

MAGGIEDILLON

GRADUATE STUDENT

Education

Master's in Biology

California State Polytechnic University, Pomona

2022 – Present

Thesis: Influence of Construction Material and Habitat Characteristics on Size-Specific Fish Assemblages on Bolsa Chica Artificial Reef

Bachelor of Arts

St. John's College, Annapolis MD

2014 - 2018

Research Experience

Graduate Research Assistant / California Polytechnic University, Pomona / Claisse Lab

Pomona, CA July 2022- present

- Analyzed artificial reef stereo video and identify fish
- Developed standard operating procedures for the deployment of ROVs
- Conducted a literature review of artificial reefs of California

Field Volunteer / Occidental College/ *Vantuna Research Group*

Los Angeles, CA July 2023- present

- Collected data while SCUBA Diving in southern California
- Assisted in deployment of sonar data collection
- Deployed Stereo-ROV in nearshore environments

Field and Laboratory Technician / The Virginia Institute of Marine Sciences (VIMS) / *Fabrizio Lab*

Gloucester Point, VA July 2021- July 2022

- Conducted Standard Metabolic Rate research using respirometry chambers on Blue Catfish
- Collected data and fishes on seine and trawl surveys
- Dissected and processed fish otoliths for microchemistry
- Mentored and managed undergraduate students in the lab and field

Field and Laboratory Technician *Anne Arundel Community College / Domanski Lab*

Arnold, MD January 2021 – July 2021

- Performed in-lab aseptic microbiological culturing techniques, analytical chemistry and basic equipment maintenance
- Conducted water quality sampling from boat, shore, and by wading into streams
- Mentored and managed undergraduate students in the lab and field

Oyster Restoration Assistant / *Chesapeake Bay Foundation*

Annapolis, MD April 2021 - July 2021

- Assisted with oyster restoration activities including spat-on shell growing, oyster cage construction, oyster reef building, and community engagement efforts
- Conducted water quality sampling for oyster aquaculture
- Operated company boats and trucks

Aquarist / *Guided Discoveries*

Catalina Island, CA January 2019 – June 2020

- Created and maintained 15 diverse tank exhibits of local Catalina Island marine species and ecosystems including Chondrichthyes, Osteichthyes, and invertebrates
- Maintained detailed records on feeding, maintenance, and other husbandry related tasks

Fin Fish Intern / *National Oceanic and Atmospheric Administration (NOAA) / Chambers Lab*

Highlands, NJ May 2018 – August 2018

- Conducted high frequency experiments on the effects of ocean acidification and seasonal variation on early life stages of key marine fishes in future climate change models
- Analyzed survival, embryonic and larval development and size data of fish

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Teaching & Relevant Experience

Dive Center Supervisor / *Associated Student Inc. PADI Educational Dive Facility*
Pomona, CA July 2022-Current

- Managed and supervised a team of undergrad and graduate students
- Coordinated with school and community members to promote conservation and SCUBA diving
- Assisted in dive trip planning and logistics

Teaching Associate / *California Polytechnic University, Pomona*
Pomona, CA August 2022- December 2022

- Instructed BIO1220L an introductory lab studying Ecology, Evolution, and Biodiversity
- Lesson planned, graded, and administered exams

Marine Science Instructor / *Guided Discoveries*
Catalina Island, CA January 2019 – June 2020

- Implemented outdoor marine science education program according to Next Generation Science Standards
- Led hundreds of students on kayak trips, hikes, and snorkels in varying conditions year round
- Operated and drove chase boats for educational programs in the ocean

Marine Life Program Leader / *Rustic Pathways*
Dominican Republic May 2019- August 2019

- Worked with local marine NGOs to educate students on current marine science and environmental issues
- Led high school students in coral reef and mangrove field surveys in the Dominican Republic
- Partnered with local NGOs to promote citizen science and conservation

Education and Field Intern / *Khalid Bin Sultan Living Oceans Foundation*
Annapolis, MD September 2016 – May 2018

- Edited coral reef and mangrove field and classroom curriculum
- Wrote and published blogs on the Foundations website for a non-scientific audience
- Assisted in teaching high school students about mangrove education ecosystems, food webs, and classifications of animals in Jamaica

Presentations

GEOHAB

Arendal Norway / May 2024

Presented poster on the influence of construction material and habitat metrics on fish assemblages on southern California artificial reefs

Ocean Science Meeting

New Orleans LA / February 2024

Presented poster on size specific fish assemblages on southern California artificial reefs using remotely operated stereo video

Western Society of Naturalist Conference

Monterey CA / November 2023

Presented poster on fish assemblages on southern California artificial reefs using remotely operated stereo video

Western Society of Naturalist Conference

Oxnard CA / November 2022

Won best graduate student poster for research on the effects of temperature on metabolic rates of Blue Catfish

American Fisheries Society Tidewater Conference

Nags Head NC / March 2022

Presented a poster on the effects of temperature on metabolic rates of Blue Catfish

National American Fisheries Society Conference

Presented a talk on the effects of seasonal variation on Atlantic silverside early life history
Atlantic City NJ / August 2018

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Publications

1. V.Nepal, M.Dillon, M.Fabrizio, T.Tuckey (Accepted): Physiologically-informed predictions of climate warming effects on native and non-native populations of blue catfish

Professional Development

California State Polytechnic University, Pomona Biology Graduate Student President
Pomona CA / July 2023 - Current

Elected president of the Biology Graduate Student Association to serve students and act as a liaison between students and administration

National Science Foundation Sustainable Oceans Traineeship
Davis CA / June 2023- October 2024

Selected to participate in a policy traineeship funded through the National Science Foundation to meet with ocean policy makers and stakeholders and present my reserach

National Science Foundation Evolving Seas RCN Training Program
Washington / September 2023 - Current

Selected to participate in a weekly lab meeting with the Roberts Lab at University of Washington dedicated to professional development

Funding & Awards

ARI-NextGen Fellow / 2024

- Awarded \$25,000 graduate fellowship for tuition and research

Kenneth H. Coale Graduate Scholar Award/ 2024

- Awarded \$4000 scholarship for tuition and research

Presidential Fellow Cal Poly Pomona / 2024

- Awarded \$3500 scholarship for tuition

LOGRAR Travel Grant / 2024

- Awarded \$3000 for travel and conference expenses

ASI Professional Development Scholarship / 2023

- Awarded \$2200 for PADI Instructor training

Wickler Memorial Scholarship / 2023

- Awarded \$1500 merit-based scholarship for tuition

Peter Castro Biodiversity and Evolution Scholarship / 2023

- Awarded \$2500 merit-based scholarship for tuition

Office of Undergraduate Research Travel Grant/ 2022

- Awarded \$600 for travel and conference expenses

California State Polytechnic University, Pomona Foundation Scholarship / 2022

- Awarded \$6,000 for tuition

ASI Professional Development Scholarship / 2022

- Awarded \$1,000 to complete PADI Divemaster training

Skills & Certifications

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| • Intermediate R Programing Skills | • AAUS Scientific Diver |
| • Intermediate GIS Skills | • DAN Diving First Aid for Professional Divers |
| • EventMeasure | • PADI Dive Instructor |
| • Stereo Video Analysis | • PADI DiveMaster |
| • Closed System Aquarium Operation | • CPR/FirstAid/AED/Oxygen Instructor |
| • Open System Aquarium Operation | • MOTC Scientific Boaters Certification |