

Kalle G. Simpson

she/her | (703) 851-3356 | ksimpso@ncsu.edu | www.linkedin.com/in/KalleSimpson

EDUCATION

North Carolina State University, Morehead City, NC
Center for Marine Science and Technology (CMAST)

Anticipated May 2024

- M.S. Fisheries, Wildlife, Conservation Biology
 - Relevant Coursework: R Coding, Fundamentals of GIS

North Carolina State University, Raleigh, NC

May 2021

- B.S. Environmental Sciences, Marine Ecology Concentration; Minors in Environmental Toxicology and Marine Science; Dean's list Spring 2020, Fall 2020, Spring 2021

RESEARCH EXPERIENCE

Field Assistant

NC State College of Veterinary Medicine, Morehead City, NC

June-August, 2022

- Assisted with collection and processing of shellfish samples from lease sites in North Carolina
- Processed viscera, gill, and histology samples, and prepared Davidsons fixative

Environmental Technician II

Division of Marine Fisheries (DMF), Morehead City, NC

June 2021-May 2022

- Utilized ArcMap and GIS programs to digitize the North Carolina Shoreline from Morehead City, NC to the South Carolina state line
- Knowledge of Environmental Systems Research Institute's (ESRI) ArcMap and ArcGIS Pro
- Composed a comprehensive digitization guide to encourage uniformity in the digitizing process among current and future Environmental Technicians
- Collaborate with colleagues and management regarding progress

NSF REU Ecotoxicology Intern

June-August 2020

Mote Marine Laboratory and Aquarium, Sarasota, FL

- Research Project: Effect of oxybenzones on cortisol levels and behavioral patterns in Sheepshead Minnow, *Cyprinodon variegatus*
- Performed Bradford Protein Analysis, fish husbandry, and executed cortisol tissue extraction and exposure of fish to Oxybenzone
- Dissection of hard clam gills and stomachs during clam acclimation and depuration of *K. Brevis*
- Hormonal analysis via cortisol enzyme-linked immunoassay (ELISA) kit
- Conducted solid phase water extraction for Oxybenzones with C-18 columns
- Poster presentation: Mote Marine Lab NSF REU Poster session, NC State Undergraduate Research Symposium, Mote Marine Lab NSF REU Poster session, NC State Undergraduate Research Symposium, National Council for the Environment (NCSE) Drawdown Conference: Science and Solutions for a Planet Under Pressure (January 2021)

Shellfish Growing Management Area Researcher

May- July 2019

Division of Marine Fisheries (DMF), Morehead City, NC

- Prepared lab processes and media for collection and reading of shellfish meat and water samples.
- Conducted and collected water quality sampling tests in lab and field
- Point of contact in research and development of Harmful Algal Bloom (HAB) Screening Program for DMF
- Produced comprehensive report of findings and training manuals for the HAB Screening Program
- Involvement in lab processes including preparing media and autoclaving lab glassware
- Performed shoreline survey's ecosystem impact assessments, and trawl samples for juvenile fish
- Identification of microalgae via microscope, including toxic species in red tide and point source pollution

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Research Assistant, Marine Ecology

September 2018- May 2019

North Carolina State University, Raleigh, North Carolina

- Developed a catalogue of over 300 seagrass ID photographs.
- Learned to identify and distinguish between various grazing habits on seagrass blades.
- Responsible for utilizing ImageJ to measure grazing patterns on seagrass samples.
- Recorded and calculated blade and surface area of grazing patterns in Microsoft Excel.

LEADERSHIP EXPERIENCE & CAMPUS INVOLVEMENT

College of Natural Resources (CNR) Student Ambassadors

North Carolina State University, Raleigh, North Carolina

Co-Coordinator

January 2020- December 2021

- Lead and plan weekly meetings for 30 ambassadors.
- Initiated mentor/mentee program for new ambassadors entering the program.
- Facilitate all communication between ambassadors and faculty advisors.

Student Ambassador

January 2018-January 2020

- Aided in increasing enrollment in the college by 12% in the 2018-2019 academic year
- Participated in a diversity and inclusion workshop on campus
- Collaborated with team members and faculty to recruit prospective students to the college.
- Interacted with future students and families to display knowledge and professional skills obtained whilst in CNR.
- Trained new Ambassadors on in-depth knowledge of CNR and to effectively recruit prospective students.

Undergraduate Tutor

College of Natural Resources (CNR), North Carolina State University

February 2020- May 2021

- Tutoring undergrads in Intro to Academic Writing (ENG 101), Intro to Environmental Sciences (ES 100), Climate Change and Sustainability (ES 200), and Intro to Oceanography (MEA 200)

Forestry and Environmental Resources Leadership Board Member

May 2018- May 2021

North Carolina State University, Raleigh, North Carolina

- Responsible for creating and conducting events to enhance and support current students in the Department of Forestry and Environmental Resources
- Planned and conducted a Faculty research mixer for 15 Environmental Sciences students and research faculty

Department Head of Environmental Education

May 2018- August 2018

Camp St. Charles, Newburg, Maryland

Summers 2015-2018

- Engaged over 720 campers in hands-on water quality and pollution education activities
- Implemented 4 new lesson plans for counselors to teach campers
- Oversaw fellow counselors in the department and provided coaching

TECHNICAL SKILLS & CERTIFICATIONS

- Proficient in ImageJ, Microsoft Word, PowerPoint and Excel.
- R, ArcGIS, ArcGIS online
- Bradford Protein Analysis, Aseptic Lab Technique, Cortisol ELISA Kit