

# TYLER CHRISTIAN

National Oceanographic and Atmospheric Administration  
Atlantic Oceanographic and Meteorological Laboratory's Ocean Chemistry and Ecosystems Division  
University of Miami's Cooperative Institute for Marine and Atmospheric Studies  
4301 Rickenbacker Cswy, Miami, FL 33149

Phone: (620) 899-3332    Email: tyler.christian@noaa.gov

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## EDUCATION

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University of North Carolina at Chapel Hill, Chapel Hill, NC May 2021

- BS in Biology; Minors in Marine Science, Environmental Science, and Chemistry

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## WORK EXPERIENCE

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### **NOAA's Atlantic Oceanographic and Meteorological Laboratory, Miami, FL**

*Research Associate I, October 2021 - Present*

- Gas-segmented colorimetric nutrient analysis of seawater samples on continuous segmented flow autoanalyzer (SEAL AA3) according to EPA methods 349.0, 366.0, 353.4, 365.5
- Measuring Chlorophyll a and phaeophytin using acetone extraction on Turner fluorometer
- Maintaining lab standards for NELAC certification as Quality Assurance-Control Officer
- Conducting water quality monitoring surveys in Biscayne Bay on small boats and South Florida coastal waters on R/V Walton Smith and juvenile sportfish assessments in Florida Bay
- Operation of optical instrumentation: Coastal Ocean Vision's Continuous Particle Imaging Classification System and SVC spectroradiometer
- Calibration and maintenance of water quality sondes: YSI EXO 2 and In-Situ Aqua TROLL 600
- Filtration of seawater for eDNA, RNA, HPLC, particulate organic matter, and flow cytometry discrete samples on 2023 A16N GO-SHIP
- Running and maintenance of Cytex Northern Lights full spectrum flow cytometer and Imaging FlowCytobot (IFCB) for plankton analysis

### **Lohmann Lab, University of North Carolina at Chapel Hill**

*Work Study Student, August 2020 — May 2021*

- Feeding and caring for Loggerhead sea turtles (*Caretta caretta*)
- Cleaning tanks and dishes
- Aquaria maintenance and system checks

### **Castillo Lab, University of North Carolina at Chapel Hill**

*Work Study Student, August 2019 — December 2019*

- 3-D scanning coral skeletons from winter warming experiment
- Coordinating aquarium maintenance schedule
- Managed social media for lab

## **Kingsolver Lab, University of North Carolina at Chapel Hill**

*Work Study Student, August 2018 — May 2019*

- Caring for *Manduca sexta* (hornworm) and *Cotesia congregata* (parasitoid wasp) populations
- Sorting images
- Cleaning lab dishes and equipment

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## **OCEANOGRAPHIC CRUISE EXPERIENCE**

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### **Total Sea Days: 83**

#### **R/V Ronald H. Brown**

- A16N GO-SHIP/CO2 Repeat Hydrography Cruise      Recife, Brazil – Rota, Spain      **March-April 2023**      32 days

#### **R/V Walton Smith**

- South Florida Ecosystem Restoration Research      Atlantic/Gulf      **Bimonthly, 2022-2023**      35 days

#### **R/V Hogarth**

- South Florida Ecosystem Restoration Research      Atlantic/Gulf      **May 2023**      7 days

#### **R/V Weatherbird II**

- South Florida Ecosystem Restoration Research      Atlantic/Gulf      **August 2022**      9 days

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## **RESEARCH**

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### **Castillo Lab, University of North Carolina at Chapel Hill**

*Undergraduate Researcher, 2018 — 2021*

- Ran an experiment testing the effects of winter ocean warming and reduced food availability on the temperate coral *Oculina arbuscula* (August 2018 — May 2019)
- Analyzed data from experiment (May 2019—May 2021)
- Summer Undergraduate Research Fellowship (Summer 2019) — sample preparation
- 3D scanning of skeletons to quantify surface area
- Symbiont density counts
- Statistical analyses in R
- Coordinated multiple undergraduate students to assist in experiment and data analysis

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## **PRESENTATIONS AND PUBLICATIONS**

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- Presented poster at the 14th International Coral Reef Symposium-Virtual (July 2021)
- Wrote and presented Senior Honors Thesis based on coral experiment (Spring 2021)
- Publication of research in UNC JOURney, a student research publication at UNC (May 2021)
- Presented Poster at UNC Celebration of Undergraduate Research (May 3, 2021)
- Presented Poster at State of North Carolina Undergraduate Research and Creativity Symposium (SNCURCS) (November 2020)
- Presented coral experiment to general audience at Lab Night (2019)
- Presented research to students in MASC 101: Introduction to Marine Science (2019 & 2020)

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## SKILLS

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- USCG Boating Skills and Seamanship Certification
- NOAA Small Boat Qualified Crew Certification
- PADI Open Water Diving Certification
- First Aid/CPR/AED Certification
- Animal Husbandry Experience (Coral, Loggerhead Sea Turtles, Various Marine Fish and Rays, Farm Animals, Horn Worms)
- Knowledge of Saltwater Aquaria Maintenance
- Experience with Apple Software and Microsoft Office Programs

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## VOLUNTEERING

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### **Phillip and Patricia Frost Museum of Science**

*Aquarist, January 2022 — Current, 5 hrs weekly*

- Cleaning aquaria systems and changing filter socks
- Feeding various fish and ray species
- Performing enrichment activities with common octopus
- Daily diet preparation for all aquaria systems
- Interacting with guests

### **Castillo Lab, University of North Carolina at Chapel Hill**

*January — May 2018*

- Cleaning aquarium tanks, sumps, and filter socks
- Preparing brine shrimp and feeding coral