FOS PAPER SESSION • SATURDAY afternoon October 31st, 2026

Start time	Name of presenter	Affiliation	Topic
STUDENTS			
2:45	Alex Lewanski*	Cruickshank Award winner	Conservation translocations and their role in managing Red-cockaded Woodpeckers at Avon Park Air Force Range
3:00	Brooke Poplin	Cruickshank Award winner	Forecasting Range Shifts of the Endangered Florida Snail Kite
3:15	Hans Gonzembach	Florida Atlantic University	Individual Acoustic Signatures in the Complex Songs of a near-threatened passerine (*Peucaea aestivalis*)
3:30	Anthony Dues, Jr.	Florida Gulf Coast University	Impacts of Light Pollution on Nocturnal Migrating Birds at a Southwest Florida University
3:45	Travis R. Mangione	Florida Gulf Coast University	Eastern Black Rail (*Laterallus j. jamaicensis*) Vocalization Activity and Distribution in Big Cypress National Preserve, Florida, USA
4:00	X	X	X
BREAK			
NON-STUDENTS			
4:15	Steven Thyme	Archbold Biological Station	The Beak of the Jay: Environmental Drivers of Morphological Changes in Florida Scrub-Jays (*Aphelocoma coerulescens*)
4:30	Gabriella Jukkala	U.S. Fish and Wildlife Service	Birds & Bombs: Monitoring and Managing Threatened and Endangered Birds at Avon Park Air Force Range
4:45	Robert T. Meyer	Tall Timbers	Drought causes severe brood loss in an ecosystem engineer; the Red-cockaded Woodpecker (*Dryobates borealis*)

*Asterisks above indicate virtual online presentations.

FOS POSTER SESSION • SATURDAY 4:00-5:15 pm October 31st, 2026

Name of presenter	Affiliation	Title
STUDENTS		
Leslie Alfonso	Florida Gulf Coast University	Analyzing Wading Bird Biodiversity and Diet Among Restored Wetlands in the Bonita Bay Community
Tori Bakley	University of Florida	How Does Environmental Modification Shape Wading Bird Assemblages and Foraging Behavior?
Rowan Byrne	USF St. Petersburg	Incubation behavior of Black Skimmers on St. Pete Beach, Pinellas County, Florida
Alexia Friedman	Florida Gulf Coast University	Do differences within the Red-shouldered Hawk (*Buteo lineatus-ridgwayi*) complex justify the recognition of the western subspecies (*B. elegans*) as a unique species?
Sophia Haakman	Sarasota Bay Watch	Bird response to coastal habitat restoration at Jim Neville Marine Preserve, Little Sarasota Bay, Florida
Elle Hanson	University of Florida	Foraging flocks and feeders: The relationship between bird feeders and winter mixed-species flock composition in north-central Florida
Ash Hernandez-Trochez	Florida Gulf Coast University	Necropsy and Specimen Curation: A Parasitological Survey of Florida Avifauna
Johnny Owens	Eckerd College	Effects of Anthropogenic Disturbance and Environmental Conditions on Shorebird Foraging Presence
Gale Raichart	Eckerd and USF St. Petersburg	Kleptoparasitism and Depredation of Laughing Gulls on Black Skimmers on St. Pete Beach, Pinellas County, Florida
Kira Staehler	Nova Southeastern University	Endoparasite Communities of Laridae and Procellariidae Seabirds from South Florida
Amelia Swiecki	Eckerd College	Investigating Black Skimmer Nesting Site Persistence Using GIS
NON-STUDENTS		
Simon Fitzwilliam	Florida Fish and Wildlife Conservation Commission	Southeastern American Kestrel movements and home range
Simon Fitzwilliam	Florida Fish and Wildlife Conservation Commission	The Breeding Bird Survey Needs Your Help
Robert Meyer	Tall Timbers	How Fire Shapes a Community of Ecosystem Engineers

SPEAKER ABSTRACTS (listed in order of talk)

STUDENTS:

ALEX LEWANSKI. Conservation translocations and their role in managing Red-cockaded Woodpeckers at Avon Park Air Force Range

[Cruickshank Award winner]

Many species are restricted to small, isolated populations, which can experience elevated risk of extirpation. Translocations—the intentional movement of individuals between locations—can be used to restore connectivity between populations and hopefully alleviate demographic and genetic perils. However, populations undergoing translocation interventions often receive minimal monitoring, which has limited our understanding of the extended outcomes of translocations and whether they have fulfilled management goals. In this talk, I will discuss ongoing efforts to study translocations in an intensively monitored population of the federally threatened Red-cockaded Woodpecker at Avon Park Air Force Range. First, using pedigree and monitoring information, I will share results examining the outcomes of translocations and their multi-generational impacts on fitness and ancestry. Second, I will share plans and progress examining the genomic impacts of translocations based on a multi-year sampling effort.

BROOKE POPLIN. Forecasting Range Shifts of the Endangered Florida Snail Kite

[Cruickshank Award winner]

Range shifts occur when populations track changes in habitat suitability, often driven by shifts in prey, competition, or climate. In the Florida Everglades, the endangered Florida snail kite (*Rostrhamus sociabilis plumbeus*) is an obligate predator of apple snails (Pomacea spp.), and its distribution is tightly linked to snail availability. The 2005 invasion of an exotic snail, Pomacea maculata, initially drove a demographic rebound in kite populations, but projections now indicate declines over the next five decades even as breeding range continues to expand northward. This raises the question of whether northward expansion reflects active tracking of invasive prey or displacement from deteriorating habitat in the Everglades. I will deploy GPS-GSM transmitters on adult kites and apply Brownian Bridge Movement Models to quantify habitat selection and dispersal behavior across current and potential future breeding wetlands. These data, combined with three decades of monitoring records, will parameterize an agent-based RangeShifter model to forecast colonization and extinction of kites over the next 100 years under alternative scenarios of prey spread, hydrologic alteration, and climate change. This work will distinguish between competing mechanisms of range expansion and identify where conservation investment is most likely to sustain snail kite populations as their range continues to shift.

HANS GOZEMBACH. Individual Acoustic Signatures in the Complex Songs of a near-threatened passerine (*Peucaea aestivalis*)

H. Gozembach, R. Anderson. Florida Atlantic University, Boca Raton, FL.

Complex songs are an understudied component of avian vocal communication. Bachman's Sparrows (*Peucaea aestivalis*) produce complex songs during the breeding season, including during aggressive interactions, yet little is known about whether these songs contain information that distinguishes individuals. We tested whether the acoustic structure of complex songs was more similar among renditions produced by the same male than among different males. We recorded complex songs from 36 male Bachman's Sparrows at Jonathan Dickinson State Park in southern Florida between 2022 and 2024. For the within- and among-individual comparisons, we selected 67 songs from 10 males. We quantified multiple song-level acoustic features, including multiple frequency features, song duration, number of elements, element duration, element rate, and element diversity. We then used supervised random-forest classification to evaluate whether complex songs could be distinguished among individuals. Complex songs were significantly more similar within individuals than among individuals, indicating that males exhibit consistent individual differences in complex-song structure. Element duration, peak frequency, and maximum frequency contributed most strongly to differences among individuals. Although some individuals exhibited substantial overlap in acoustic space, the overall pattern indicates that complex songs contain individually specific acoustic information. These findings suggest that complex songs may allow Bachman's Sparrows to distinguish between neighbors and strangers without relying exclusively on song-type sequences from their primary song repertoire. Our results highlight the potential importance of non-primary song categories in avian communication.

ANTHONY DUES, JR. Impacts of Light Pollution on Nocturnal Migrating Birds at a Southwest Florida University

Anthony Dues Jr., Oscar Johnson. Florida Gulf Coast University, Fort Myers, FL.

As development pushes further into Southwest Florida's wildlife corridors, it is critical to study both the direct and indirect effects of human development on the environment. Light pollution – a major pollutant often overlooked in conservation policy – can have detrimental impacts on nocturnal avian migration. We recorded and analyzed nocturnal flight calls (NFCs) from 3 sites in Southwest Florida with differing levels of anthropogenic light pollution: two on the Florida Gulf Coast University campus, and one on conservation land in the Corkscrew Regional Ecosystem Watershed. We measured nocturnal light pollution levels to test how light pollution is correlated with passage rate of nocturnal migrating birds. Our microphones detected 83,758 NFCs across the three sites. We detected a significantly higher rate of NFCs over the developed site (1,461/night) than at a local conservation area (298/night; Wilcoxon rank-sum test: $W = 847$, $p < 0.001$). After accounting for possible explanations due to weather and microphone elevation, the likely cause is high levels of light pollution at the developed site and neighboring urban areas. This suggests that light pollution from the university is interfering with nocturnal avian migration over the region. This research can be used to help inform developmental regulations and municipal building codes to be more conscious of impacts on the environment and migratory birds.

TRAVIS R. MANGIONE. Eastern Black Rail (*Laterallus j. jamaicensis*) Vocalization Activity and Distribution in Big Cypress National Preserve, Florida, USA

Travis R. Mangione[1,2], Andrew M. Durso[1], Edwin M. Everham III[1], Matthew F. McCollister[2], Oscar Johnson[1]
[1]Florida Gulf Coast University, Fort Myers, FL; [2]Big Cypress National Preserve, National Park Service, Ochopee, FL.

Eastern Black Rails (*Laterallus j. jamaicensis*) are a federally threatened, secretive wetland birds, and the smallest member of their family in North America. The prairies and marshes in Big Cypress National Preserve are extensive and contain habitats suitable for Eastern Black Rails. However, little is known of this species' local population status, vocalization activity, or distribution. I investigated the diel timing of vocalizations of Eastern Black Rails using autonomous recording units (ARUs) in Big Cypress to improve survey methodology and inform distribution models. According to our surveys, Eastern Black Rails vocalized from January to March and May to August. We collected over 9,600 hours of audio and documented 978 true positive audio clips using HawkEars Acoustic Classifier. Use of ARUs expanded the known distribution of Eastern Black Rails in Big Cypress to now include four of the seven management units. Point count survey detections were insufficient to estimate occupancy with confidence. ARUs are the preferred survey method in this study. The second season of data collection begins in November of 2026. This informs the resource and fire management of the Big Cypress National Preserve, and the conservation of Eastern Black Rails in the region.

NON-STUDENTS:

STEVEN THYME. The Beak of the Jay: Environmental Drivers of Morphological Changes in Florida Scrub-Jays (*Aphelocoma coerulescens*)

Steven Thyme, Tori Bakley, Sahas Barve. Archbold Biological Station, Venus, FL.

Numerous studies on avian morphology have demonstrated that birds can rapidly evolve in response to changing environmental conditions. Utilizing 40 years of data, we found that Florida Scrub-Jay (*Aphelocoma coerulescens*) morphological traits exhibit directional changes over time: beak size is getting shorter while wing chord is getting longer; weight is also increasing. We examined if these directional changes have occurred in response to environmental variables, including temperature and precipitation, during the jay's growth period. We predicted that increased precipitation in the jay's growth period would positively correlate with weight and appendage size. Conversely, we predicted that higher temperatures during the growth period would negatively correlate with weight and positively correlate with appendage size. Using data from over 1000 individual jays (range 1060-1761) measured from 1985 and 2024, we found that jays that experienced more rainfall during growth had higher weight. Jays that experienced warmer temperatures had longer beaks and increased weight. Our findings add to our ever-growing body of knowledge regarding avian morphological evolution in response to environmental conditions.

GABRIELLA JUKKALA. Birds & Bombs: Monitoring and Managing Threatened and Endangered Birds at Avon Park Air Force Range

Gabriella Jukkala, Rain Ketzler, Kris Pitcher. U.S. Fish and Wildlife Service.

Habitat loss is the primary driver of species extinctions and the leading cause of listing under the Endangered Species Act. Conservation and recovery largely depend on the protection and stewardship of large, intact natural areas, especially in rapidly developing states like Florida. Due to their size, resources, and protection from development, military installations often fulfill this need and inadvertently become hotspots for rare, threatened, and endangered species. At 106,000 acres, Avon Park Air Force Range (APAFR) is no exception. As the largest air-to-ground training range east of the Mississippi, it is also home to 12 federal and 43 state threatened and endangered species. Effectively managing these species and their diverse habitats while maintaining military readiness requires reliable, up-to-date monitoring data. The U.S. Air Force partners with the U.S. Fish and Wildlife Service and cooperators to monitor federally listed species at APAFR, including 7 bird species. Here we present examples of the bird monitoring projects at APAFR and how the data is used both locally and state-wide to inform management, demography, and ecology while simultaneously supporting military operations. We demonstrate that bird conservation and national defense can not only coexist but mutually advance through strong partnerships and shared goals.

ROBERT T. MEYER. Drought causes severe brood loss in an ecosystem engineer; the Red-cockaded Woodpecker (*Dryobates borealis*)

Robert T. Meyer, James A. Cox, Lisa E. Mills, and Katherine E. Richardson. Tall Timbers, Tallahassee, FL.

The southeastern United States is projected to experience more severe weather conditions as climate change continues into the 21st century. It is relatively unknown how these conditions will affect important ecosystem engineers, including primary cavity-excavating birds. Here, we investigate the impact of ambient temperature, precipitation, and drought on the survival of eggs and chicks of the federally threatened red-cockaded woodpecker. We monitored 225 nests among 66 family groups within the Red Hills region of North Florida and South Georgia from 2018-2026. Among the 721 individuals followed, 332 experienced mortality primarily in the transition between egg and nestling life stages (66.57% of mortalities). Using a Cox proportional hazards model, we found strong evidence that higher temperatures were associated with a lower mortality hazard ($P = 0.02$), while drought was associated with a higher mortality hazard ($P < 0.01$). Precipitation was positively associated with mortality hazard, although this effect was weak and not statistically significant ($P = 0.26$). The highest number of mortality events was seen in 2026 during an extreme and prolonged drought event, but nest initiation date did not change across years. Our findings demonstrate that severe drought can adversely affect a key ecosystem engineer in declining southeastern pineland forests and highlight the potential vulnerability of this species to increasingly extreme climatic conditions. Managers should ensure sufficient cavities to support the cooperative breeding system of this species and use El Niño Southern Oscillation predictions to better forecast management needs ahead of extreme events.

POSTER ABSTRACTS (listed alphabetically)

STUDENTS:

LESLIE ALFONSO. Analyzing Wading Bird Biodiversity and Diet Among Restored Wetlands in the Bonita Bay Community

Leslie Alfonso, Oscar Johnson. Florida Gulf Coast University, Fort Myers, FL.

Wetland restoration efforts are a critical component of wildlife conservation that can help prevent or reverse the declines of many threatened species. These efforts are particularly beneficial in areas with high anthropogenic impacts, such as South Florida. Bonita Bay is a private community located in Bonita Springs, Florida, that includes stretches of preserved nature throughout its 2,400-acre property. Following wetland restoration efforts by the Macias Wildlife Society of the Bonita Bay community, the status of wading bird populations became a high concern, as they serve as bioindicators for healthy ecosystems. Wading bird population surveys were conducted between November 2024 and September 2026, with Florida Gulf Coast University (FGCU) students visiting four restored wetland sites in the community; Salad Bowl, Natural Area 70, Marina, and Horseshoe. Surveys lasted 10–40 minutes, and each bird was counted based on how they were utilizing the wetlands. Preliminary data indicates that the Salad Bowl wetland hosts the highest species diversity, and that most wading birds use the wetlands during the early morning hours. Additionally, previous minnow trapping data provides insight on the abundance of nonnative fish within each site, which can be compared to the differences in wading bird populations. The data collected can be used to analyze wading bird diets throughout Southwest Florida and how the abundance of wading bird species can be influenced by the numbers of nonnative fish species. This information can be used for determining future conservation efforts as well as determining the efficacy of wetland restoration.

TORI BAKLEY. How Does Environmental Modification Shape Wading Bird Assemblages and Foraging Behavior?

Tori Bakley, Corey Callaghan. University of Florida, Gainesville, FL.

Environmental conditions shape species patterns and reveal structured assemblages that reflect complementary niches. Human modifications, especially altering water storage and flow, create artificial habitats that may support generalist species while constraining specialists. I hypothesize that anthropogenically modified habitats predictably structure species assemblages, associations, and behaviors due to environmental filtering. First, I predict that modified habitats will host fewer species and shift the identity and strength of species associations as environmental filtering favors disturbance-tolerant taxa. Second, I predict that individuals will increasingly alter foraging behavior with urbanization, though the magnitude and direction of the response will vary among species and habitat types. To test these predictions, I will analyze eBird observations of wading birds across Florida. Observation locations will be classified as “natural” or “modified” habitats, and ranked along an urbanization gradient. Association patterns will then be linked to different habitat classes. Finally, focal observations of individuals in sites spanning the gradient will quantify behavioral shifts in species observed in both habitat types. By connecting broad-scale patterns of community assembly to individual-level ecological responses, I aim to understand the mechanisms driving habitat selection, and explore where the line might be drawn between a species’ realized and fundamental niche.

ROWAN BYRNE, Incubation behavior of Black Skimmers on St. Pete Beach, Pinellas County, Florida

Rowan Byrne[1], Beth Forys[2]. [1]University of South Florida, St. Petersburg, FL. [2]Eckerd College, St. Petersburg, FL.

Black Skimmers are a threatened shorebird species that have a nesting colony at St. Pete Beach, Florida. They exhibit biparental incubation; the male and female of the breeding pair take turns protecting the nest. With rising global temperatures and increased development changing the environment these birds rely on to raise their young, this study aimed to understand the Black Skimmers' incubation behaviors as they were for the 2026 nesting season. 35 breeding pairs were observed while actively on eggs; "shift changes," or instances of the breeding pair alternating which sex was on the nest, were recorded to see how the pairs distributed the task of protecting the clutch. It was found that females were on the nest for longer durations than males, but variation across pairs meant that some males spent longer on the nest than their partners did. A "shift" on the nest could last anywhere from 1 to 160 minutes, with an average of 22 minutes. Possible correlations between shift duration and temperature or time of day were explored; temperature was found to have no clear effect on shift duration, while average shift duration was shorter in the early mornings and the evenings. Expanding this research to more colonies over the next few years will help establish a better baseline for Black Skimmer incubation behavior in Florida.

ALEXIA FRIEDMAN. Do differences within the Red-shouldered Hawk (*Buteo lineatus-ridgwayi*) complex justify the recognition of the western subspecies *(B. elegans*) as a unique species?

Alexia Friedman, Dylan Luu, Habana Zarranz, Daniella Sanchez-Palomo, Oscar Johnson
Department of Biological Sciences, Florida Gulf Coast University, Ft. Myers, FL.

The Red-shouldered Hawk (*Buteo lineatus*) is a medium-sized buteonine hawk with five recognized subspecies across North America, each varying in morphology, plumage, and distribution. The western subspecies, *B. l. elegans*, differs noticeably from the eastern subspecies group, but its proposed status as a distinct species remains unclear. The aim of this research is to investigate the taxonomic relationship of the western subspecies of the Red-shouldered Hawk (*B. l. elegans*) within the *lineatus-ridgwayi* complex to assess whether this subspecies warrants species-level recognition. This study uses an integrative approach incorporating genetic, plumage, behavioral and vocal variation among the five recognized subspecies, as well as the Ridgway's Hawk (*Buteo ridgwayi*) as a sister taxon for comparative context. For this presentation, we focus on the planned vocal analyses and preliminary results. Audio files from Xeno-Canto and The Macaulay Library were reviewed in Audacity and transferred to RavenPro for analysis of a single phrase. Variables of interest include peak frequency, phrase duration, call rate, 1st Quartile frequency, 3rd quartile frequency, and Peak Contour Frequency Average Slope. A Principal Component Analysis (PCA) will be conducted to understand vocal variation and potential overlap between subspecies. We expect to see an overlap of vocal characteristics among subspecies within the eastern group, particularly between *B. l. extimus* and *B. l. alleni*, due to the proximity of their distribution boundaries. We also expect to see variation in vocal characteristics between the western subspecies and the eastern groups due to the maintained geographical barrier. These analyses will provide insight into patterns of vocal characteristics among Red-shouldered Hawk subspecies and contribute to the broader integrative study of the taxonomic relationship of *B. l. elegans* within the *lineatus-ridgwayi* complex.

SOPHIA HAAKMAN. Bird response to coastal habitat restoration at Jim Neville Marine Preserve, Little Sarasota Bay, Florida

Sophia Haakman. Sarasota Bay Watch, Sarasota, FL.

Habitat restoration through invasive plant removal and native planting can improve ecological conditions for birds, but these effects must be measured to judge whether restoration has succeeded. The Jim Neville Marine Preserve Bird Monitoring Project examines how the restoration of a 104-acre dredge island in Little Sarasota Bay, Florida, affects bird communities. We asked whether restored habitats support greater avian species richness and abundance than unrestored habitats. Beginning in early 2025, community volunteers conducted monthly point counts at three restored and three unrestored sites, recording all birds detected within a 50-meter radius during 10-minute observation periods. Flyovers were recorded and birds outside the 50-meter perimeter were recorded separately. Preliminary statistical analyses indicate that species richness and abundance recorded within the 50- meter radius were significantly higher at restored sites. These findings suggest that native habitat restoration is associated with greater avian richness and abundance at Jim Neville Marine Preserve. Continued monitoring will help evaluate the long-term response to restoration. This project also shows how community-based ornithological research can inform coastal habitat management.

ELLE HANSON. Foraging flocks and feeders: The relationship between bird feeders and winter mixed-species flock composition in north-central Florida

Elle Henson, Dr. Katie Sieving, Suyash Sawant, Po-An Chen. Department of Wildlife Ecology and Conservation, University of Florida, Gainesville, FL.

Bird feeders are a very common way for people in urban spaces to maintain connection with the environment and see birds up close at their own homes. However, the impact of bird feeders on avian social dynamics has not been well-characterized in the context of mixed-species flocks (MSFs) in north-central Florida. These flocks are often led by Tufted Titmice (*Baeolophus bicolor*; TUTI), which are nuclear leaders and community informants in avian social groups. MSFs are made up of primarily insectivorous species, but TUTI will make use of birdseed in the winter, spending a good portion of their time at the supplemental food source. This study investigates the avian community structure around urban and naturally located bird feeders. Nine feeders were placed across an urban area and nine across a natural site, with each feeder monitored by trail camera and automated recording unit (ARU). Feeder community samples were collected by presence of a TUTI in photos, with species presence in photo and audio marked in each sample. This was compared to flocking propensity by species, along with primary diet, mass, and habitat. Preliminary analysis suggests relationships between species diet and participation in flocks versus feeder use. Community composition analysis is anticipated to be very different at feeders compared to in mixed-species flocks.

ASH HERNANDEZ-TROCHEZ. Necropsy and Specimen Curation: A Parasitological Survey of Florida Avifauna

Ash Hernandez-Trochez, Malia Tinsley, Noah Lewis, Eleni Ryczek, Christina Anaya, Oscar Johnson. Department of Biological Science, Florida Gulf Coast University, Fort Myers, FL.

Parasites in birds can impact host health and ecological stability. Migratory birds act as vectors, transporting parasites across regions and introducing them to new areas, sometimes with unpredictable effects. Florida's migratory stopovers are key sites for studying parasite diversity. Although some research exists on specific parasites in Florida birds, overall parasite diversity remains poorly understood. Baseline surveys are crucial, as they often reveal new parasites or unrecognized host associations. This survey provides foundational data on parasites in Southwest Florida's wild birds. 10 individual birds were examined and necropsied between June and July of 2026. Specimens were prepared as museum study skins. External and Internal assessments were conducted to gather host data as well as to collect both ecto and endoparasites. Tissue samples from muscles and organs were stored at FGCU and UF. Organs were dissected under microscopy to identify and recover parasites, which were preserved and stained for imaging. All data collected were logged in spreadsheets. Metrics such as prevalence and mean intensity of parasites were calculated. Parasites were found in 4 of 10 birds, with the Green Heron containing the highest diversity. A Clinostomum trematode from a Green Heron may be a new host record, though confirmation requires further analysis. Acanthocephalans found in the heron are a rare host record, however genus-level ID is preliminary. Variations in parasite diversity between aquatic and terrestrial birds indicate ecological guild affects parasite exposure in Southwest Florida. All findings are preliminary and will need further analysis to confirm all findings.

JOHNNY OWENS. Effects of Anthropogenic Disturbance and Environmental Conditions on Shorebird Foraging Presence

Johnny Owens, Dr. Elizabeth Forys. Biology and Environmental Studies Disciplines, Eckerd College, St. Petersburg, FL.

Most migratory North American shorebird species have recently experienced a drastic decline due to anthropogenic activities. Overwintering and stopover sites are critically important for these species, since they provide crucial food resources and a relatively undisturbed area to rest. However, humans are putting increasing pressure on key shorebird foraging sites, threatening the long-term survival of these species. If adverse conditions surpass the threshold tolerated by shorebirds, they will spend less time foraging and will be less likely to meet their daily energy intake requirements. The goal of this study was to determine the effect of anthropogenic disturbance on shorebird presence at Fort De Soto County Park, which is an important overwintering and stopover site for a variety of shorebird species. Observational surveys were conducted at this location between February and May of 2026, totalling 37 individual surveys. Human disturbance events were categorized based on proximity to the study area and the response of shorebirds was recorded. This research found that people were more likely to cause a disturbance when they walked through the center of the study area and that a disturbance event was more likely to occur when a shorebird abundance was higher. This aligns with the hypothesis that shorebirds are less impacted if people avoid walking directly through flocks and that higher shorebird abundance increases the ability of flocks to detect potential predators. These results have implications for conservation policies such as implementing restricted areas for key shorebird foraging areas.

GALE RAICHART. Kleptoparasitism and Depredation of Laughing Gulls on Black Skimmers on St. Pete Beach, Pinellas County, Florida

Gale Raichart[1], Stratford Abbott[2], Elizabeth Forys[2]

[1]Integrative Biology, University of South Florida, St. Petersburg, FL; [2]Environmental Studies, Eckerd College, St. Petersburg, FL.

Laughing gulls (*Leucophaeus atricilla*) are opportunistic feeders known to steal prey (kleptoparasitism), eggs, and vulnerable chicks from black skimmers (*Rynchops niger*). However, little is known about the frequency and success of these interactions throughout the nesting season. To quantify the frequency of these interactions, observers monitored a black skimmer colony on the St. Pete Beach, Pinellas County, Florida and recorded data each time a Laughing Gull attempted kleptoparasitism or predation. Variables recorded included laughing gull age (immature, adult), number of laughing gulls involved, type of attack, and whether the attack was successful. Depredation of black skimmer chicks was the most frequently observed interaction during the nesting season, while laughing gulls were most successful when kleptoparasitizing fish brought back to the colony by black skimmers. Determining the extent to which laughing gull kleptoparasitism and predation affect Black Skimmer reproductive success is essential for assessing the potential impact from these gulls on the persistence of this imperiled species.

KIRA STAEHLER. Endoparasite Communities of Laridae and Procellariidae Seabirds from South Florida.

Kira Staehler[1], Chris Blanar[2], David Kerstetter[1]

[1]Department of Marine and Environmental Sciences, Halmos College of Arts and Sciences, Nova Southeastern University, Dania Beach, FL; [2]Department of Biological Sciences, Halmos College of Arts and Sciences, Nova Southeastern University, Fort Lauderdale, FL.

Seabirds opportunistically consume a diverse diet of offshore fishes, squids, crustaceans, and other invertebrates. Since these species feed across multiple trophic levels and travel across broad geographic regions, they may be exposed to a wide range of trophically transmitted parasite taxa. However, their endoparasite communities remain understudied, both at the host species level and across broader seabird assemblages. Furthermore, several species included in this study have received comparatively limited research attention, and few studies have characterized gastrointestinal parasite communities in members of families Procellariidae and Laridae. This study aims to characterize and compare gastrointestinal parasite communities among seabird families and examine how differences in ecology may influence parasite diversity and distribution. To date, a total of 26 individuals from four Procellariidae species and 227 individuals from 16 Laridae species have been dissected, with examinations of the esophagus, proventriculus, intestines, and cloaca. Parasite community composition differed between the predominantly offshore procellariid shearwaters and the more coastal larid gulls, terns, black skimmers, and noddies. Larids exhibited a higher proportion of digeneans, whereas procellariids harbored a greater proportion of cestodes and nematodes. These patterns likely reflect differences in host ecology and trophic interactions that influence exposure to intermediate hosts and parasite transmission pathways. Comparisons among host taxa provide insights into trophic linkages and parasite transmission dynamics within marine food webs.

AMELIA SWIECKI. Investigating Black Skimmer Nesting Site Persistence Using GIS

Amelia Swiecki, Beth Forys. Biology and Environmental Studies Discipline, Eckerd College

Black Skimmers (*Rynchops niger*) are colonial, partial migratory seabirds that nest primarily on beaches. Skimmer colonies generally have high site persistence, often returning to the same nesting areas in successive years. Nesting skimmers are vulnerable to disturbances such as predation, hurricanes, and human intrusion. In face of disturbance, Black Skimmers may abandon their nesting site and either relocate to a different area along a beach or permanently abandon for the breeding season. We investigated how colony abandonment influenced subsequent colony-site persistence by examining movements of Black Skimmer colonies at two sites in Pinellas County, Florida, from 2011–2026. We measured within-season movements following disturbance and compared distances between nesting locations in consecutive years based on whether colonies had abandoned their nesting site during the previous breeding season. Overall, colonies moved farther between years following abandonment than when no abandonment occurred. We found that colonies at Redington Beach traveled a farther mean distance compared to St. Pete Beach colonies, in cases both with or without abandonment. At St. Pete Beach, however, there was a bigger difference between mean distance traveled by colonies in cases of abandonment compared to cases without. The difference at Redington was much smaller. Future research could examine whether abandonment influences the timing of nesting in subsequent breeding seasons and whether different sources of disturbance affect the distance colonies relocate within or between breeding seasons.

NON-STUDENTS:

SIMON FITZWILLIAM. Southeastern American Kestrel movements and home range

Simon Fitzwilliam, Karl E. Miller, Timothy A. Dellinger. Florida Fish and Wildlife Conservation Commission (FWC), Fish and Wildlife Research Institute (FWRI)

The Southeastern American Kestrel is a non-migratory and genetically distinct subspecies of the American Kestrel and is State listed as Threatened in Florida. GPS telemetry was used to evaluate movements and home range size to address information gaps identified during the development of FWC's Species Conservation Measures and Permitting Guidelines. During 2025 FWC/FWRI research staff deployed Ornitela GPS cell tags on 33 adult female Southeastern American kestrels in Marion, Levy, Gilchrist, Citrus, Suwannee, and Columbia counties in north central Florida. Early indications are that the size of female kestrel breeding season ranges varies greatly. Preliminary analyses found a breeding season range size mean of 254.9 ha, a median of 20.4 ha, and a range of 0.8 - 3623.7 ha; while most were < 25 ha, several ranges were > 100 ha, which is notably larger than previous reports for the species. We conclude that FWC's permitting guidelines do not accurately predict the area used by a sizeable proportion (~21%) of the population. Further analyses of movement data from this project will provide guidance for both managers and regulatory staff seeking to understand kestrel habitat requirements and promote kestrel habitat.
Note: No authors will be present at the time of the poster session, but questions and comments may be directed to: Simon Fitzwilliam**,** Avian Research Biologist, Fish and Wildlife Research Institute Florida Fish and Wildlife Conservation Commission, 1105 SW Williston Rd, Gainesville, FL 32601, (352) 262-9969

SIMON FITZWILLIAM. The Breeding Bird Survey Needs Your Help

Simon Fitzwilliam[1] and Mikey Lutmerding[2].
[1]Florida Fish and Wildlife Conservation Commission (FWC), Fish and Wildlife Research Institute (FWRI); [2]U.S. Geological Survey (USGS)

The Breeding Bird Survey (BBS) is looking to fill vacant survey routes across the state. Out of the 80 survey routes scheduled to be surveyed in 2027, 30% are unassigned. This infographic map is meant to serve as a visual aid to assist with recruitment. The BBS is a long-term, large-scale, international avian monitoring program initiated in 1966 to track the status and trends of North American bird populations. The USGS Eastern Ecological Science Center and Environment Canada's Canadian Wildlife Service jointly coordinate the BBS program. Each year during the height of the avian breeding season participants skilled in avian identification collect bird population data along roadside survey routes. Once analyzed, BBS data provide an index of population abundance that can be used to estimate population trends and relative abundances at various geographic scales.
Note: No authors will be present at the time of the poster session, but questions and comments may be directed to: Simon Fitzwilliam**,** Avian Research Biologist, Fish and Wildlife Research Institute Florida Fish and Wildlife Conservation Commission, 1105 SW Williston Rd, Gainesville, FL 32601, (352) 262-9969

ROBERT T. MEYER. How Fire Shapes a Community of Ecosystem Engineers

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Fire is a recurring disturbance in southeastern US pine forests, yet these ecosystems remain biodiverse and contain many closely related co-occurring species. Niche theory predicts that coexistence is possible if there is more intra- than interspecific competition. We investigated whether fire maintains diversity in a community of cooccurring woodpecker species by identifying how foraging behavior overlap changes over time since fire. We collected 991 foraging observations of seven woodpecker species across 32 study plots in 2025 and 2026. Study plots were burned annually or biannually with foraging observations occurring during the breeding season when competition for resources is expected to be high amongst species. Here we will present preliminary results of our work including foraging niche width and overlap in response to cavity-nesting bird densities, forestry conditions and time since fire.