



TODD NIXLEY

Staff Biologist

Todd Nixley is a biologist whose work focuses on marine ecology, fisheries biology, and coastal ecosystem sustainability. He conducts projects involving marine ecology, shellfish aquaculture, eelgrass and kelp habitats, taxonomic identification of marine species, and marine and intertidal field sampling. He works in freshwater, wetland, and terrestrial ecosystems on projects involving habitat delineation, soil sampling, vegetation surveying, and wildlife monitoring. Todd is also familiar with local, state, and federal environmental regulations, including the Endangered Species Act, National Environmental Policy Act, Marine Mammal Protection Act, and Magnuson-Stevens Fishery Conservation and Management Act. He has a strong background in GIS and statistical data analysis and visualization. Todd also thrives at communicating science clearly and concisely to a broad range of audiences.

Representative Projects

Guemes Island Ferry Terminal Replacement Project, Skagit County Public Works, Anacortes, WA. *Research Assistant.* Todd captained a small boat for underwater video vegetation survey in Guemes Channel. The survey captured footage and GPS data for the habitat potentially impacted by terminal modifications, including protected eelgrass bed to the west of the project site. He also 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.

Revolution Wind Farm (RWF) Environmental Impact Statement (EIS), Biological Assessments (BAs), and Essential Fish Habitat (EFH) Assessment, Bureau of Ocean Energy Management (BOEM), Rhode Island and Connecticut. *Staff Biologist.* Todd supported preparation of Endangered Species Act BAs for the National Marine Fisheries Service and U.S. Fish and Wildlife Service, and an EFH assessment for this offshore wind farm development project. Todd's work included revisions to the EIS, BAs, and EFH assessment, and responses to BOEM comments on all documents. The RWF would comprise up to 100 offshore wind turbines and 2 offshore substations constructed on 12-meter and 15-meter diameter monopile foundations and hundreds of miles of buried submarine transmission cable on the mid-Atlantic outer continental shelf. This project would supply 704-megawatts of renewable energy to Connecticut and Rhode Island. This project is currently in progress with the Draft EIS scheduled for public release in the summer of 2022.

Permitting Assistance, Long Island Oyster Company, Willapa Bay, WA. *Research Assistant.* Todd generated Washington State Department of Ecology Section 401 application documents, describing shellfish aquaculture activities and impacts, and actions for mitigation and compliance. He updated and collated information for 14 project parcels, including cover letter, project narrative, and vicinity and plan maps, and produced up-to-date vicinity and parcel plan maps in ArcGIS.

Permitting Assistance, Station House Oysters, Chinook WA. *Research Assistant*



EDUCATION

M.S., Marine Biology, Northeastern University, Boston, MA, 2018
B.A., Biology, Whitman College, Walla Walla, WA, 2011

SPECIALTIES

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



and GIS Specialist. Todd contributed to preparation of JARPA for 9 project bundles comprising 28 aquaculture parcels, including project narratives, parcel descriptions, geographic information, GIS maps, and final QA/QC. He also produced up-to-date vicinity and parcel plan maps in ArcGIS.

Biomonitoring for Holden Mine Remediation Project, Rio Tinto, Lucerne, WA. *Staff Biologist.* Project includes extensive annual fish and macroinvertebrate sampling along Railroad Creek to assess the effectiveness of Rio Tinto's remediation efforts at Holden Mine—a former copper mine active between 1938 and 1957. Todd contributed to post-sampling data analysis of the macroinvertebrate community. Todd also provided a literature review of metal pollution and its impacts on insect taxa represented in the sampling findings. Findings were compiled into a report, which, in conjunction with past and future monitoring reports, will be used to assess the health of Railroad Creek.

Gunter Levee Project, King County Flood Control District, Auburn, WA. *Staff Biologist.* Confluence is part of a consulting team developing and evaluating conceptual design alternatives to meet flood hazard management objectives and consider other multi-benefit opportunities at the Gunter Levee site on the lower Green River (river miles 15.9 to 16.8). Todd contributed to a broader effort to develop a GIS geodatabase of relevant spatial data for future reference on this project.

Drayton Harbor Oysters Permitting Assistance, Drayton Harbor Oyster Company, Blaine, WA. *Staff Biologist.* Todd developed a Critical Areas Assessment Report for compliance with Whatcom County critical areas ordinance. The report assessed the potential impact of floating aquaculture equipment on critical habitats and protected species.

Sea Vegetable and Shellfish Farm Permitting Assistance, Vashon Sea Vegetable and Shellfish LLC, Vashon, WA. *Staff Biologist.* This project would involve construction of floating aquaculture equipment for cultivation of algae and shellfish for human consumption. The first phase of the project was an underwater video survey for subaquatic vegetation (macroalgae and eelgrass). Todd participated in the field survey, which involved towing the camera from a boat to record representative transects of the benthic environment. He also performed the video review and data entry for the final report, which concluded that no protected habitat was present.

Permitting Assistance, Elston's Clam & Oyster Farm, Vaughn, WA. *Staff Biologist.* Todd assisted with completing JARPA documentation for renewal of commercial shellfish cultivation and harvesting permits. He also prepared an alternatives analysis to satisfy U.S. Army Corps of Engineers requirements for shellfish permitting.

Gravel Barge Loading Underwater Video Survey, Manke Lumber, Shelton, WA. *Staff Biologist.* Todd's participated in an underwater video survey for subaquatic vegetation (macroalgae and eelgrass). The work involved towing the camera from a boat to record representative transects of the benthic environment. Todd performed the video review and data entry for the final report, which concluded that no protected habitat was present.

Judy Reservoir to Mount Vernon Transmission Pipeline – Heron Monitoring, Skagit Public Utility District, Mount Vernon, WA. *Staff Scientist.* Todd participated in heron nest monitoring to support a horizontal directional drilling project to construct a new water pipeline passing underground below Nookachamps Creek. Work was conducted for 78 hours over 13 days, and involved monitoring heron behavior for signs of disturbance from construction noise, recording noise levels at 3 sites around the construction area, and keeping a detailed record of bird activity in the heron nesting site.

Lower Green River Corridor Flood Hazard Management Plan SEPA Programmatic Environmental Impact Statement (PEIS), King County Flood Control District, Auburn, WA. *Staff Biologist.* In support of the PEIS, Todd conducted a literature review of ecosystem services, salmonid life stages, and riparian ecology likely to be affected by the construction or replacement of a range of flood control infrastructure types. Todd gathered background resources and organized a reference table for use during the next phase of assessment of flood control impacts on the ecology of the Green River.