

Shannon Nielsen

Anderson Cabot Center for Ocean Life • New England Aquarium • Boston, MA 02110 • snielsen@neaq.org

Education

University of Miami

Miami, FL

Master of Professional Science, Marine Mammal Science

August 2022-December 2023

Thesis: Mapping long-term changes in sightings of mysticete species in the Gulf of Maine

University of Wyoming

Laramie, WY

Bachelor of Science, Animal and Veterinary Science, Pre-Veterinary concentration

January 2021-May 2022

Casper College

Casper, WY

Associate of Science, Biology; Associate of Science, Animal Science

August 2017-May 2019

Experience

New England Aquarium

Boston, MA

Research Technician II

August 2024 – Present

- Primary duties include entering sightings data, assigning images of individual whales to sightings, coding images, sightings, and behaviors, and identifying individual right whales using DIGITS software
- Help manage data and images contributed to the North Atlantic Right Whale Catalog
- Attend frequent video conferencing meetings, and communicate daily with other team members
- Participate in vessel-based field work if needed

Maine Department of Marine Resources (Tri-State Staffing)

Boothbay Harbor, ME

Wildlife Observer/Sonar Technician (contractor)

April 2024 – August 2024

- Collected observational and sightings data on marine mammals and seabirds
- Assisted hydrographer in operation of a multibeam echosounder sonar system during continuous multi-day offshore seafloor mapping trips
- Assisted in the creation of protocols and ID guides for observers
- Performed QA/QC on marine mammal and seabird data, analyzed data using R scripts and ArcGIS
- Created high-resolution bathymetric and backscatter maps using ArcGIS
- Assisted with grab sampling, preparation, and processing in the benthic ecology lab
- Created educational posters for display in the Maine State Aquarium and Burnt Island Lighthouse

Bar Harbor Whale Watch/Allied Whale

Bar Harbor, ME

Research Assistant

May 2023 – October 2023

- Worked as a deckhand/research assistant onboard large whale watch vessels
- Collected photo-ID and environmental/behavioral data of marine mammals to contribute to the North Atlantic Humpback Whale Catalog (NAHWC) managed by Allied Whale
- Input data into MS Access and matched whales to the NAHWC
- Participated in marine mammal rescues, necropsies, education events, and research for Allied Whale
- Collected large whale behavioral, photo-ID, and drone data for the Gulf of Maine Stable Isotope Project, and operated a crossbow to obtain biopsies from large whales
- Lived on an offshore island research state with a small group of researchers and students to conduct seal, whale, and seabird research
- Completed an independent research thesis for my master's degree using ArcGIS and R to map and spatially analyze whale watch sightings of baleen whales over 15 years

Ike Wai/EPSCoR Internship

Hilo, HI

Intern

June 2020 – May 2021

- Applied 3D photogrammetry technology to create high resolution habitat reconstructions of coral reefs among study sites in the Northwestern Hawaiian Islands
- Analyzed complex datasets using regression modeling, multivariate analyses, and bayesian statistical approaches in R to predict coral resilience and ecosystem function
- Promoted to continue the internship for an extra 9 months for exceptional work

Sea Turtle Rescue Team

Hilo, HI

Team Member

November 2019 – March 2020

- Collaborated with a team to respond to stranded, injured, or deceased sea turtles
- Captured, weighed, and measured turtles, recorded visible injuries, and sent them to an appropriate animal hospital or care center
- Communicated with the public out our process with each turtle and answered questions

Certifications**Survival at Sea Course**

May 2024

- Maine Department of Marine Resources

First Aid/CPR Certification

May 2024

Motorboat Operators Certification Course

December 2022

- University of Miami, Scientific Small Boating course

Basic Stranding Response Training Course

November 2022

- Dolphins Plus Marine Mammal Responder

Padi Open Water Scuba Certification

April 2018

Field Experience

- Experience working on both small research boats and large passenger vessels
- Whale, dolphin, porpoise, and seal carcass recovery and necropsy
- Marine mammal and sea turtle response and care experience
- Photo ID and digital photography experience
- Vessel-based survey experience
- Crossbow biopsy training