewetting increases soil carbon loss after drought.** Nature Communications 8(1):1335.

Stone D. and Andreu M. 2017. **Direct application of invasive species prioritization: The spatial invasive infestation and priority analysis model.** Ecological Restoration 35(3):255-265.

Bain J.C. 2016. **Coarse root biomass and architecture: Applications of ground penetrating radar.** Dissertation, Old Dominion University, Norfolk, VA.

Mancinelli N.J. 2016. **Constraints on heterogeneity throughout the Earth's mantle from observations of scattered seismic waves.** Dissertation, University of California, San Diego, CA.

Sobolev G.A., Zakrzhevskaya N.A., and Sobolev D.G. 2016. **Triggering of repeated earthquakes.** Izvestiya, Physics of the Solid Earth 52:155-172.

Ye L., Lay T., Kanamori H., and Koper K.D. 2016. **Rapidly estimated seismic source parameters for the 16 September 2015 Illapel, Chile M_w 8.3 earthquake.** Pure and Applied Geophysics 173:321-332.

Day F.P. 2015. **Advancing understanding of the role of below ground processes in terrestrial carbon sinks through ground-penetrating radar.** Final Report. US Department of Energy Grant SC0008099.

Gardner A.G. and Williges K.A. 2015. ***Praxelis clematidea* (Asteraceae): A new plant invader of Florida.** Southeastern Naturalist 14(1).

Geddes E. 2015. **Aquifer performance testing: The Nature Conservancy, Disney Wilderness Preserve, Polk County, FL.** South Florida Water Management District. Technical Publication WS-36.

Ghabbour E.A., Davies G., Sayeed A.A., et al. 2015. **Measuring the total and sequestered organic matter contents of grassland and forest soil profiles in the National Ecological Observatory Network initiative.** Soil Horizons 56(6).

Hinkle R., Benscoter B., Comas X., et al. 2015. **Project summary (2012-2015) - carbon dynamics of the Greater Everglades watershed and implications of climate change.** USDOE Office of Science, Biological and Environmental Research (SC-23).

McNamara D.E., Stephenson W.J., Odum J.K., et al. 2015. **Site response in the eastern United States: A comparison of VS30 measurements with estimates from horizontal:vertical spectral ratios**. Geological Society of America Special Paper 509:67-79.

Ringler A.T., Hagerty M.T., Holland J., et al. 2015a. **The data quality analyzer: A quality control program for seismic data.** Computers & Geosciences 76:96-111.

Ringler A.T., Storm T., Gee L.S., et al. 2015b. **Uncertainty estimates in broadband seismometer sensitivities using microseisms**. Journal of Seismology 19:317-327.

van Driel M., Krischer L., Stähler S.C., et al. 2015. **Instaseis: Instant global seismograms based on a broadband waveform database.** Solid Earth 6(2):701-717.

Yang X., Liu C., Fang Y., et al. 2015. **Simulations of ecosystem hydrological processes using a unified multi-scale model.** Ecological Modeling 296:93-101.

Enge K.M., Farmer A.L., Mays J.D., et al. 2014. **Survey of winter-breeding amphibian species.** Final report, Florida State Wildlife Grants Project No. 92412216399, Florida Fish and Wildlife Conservation Commission, Gainesville, FL.

Evans A.H. 2014. **Remote sensing of evapotranspiration using automated calibration: Development and testing in the state of Florida.** Dissertation, Florida Atlantic University, Boca Raton, FL.

Loescher H., Ayres E., Duffy P., et al. 2014. **Spatial variation in soil properties among North American ecosystems and guidelines for sampling designs.** PLoS ONE 9(1):e83216.

Lucardi, R.D., Wallace, L.E., and Ervin, G.N. 2014. **Evaluating hybridization as a potential facilitator of successful cogongrass *(Imperata cylindrica*) invasion in Florida, USA.** Biological Invasions 16:2147-2161.

Duever M.J. and Roberts R.E. 2013. **Successional and transitional models of natural South Florida, USA, plant communities.** Fire Ecology 9:110-123.

Lou X. 2013. **Inferred and predicted seismic velocities of the North American mantle.** Dissertation, Northwestern University, Evanston, IL.

Obrebski M., Ardhuin F., Stutzmann E., et al. 2013. **Detection of microseismic compressional (P) body waves aided by numerical modeling of oceanic noise sources**. Journal of Geophysical Research: Solid Earth 118(8):4312-4324.

Ottemöller L. and Bormann P. 2013. **Examples of interactive data analysis of seismic records using the SEISAN software.** In New Manual of Seismological Observatory Practice 2 (NMSOP-2) (pp. 1-5). Deutsches GeoForschungsZentrum GFZ.

Yuan D., 2013. **Building 3-D crustal model with radial anisotropy in Iceland from ambient seismic noise tomography**. Thesis, University of Houston, Houston, TX.

de Azevedo L.C.B.C. 2012. **Mapping Iceland's crustal structure using ambient seismic noise.** Thesis, University of Houston, Houston, TX.

Bogue R. 2012. **Monitoring and predicting natural hazards in the environment.** Sensor Review 32(1):4-11.

Gonzalez O.F., Alvarez J.L., Moreno B., et al. 2012. **S-wave velocities of the lithosphere-asthenosphere system in the Caribbean region.** Pure and Applied Geophysics 169:101-122.

Groos J.C., Bussat S., and Ritter J.R.R. 2012. **Performance of different processing schemes in seismic noise cross-correlations.** Geophysical Journal International 188(2):498-512.

Ringler A.T., Edwards J.D., Hutt C.R., et al. 2012. **Relative azimuth inversion by way of damped maximum correlation estimates.** Computers & Geosciences 43:1-6.

Trnkoczy A., Bormann P., Hanka W., et al. 2012. **Site selection, preparation and installation of seismic stations.** In New Manual of Seismological Observatory Practice 2 (NMSOP-2) (pp. 1-139). Deutsches GeoForschungsZentrum GFZ.

Yano T.E. 2012. **Kinematic Earthquake Sources of High and Low Frequencies and Their Relation to Earth Structure.** Dissertation, University of California, Santa Barbara, CA.

Becker K.E. 2011. **Variability of carbon stock in Florida flatwoods ecosystems undergoing restoration and management.** Thesis, University of Central Florida, Orlando, FL.

Boughton R.K. and Bowman R. 2011. **Statewide assessment of Florida Scrub-jays on managed areas: A comparison of current populations to the results of the 1992-1993 survey.** A report submitted to the US Fish and Wildlife Service.

Gonzalez O.F., Alvarez J.L., Moreno B., and Panza G.F. 2011. **S-wave velocities of the lithosphere-asthenosphere system in the Caribbean region.** Pure and Applied Geophysics 169:101-122.

Jacono C.C., Langeland K.A., and Hutchinson J. 2011. **Wright's nutrush: An invader of seasonal wetlands in Florida.** SS-AGR-342. University of Florida, IFAS, Gainesville, FL.

Molodenskii D.S. 2011. **Changes in the tidal response of the medium before strong earthquakes.** Seismic Instruments 47:289-293.

Trusty J.L. and Ober H.K. 2011. **Determinants of successful groundcover restoration in forests of the Southeastern United States**. Journal for Nature Conservation 19(1):34-42.

Abt D.L., Fischer K.M., French S.W., et al. 2010. **North American lithospheric discontinuity structure imaged by Ps and Sp receiver functions.** Journal of Geophysical Research: Solid Earth 115:B09301.

Chin D.A. 2010. **Thermodynamic consistency of potential evapotranspiration estimates in Florida.** Hydrological Processes 25(2):288-301.

Groos J. 2010. **Broadband seismic noise: Classification and Green's function estimation.** Dissertation, Karlsruhe Institute of Technology, Karlsruhe, Germany.

Ringler A.T., Gee L.S., Hutt C.R., et al. 2010. **Temporal variations in global seismic station ambient noise power levels.** Seismological Research Letters 81(4):605.

Baba T., Cummins P.R., Thio H.K., et al. 2009. **Validation and joint inversion of teleseismic waveforms for earthquake source models using deep ocean bottom pressure records: A case study of the 2006 Kuril megathrust earthquake.** Pure and Applied Geophysics 166:55-76.

French S.W., Fischer K.M., Syracuse E.M., et al. 2009. **Crustal structure beneath the Florida-to-Edmonton broadband seismometer array.** Geophysical Research Letters 36(8).

Raper D. and Bush M. 2009. **A test of Sporormiella representation as a predictor of megaherbivore presence and abundance**. Quaternary Research 71(3):490-496.

Spalding M.G., Folk M.J., Nesbitt S.A., et al. 2009**. Environmental correlates of reproductive success for introduced resident whooping cranes in Florida**. Waterbirds 32(4):538-547.

Tsai V.C. 2009. **The use of simple physical models in seismology and glaciology**. Dissertation, Harvard University, Cambridge, MA.

Bensen G.D., Ritzwoller M.H., and Shapiro N.M. 2008. **Broadband ambient noise surface wave tomography across the United States.** Journal of Geophysical Research 113:B05306.

Dewey J.W. and Dellinger J.A. 2008. **Location of the Green Canyon (offshore southern Louisiana) seismic event of February 10, 2006.** U.S. Geological Survey Open-File Report 2008-1184.

Feldman T. S. 2008. **The plot thickens: Does low density affect visitation and reproductive success in a perennial herb, and are these effects altered in the presence of a co-flowering species?** Oecologia 156(4):807-817.

Jacono CC. 2008. **Seed bank and regeneration ecology of an annual invasive sedge (Scleria lacustris) in Florida seasonal wetlands.** Dissertation, University of Florida, Gainesville, FL.

Liang C. and Langston C.A. 2008. **Ambient seismic noise tomography and structure of eastern North America.** Journal of Geophysical Research 113:B03309.

Rizou M. 2008. **Evaluation of climactic and ecohydrological effects on longwave radiation and evapotranspiration.** Dissertation, University of Central Florida, Orlando, FL.

Tauzin B., Debayle E., and Wittlinger G. 2008. **The mantle transition zone as seen by global P*ds* phases: No clear evidence for a thin transition zone beneath hotspots**. Journal of Geophysical Research 113:B08309.

Bensen G.D. 2007. **Broad-band ambient noise surface wave tomography: Technique development and application across the United States.** Dissertation, University of Colorado, Boulder, CO.

Bensen G.D., Ritzwoller M.P., Levshin A.L., et al. 2007. **Processing seismic ambient noise data to obtain reliable broad-band surface wave dispersion measurements.** Geophysical Journal International 169(3):1239-1260.

Gonzalez O., Alvarez L., Guidarelli M., et al. 2007. **Crust and upper mantle structure in the Caribbean region by group velocity tomography and regionalization.** Pure and Applied Geophysics 164(10):1985-2007.

Ichinose G.A. and Goldstein P. 2007**. Inversion of far-regional broadband P waves for the estimation of source parameters from shallow depth earthquakes**. Journal of Geophysical Research 112:B02304.

Ishii M. 2007. **Seismological Constraints on the Structure of the Earth's Core**. In D.A. Yuen, S. Maruyama, S. Karato, and B.F. Windley (editors), Superplumes: Beyond Plate Tectonics, pp. 31-68. Dordrecht: Springer Netherlands.

Main M.B., Ceilley D.W., and Stansly P. 2007. **Freshwater fish assemblages in isolated South Florida wetlands.** Southeastern Naturalist 6(2):343-350.

O'Reilly A.M. 2007. **Effects of the temporal variability of evapotranspiration on hydrologic simulation in central Florida**. U.S. Geological Survey Scientific Investigations Report 2007-5100.

Rosen B.H. and Mortellaro S. 2007. ***Microspora* (Chlorophyta) as a potential indicator of wetland hydrology.** Florida Scientist 70(30):209-218.

Spechler R.M. and Kroening S.E. 2007. **Hydrology of Polk County, Florida.** U.S. Geological Survey Scientific Investigations Report 2006-5320.

Tsai V.C. and Ekström G. 2007. **Analysis of glacial earthquakes**. Journal of Geophysical Research 112(F03S22).

Bissett N. J. 2006. **Restoration of dry prairie by direct seeding: Methods and examples.** Pages 231-237 in Noss R.F., editor. Land of Fire and Water: The Florida Dry Prairie Ecosystem. Proceedings of the Florida Dry Prairie Conference.

Henson I., Gupta I., and Wagner R. 2006. **Formation of ground truth databases and related studies and regional seismic monitoring research.** Technical Report DTRA-TR-03-21, Defense Threat Reduction Agency, Fort Belvoir, VA.

Minnow M.C. and Minno M. 2006. **Conservation of the Arogos skipper, *Atrytone arogos arogos* (Lepidoptera: Hersperiidae) in Florida.** Pages 219-222 in Noss R.F., editor. Proceedings of the Florida Dry Prairie Conference.

Wilson J.D. 2006. **Quantifying hurricane wind speed with undersea sound**. Dissertation, Massachusetts Institute of Technology, Cambridge, MA.

Dusek R.J., Spalding M.G., Forrester D.J., et al. 2005. **Morbidity and mortality factors in pre-fledged Florida sandhill crane (*Grus canadensis pratensis*) chicks.** In Chavez-Ramirez F, ed. 2. Proceedings of the Ninth North American Crane Workshop, Jan 17-20, 2003. Sacramento, California: North American Crane Working Group, pp. 7-14.

Kosel K.J. 2005. **Site preparation methods for restoration of non-native pasturelands to native upland habitat.** Thesis, University of Central Florida, Orlando, FL.

Liu R.F., Chen Y.T., Ren X., et al. 2005. **The November 14, 2001 west of Kunlun Mountain Pass earthquake: An earthquake with unsaturated surface wave magnitude.** Acta Seismologica Sinica 18(5):499-509.

McNamara D.E., Buland R.P., and Benz H.M. 2005a. **An assessment of the high-gain streckeisen STS2 seismometer for routine earthquake monitoring in the United States**. USGS Open File Report 2005-1437.

McNamara D.E., Buland R.P., Benz H.M., et al. 2005b. **An assessment of seismic noise levels for the Advanced National Seismic System backbone network and selected regional broadband stations.** USGS Open File Report 2005-1077.

Baptiste J.K. 2004. **Development of an iterative method of station average receiver function production with application to Russia and the Caribbean region**. Dissertation, Texas Tech University, Lubbock, TX.

Dusek R.J., Spalding M.G., Forrester D.J., et al. 2004. ***Haemoproteus balearicae*** **and other blood parasites of free-ranging Florida sandhill crane.** Journal of Wildlife Diseases 40(4):682-687.

Fnais M.S. 2004. **The crustal and upper mantle shear velocity structure of eastern North America from the joint inversion of receiver function and surface-wave dispersion.** Dissertation, Saint Louis University, St. Louis, MO.

Jenkins A., Gordon D.R., and Kitajima K. 2004. **Additional mycorrhizae inoculum unnecessary in pastures restored to longleaf pine flatwoods.** Ecological Restoration 22:226.

Jenkins A., Gordon D.R., and Kitajima K. 2004. **Restoration of planted pasture to pine flatwoods: I. contribution of soil seed banks.** The Nature Conservancy, Maitland, FL.

Jenkins A., Gordon D.R., and Renda M. 2004. **Native alternatives for non-native turfgrasses in central Florida: Germination and responses to cultural treatments.** Restoration Ecology 12(2):190-199.

McNamara D.E. and Buland R.P. 2004. **Ambient noise levels in the continental United States.** Bulletin of the seismological society of America 94(4):1517-1527.

O'Leary G., Alvarez L., Chimera G., et al. 2004. **Crust and upper mantle structure in the Caribbean region by group velocity tomography and regionalization.** Technical Report. Abdus Salam International Centre for Theoretical Physics, Trieste, Italy.

Miller-Jenkins A. 2003. **Seed banking and vesicular-arbuscular mycorrhizae in pasture restoration in Central Florida.** Thesis, University of Florida, Gainesville, FL.

Walker J., Krantz S., Mayfield B., et al. 2003. **Exotic bark beetle survey 2003.** Report #2003-07-EBBS-01. Florida Department of Agriculture and Consumer Services, Division of Plant Industry, Gainesville, FL.

Benetatos C., Roumelioti Z., Kiratzi A., et al. 2002. **Source parameters of the M 6.5 Skyros Island (North Aegean Sea) earthquake of July 26, 2001.** Annals of Geophysics 45(3/4):513-526.

Crumpacker, D.W., Box, E.O., and Hardin, E.D. 2002. **Use of plant climatic envelopes to design a monitoring system for early biotic effects of climatic warming.** Florida Scientist 65(3):159-184.

Orzell S.L. and Bridges E.L. 2002. **Notes on *Carphephorus odoratissimus* (Asteraceae) in peninsular Florida U.S.A.** SIDA, Contributions to Botany 20(2):559-569.

Drake J.B. and Weishampel J.F. 2001. **Simulating vertical and horizontal multifractal patterns of a longleaf pine savannah.** Ecological Modeling 145(2-3):129-142.

Gordon D.R., Miller A., Renda M., et al. 2001. **Florida native turfgrass investigation.** The Nature Conservancy, University of Florida, Gainesville, FL.

Jacono C.C. 2001. ***Scleria lacustris* (Cyperaceae), an aquatic and wetland sedge introduced to Florida.** SIDA 19(4):1163-1170.

Drake J. and Weishampel J. 2000. **Multifractal analysis of canopy height measures in a longleaf pine savanna.** Forest Ecology and Management 28:121-127.

McLaughlin K.L., Gault A., and Brown D.J. 2000. **Infrasound detection of rocket launches.** In Proceedings of the 22nd Annual Seismic Research Symposium: Technology for Monitoring the Comprehensive Nuclear Test-Ban Treaty, pp. 219-230.

The Nature Conservancy. 2000. **Proceedings of the Upland Restoration Workshop**. The Nature Conservancy, Kissimmee, FL.

Vines H.L. 1999. **Vegetation dynamics associated with wetland restoration at the Disney Wilderness Preserve, FL.** Thesis, University of Central Florida, Orlando, FL.

Finn L.S. 1998. **Environmental parameters and use of abandoned trailer and 'bat-condo' by the Southeastern big-eared bat.** Final report to The Nature Conservancy, Kissimmee, FL.

Houston P. 1998. **Development of an optimal water table well monitoring network using kriged water level contour maps at Disney Wilderness Preserve.** The Nature Conservancy, Kissimmee, FL.

Leonard M. 1998. **The Florida scrub-jay at the Disney Wilderness Preserve.** Thesis, University of Central Florida, Orlando, FL.

Reed K.L. 1998. **Status of the gopher tortoise, *Gopherus polyphemus*, at the Disney Wilderness Preserve.** Thesis, University of Central Florida, Orlando, FL.

Akers E.C. 1997. **Aquatic faunal composition of isolated wetlands altered by cattle water holes.** The Nature Conservancy, Kissimmee, FL.

Finn L.S. 1997. **Environmental parameters and use of abandoned trailer and 'bat-condo' by the southeastern big-eared bat *Corynorhinus rafinesquii macrotis* on the Disney Wilderness Preserve.** Interim report to The Nature Conservancy, Kissimmee, FL.

Leonard M. and Stout I.J. 1997. **Xeric upland monitoring of the Disney Wilderness Preserve: Status of the Florida Scrub-jay.** The Nature Conservancy, Kissimmee, FL.

Weishampel J.F., Harding D.J., Boutet J.C., et al. 1997. **Analysis of laser altimeter waveforms for forested ecosystems of central Florida.** Proc. SPIE 3059. Advances in Laser Remote Sensing for Terrestrial and Oceanographic Applications.

Finn L.S. 1996. **Roosting and foraging ecology of a southeastern big-eared bat (*Corynorhinus rafinesquii macrotis*) maternity colony in central Florida.** Final report to The Nature Conservancy, Kissimmee, FL.

Richardson J., Williams D., Folk M., et al. 1996. **Reedy Creek/Lake Marion Creek watershed conservation analysis project.** Greater Orlando Aviation Authority, Orlando, FL.

Wertschnig B. and Duever M. 1996. **Restoration of improved pastures in central Florida pine flatwoods communities.** Proceedings of the Annual Conference on Ecosystems Restoration and Creation. Vol. 23. Hillsborough Community College, 1996.

Causey P.D. 1995. **Development of a cultural resource management plan for the Disney Wilderness Preserve, Kissimmee, Florida.** Thesis, University of South Florida, Tampa, FL.

Finn L.S. 1995. **Roosting and foraging ecology of a southeastern big-eared bat (*Corynorhinus rafinesquii macrotis*) maternity colony in central Florida.** Report to The Nature Conservancy, Kissimmee, FL.

Ecotech Consultants Inc. 1994. **Comprehensive vegetation community analysis for the Walker Tract of the Disney Wilderness Preserve.** The Nature Conservancy, Kissimmee, FL.

Flint Rock Preserve

Anderson C.T., Dietz S.L., Pokswinski S.M., et al. 2021. **Traditional field metrics and terrestrial LiDAR predict plant richness in southern pine forests.** Forest Ecology and Management 491:119118.

Minogue P., Sharma A., McKeithen J., et al. 2021a. **Management of titi (*Cyrilla racemiflora* L.) in restoration of ephemeral wetlands.** Final report for FWC Contract No. 13416 TA 21A05, FY 2020-2021. Florida Fish and Wildlife Commission, Tallahassee, FL.

Minogue P., Sharma A., McKeithen J., et al. 2021b. **Management of titi (*Cyrilla racemiflora* L.) in restoration of ephemeral wetlands.** Mid-term report for FWC Contract No. 13416 TA 21A05, FY 2020-2021. Florida Fish and Wildlife Commission, Tallahassee, FL.

Minogue P., Sharma A., McKeithen J., et al. 2020. **Management of titi (*Cyrilla racemiflora* L.) in restoration of ephemeral wetlands.** Midterm report for FWC Contract No. 13416, FY 2019-2020. Florida Fish and Wildlife Commission, Tallahassee, FL.

Jeff Lewis Wilderness Preserve

Kang Y., Assavapanuvat P., Osland M.J., et al. 2026. **Variation in soil organic carbon across a latitudinal chronosequence of mangrove poleward expansion: Y. Kang and others**. Ecosystems 29(1):2.

Barnes D.K. and Burgess S.C. 2025. **Fitness consequences of marine larval dispersal: the role of neighborhood density, arrangement, and genetic relatedness on survival, growth, reproduction, and paternity in a sessile invertebrate**. Journal of Evolutionary Biology 38:28-40.

Gupta A., Bilskie M.V., and Woodson C.B. 2025. **The potential of wetlands and barrier islands as a coastal defense in mitigating the storm surge.** Frontiers in Ecology and Evolution 13:1524570.

Kang Y., Kaplan D.A., and Osland M.J. 2025. **Mangrove freeze resistance and resilience across a tropical=temperate transitional zone.** Journal of Ecology 113:94-111.

Powell J.A. and Burgess S.C. 2025. **Differential effects of temperature on multiple components of fitness in a modular animal reveal how temperature affects reproductive capacity.** Functional Ecology 39:1510-1521.

Biton R. 2024. **Investigating regional-scale differences in the physical structure of Rhizophora mangle and Avicennia germinans at an expanding range limit in northern Florida**. Thesis, Florida State University, Tallahassee, FL.

Burgess S.C., Powell J., and Bueno M. 2023. **Dispersal, kin aggregation, and the fitness consequences of not spreading sibling larvae.** Ecology 2022:e3858.

Koen E.L., Barichivich W.J., and Walls S.C. 2023. **The sands of time: Predicting sea level rise impacts to barrier island habitats.** Global Ecology and Conservation 47:e02643.

Breithaupt J.L. 2022. **Annual report - Research in Jeff Lewis Wilderness.** A report to The Nature Conservancy, Kissimmee FL.

Koen E.L., Barichivich W.J., and Walls S.C. 2023. **The sands of time: Predicting sea level rise impacts to barrier island habitats.** Global Ecology and Conservation 47:e02643.

Kratzmann M.G. 2022. **U.S. Geological Survey national shoreline change – Summary statistics for updated vector shorelines (1800s-2010s) and associated shoreline change data for the Georgia and Florida coasts.** U.S. Geological Survey Data Report 1156.

Scherer B. and Mast A. 2022. **Red mangrove propagule bacterial communities vary with geographic, but not genetic distance.** Microbial Ecology 2022.

Scherer B., Mason O.U., and Mast A.R. 2022. **Bacterial communities vary across populations and tissue type in red mangroves (*Rhizophora mangle*, Rhizophoraceae) along an expanding front**. FEMS Microbiology Ecology 98(12):fiac139.

Snyder C.M., Feher L.C., Osland M.J., et al. 2022. **The distribution and structure of mangroves (*Avicennia germinans* and *Rhizophora mangle*) near a rapidly changing range limit in the northeastern Gulf of Mexico.** Estuaries and Coasts 45:181-195.

Steinmuller H.E., Breithaupt J.L., Engelbert K.M., et al. 2022. **Coastal wetland soil carbon storage at mangrove range limits in Apalachicola Bay, FL: Observations and expectations.** Frontiers in Forests and Global Change 5:852910.

Yao Q., Cohen M., Liu K., et al. 2022. **Mangrove expansion at poleward range limits in North and South America: Late-Holocene climate variability or Anthropocene global warming?** Catena 216:106413.

Burgess S.C. and Bueno M. 2021. **When does growth rate influence fitness in a colonial marine invertebrate?** Marine Biology 168:5.

Enge K.M., Smith B.S., Talley B.L., et al. 2021. **Coastal observations of alligator snapping turtles in the Florida Panhandle.** Florida Field Naturalist 49(3):138-147.

Godwin R.L. and Bond J.E. 2021. **Taxonomic revision of the New World members of the trapdoor spider genus *Ummidia* Thorell (Araneae, Mygalomorphae, Halonoproctidae).** ZooKeys 1027:1-165.

Peterson C. 2021. **Migration, habitat use, and predator-prey dynamics of coastal sharks in the northeast Gulf of Mexico.** Dissertation, Florida State University, Tallahassee, FL.

Ware M., Ceriani S.A., Long J.W., et al. 2021. **Exposure of loggerhead sea turtle nests to waves in the Florida Panhandle.** Remote Sensing 13:2654.

Wang P., Adam J.D., Cheng J., et al. 2020. **Morphological and sedimentological impacts of Hurricane Michael along the northwest Florida coast**. Journal of Coastal Research 36(5):932-950.

Burgess S.C., Sander L., and Bueno M. 2019. **How relatedness between mates influences reproductive success: An experimental analysis of self-fertilization and biparental inbreeding in a marine bryozoan.** Ecology and Evolution 9:11353-11366.

Garrison S.R. and Fuentes M.M. 2019. **Marine debris at nesting grounds used by the Northern Gulf of Mexico loggerhead recovery unit.** Marine pollution bulletin 139:59-64.

Beckwith V.K. and Fuentes M.M.P.B. 2018. **Microplastic at nesting grounds used by the northern Gulf of Mexico loggerhead recovery unit.** Marine Pollution Bulletin 131, Part A:32-37.

Amend M.E. 2017. **Applying ecological gap analysis as a tool for restoration planning.** Thesis. Harvard University, Cambridge, MA.

Hadden C.S. and Cherkinsky A. 2017. **Carbon reservoir effects in eastern oyster from Apalachicola Bay, USA.** Radiocarbon 2017:1-20.

Smith B.S. 2010. **Patterns of nonbreeding snowy plover (*Charadrius alexandrinus*), piping plover (*C. melodus*), and red knot (*Calidris canutus*) distribution in northwest Florida.** Florida Field Naturalist 38(2):43-91.

Elliott-Smith E., Haig S.M., and Powers B.M. 2009. **Data from the 2006 International Piping Plover Census.** U.S. Geological Survey Data Series 426.

Lott C.A. 2009. **Distribution and abundance of piping plovers (*Charadrius alexandrinus*) on the west coast of Florida before and after the 2004/2005 hurricane seasons.** Final Report to the US Army Corps of Engineers, ERDC/FL TR-09-13.

Wang S.Y., Manausa M., Dean R.G., et al. 2007. **Combined total storm tide frequency restudy for Dog Island in Franklin County, Florida.** Beaches and Shores Resource Center, Institute of Science and Public Affairs, Florida State University, Tallahassee, FL.

Johnson A.F. and Gulledge K. 2005. **Update to a 1992 assessment of Florida's remaining coastal upland natural communities.** Florida Natural Areas Inventory, Tallahassee, FL.

Schneider J.C. and Kruse S.E. 2006. **Assessing selected natural and anthropogenic impacts on freshwater lens morphology on small barrier islands: Dog Island and St. George Island, Florida, USA.** Hydrogeology Journal 14:131-145.

Johnson A.F. and Gulledge K. 2005. **Update to a 1992 assessment of Florida's remaining coastal upland natural communities.** Florida Natural Areas Inventory, Tallahassee, FL.

Sandford F. 2003. **Physical and chemical analysis of the siliceous skeletons in six sponges of two groups (Demospongiae and Hexactinellida).** Microscopy Research and Technique 62:336-355.

Sanford F. 2003. **Population dynamics and epibiont associations of hermit crabs (Crustacea: Decapoda: Paguriodea) on Dog Island, Florida.** Memoirs of Museum Victoria 60(1):45-52.

Schneider J.C. and Kruse S.E. 2003. **A comparison of controls on freshwater lens morphology of small carbonite and siliciclastic islands: Examples from barrier islands in Florida.** Journal of Hydrology 284(1-4):253-269.

Schneider J.C. 2003. **Hydrogeology and submarine groundwater discharge on sandy barrier islands: Dog Island and St. George Island, Florida.** Dissertation, University of South Florida, Tampa, FL.

Huang W., Jones W.K., and Wu T.S. 2002. **Modelling wind effects on subtidal salinity in Apalachicola Bay, Florida.** Estuarine, Coastal and Shelf Science 55(1):33-46.

Schneider J.C. and Kruse S.E. 2001. **Characterization of freshwater lenses for construction of groundwater flow models on two sandy barrier islands, Florida, USA.** First International Conference on Saltwater Intrusion and Coastal Aquifers – Monitoring, Modeling, and Management. Essaouira, Morocco, April 23-25, 2001.

Buerkle A. 2000. **Morphological variation among migratory and non-migratory populations of Prairie Warblers.** The Wilson Bulletin 112(1):99-107.

Kinsella J.M. and Forrester D.J. 1999. **Parasitic helminths of the common loon, *Gavia immer*, on its wintering grounds in Florida.** Journal of the Helminthological Society of Washington 66(1):1-6.

Forrester D.J., Davidson, W.R., Lange R.E., et al. 1997. **Winter mortality of Common Loons in Florida coastal waters.** Journal of Wildlife Diseases 33(4):833-847.

Sandford F. and Brown C. 1997. **Gastropod shell substrates of the Florida hermit-crab sponge, *Spongosorites suberitoides*, from the Gulf of Mexico.** Bulletin of Marine Science 61(2):215-223.

Stone G.W. and Stapor F.W. 1996. **A nearshore sediment transport model for the northeast Gulf of Mexico coast, USA.** Journal of Coastal Research 12(3):786-793.

Sandford F. 1995. **Sponge/shell switching by hermit crabs, *Pagurus impressus*.** Invertebrate Biology 114(1):73-78.

Tanner W.F. 1992. **Late Holocene sea-level changes from grain-size data: Evidence from the Gulf of Mexico.** The Holocene (2,3):249-254.

Alexander L.L. 1991. **Patterns of mortality among Common Loons wintering in the northeastern Gulf of Mexico.** Florida Field Naturalist 19(3):73-79.

Livingston R.J. 1991. **Dog Island, a barrier island ecosystem.** Center for Aquatic Research and Resource Management, Florida State University, Tallahassee, FL.

Tanner W.F. 1991. **The "Gulf of Mexico" late Halocene sea level curve and river delta history.** Gulf Coast Association of Geological Societies Transactions 41:583-589.

Rudlow A. 1988. **Habitat preferences, movement, size frequency patterns and reproductive seasonality of the lesser electric ray, *Narcine brasiliensis.*** Gulf of Mexico Science 10(2).

Edmiston H.L. and Tuck H.A. 1987. **Resource inventory of the Apalachicola River and Bay drainage basin.** Office of Environmental Services, Florida Game and Fresh Water Fish Commission, Apalachicola, FL.

Anderson L.C. 1986. **Noteworthy plants from North Florida. II.** SIDA, Contributions to Botany 11(4):379-384.

Anderson L.C. and Alexander L.L. 1985. **The vegetation of Dog Island, Florida**. Florida Scientist 48(4):232-251.

Otvos E.G. 1985. **Barrier island genesis – questions of alternatives for the Apalachicola coast, northeastern Gulf of Mexico.** Journal of Coastal Research 1(3):267-291.

Trexler J.C. 1985. **Variation in the degree of viviparity in the sailfin molly, *Poecilia latipinna.*** Copeia 1985(4):999-1004.

Livingston R.J. 1984. **The ecology of the Apalachicola Bay system: An estuarine profile.** Report No. FWS/OBS 82.05, US Fish & Wildlife Service, Slidell, LA.

Milon J.W. 1984. **Hedonic amenity valuation and functional form specification.** Land Economics 60(4):378-387.

Otvos E.G. 1984. **Alternate interpretations of barrier island evolution: Apalachicola coast, northwest Florida.** Litoralia 1(1):9-21.

Spicola J.J. 1984. **Asymmetry of the "a-b-c" model with regard to the evolution of Dog Island, Florida.** Thesis, Florida State University, Tallahassee, FL.

Johnston S.A. Jr. 1983. **Preliminary report on *Avicennia germinans* on Isle de Chien (Dog Island), Franklin County, Florida.** Tropical Ecology 24:13-18.

John J. Pescatello Torchwood Hammock Preserve

Stalter R., Lynch P., Franxhi E., et al. 2021. **The vascular flora of the John J. Pescatello Torchwood Hammock Preserve, Little Torch Key, Florida.** Bios 91(4):197-202.

Stalter R. 2020. **Some observations on invasive vascular plant species of the eastern United States, New York to the Florida Keys.** International Journal on Agriculture Research and Environmental Sciences 1(1).

Roberts R., Richardson D., Roberts L., et al. 2017. **Tropical hammocks of Florida: A historical and contemporary perspective.** Florida Scientist 80(2/3):77-116.

Wetterer J.K. 2017. **Geographic distribution of *Temnothorax allardycei* (Hymenoptera: Formicidae).** Transactions of the American Entomological Society 143(1):73-77.

Stiling P. 2010. **Death and decline of a rare cactus in Florida.** Castanea 75(2):190-197.

Reardon B.J. and Brooks W.R. 2009. **Vegetative community compositional gradients of tropical hardwood hammocks along the Florida Keys.** Biotropica 41(1):27-36.

Meadows D.G., Caballero J.P., Kruse S.E., et al. 2004. **Variation of salinity in brackish-water lenses of two Florida Keys.** Journal of Coastal Research 20(2):386-400.

Negron-Ortiz V. and Strittmatter L.I. 2004. **Embryology of floral dimorphism and gender system in *Consolea corallicola* (Cactaceae), a rare species of the Florida Keys.** Haseltonia 10:16-25.

Stiling P., Moon D., and Gordon D.R. 2004. **Endangered cactus restoration: Mitigating the non-target effects of a biological control agent (*Cactoblastis cactorum*) in Florida.** Restoration Ecology 12(4):605-610.

Sklad E., Bartuska A., Randall J., et al. 2003. **The Nature Conservancy's conservation accomplishments at risk - Abating the threat of invasive species.** Proceedings, Caribbean Food Crops Society's Invasive Species Symposium, Grenada.

Stiling P., Rossi A., and Gordon D. 2000. **The difficulties of single factor thinking in restoration: Replanting a rare cactus in the Florida Keys.** Biological Conservation 94:327-333.

Bradley K.A. and Gann GD. 1999. **Status summaries of 12 rockland plant taxa in southern Florida.** Report submitted to the US Fish and Wildlife Service, Vero Beach, FL.

Gordon D.R. and Kubisiak T. 1998. **RAPD analysis of the last population of a likely Florida Keys endemic cactus.** Florida Scientist 61:203-210.

Johnson D.M. and Stiling P.D. 1998. **Distribution and dispersal of *Cactoblastis cactorum* (Lepidoptera: Pyralidae), an exotic *Opuntia*-feeding moth, in Florida.** Florida Entomologist 81(1):12-22.

Negron-Ortiz V. 1998. **Reproductive biology of a rare cactus, *Opuntia spinosissima* (Cactaceae), in the Florida Keys: Why is seed set very low?** Sexual Plan Reproduction 11(4):208-212.

Johnson D.M. and Stiling P.D. 1996. **Host specificity of *Cactoblastis cactorum* (Lepidoptera: Pyralidae), an exotic *Opuntia*-feeding moth in Florida.** Environmental Entomology 25(4):743-748.

Kass H. 1990. **Once a savior, moth is now a scourge.** Plant Conservation 5:3.

John S. Phipps Preserve

Snyder C.M., Feher L.C., Osland M.J., et al. 2022. **The distribution and structure of mangroves (*Avicennia germinans* and *Rhizophora mangle*) near a rapidly changing range limit in the northeastern Gulf of Mexico.** Estuaries and Coasts 45:181-195.

Ware M., Ceriani S.A., Long J.W., et al. 2021. **Exposure of loggerhead sea turtle nests to waves in the Florida Panhandle.** Remote Sensing 13:2654.

Amend M.E. 2017. **Applying ecological gap analysis as a tool for restoration planning.** Thesis. Harvard University, Cambridge, MA.

Cohen J.B., Durkin M.M., and Zdravkovic M. 2014. **Human disturbance of snowy plovers (*Charadrius nivosus*) in northwest Florida during the breeding season.** Florida Field Naturalist 42(1):1-44

Slapcinsky J.L., Gordon D.R., and Menges E. 2010. **Responses of rare plant species to fire in Florida's pyrogenic communities.** Natural Areas Journal 30(1):4-19.

Smith B.S. 2010. **Patterns of nonbreeding snowy plover (*Charadrius alexandrinus*), piping plover (*C. melodus*), and red knot (*Calidris canutus*) distribution in northwest Florida.** Florida Field Naturalist 38(2):43-91.

Lott C.A. 2009. **Distribution and abundance of piping plovers (*Charadrius alexandrinus*) on the west coast of Florida before and after the 2004/2005 hurricane seasons.** Final Report to the US Army Corps of Engineers, ERDC/FL TR-09-13.

Elliott-Smith E., Haig S.M., and Powers B.M. 2009. **Data from the 2006 International Piping Plover Census.** U.S. Geological Survey Data Series 426.

Smith B.S. 2007. **2006-2007 nonbreeding shorebird survey, Franklin and Wakulla counties, Florida.** Final report to the US Fish and Wildlife Service in fullfillment of Grant # 40181-7-J008. Apalachicola Riverkeeper, Apalachicola, FL.

Gunnels C.M. 1999. **Survey and home range analyses of wintering shorebirds using the Lanark Reef Shorebird Complex, Franklin County, Florida.** Thesis, West Virginia University, Morgantown, VA.

Sprandel G.L., Gore J.A., and Cobb D.T. 1997. **Winter shorebird survey. Final performance report.** Florida Fish and Wildlife Conservation Commission, Tallahassee, FL.

Rock Hill Preserve

Florida Natural Areas Inventory (FNAI). 2025. **Gentian Pinkroot (*Spigelia gentianoides*) Monitoring Report**. Report to the US Fish and Wildlife Service, Tallahassee, FL.

Florida Natural Areas Inventory (FNAI). 2023. **Gentian Pinkroot (*Spigelia gentianoides*) Monitoring Report**. Report to the US Fish and Wildlife Service, Tallahassee, FL.

Zampieri N.E. 2023. **Longleaf Pine (Pinus palustris) growth and population dynamics under climate change: A dendroecological investigation across unique natural communities in FL, USA.** Dissertation, Florida State University, Tallahasee, FL.

Zampieri N.E. and Pau S. 2022. **The effects of fire, climate, and species composition on longleaf pine stand structure and growth rates across diverse natural communities in Florida.** Forest Ecology and Management 526:120568.

Florida Natural Areas Inventory (FNAI). 2021a. **Gentian Pinkroot (*Spigelia gentianoides*) Monitoring Report**. Report to the US Fish and Wildlife Service, Tallahassee, FL.

Florida Natural Areas Inventory (FNAI). 2021b. **Status survey of Boykin's lobelia (*Lobelia boykinii*).** Final Report to the Florida Department of Agriculture and Consumer Services, Tallahassee, FL

Florida Natural Areas Inventory (FNAI). 2021c. **Status survey of gentian pinkroot (*Spigelia gentianoides*) and damage assessment following Hurricane Michael; Jackson, Washington, and Calhoun Counties, Florida – Annual Report.** Report submitted to the Florida Forest Service, Tallahassee, FL.

Durden L.A., Vargo J.T., Hayden J.E., et al. 2017. **Moth bioblitz inventory for Rock Hill Preserve and Apalachee Wildlife Management Area in northwestern Florida.** Southern Lepidopterists' News 39(3):242-257.

Froede C.R. and Rucker B.R. 2016. **Unexpected massive kaolinitic sand outcrop at Rock Hill, Washington County, Florida (U.S.A.).** Southeastern Geology 52(1):21-32.

Campbell C. and Peterson C. 2011. **Nuttall's rayless goldenrod.** The Nature Conservancy, Bristol, FL.

Peterson C. and Campbell C. 2011. ***Bigelowia nuttallii* project update.** The Nature Conservancy, Bristol, FL.

Slapcinsky J.L., Gordon D.R., and Menges E. 2010. **Responses of rare plant species to fire in Florida's pyrogenic communities.** Natural Areas Journal 30(1):4-19.

Griffin D., Harris R., and Buck W. 1995. **The bryophytes and lichens of Rock Hill Preserve, Florida.** Evansia 12(1):31-39.

Anderson L.C. 1986. **Noteworthy plants from North Florida. II.** SIDA, Contributions to Botany 11(4):379-384.

Saddle Blanket Scrub Preserve

Philpott M., Vanhove A.-C., Chaiken M., et al. 2025. **Long-term survival after cryopreservation of the endangered exceptional species *Crotalaria avonensis*.** Cryobiology 119:105249.

Florida Natural Areas Inventory (FNAI). 2023. **Florida Statewide Multi-species Rapid Assessment. Annual Progress Report for USFWS Cooperative Agreement Award No. F20AC00028**. Report to the U.S. Fish and Wildlife Service.

Schenk J.J. and Appleton A.D. 2023. **Development differs between independently evolved staminode whorls in the same flower.** American Journal of Botany 110(5):e16171.

Naranjo A.A, Melton A.E, Soltis D., et al. 2022. **Endemism, projected climate change, and identifying species of critical concern in the Scrub Mint clade (Lamiaceae).** Conservation Science and Practice 4(3):e621.

Orzell S.L. and Bridges E.L. 2022. ***Sporobolus osceolensis* (Poaceae), a new species from peninsular Florida**. Phytoneuron 20:1-12.

Schenk J.J. and Appleton A.D. 2021. **Phylogenetic, biogeographical, and morphological diversity of the Paronychia chartacea (Caryophyllaceae) clade from the Coastal Plain Floristic Province of North America**. Brittonia 73:383-392.

Weakley A.S., Poindexter D.B., Medford H.C., et al. 2020. **Studies in the vascular flora of the southeastern United States: VI.** Journal of the Botanical Research Institute of Texas 14(2):199-239.

Brewer M.S., Lamb T. and Justice T.C. 2018. **A biogeographical profile of the sand cockroach Arenivaga floridensis and its bearing on origin hypotheses for Florida scrub biota.** Ecology and Evolution 8:5254–5266.

Barney R.J. 2016. ***Pachybrachis* Chevrolat (Coleoptera: Chrysomelidae: Cryptocephalinae) endemic to Florida, including descriptions of four new species.** The Coleopterists Bulletin 70(1):31-52.

Germain-Aubrey C.C., Nelson C., Soltis D.E, et al. 2016. **Are microsatellite fragment lengths useful for population-level studies? The case of *Polygala lewtonii* (Polygalaceae).** Applications in Plant Sciences 4(2):1500115.

Menges E.S., Pace-Aldana B., Haller S.J., et al. 2016. **Ecology and conservation of the endangered legume *Crotalaria avonensis* in Florida scrub.** Southeastern Naturalist 15(3):549-574.

Corogin P.T. 2015. ***Sideroxylon* section *Frigoricola* (Sapotaceae): A clade endemic to temperate North America.** Dissertation, University of Florida, Gainesville, FL.

Rosenberry D.O., Lewandowski J., Meinikmann K., et al. 2015. **Groundwater - the disregarded component in lake water and nutrient budgets. Part 1: Effects of groundwater on hydrology.** Hydrological Processes 29:2895-2921.

Bayer A.L. and Stewart J.R. 2011. **Prospects for conservation of an endemic woody species native to Florida *Chionanthus pygmaeus* (pygmy fringetree) through seed and vegetative propagation.** Native Plants Journal 12(1):62-69.

Boughton R.K. and Bowman R. 2011. **Statewide assessment of Florida Scrub-jays on managed areas: A comparison of current populations to the results of the 1992-1993 survey.** A report submitted to the US Fish and Wildlife Service.

Deyrup M. 2011. **Lake Wales Ridge scrub arthropods (FFWCC Project T-15-D).** Florida Fish and Wildlife Conservation Commission, Tallahassee, FL.

Franck A.R. 2011. **Vascular flora of two conservation lands in Charlotte and Desoto Counties, Florida and notes on the flora of Florida.** Journal of the Botanical Research Institute of Texas 5(2):815-835.

Eads A.L. 2010. **Seed and vegetative propagation methods for the rare Florida native species *Chionanthus pygmaeus* (Pygmy fringetree).** Thesis, University of Illinois at Urbana-Champaign, Urbana, IL.

Slapcinsky J.L., Gordon D.R., and Menges E. 2010. **Responses of rare plant species to fire in Florida's pyrogenic communities.** Natural Areas Journal 30(1):4-19.

Corogin P.T. and Judd W.S. 2009. **Floristic inventory of Tiger Creek Preserve and Saddle Blanket Scrub Preserve, Polk County, Florida.** Rhodora 111(9):448-502.

Corogin P.T. 2008. **Floristic inventory of Tiger Creek Preserve and Saddle Blanket Scrub Preserve, Polk County, Florida**. Thesis, University of Florida, Gainesville, FL.

Drewa P.B., Platt W.J., Kwitt C., et al. 2008. **Stand structure and dynamics of sand pine differ between the Florida panhandle and peninsula.** Plant Ecology 196:15-25.

Spechler R.M. and Kroening S.E. 2007. **Hydrology of Polk County, Florida**. U.S. Geological Survey Scientific Investigations Report 2006-5320.

Lamb T., Justice T.C., and Justice M. 2006. **Distribution and status of the cockroach Arenivaga floridensis Caudell, a Florida sand ridge endemic**. Southeastern Naturalist 5(4):587-598.

Turner W.R., Wilcove D.S., and Swain H.M. 2006. **State of the scrub: Conservation progress, management responsibilities, and land acquisition priorities for imperiled species of Florida's Lake Wales Ridge.** Archbold Biological Station, Lake Placid, FL.

McCoy E.D., Hartmann P.P., and Mushinsky H.R. 2004. **Population biology of the rare Florida scrub lizard in fragmented habitat.** Herpetologica 60(1):54-61.

Diederich P. 2003. **New species and new records of American lichenicolous fungi.** Herzogia 16:41-90.

Lee T.M. 2002. **Factors affecting ground-water exchange and catchment size for Florida lakes in mantled karst terrain.** Water-Resources Investigations Report 02-4033. U.S. Geological Survey, Tallahassee, FL.

Hawkes C.V. 2000. **Biological soil crusts and their interactions with vascular plants in a xeric Florida shrubland.** Dissertation, University of Pennsylvania, Philadelphia, PA.

Marshall S.D., Hoeh W.R., and Deyrup M.A. 2000. **Biogeography and conservation biology of Florida's *Geolycosa* wolf spiders: Threatened spiders in endangered ecosystems.** Journal of Insect Conservation 4:11-21.

Carrington M.E. and Keeley J.E. 1999. **Comparison of post-fire seedling establishment between scrub communities in Mediterranean and non-Mediterranean climate ecosystems.** Journal of Ecology 87:1025-1036.

Dolan R.W., Yahr R., and Menges E. 1999. **Three rare, perennial plants endemic to Florida rosemary scrub with different patterns of genetic organization.** American Journal of Botany 86(11):1556-1562.

Romano G.B. 1999. **Reproductive biology and population molecular genetics of the scrub morning glory *Bonamia grandiflora***. Dissertation, University of Florida, Gainesville, FL.

Crook R.W. 1998. **Systematics of *Conradina* (Lamiaceae).** Dissertation, University of Georgia, Athens, GA.

Sacks L.A., Swancar A., and Lee T.M. 1998. **Estimating ground-water exchange with lakes using water-budget and chemical mass-balance approaches for ten lakes in ridge areas of Polk and Highlands Counties, Florida.** USGS Water-Resources Investigations Report 98-4133. Tallahassee, FL.

Carrington M.E. 1997. **Soil seed bank structure and composition in Florida sand pine scrub.** American Midland Naturalist 137(1):39-47.

Namm, L.A. 1997. **Environmental interpretation for Saddle Blanket Lakes Preserve, The Nature Conservancy.** Dissertation, University of Florida, Gainesville, FL.

Parker K.C., Parker A.J., Beaty R.M., et al. 1997. **Population structure and spatial pattern of two coastal populations of Ocala sand pine (*Pinus clausa* (Chapm. ex Engelm.) Vasey ex Sarg. var. *clausa* D.B. Ward).** Journal of the Torrey Botanical Society 124:22-33.

Parker K.C., Parker A.J., Hamrick J.L., et al. 1997. **Allozyme diversity in *Pinus virginiana* (Pinaceae): Intraspecific and interspecific comparisons.** American Journal of Botany 84(10):1372-1382.

Tihansky A.B. and Sacks L.A. 1997. **Evaluation of nitrate sources using nitrogen-isotope techniques in shallow ground water within selected lake basins in the central lakes district, Polk and Highlands Counties, Florida.** USGS Water-Resources Investigations Report 97-4207. Tallahassee, FL.

Carrington M.E. 1996. **Postfire recruitment in Florida sand pine scrub in comparison with California chaparral.** Dissertation, University of Florida, Gainesville, FL.

Evans J.K., Parker A.J., Parker K.C., et al. 1996. **Edaphic properties and foliar elemental concentrations from sand pine (Pinus clausa) populations throughout Florida.** Physical Geography 17(3):219-241.

Parker K.C. and Hamrick J.L. 1996. **Genetic variation in sand pine (*Pinus clausa*).** Canadian Journal of Forest Research 26:244-254.

Christman S.P. and Judd W.S. 1990. **Notes on plants endemic to Florida scrub.** Florida Scientist 53(1):52-73.

Tiger Creek Preserve

Edwards C.E, Bassuner B., David A.S., et al. 2026. **Parentage analysis of conservation translocations in the endangered, self-incompatible shrub *Pseudoziziphus celata* reveals reproductive constraints, variable survival, and a case for genetics-driven conservation**. Annals of Botany 2025:mcaf259.

Anderson K. 2025. **Taxonomic revision of Genus *Gonatista* Saussure, 1869 (Mantodea: Epaphroditidae: Gonatistinae).** Soothsayer, Journal of Mantodea Research 6(1):39-69.

Pote S.L. and Norrbom A.L. 2025. **New species of *Amphicnephes* Loew (Diptera: Platystomatidae).** Proceedings of the Entomological Society of Washington 127(3):545-576.

Bridges E.L. and Orzell S.L. 2024. **Systematics of the unifoliate Floridian *Lupinus* clade (Leguminosae: Papilionoideae)**. Phytoneuron 4:1-61.

Florida Natural Areas Inventory (FNAI). 2023. **Florida Statewide Multi-species Rapid Assessment. Annual Progress Report for USFWS Cooperative Agreement Award No. F20AC00028.** Report to the U.S. Fish and Wildlife Service.

Schenk J.J. and Appleton A.D. 2023. **Development differs between independently evolved staminode whorls in the same flower.** American Journal of Botany 110(5):e16171.

Zampieri N.E. 2023. **Longleaf Pine (Pinus palustris) growth and population dynamics under climate change: A dendroecological investigation across unique natural communities in FL, USA.** Dissertation, Florida State University, Tallahasee, FL.

Edmonds W.D. 2022. **Taxonomic review of the North American dung beetle genus *Boreocanthon* Halffter, 1958 (Coleoptera: Scarabaeidae: Scarabaeinae: Deltochilini).** Insecta Mundi 0952:1-65.

Lingafelter S.W. 2022. **Revision of *Aneflomorpha* Casey and *Neaneflus* Linsley (Coleoptera: Cerambycidae) of the United States with an illustrated key to species.** Insecta Mundi 0954:1-59.

Zampieri N.E. and Pau S. 2022. **The effects of fire, climate, and species composition on longleaf pine stand structure and growth rates across diverse natural communities in Florida.** Forest Ecology and Management 526:120568.

Schenk J.J. and Appleton A.D. 2021. **Phylogenetic, biogeographical, and morphological diversity of the *Paronychia chartacea* (Caryophyllaceae) clade from the Coastal Plain Floristic Province of North America**. Brittonia 73:383-392.

Williams B.R. 2021. **Population epigenomics and implications for conservation in three plant taxa with limited genetic diversity.** Dissertation, Saint Louis University, St. Louis, MO.

Woo B. 2021. **A new species of pygmy mole cricket (Orthoptera: Tridactylidae) from the Lakes Wales ridge of Florida and new records of *Ellipes eisneri* from the northern Brooksville ridge.** Journal of Orthoptera Research 30(2):131-143.

LaGreca S. 2020. ***Chrysothrix bergeri* (Ascomycota: Arthoniales: Chrysothricaceae), a new lichen species from the southeastern United States, the Caribbean, and Bermuda.** Plant and Fungal Systematics 65(2):509-514.

Murphy T.H. 2020. **Taxonomic study of the *Clematis reticulata* species complex (Ranunculaceae: Subgenus *Viorna*).** Thesis, Austin Peay State University, Clarksville, TN.

Riley E.G. 2020. **A review of the *Colaspis suilla* species group, with description of three new species from Florida (Coleoptera: Chrysomelidae: Eumolpinae).** Insecta Mundi 0830:1-21.

Koontz S.M. and Menges E.S. 2019. **Demographics and element occurrences of *Hartwrightia floridana*.** A report to the Jacksonville Zoo and Garden, Jacksonville, FL.

Koontz S.M., Menges E.S., Smith S.A., et al. 2018. **Florida Ziziphus recovery final report November 2018.** Florida Statewide Endangered and Threatened Plant Conservation Program, Florida Forest Service, Tallahassee, FL.

Onuferko T.M. 2018. **A revision of the cleptoparasitic bee genus *Epeolus* Latreille for Nearctic species, north of Mexico (Hymenoptera, Apidae).** Zookeys 755:1-185.

Peet R.K., Platt W.J., and Costanza J.K. 2018. **Fire-maintained pine savannas and woodlands of the southeastern United States Coastal Plain.** In Barton A.M. and Keeton W.S., editors. Ecology and Recovery of Eastern Old-Growth Forests. Island Press, Washington, DC.

Molgo I.E., Soltis D.E., and Soltis P.S. 2017. **Cytogeography of *Callisia* section *Cuthbertia* (Commelinaceae).** Comp Cytogenet 11(4):553-577.

Barney R.J. 2016. ***Pachybrachis* Chevrolat (Coleoptera: Chrysomelidae: Cryptocephalinae) endemic to Florida, including descriptions of four new species.** The Coleopterists Bulletin 70(1):31-52.

Germain-Aubrey C.C., Nelson C., Soltis D.E., et al. 2016. **Are microsatellite fragment lengths useful for population-level studies? The case of *Polygala lewtonii* (Polygalaceae).** Applications in Plant Sciences 4(2):1500115.

Menges E.S., Smith S.A., and Weekley C.W. 2016. **Adaptive introductions: How multiple experiments and comparisons to wild populations provide insights into requirements for long-term introduction success of an endangered shrub.** Plant Diversity 38(5):238-246.

Corogin P.T. 2015. ***Sideroxylon* section *Frigoricola* (Sapotaceae): A clade endemic to temperate North America.** Dissertation, University of Florida, Gainesville, FL.

Kiefer J.H., Mossa J., Nowak K.B., et al. 2015. **Peninsular Florida stream systems: Guidance for their classification and restoration**. USF School of Geosciences Faculty and Staff Publications 1601.

Riley E.G. 2015. **Three new hispine beetles (Coleoptera: Chrysomelidae: Cassidinae) from the United States and new United States record.** The Coleopterists Bulletin 69(14):183-190.

Hopkins H. 2014. **A revision of the genus *Arenivaga* (Rehn) (Blattodea, Corydiidae), with descriptions of new species and key to the males of the genus.** Zookeys (384):1-256.

Chavez-Velasquez D.J. 2013. **The North American plums (*Prunus* spp.) and their use as germplasm resources: From population to phylogenetic studies - A breeder's perspective.** Dissertation, University of Florida, Gainesville, FL.

Kallal R.J. and LaPolla J.S. 2012. **Monograph of *Nylanderia* (Hymenoptera: Formicidae) of the World, Part II: *Nylanderia* in the Nearctic.** Zootaxa 3508:1-64

Smiley S.A., McCoy E.D., Schrey A.W., et al. 2012. **Utilizing a multifaceted approach to assess the current distribution and conservation status of an uncommon species: The golden mouse (*Ochrotomys nuttalli*) in Florida.** Diversity and Distributions (18):1120-1129.

Sorrie B.A. 2012. **Identification, distribution, and habitat of needle-leaved *Hypericum* (Hypericaceae) in the southeastern United States**. Phytoneuron 76:1-14.

Boughton R.K. and Bowman R. 2011. **Statewide assessment of Florida Scrub-jays on managed areas: A comparison of current populations to the results of the 1992-1993 survey.** A report submitted to the US Fish and Wildlife Service.

Deyrup M. 2011. **Lake Wales Ridge scrub arthropods (FFWCC Project T-15-D).** Florida Fish and Wildlife Conservation Commission, Tallahassee, FL.

Franck A.R. 2011. **Vascular flora of two conservation lands in Charlotte and Desoto Counties, Florida and notes on the flora of Florida.** Journal of the Botanical Research Institute of Texas 5(2):815-835.

Gibson G.A.P. 2011. **The species of *Eupelmus* (*Eupelmus*) Dalman and *Eupelmus* (*Episolindelia*) Girault (Hymenoptera: Eupelmidae) in North America north of Mexico.** Zootaxa 2951:1-97.

Quintana-Ascencio P.F., Menges E.S., Weekley C.W., et al. 2011. **Biennial cycling caused by demographic delays in a fire-adapted annual plant.** The Society of Population Ecology 53:131-142.

Trusty J.L. and Ober H.K. 2011. **Determinants of successful groundcover restoration in forests of the Southeastern United States.** Journal for Nature Conservation 19(1):34-42.

Blanton K., Mossa J., Kiefer J., et al. 2010. **Bankfull indicators in small blackwater streams in peninsular Florida: Reliability and relations with hydrology**. Southeastern Geographer 50(4):422-444.

Kiefer J.H. 2010. **Hydrobiogeomorphology of fluvial systems in peninsular Florida: Implications to classification, conservation, and restoration.** Dissertation, University of Florida, Gainesville, FL.

Slapcinsky J.L., Gordon D.R., and Menges E. 2010. **Responses of rare plant species to fire in Florida's pyrogenic communities.** Natural Areas Journal 30(1):4-19.

Smiley S.A. 2010. **The distribution and population dynamics of the golden mouse (*Ochrotomys nuttalli*) at its southern range periphery.** Thesis, University of South Florida, Tampa, FL.

Corogin P.T. and Judd W.S. 2009. **Floristic inventory of Tiger Creek Preserve and Saddle Blanket Scrub Preserve, Polk County, Florida.** Rhodora 111(9):448-502.

Stebnicka Z.T. and Skelly P.E. 2009. **A revision of the genus Haroldiataenius Chalumeau (Scarabaeidae: Aphodiinae: Eupariini).** Insecta Mundi 0066:1-18.

Stebnicka Z.T. and Skelly P.E. 2009. **Taxonomic redefinition of the genera *Parataenius* Balthasar and *Pseudataenius* Brown, with descriptions of three new species (Scarabaeidae: Aphodiinae: Eupariini).** Insecta Mundi 0062:1-16

Weekley C.W. 2009. **Recent developments boost recovery prospects of Florida Ziziphus**. The Palmetto 26:1.

Blanton K.M. 2008. **Development of bankfull discharge and channel geometry regressions for peninsular Florida streams**. Thesis, University of Florida, Gainesville, FL.

Corogin P.T. 2008. **Floristic inventory of Tiger Creek Preserve and Saddle Blanket Scrub Preserve, Polk County, Florida**. Thesis, University of Florida, Gainesville, FL.

Harris, R.C. and Ladd, D. 2008. **The lichen genus *Chysothrix* in the Ozark ecoregion, including a preliminary treatment for eastern and central North America.** Opuscula Philolichenum 5:29-42.

Leavengood J.M. 2008. **The checkered beetles (Coleoptera:Cleridae) of Florida.** Thesis, University of Florida, Gainesville, FL.

McCoy E.D. and Mushinsky H.R. 2007. **Estimates of minimum patch size depend on the method of estimation and the condition of the habitat.** Ecology 88(6):1401-1407.

Menges E.S., Dolan R.W., Pickert R., et al. 2007. **Does current or past landscape structure predict genetic variation: An analysis using six Florida scrub endemic plants.** International Journal of Ecology 2010:503759.

Spechler R.M. and Kroening S.E. 2007. **Hydrology of Polk County, Florida**. U.S. Geological Survey Scientific Investigations Report 2006-5320.

Weekley C.W. and Menges E.S. 2007. **Continuation of research on the federally listed Lake Wales Ridge endemic Florida Ziziphus**. Plant Conservation Program, Florida Division of Forestry, Tallahassee, FL.

Deyrup M. 2006. ***Pyramica boltoni*, a new species of leaf-litter inhabiting ant from Florida (Hymenoptera: Formicidae: Dacetini).** Florida Entomologist 89(1):1-5.

Skelly P.E. 2006. **A revision of the genus *Geopsammodius* Gordon and Pittino, 1992 (Scarabaeidae: Aphodiinae: Psammodiini**). Insecta Mundi 20(1-2).

Turner W.R., Wilcove D.S., and Swain H.M. 2006. **State of the scrub: Conservation progress, management responsibilities, and land acquisition priorities for imperiled species of Florida's Lake Wales Ridge.** Archbold Biological Station, Lake Placid, FL.

Weekley C.W. and Menges E.S. 2005. **Creation of a strategic plan and continuation of research on the federally listed Lake Wales Ridge endemic Florida ziziphus (*Ziziphus celata).*** Final Report to the Florida Plant Conservation Program, Florida Division of Forestry, Tallahassee, FL

Deyrup M. and Cover S. 2004. **A new species of *Odontomachus* ant (Hymenoptera: Formicidae) from inland ridges of Florida, with a key to *Odontomachus* of the United States.** Florida Entomologist 87(2):136-144.

Evans M.E., Dolan R.W., Menges E.S., et al. 2000. **Genetic diversity and reproductive biology in *Warea carteri* (Brassicaceae): A narrowly endemic Florida scrub annual.** American Journal of Botany 87:372-381.

Marshall S.D., Hoeh W.R., and Deyrup M.A. 2000. **Biogeography and conservation biology of Florida's *Geolycosa* wolf spiders: Threatened spiders in endangered ecosystems.** Journal of Insect Conservation 4:11-21.

Carrington M.E. and Keeley J.E. 1999. **Comparison of post-fire seedling establishment between scrub communities in Mediterranean and non-Mediterranean climate ecosystems.** Journal of Ecology 87:1025-1036.

Romano G.B. 1999. **Reproductive biology and population molecular genetics of the scrub morning glory *Bonamia grandiflora***. Dissertation, University of Florida, Gainesville, FL.

Carrington M.E. 1996. **Postfire recruitment in Florida sand pine scrub in comparison with California chaparral.** Dissertation, University of Florida, Gainesville, FL.

Davis M.M., Sprecher S.W., Wakley J.S., et al. 1996. **Environmental gradients and identification of wetlands in north-central Florida.** Wetlands 16(4):512-523.

Deyrup M. 1996. **Two new grasshoppers from relict uplands of Florida (Orthoptera: Acrididae).** Transactions of the American Entomological Society 122(4):199-211.

Menges E.S. and Gordon D.R. 1996. **Three levels of monitoring intensity for rare plant species**. Natural Areas Journal 16:227-237.

Segal D., Sprecher S., and Watts F. 1995. **Relationships between hydric soil indicators and wetland hydrology for sandy soils in Florida.** Technical Report, WRP-DE-7. Defense Technical Information Center, Fort Belvoir, VA.

Folk M. 1993. **Gopher tortoise and Sherman's fox squirrel densities in sandhill communities on three TNC preserves in Florida.** The Nature Conservancy, Kissimmee, FL.

Christman S.P. and Judd W.S. 1990. **Notes on plants endemic to Florida scrub.** Florida Scientist 53(1):52-73.

Tighe R.E. 1987. **Hydrology of Tiger Creek, Polk County, Florida.** Report for The Nature Conservancy, Babson Park, FL.

Chasteen D. 1982. **Sand pine scrub vegetation survey near Tiger Creek Preserve.** Final Report for The Nature Conservancy, Babson Park, FL.

Venus Flatwoods Preserve

Peet R.K., Platt W.J., and Costanza J.K. 2018. **Fire-maintained pine savannas and woodlands of the southeastern United States Coastal Plain.** In Barton A.M. and Keeton W.S., editors. Ecology and Recovery of Eastern Old-Growth Forests. Island Press, Washington, DC.

Turner W.R., Wilcove D.S., and Swain H.M. 2006. **State of the scrub: Conservation progress, management responsibilities, and land acquisition priorities for imperiled species of Florida's Lake Wales Ridge.** Archbold Biological Station, Lake Placid, FL.

Varner J.M. and Kush J.S. 2004. **Remnant old-growth longleaf pine (*Pinus palustris* Mill.) savannas and forests of the southeastern USA: Status and threats.** Natural Areas Journal 24(2):141-149.

Haig S.M., Bowman R., and Mullins T.D. 1996. **Population structure of red-cockaded woodpeckers in south Florida: RAPDs revisited.** Molecular Ecology 5(6):725-734.

James F. 1995. **The status of the red-cockaded woodpecker in 1990 and the prospect for recovery**. In Kulhavy D.L., Costa R., and Hooper R.G., editors. The Red-cockaded Woodpecker: Species Recovery, Ecology, and Management. Proceedings of a Symposium Held in Charleston, South Carolina. Center for Applied Studies, School of Forestry, Stephen F. Austin State University, Nacogdoches, Texas.