CONFLUENCE
ENVIRONMENTAL COMPANY

JESSEMINE FUNG

Project Biologist II

Jessemine has over 10 years of experience working as an environmental consultant applying GIS to complex planning, conservation, and resource management issues. As a trained biologist, she conducts field surveys, monitors sensitive species, and supports interdisciplinary teams by providing scientific expertise and analysis. Jessemine contributes to National Environmental Policy Act (NEPA) environmental impact statements and has written NEPA discipline reports. She also has managed and directed crew leaders and restoration specialists on nearshore restoration projects in the Puget Sound region.

Representative Projects

Methow Valley Habitat Prioritization Analysis, Confederated Tribes of the Colville, Okanogan County, WA. *GIS Analyst.* Providing GIS analysis and map creation for this project to support the conservation and recovery of Endangered Species Act-listed salmon and steelhead.

Coastal Streams and Embayments Prioritization along Puget Sound Shores with a Railroad, Washington Department of Fish and Wildlife Puget Sound National Estuary Program, Blaine to Olympia, WA. *GIS Analyst.* Providing GIS analysis and map creation for this project to develop a prioritization framework for evaluating coastal embayments and streams along 75 miles of railroad-impacted shoreline between Blaine and Olympia, Washington.

Global Hydropower Assessment Dataset, 3TIER BY VAISALA, Seattle, WA. *GIS Analyst.* Assessed and compiled terabytes of data to build and model worldwide wind and hydrology dataset. Work involving using multi-terabyte data using ArcInfo, ArcGIS, and python scripts, and analyzing and maintaining datasets to assess and predict wind, hydro, and solar patterns for renewable industries.

Puget Sound Nearshore Ecosystem Restoration Project, U.S. Army Corps of Engineers Seattle District, Seattle, WA. Pioneered and developed spatial analysis and geodatabase design for the U.S. Army Corps of Engineers to assess salmonid recovery and restoration sites. Work involved coordinating with multiple state and federal governmental agencies and University of Washington scientists to build and model historic and current Puget Sound nearshore habitat and writing technical reports. Provided project management, spatial analysis, and cartography to conservation groups, state, and federal governments. Analyzed, mapped, and presented environmental and natural resource management information to diverse public groups.

Puget Sound Shoreline Public Access Database, Forterra, Seattle, WA. *GIS Analyst.* Led map development and spatial data analysis for shoreline projects. Work resulted in a database and map of all public access points along Puget Sound.

Conservation Priority Planning, Wilburforce Foundation, Seattle, WA. *GIS Analyst.* Performed a meta-analysis to identify priority areas for Wilburforce board

EDUCATION

M.S., Ecology and Evolutionary Biology, Iowa State University, 2000
B.S., Biology, University of Memphis, 1997

EXPERTISE

GIS and Remote Sensing Databases, ArcGIS, ERDAS Imagine, PostgreSQL
Migratory bird surveys
Small mammal sampling
Native plant restoration
Shoreline armoring surveys

AFFILIATIONS

International Association of Landscape Ecology

and staff from a variety of spatial datasets using conservation biology principles. Wilburforce is a nonprofit that funds conservation projects from Alaska to Mexico, studying and protecting habitats for major megafauna (grizzly bears, wolf, elk, martens, etc.).

Science-Managed Salmon Recovery, Wetland, and Estuarine Restoration Projects, People for Puget Sound, Seattle, WA. *Project Manager.* Managed a dozen salmon recovery, wetland, and estuarine restoration projects around central Puget Sound. These projects were funded by the Restore America's Estuaries program. Work included coordinating and communicating with clients and partner organizations, proposal writing, site planning and restoration design assistance, and organizing and directing crew leaders and restoration specialists in project implementation and maintenance. Also wrote technical as-built and monitoring reports.

Various GIS Projects, Merkel and Associates, San Diego, CA. *GIS Specialist/Biologist.* Collected field data, analyzed data, and created maps for presentation and reports for public and private clients. Conducted habitat assessments of protected flora, fauna, and wetland resources according to California Environmental Quality Act, National Environmental Policy Act, and U.S. Environmental Protection Agency guidelines; interpreted and summarized local, state, and federal environmental regulations; wrote and presented technical reports.

Publications and Presentations

Simenstad, C., et al. 2011. Historical change of Puget Sound Shorelines: Puget Sound Nearshore Ecosystem Project change analysis. Puget Sound Nearshore Report No. 2011-01. Published by Washington Department of Fish and Wildlife, Olympia, Washington, and U.S. Army Corps of Engineers, Seattle, Washington.

Fung, J.L. & C. Davis. 2005. Historic characterization of WRIA 9 shoreline landforms. Puget Sound Nearshore Partnership Report No. 2005-01.

Bloch, P., T. Dean, J.L. Fung, L. Younger, J. White. 2005. Rapid shoreline inventory: a citizen-based approach to identifying and prioritizing marine shoreline conservation and restoration projects. In: *Place matters: geospatial tools for marine science, conservation and management in the Pacific Northwest*. Edited by Dawn J. Wright and Astrid Scholz. Oregon State University Press.

Fung, J.L. 2004. The Skagit Bays Blueprint: Combining ecological and social attributes into a nearshore habitat model. Proceedings of Restore America's Estuaries.

Fung, J.L., K. O'Connell, M., Calvi, P. Bloch, J. White. 2004. Northern Skagit Bays and Shoreline Habitat Conservation and Restoration Blueprint. For the Skagit Marine Resources Committee.

White, J., P. Bloch, & J.L. Fung. 2003. Rapid Shoreline Inventory: New methods to evaluate nearshore conservation and restoration opportunities. Proceedings of Estuarine Research Federation.

Fung, J.L. and B.J. Danielson. 2001. The spatial and temporal dynamics of small mammals in three grassland habitats. The Iowa Academy of Science.

Fung, J.L. and B.J. Danielson. 2000. Rodent oases: micropatches as a linking factor in a fragmented landscape. Master's thesis at Iowa State University.