

JAMIE ANTHONY
28655 Highway 34, Corvallis, Oregon 97333
james.l.anthony@odfw.oregon.gov, 541-505-0553

EDUCATION

Ph.D. Ecology and Evolutionary Biology, University of Colorado, Boulder, Colorado, 2007
M.S. Ecology (Specialization: Limnology), Iowa State University, Ames, Iowa, 2000
B.S. Ecology, Iowa State University, Ames, Iowa, 1997

EXPERIENCE

Natural Resource Protection and Sustainability Manager 1, August 2023 - Present
Oregon Department of Fish and Wildlife, Corvallis, Oregon

I provide administrative, management, technical, and policy leadership to the Fish Research, Evaluation, Data, and Decision Support (REDD) section within Fish Division's Conservation and Recovery Program. The primary purpose of this position is to lead and manage a group of high-level professional staff that implement an integrated, comprehensive, agency-wide approach to efficiently collect, analyze, utilize, centralize, and develop the most appropriate data on fish populations or stocks for the purpose of making management decisions that achieve the agency's full mission, with a particular (though not exclusive) focus on conserving native fish species and their habitat.

Natural Resource Specialist 4, Monitoring Coordinator, May 2013 - August 2023
Oregon Department of Fish and Wildlife, Corvallis, Oregon

I served as the Oregon Department of Fish and Wildlife's (ODFW) technical expert on the native fish population and habitat monitoring that supports the information necessary for ODFW's efforts to manage native fish within the context of the agency mission, the Native Fish Conservation Policy, the Oregon Plan for Salmon and Watersheds, and conservation and Endangered Species Act (ESA) recovery plans. I ensured that research, monitoring, and evaluation (RME) was conducted in an efficient and coordinated manner that allowed an assessment of the efficacy of agency and other entities' strategies and actions to conserve native fish populations. I had responsibility for leading ODFW's interdisciplinary efforts to collect and report data designed to track progress toward conservation and recovery plan goals and fish management objectives, including designing relevant monitoring approaches, coordinating the implementation of monitoring within the agency and with external partners, and coordinating subsequent analyses of RME data. I was also the Oregon representative on the steering committee for the biennial Pacific States Marine Fisheries Commission Steelhead meeting.

PEM-E (Job Rotation), Acting Water Program Manager, Jan. 2020 - Apr. 2020
Oregon Department of Fish and Wildlife, Salem, Oregon

In this job rotation, I served as the acting manager for the Oregon Department of Fish and Wildlife (ODFW) Water Quality/Quantity Program. This program works in three areas, water allocation and water quality, a hydropower program (regarding hydropower licensing issues) and vector control (animal-borne diseases affecting humans, fish, and/or wildlife). I provided staff oversight and day-to-day budget management for the program's technical and field staff and managed the program transition from the field/office setting to remote working during the onset of the COVID-19 pandemic.

PEM-D (Job Rotation), Acting REDD Group Manager mid-Apr. 2017 - Dec. 2017
Oregon Department of Fish and Wildlife, Corvallis, Oregon

In this job rotation position, I served as the acting manager of the Fish Research, Evaluation, Data, and Decision Support section within Fish Division's Conservation and Recovery Program. I led efforts of the REDD group to determine priorities and direction of work activities of six permanent staff and assured completion of work, provided administrative management including budget management and position establishment for a new, grant-funded position, and managed multiple research projects/budgets with outside partners. I also developed a summarization of the numerous REDD

initiatives/projects and outlined their relationship to program objectives to inform Fish Division leadership on the progress to-date and trajectory of the REDD group. While in this position, I also continued to perform many of the tasks associated with my permanent position (statewide monitoring coordinator, NRS-4), which was not backfilled during this job rotation.

Physical Science Researcher/Scientist IV, Water Quality Program Coordinator Feb. 2008 - May 2013
Colorado Department of Natural Resources, Division of Parks and Wildlife, Denver, Colorado

As the agency's lead water-quality expert, I provided technical expertise and analyses to develop, revise, and implement water-quality standards and regulations to conserve and protect wildlife, fisheries, and fish habitat consistent with the federal Clean Water Act and associated state regulations. In this role, I developed agency policy in coordination with research and fishery biologists and in cooperation with federal, state, and local agencies, non-governmental organizations, and other stakeholders. This position required synthesis of complex water-quality and biological issues into technical reports, expert witness reports, written and oral hearing testimony, guidance documents, and settlement negotiations for agency leadership and external clients. I also served as a technical advisor to Colorado's Natural Resource Trustees on matters related to the Comprehensive Environmental Response, Compensation, and Liability Act, the Oil Pollution Act, and Natural Resource Damages associated with releases of contaminants into the environment.

Physical Science Researcher/Scientist Oct. 2007 - Feb. 2008

Colorado Department of Public Health and Environment, Water Quality Control Division, Denver, Colorado

I provided support for development of nutrient standards for lakes, reviewed the linkage between chlorophyll and nutrients in reservoirs, and developed relationships between nutrients, algal biomass, and oxygen depletion in lakes.

Research Assistant Aug. 2002 - Sept 2007

Department of Ecology and Evolutionary Biology/Center for Limnology, Cooperative Institute for Research in Environmental Sciences, Boulder, Colorado

I planned and implemented research projects on freshwater biogeochemistry and the role of turbulence in nutrient releases from lake sediments. This work included designing equipment for obtaining close-interval water samples near the sediment-water interface in lakes and developing new techniques and equipment to simulate near-bed hydrodynamics and sediment-water nutrient exchange in the laboratory. I also taught biology courses to both science and non-science majors, served as the graduate lead for the Hydrologic Sciences Steering Committee, and chaired the Research Symposium Committee for the Hydrologic Sciences Graduate Program.

Aquatic Ecologist/Environmental Biologist Jun. 2001 - Jul. 2002

Washington State Department of Transportation, Olympia, Washington

I designed and implemented studies of fish and wildlife at sites planned for transportation facilities, identified and evaluated the effects of construction and operation of transportation projects on fish, wildlife, threatened/endangered species, salmon populations, plant communities, and wetlands, and prepared biological assessments for ESA Section 7 consultation with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service.

Research Associate I Aug. 2000 - Jun. 2001

Department of Animal Ecology (presently Natural Resource Ecology and Management), Iowa State University, Ames, Iowa

I planned and conducted research on freshwater biogeochemistry, invertebrate ecology, and water-quality analytical methods. Work included establishing correlations among wind, recreational boat traffic and internal nutrient loading for use in the restoration and management of shallow lakes; applying novel relationships among population-based growth and size parameters to predict life

expectancy in freshwater and marine fish and invertebrates; and evaluating the role of environmental variables in the growth of freshwater mussels.

Research Assistant Jan. 1998 - Aug. 2000

Department of Animal Ecology (presently Natural Resource Ecology and Management), Iowa State University, Ames, Iowa

I planned and conducted research on freshwater mussels and commercial fisheries, and I provided support for water-quality research projects. Projects included the longevity and growth of freshwater mussels; the role of depensation in commercial fisheries for freshwater mussels; and quantifying the distribution, abundance, and density of freshwater mussels in streams.

Research Technician May 1997 - Dec. 1997

Department of Animal Ecology (presently Natural Resource Ecology and Management), Iowa State University, Ames, Iowa

I conducted surveys, habitat assessments, and water-quality analyses for a study of the habitat requirements and distribution of the Topeka shiner, a native plains minnow; Conducted water-quality analyses and classified benthic invertebrates for the North Central Regional Aquaculture Center.

PEER-REVIEWED PUBLICATIONS

Dziedzic, E., B. Sidlauskas, R. Cronn, **J. Anthony**, T. Cornwell, T. Friesen, P. Konstantinidis, B. Penaluna, S. Stein, and T. Levi. *In Review*. Creating, curating, and evaluating a mitogenomic reference database to improve regional species identification using environmental DNA. Revised and Re-submitted to *Molecular Ecology Resources*, awaiting ED recommendation.

Davis, M.J., **J.L. Anthony**, E.J. Ward, E.J., J. Firman, and C. Lorion. 2023. Coherence among Oregon Coast coho salmon populations highlights increasing relative importance of marine conditions for productivity. Coherence among Oregon Coast coho salmon populations highlights increasing relative importance of marine conditions for productivity. *Fisheries Oceanography*. 32: 293-310.

Anthony, J.L. and W.M. Lewis, Jr. 2012. Low boundary layer response and temperature dependence of nitrogen and phosphorus releases from oxic sediments of an oligotrophic lake. *Aquatic Sciences: Research Across Boundaries*. 74: 611-617.

Anthony, J.L. and J.A. Downing. 2003. Physical impacts of wind and boat traffic on Clear Lake, Iowa, USA. *Lake and Reservoir Management*. 19: 1-14.

Anthony, J.L., D.H. Kesler, W.L. Downing, and J.A. Downing. 2001. Length-specific growth rates in freshwater mussels (Bivalvia: Unionidae): Extreme longevity or generalized growth cessation? *Freshwater Biology*. 46: 1349-1359.

Anthony, J.L. and J.A. Downing. 2001. Exploitation trajectory of a declining fauna: A century of freshwater mussel fisheries in the United States. *Canadian Journal of Fisheries and Aquatic Sciences*. 58: 2071-2090.

PRESENTATIONS

Anthony, J.L. 2023. Status of steelhead in Oregon. *Pacific States Marine Fishery Commission Steelhead Meeting*, Newport, Oregon.

Anthony, J.L. 2023. Visualizing freshwater conditions for steelhead - An example from the Oregon Coast. *Pacific States Marine Fishery Commission Steelhead Meeting*, Newport, Oregon.

Anthony, J.L. and S. Clements. 2019. Going with the flow - Transport and retention of eDNA in flowing waters. *Oregon Chapter, American Fisheries Society Annual Meeting*, Bend, Oregon.

Anthony, J.L. 2017. Developing a statewide eDNA monitoring program for aquatic species. *Oregon Chapter, American Fisheries Society Annual Meeting*, Bend, Oregon.

Anthony, J.L. 2013. Monitoring challenges for Viable Salmonid Population parameters in the Oregon portion of the lower Columbia River. *Lower Columbia River Conservation and Recovery Annual Implementation Team Meeting*, Portland, Oregon.

- Anthony, J.L. 2010. Measurable results water-quality monitoring: What is success, and how do we get there? *Sustaining Colorado Watersheds Conference*, Vail, Colorado.
- Anthony, J.L. 2010. Nutrient criteria in Colorado: An ecological perspective. *South Platte River Forum*, Longmont, Colorado.
- Anthony, J.L. 2009. Colorado's temperature standards and interagency coordination. *EPA Region 8 States and Tribes Meeting*, Denver, Colorado.
- Anthony, J.L. 2007. Crossing boundaries: Sediment-water exchanges of nutrients and implications for nutrient availability in lakes across the alpine-montane ecotone. *Ecology and Evolutionary Biology Colloquium*, Boulder, Colorado.
- Anthony, J.L. and W. Lewis, Jr. 2007. Moderation of epilimnetic nutrient concentrations by sediment-water exchange in lakes. *The American Society of Limnology and Oceanography Aquatic Sciences Meeting*, Santa Fe, New Mexico.
- Anthony, J.L. and W. Lewis, Jr. 2006. Phosphorus cycling in epilimnetic lake sediments: Does diffusive boundary layer thickness regulate interfacial P fluxes. *1st Annual Hydrologic Sciences Research Symposium*, Boulder, Colorado. (Poster)
- Anthony, J.L. 2003. Assessing the spatial and temporal influence of surface waves on benthic sediments: Implications for management and restoration of shallow, eutrophic lakes. *Rocky Mountain Hydrologic Research Center 58th Annual Meeting*, Boulder, Colorado. (Poster)
- Anthony, J.L. 2002. Wildlife on bridges: Environmental constraints and management alternatives. *Pacific Northwest Bridge Maintenance Conference*, Portland, Oregon.
- Anthony, J.L. 2001. Life history and exploitation of freshwater mussels: Lessons for biological resource management. *Midwest Association of Graduate Schools 57th Annual Meeting*, St. Louis, Missouri.
- Anthony, J.L. and J.A. Downing. 1999. Extreme longevity in freshwater mussels (Family Unionidae) inferred from mark-recapture growth data. *The American Society of Limnology and Oceanography Aquatic Sciences Meeting*, Santa Fe, New Mexico.

HONORS AND AWARDS

- Pride Award, Oregon Department of Fish and Wildlife, 2022
- Team Pride Award, Coastal Multi-Species Plan Team, Oregon Department of Fish and Wildlife, 2014
- Outstanding Service Award, Colorado Parks and Wildlife Fish Hatchery Section, 2011
- Excellence in Teaching Award, University of Colorado, 2007
- Western Water Research Fellowship, 2002-2007
- Graduate Fellow, Cooperative Institute for Research in Environmental Sciences, 2005-2006
- Midwest Association of Graduate Schools Distinguished Master's Thesis Award, 2000
- Gamma Sigma Delta National Honor Society

PROFESSIONAL CERTIFICATIONS & TRAINING

- Executive Seminar in Natural Resources Leadership. Certificate program of the Hatfield School of Government, Portland State University, 2019-20
- Natural Resource Damages Assessment. USFWS, Denver, Colorado, 2010
- Aquatic Toxicology: Understanding Impacts of Organic Chemicals and Metals on Aquatic Ecosystems. Denver, Colorado, 2008
- Advanced Endangered Species Act Section 7 Biological Assessment Writing. Washington State Department of Transportation, Olympia, Washington, 2002
- Wetlands Delineation. Washington Department of Transportation, Olympia, Washington, 2002
- Salmonid Ecology. The Evergreen State College, Olympia, Washington, 2001
- Biological Assessment 101: Introduction to Endangered Species Act Section 7 Biological Assessments. Washington State Department of Transportation, Olympia, Washington, 2001