Annual Report 2023

Florida Cooperative Fish and Wildlife Research Unit

FLORIDA COOPERATIVE
FISH AND WILDLIFE RESEARCH UNIT

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COOPERATORS

Florida Fish and Wildlife Conservation Commission

United States Geological Survey

United States Fish and Wildlife Service

University of Florida

Wildlife Management Institute

Cover: Bar Hammock. CONOR MCGOWAN
Left: Jaiere Harlow and Ray Carthy in MOCC Training. BRENT SIGAFUS USGS
Center: Holding Horseshoe Crabs Sheds. CONOR MCGOWAN
Right: Darcey Doran-Myers Holding Bear Cubs. UNKNOWN

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TOP RIGHT: Costanza Manes at MOCC Training. JAZMIN CALDERON-MARQUEZ;
CENTER RIGHT: Darcy Doran-Myers holding bear cub. UNKNOWN.
BOTTOM RIGHT: Happy Catfish. MARION BAKER
BOTTOM: Chris Anderson, Ph.D. student. FWC

INTRODUCTION

The Florida Cooperative Fish and Wildlife Research Unit was established in 1979 as one of the first combined units. The purpose of the Florida Unit is to provide for active cooperation in the advancement, organization, and conduct of scholarly research and training in the field of fish and wildlife sciences, principally through graduate education and research at the University of Florida. The Florida Unit has the mission to study wetland ecosystems within the state. Florida is a low relief, sub-tropical peninsula that is ecologically fragile. Though abundant, Florida's water resources are under increasing pressure from a burgeoning human population. Domestic, recreational, and development needs threaten Florida's water/wetland resources. In following its program directive, the Florida Unit has developed a research program that addresses management issues with approaches spanning species to ecosystem perspectives. Specifically, this Unit conducts detailed investigations of aquatic-terrestrial ecosystem interfaces and their component fish and wildlife resources.

New Unit quarters at 2295 Mowry Road, University of Florida. RAYMOND CARTHY and ANDREW ORTEGA using a UAS drone

Between 1979 and 2023, over 330 projects totaling more than $65 million were funded through the Unit. These projects covered a wide variety of fish, wildlife, and ecosystem subjects and have involved over 50 line, affiliate, and adjunct faculty members as principal and co-principal investigators. Unit staff have their own research projects, which accounted for about 1/3 of the total effort. Projects associated with the Unit have resulted in over 450 publications, 130 technical reports, 113 theses and dissertations, and 260 presentations. Cooperation has been the Florida Unit's strength. As a Cooperative Research Unit of the U.S. Geological Survey, it serves as a bridge among the principal cooperators, such as the University of Florida, the Florida Fish and Wildlife Conservation Commission (FFWCC), the U.S. Geological Survey (USGS), the U.S. Fish and Wildlife Service (USFWS) and the community of state and federal conservation agencies and nongovernmental organizations. Evidence of this role is the Unit's funding which has included contributions from FFWCC, 12 BRD research labs and centers, 12 offices within the USFWS Southeast Region, the University of Florida, U.S. Army Corps of Engineers, U.S. Navy, U.S. Department of Agriculture, U.S. Air Force, U.S. National Park Service, Environmental Protection Agency, St. Johns River Water Management District, South Florida Water Management District, U.S. AID, World Wildlife Fund, The Nature Conservancy, National Marine Fisheries Service, National Oceanic and Atmospheric Administration, BRD, Florida Wildlife Federation, National Audubon Society, Florida Alligator Farmers' Association, American Alligator Farmers' Association, Florida Fur Trappers' Association, and other private contributions. Many Unit projects involve multiple investigators from several agencies. This cooperative interaction stimulates continuing involvement of funding sources, provides for student contacts with potential employers and agency perspectives, and directs transfer and application of research results.

Tyler Coleman and Andrew Carlson at Graduation.
BETSY RILEY

In Dedication to Tyler Steven Coleman

Students are the lifeblood of the Florida Unit. From the field to the lab, conference room, and lecture hall, students make the Unit mission possible and enrich the lives of everyone in the Unit family. We thank all past, present, and future Unit students for their countless contributions and cherished friendship.

Every now and then, we encounter a student whose achievements are so noteworthy, and whose resilience amid adversity is so remarkable, that they deserve special recognition. We dedicate the 2023 Annual Report to one such student, **Tyler Steven Coleman.**

Tyler arrived at the University of Florida in 2019 with an M.S. degree and a competitive Ph.D. fellowship in hand. He made an immediate impact on campus, catalyzing collaborations with faculty and leveraging his knowledge and experiences to support students and colleagues. Throughout his life, Tyler has risen above challenges. When adversity arose in his initial Ph.D. program, Tyler responded with courage and fortitude. Joining the Unit in 2021, Tyler launched a second Ph.D. project and completed it in two years, a remarkable feat.

Throughout his time as a Unit Ph.D. student, Tyler befriended and supported faculty, staff, and students and won numerous awards, including the Outstanding Graduate Teaching Award in WEC and the Roger Rottman Memorial Scholarship from the Florida Chapter of the American Fisheries Society. Then and now, Tyler's commitment to high-quality science and teaching is matched only by his dedication to improving the lives of those around him. Despite adversity—and indeed because of it—Tyler is a driven, magnanimous person with a clarity of purpose for life and career that is truly inspiring. Tyler's resilience, passion for natural resources, and compassion for people leave a legacy at the Florida Unit and embody the invaluable contributions of all Unit students.

Tyler earned his Ph.D. in December 2023 and is now a postdoctoral scientist studying aquatic ecosystems in Louisiana. We miss Tyler's energy, enthusiasm, and cordiality around the Unit building, but we celebrate his achievements and look forward to his continued contributions to natural resource science, management, and education.

Florida Unit students, staff, and leaders at their spring picnic, 2023. UNKNOWN

MISSION STATEMENT

The mission of the Florida Cooperative Fish and Wildlife Research Unit is to conduct detailed investigation of aquatic and terrestrial resources and their component fish and wildlife populations. Our research emphasizes the interaction of biota with features of their habitat, both natural and those impacted by human activities, and ranges across state, regional, national, and international scopes. We have wide-ranging expertise in avian ecology and conservation, endangered species monitoring and assessment, coastal ecosystems, population and ecological modeling, decision analysis, fisheries ecology and management, and coupled human and natural systems.

Our research is taxonomically diverse, including but not limited to terrestrial and water birds, terrestrial herpetofauna and marine turtles, and freshwater and marine fishes. Critical components of our mission include applied research, graduate education, and technical assistance in collaboration with the Florida Fish and Wildlife Conservation Commission, U. S. Geological Survey, U.S. Fish and Wildlife Service, National Oceanic and Atmospheric Administration, and many other partners.

DIVERSITY, EQUITY, AND INCLUSION

We are dedicated to training the next generation of natural resource leaders through management-relevant research, working with state, federal, and university cooperators and other stakeholders to address questions pertinent to fish and wildlife conservation in the face of environmental, demographic, and socioeconomic change.

Diversity, equity, inclusion, and justice are vital to our mission at the Florida Coop Unit. We are dedicated to building a culture of inclusivity and respect through graduate education, research, and technical assistance. Much like biodiversity imparts ecosystem resilience, we believe that human diversity enhances the resilience of the conservation community, providing pathways to engage with the world and deliver solutions to conservation, and broader societal, challenges.

We oppose discrimination, inequality, and racism in all of their forms, seeking to understand and abolish systems of power and privilege in our profession and our world. We believe that diversity is a source of strength, ingenuity, and inspiration. We welcome people from all backgrounds, listen to all voices without judgment, and hold ourselves accountable for building a diverse, equitable, inclusive, and just community.