

Todd Nixley's work focuses on marine and fisheries biology and ecology. Todd has experience researching and working on projects involving sustainable fisheries, marine invasive species, shellfish aquaculture, and Salish Sea ecology. He is experienced in physiological and molecular marine ecology, marine invertebrate zoology and botany, marine conservation biology, ocean and coastal sustainability, and oceanography. In addition, Todd has master's level training in GIS applications as well as quantitative and analytical skills, and he excels at presenting complex scientific findings. Todd also has experience in stakeholder outreach and collaboration. His academic and nonprofit experience has included production of high-quality written work covering a varied range of technical complexity and detail. Through his collaborative, master's-level science work, he has developed excellent experience in managing multiple projects, sharing workflows, and utilizing available software solutions. Todd is a natural problem solver, adaptable team player, and works with others to tackle large projects with complex outcomes.

Representative Projects

Guemes Island Ferry Terminal Replacement Project, Skagit County Public Works, Anacortes, WA. *Research Assistant.* Captained small boat for underwater video vegetation survey in Guemes Channel. The survey captured footage and GPS data for the habitat potentially impacted by terminal construction, including protected eelgrass bed to the west of the project site. Analyzed video footage and entered data for GIS analysis. The purpose of this effort is to characterize subtidal habitat surrounding the project site and to minimize impacts on sensitive habitat.

Permitting Assistance, Long Island Oyster Company, Willapa Bay, WA. 7/2021. *Research Assistant.* Generated Ecology Section 401 application documents, describing shellfish aquaculture activities and impacts, and actions for mitigation and compliance. Updated and collated information for 14 project parcels, including cover letter, project narrative, and vicinity and plan maps. Produced up-to-date vicinity and parcel plan maps in ArcGIS.

Permitting Assistance, Station House Oysters, Chinook WA, 7/2021. *Research Assistant and GIS Specialist.* Contributed to preparation of JARPA's for 9 project bundles comprising 28 aquaculture parcels, including project narratives, parcel descriptions, geographic information, GIS maps, and final QA/QC. Produced up-to-date vicinity and parcel plan maps in ArcGIS.

2021 Samish Bay Blau Farm Eelgrass Survey, Penn Cove Shellfish, Bellingham, WA. *Research Assistant.* Conducted a field survey to document the presence of native eelgrass beds on designated landowner parcels. Survey was conducted using methods recommended by the U.S. Army Corps of Engineers. Survey data were compared to the long-term data for the site compiled from the Washington Department of Natural Resources, and other site-specific surveys. Survey methods included georeferenced aerial imagery collected by unmanned aerial vehicle and



EDUCATION

M.S., Marine Biology, Northeastern University, Boston, MA, 2018

B.A., Biology, Whitman College, Walla Walla, WA, 2011

EXPERTISE

Marine Ecology
Fish Biology and Habitat
ArcGIS Software
R Data Analysis and Reporting
Scientific Diving
Small Boat Operation

CERTIFICATIONS

NAUI – Open Water Diver
SDI – Rescue Diver
TDI – Nitrox Diver
AAUS – Scientific Diver



transect-based ground truthing. The intent of this effort was to characterize the distribution, extent, and potential persistence of eelgrass habitat within the Blau Farm site.

Three Seas Program, Northeastern University, Friday Harbor, WA. *Scientific Diving Teaching Assistant.* Led small groups of student divers in safety drills, data collection, organism collection, and natural-history dives. Completed 20+ cold-water dives with 18 students over spring quarter. Enhanced group leadership, dive leading, and interpretation skills.

Whale Research, Pacific Whale Foundation, Maui County, HI. *Research Intern.* Collected whale sighting and behavioral data from 30+ research boat and shore surveys, processed data from research cruises, expanded photo ID catalogue by 100+ individual whale and dolphins, and led citizen science volunteers in annual whale census. Developed new boat-based research skills and learned photo ID and image management software.

Pelagic Ecosystem Function Research, University of Washington Friday Harbor Laboratories, Friday Harbor, WA. *Research Apprentice.* Completed coursework and field research in Pelagic Ecosystem Function, including boat-based field work, culminating in individual research project. Conducted 50+ hours of vessel-based bird and mammal surveys. Collected, processed, and quantified contents of 40+ plankton tow samples. Conducted 20+ vessel- and shore-based fish sampling efforts using Van Veen grab and beach seine. Processed, stored and analyzed electronic CTD oceanographic data for 10+ research cruises.

Marine Biology and Oceanography Field Research, Whitman College, Walla Walla, WA. *Marine Biology Teaching Assistant.* Provided academic and logistical support for professor and 20 students for marine biology and oceanography field research. Led students in boat-based sample and data collection, experimental design, laboratory work, animal care, and data processing. Simultaneously collected 100+ crustacean samples for senior thesis research project.

Publications and Papers

Nixley, T.P. 2012. Copepod abundance and distribution in San Juan Channel, WA: Tidal effects.

Nixley, T.P. In progress. Marine mammal carrion attracts scavengers and influences sediment faunal communities [master's thesis].