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Ayesha Gray,

Senior Consultant, Restoration/Estuarine Ecologist

Education and Training

Ph.D. Aquatic and Fishery Sciences, University of Washington. 2005.

B.S. Zoology, University of Texas, Austin. 1994.

Employment History

Senior Consultant—Restoration/Estuarine Ecologist, Cramer Fish Sciences, Inc., Oakdale, CA and Coos Bay, OR. 2006–present.

Restoration Monitoring Coordinator, South Slough National Estuarine Research Reserve, Oregon Department of State Lands, Charleston, OR. 2004–2006.

Research/Teaching Assistant, Wetland Ecosystem Team/School of Aquatic and Fishery Sciences, University of Washington, Seattle, WA. 1998–2004.

Dr. Ayesha Gray has been working in wetland ecology and restoration since 1992, including eight years of research experience tracking ecosystem responses to estuarine marsh restoration on the Oregon coast. She has also worked with restoration planning and mapping with the University of Washington's Wetland Ecosystem Team and the South Slough National Estuarine Research Reserve (SSNERR).

Her doctoral research focused on ecosystem restoration and estuarine ecology with special emphasis on recovery of juvenile salmonid habitat and mechanisms of habitat development for fishes. More specifically, she made novel use of a bioenergetics model to evaluate restoration success for juvenile salmon, and determined a series of invertebrate indicators of estuarine marsh recovery status. While with SSNERR, she developed effectiveness monitoring programs to evaluate estuarine habitat restoration projects using underwater videography technology (among other techniques) to evaluate fish use, behavior and feeding in the restored sites. She was also involved in the acquisition and use of Light Detection and Ranging (LiDAR) data and technology to improve landscape classifications, analyze restoration success, and evaluate potential restoration sites. In addition, she participated in restoration planning with the Siuslaw National Forest for the Cascade Head Scenic Research Area.

Her doctoral and professional studies have led her to apply a wide variety of field sampling and analysis techniques. She has expertise in experimental design, bioenergetics modeling, invertebrate community analysis, fish diet contents analysis, underwater videography, woody debris placement, GPS/GIS technologies and spatial analysis, multivariate and other statistical techniques, in addition to a variety of methods for fish marking and recapture studies.

Dr. Gray has published her work in peer-reviewed journals such as Restoration Ecology, and Estuarine, Coastal and Shelf Science.

Adopt-a-Wetland Program Research Assistant, Cooperative Wetland Center, Pennsylvania State University, State College, PA. 1997–1998.

Plant Program Specialist/Webmaster, Pennsylvania Natural Diversity Inventory, Department of Conservation and Natural Resources, Harrisburg, PA. 1996–1997.

Selected Research and Restoration Grants

Ayesha Gray, Charles A. Simenstad, Daniel L. Bottom, Trevan J. Cornwell. 2002. Contrasting Functional Performance of Juvenile Salmon Habitat in Recovering Wetlands of the Salmon River Estuary, Oregon, USA. Restoration Ecology 10:514-526.

Daniel L. Bottom, Kim K. Jones, Trevan J. Cornwell, Ayesha Gray, Charles A. Simenstad. 2005. Upriver Linkages to Chinook Salmon Migration and Residency in the Salmon River Estuary (Oregon). Estuarine Coastal and Shelf Science 64:79-93.

Ayesha Gray. 2005. The Salmon River Estuary: Restoring Tidal Inundation and Tracking Ecosystem Response. Ph.D. dissertation. University of Washington, 209 pp. http://www.fish.washington.edu/research/publications/ms_phd/gray_phd.pdf

Cordell, Jeffery R., Jason Toft, Michael Cooksey, and Ayesha Gray. 2006. 2005 Juvenile Chinook Duwamish River Studies, Study 2: Fish Assemblages and Patterns of Chinook Salmon Abundance, Diet, and Growth at Restored Sites in the Duwamish River. Technical Report Prepared for WRIA9. 53 pp. ftp://dnr.metrokc.gov/dnr/library/2006/kcr1953.pdf

Ayesha Gray, Charles A. Simenstad, Dave A. Beauchamp, and Daniel L. Bottom. *In prep*. Comparing Performance of Restoring Tidal Wetlands in Terms of Juvenile Chinook Salmon Growth Potential: A Bioenergetic Approach.

Montgomery, J. D., A. Gray, C. B. Watry, and B. Pyper. 2007. Using rotary screw traps to determine juvenile Chinook salmon out-migration abundance, size and timing in the lower Merced River, California. Annual Report of Cramer Fish Sciences to U.S. Fish and Wildlife Service, Anadromous Fish Restoration Program, Grant No. 813326G009, Stockton, California.