

# Forrest Collins, Doctoral Candidate

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## EDUCATION

- Doctor of Philosophy, Marine Biology- 4.0 GPA (out of 4.0)**  
University of Alabama at Birmingham, 2022 - 2025 Birmingham, AL
- Master of Science, Marine Biology- 4.0 GPA (out of 4.0)**  
University of Alabama at Birmingham, 2019 - 2022 Birmingham, AL
- Bachelor of Science (Distinguished Honors), Biology**  
University of Alabama at Birmingham, 2013 - 2017 Birmingham, AL  
Major- Biology  
Minor- Chemistry, History  
Concentration- Marine Biology

## TEACHING POSITIONS

- Environmental Science Lab- BY 109**  
University of Alabama at Birmingham  
Fall 2020, Spring 2022
- Introduction to Biology Lab- BY 124L**  
University of Alabama at Birmingham  
Fall 2020, Summer 2022, Fall 2022, Spring 2023, Summer 2023, Fall 2023,  
Spring 2024, Summer 2024, Fall 2024
- Human Physiology- BY 409**  
University of Alabama at Birmingham  
Guest Lecturer: Summer 2021
- Introduction to Human Physiology Lab- BY 409L**  
University of Alabama at Birmingham  
Summer 2021
- Vertebrate Zoology- BY 256**  
University of Alabama at Birmingham  
Guest Lecturer: Spring 2021 - 2023
- Vertebrate Zoology Lab- BY 256L**  
University of Alabama at Birmingham  
Spring 2021, Spring 2023
- Biology and Conservation of Sea Turtles- MESC 208**  
Dauphin Island Sea Laboratory  
Guest Lecturer: Summer 2021 - 2024
- Model and Non-Model Organisms- BY 363**  
University of Alabama at Birmingham  
Guest Lecturer: Spring 2024

## AWARDS AND HONORS

- Second Place Paper Presentation, 2024**

Alabama Academy of Science  
**First Place Paper Presentation, 2022**  
Alabama Chapter of The Wildlife Society  
**Second Place Paper Presentation, 2022**  
Alabama Academy of Science  
**Graduated with Distinguished Honors, 2017**  
University of Alabama at Birmingham  
**Honors Research Award, 2017**  
University of Alabama at Birmingham  
**First Place in Honors Research Expo, 2017**  
University of Alabama at Birmingham  
**Honorary Marine Biologist, 2010**  
Tennessee Aquarium

## **PROFESSIONAL EXPERIENCE**

**Chemical Hygiene Advisor**  
UAB; Department of Biology for Dr. Thane Wibbels Lab  
**Clinical Laboratory Scientist/Laboratory Supervisor**  
Circulogene Theragnostic  
**Researcher 2**  
UAB; Cellular, Development, and Integrative Biology Department  
**Sea Turtle Aquarium Educator**  
Mote Marine Laboratory  
**Research Associate 1**  
Moffitt Cancer Center  
**Researcher 1**  
UAB; Cellular, Development, and Integrative Biology Department  
**Coosa River Keeper Intern**  
Coosa River Keeper

## **RESEARCH EXPERIENCE**

**Utilizing an Embryo Growth Program to Predict Sex Ratios of Kemps Ridely Nests**  
University of Alabama at Birmingham, under the mentorship of Dr. Thane Wibbels  
**Addressing New Technology in Radio Tracking for the Conservation and Ecology of the**  
**(*Eretmochelys imbricata*) Rookery in the Western Caribbean**  
University of Alabama at Birmingham, under the mentorship of Dr. Thane Wibbels  
-Thesis, Chapter II  
**Mississippi Diamondback Terrapins (*Malaclemys terrapin pileata*)**  
University of Alabama at Birmingham, under the mentorship of Dr. Thane Wibbels  
**Long Term Variability of Nesting Beach Temperatures of Hawksbill Sea Turtle**  
**(*Eretmochelys imbricata*) Rookery in the Western Caribbean**  
University of Alabama at Birmingham, under the mentorship of Dr. Thane Wibbels  
**Using Stable Isotope Analysis to Better Understand the Diamondback Terrapin**  
University of Alabama at Birmingham, under the mentorship of Dr. Thane Wibbels  
-Thesis, Chapter I  
**Force Recognition and Signaling on Cells to Better Understand Their Communications**

University of Alabama at Birmingham, under the Lab PI of Alexa Mattheyses  
**The Importance of S100A9 on Myelodysplastic Syndrome**  
Moffitt Cancer Center, under Lab PI, Dr. Alan List  
**How Different Inhibitors Affect Multiple Sclerosis and Parkinson's Disease**  
University of Alabama at Birmingham, under the Lab PI of Dr. Hongwei Chen  
-Published: JCI-Insight. May 2<sup>nd</sup>, 2019  
**Historical Findings of the Kemps Ridley**  
University of Alabama at Birmingham, under the mentorship of Dr. Thane Wibbles  
**The Decline of the Kemps Ridley off of Dauphin Island, Alabama**  
Independent Research  
**Temperature Dependent Sex Determination of the Diamond Back Terrapin**  
University of Alabama at Birmingham, under the mentorship of Dr. Thane Wibbles  
**Conservation of flora and fauna of Cedar Point Marsh, Alabama**  
University of Alabama at Birmingham, under the Mentorship of Dr. Thane Wibbles  
**Location and Tracking of Shark Species Along Alabama's Gulf Coast**  
University of South Alabama, under the Mentorship of Dr. Marcus Drymon

### GRANTS

**Alabama Audubon: Walter F. Coxe Research Grant**  
-Awarded 2024- \$1,900  
**Alabama Audubon: Walter F. Coxe Research Grant**  
-Awarded 2020- \$1,000  
**Diamondback Terrapin Working Group**  
-Awarded 2021- \$662.50  
-Applied 2022  
-Travel Grant 2022- \$400.00  
**National Science Foundation (NSF)**  
Applied- 2020

### LICENSES

Boater's License, 2021  
Open Water Scuba Certified, 2016  
-16060Q4855

### PRESENTATIONS

Collins, F., Marion, K., Wibbles, T. 2024. *Utilizing an Embryo Growth Model to Predict the Sex Ratio of Kemps Ridley, Lepidochelys kempii, Nests*. Alabama Academy of Science.  
Collins, F., Wibbles, T., Marion, K., Sirgo, C., Coleman, A., Roberge, T. 2023. *Predator Removal Impacts of Diamondback Terrapin Nests in Cedar Point Marsh, Dauphin Island*. Alabama Academy of Science.  
Collins, F., Wibbles, T., Marion, K., Rush, S. 2023. *Experimental Approach for Evaluating Stable Isotope Values for Marine Turtles*. Southeastern Regional Sea Turtle Meeting.  
Collins, F., Wibbles, T., Marion, K., Rush, S. 2022. *Documenting the Stable Isotope "Isoscape" of Diamondback Terrapin Habitats in the Mississippi Sound of Alabama*. Alabama Chapter of the Wildlife Society.

- Collins, F., Wibbles, T., Marion, K. Rush, S. 2022. *Evaluating the Stable Isotope “Isoscape” of Diamondback Terrapin Habitats in the Mississippi Sound of Alabama*. Diamondback Terrapin Working Group Triennial Workshop.
- Collins, F., Wibbles, T., Estes Layton, J., Lagueux, C., Campbell, C. 2022. *Long Term Variability of Nesting Beach Temperatures of Hawksbill Sea Turtle (Eretmochelys imbricata) Rookery in the Western Caribbean*. Alabama Academy of Science.
- Collins, F., Wibbles, T., Marion, K. 2021. *Evaluations of Stable Isotope Signatures in Diamondback Terrapins*. Alabama Academy of Science, Alabama Chapter of the Wildlife Society, Marine Science Graduate Student Symposium, Discoveries in the Making.
- Collins, F. Wibbels, T. 2017. *Using Historical Data to Discover the Mystery Behind Lepidochelys kempii Disappearance*. University of Alabama at Birmingham Spring Research Expo, University of Alabama at Birmingham Honors Research Dinner.
- Collins, F., Wibbels, T. 2016. *Juvenile Deaths and Migration Ratios of the Lepidochelys kempii*. Bays and Bayous Symposium.

### **PUBLICATIONS**

- Collins, F. Wibbels, T., Rush, S. 2022. *Ecology of the Diamondback Terrapin (Malacemys Terrapin Pileata) in Alabama: Applications of New Technologies*. ProQuest. Thesis. University of Alabama at Birmingham.
- Yan, Z., Yang., W., Parkitny, L., Gibson, S., Lee, K., Collins, F., Deshane, J., Cheng, W., Weinmann, A., Wei, H., Qin, H., Benveniste, E. 2019. *Deficiency of Socs3 leads to brain-targeted experimental autoimmune encephalomyelitis via enhanced neutrophil activation and ROS production*. JCI Insight.

### **PUBLICATIONS IN PROGRESS**

- Collings, F., Sirgo, C., Roberge, T., Coleman, A., Marion, K., Stephens, L., Buckley, B., Wibbels, T., 2024. *Evaluation of Diamondback Terrapin, Malaclemys terrapin pileata, Nest Depredation at Cedar Point Marsh, Alabama, Following a Raccoon Removal*. Herpetological Conservation and Biology.

### **VOLUNTEER POSITIONS**

- Guest Speaker, 2023  
-Brookwood Elementary School
- Presentation Judge, 2022 - 2024  
-University of Alabama at Birmingham Spring Research Expo
- Aquarist, 2021  
-McWane Science Center; Birmingham, Alabama