



Western Division & Oregon Chapter  
American Fisheries Society sponsored:



# STREAM RESTORATION WORKSHOP MAY 8<sup>TH</sup> & 9<sup>TH</sup>, 2008

Portland, Oregon

*Instructions for registration are below*

Whether you are a seasoned restorationist, new to the restoration field, or need a good overview or update of restoration topics, this workshop will meet your expectations. We have invited some of the top scientists and practitioners from across the west representing a variety of fields.

The plenary format will cover current restoration practices set in a watershed context and aimed at restoring our native fish assemblages. See agenda below for specific topics and speakers. Additional information on the invited speakers is below as well.

*In addition to the training attendees will:*

- **Have an electronic notebook of key restoration literature**
- **Attend a hosted lunch and hosted evening social with beverages and appetizers**
- **Be able to obtain Continuing Education Credits (CEU) or Portland State University graduate credits (prior sign-up)**

**Coordinators:** Bianca Streif & Janine Castro – U.S. Fish & Wildlife Service  
For questions contact: [Bianca\\_streif@fws.gov](mailto:Bianca_streif@fws.gov) or 503-231-6978



**Sponsored by:** River Restoration Northwest, Portland State University, American Fisheries Society, and U.S. Fish & Wildlife Service, US Forest Service

**To register (early registration ends April 1<sup>st</sup>):**

1. Go to the 2008 Western Division American Fisheries Society Annual Meeting website, enter your email address, and click "ok": <https://www.123signup.com/register?id=xkmcp>
2. Select Registration option "**Workshop Only**" (its the very last option at bottom), click "Next"
3. Select "**Stream Restoration: Integrating Practical Approaches Workshop May 8-9**" (its the very last option at bottom), click "next"
4. The remaining screens will query you for your name, contact information, and payment information.

## Stream Restoration Workshop Agenda

Topic	Speaker	Affiliation
Watershed Context – King Fish	Dave Montgomery	Professor, Earth and Space Sciences, University of Washington
Overview of River Concepts	Janine Castro	Geomorphologist, U.S. Fish and Wildlife Service & Technical Director of the PSU River Restoration Professional Certificate Program
Overview of River Ecosystems	Jason Dunham	Aquatic Ecologist, USGS Forest & Rangeland Ecosystem Science Center, Corvallis, OR
Monitoring – data for design and effectiveness monitoring	Leslie Reid	Research Geologist, Pacific Southwest Research Station Redwood Sciences Laboratory, CA
Landowner perspective	Dave Buchanan	Landowner and operator of Tye Wine Cellars, OR
What does global warming mean for restoration?	Colin R Thorne	Professor of Physical Geography University of Nottingham, UK
Channel complexity projects: Habitat complexity at various flow levels	Brian Bair	Lead Project Fisheries Biologist for TEAMS Planning Enterprise, Washington Office USFS
Large Wood projects - west	Scott Wright	Senior Water Resources Engineer, River Design Group, Inc.
Channel restoration / fish passage – east-arid	Rob Sampson	State Conservation Engineer, U.S.D.A. Natural Resources Conservation Service, ID
Floodplain restoration in urban settings	Derek Booth	UW Affiliate Professor Civil & Environmental Engineering Department of Earth & Space Sciences, Senior Geologist, Stillwater Sciences, Inc.
Tidal Restoration	Phil Williams	Principal, President - Philip Williams & Associates Ltd. CA
Aquatic Invasive Species	Paul Heimowitz	Aquatic Nuisance Species Coordinator, Region 1 USFWS
Dams- physical implications & removal - Marmot example	Gordon Grant	Research Hydrologist, USDA Forest Service, Pacific Northwest Research Station Professor (courtesy), Departments of Geosciences, Forest Engineering & Forest Science, OSU
Dams- biological implications & removal - Elwha example	Sam Brenkman	Fisheries Biologist, Olympic National Park WA

## **A sampling of our speakers and their bio's....**

**Dr. Dave Montgomery** studies the evolution of topography and the influence of geomorphological processes on ecological systems and human societies. He received his B.S. in geology at Stanford University (1984) and his Ph.D. in geomorphology from UC Berkeley (1991). His published work includes studies of the evolution and near-extirpation of salmon, fluvial and hillslope processes in mountain drainage basins, the evolution of mountain ranges (Cascades, Andes, and Himalaya), and the analysis of digital topography. Current research includes field projects in eastern Tibet and the Pacific Northwest of North America.

**Dr. Gordon Grant's** research interests focus on the structure and dynamics of mountain streams, watershed and stream response to changing land use and climate, and watershed analysis. Gordon has been publishing on the effects of dam removal on rivers for nearly a decade and, over the last year, has been interviewed on removal of Marmot Dam by Oregon Public Broadcasting, local NBC and ABC affiliate stations (later picked up by CNN) and the Oregonian.

**Dr. Derek Booth** is a UW Affiliate Professor for Civil & Environmental Engineering Department of Earth & Space Sciences, and Senior Geologist, Stillwater Sciences, Inc. His interest and work includes: analysis of consequences of geologic processes and materials on land-use, river systems, hillslope stability, erosion, and groundwater, measurement and prediction of sediment transport in streams, and development and execution of monitoring programs. He has published many papers including: Prediction of future hazards to human activity and resources as a result of ongoing urban development: Effects of urban development in the Puget Lowland, WA, on interannual streamflow patterns: Consequences for channel form and streambed disturbance: Reviving urban streams: land use, hydrology, biology, and human behavior: Effectiveness of large woody debris in stream rehabilitation projects in urban basins.

**Dr. Janine Castro** is a regional expert in geomorphology with the US Fish and Wildlife Service in Portland, Oregon. She is an integral team member on many of the Service's restoration programs, reviewing state and federal permits for instream work, working with Service biologists on dam decommissioning and relicensing, and liaising with other state and federal agencies on controversial issues. Dr. Castro is an experienced instructor who provides in-house and national level federal agency training on geomorphology and stream restoration. Prior to joining the Service, she worked for 10 years with the Natural Resources Conservation Service throughout the western United States. Castro serves as a Board Director for River Restoration Northwest.

**Dr. Jason Dunham** joined the CFER Research team in June of 2005 as an aquatic ecologist with the USGS Forest and Rangeland Ecosystem Science Center. Jason's research has focused on the ecology and conservation biology of native fishes and their habitats. His most recent work has addressed the influence of natural disturbance on fish populations and habitats in streams, population monitoring for stream fishes, modeling fish-habitat relationships, and nonnative fish invasions. Jason has degrees in Zoology from Oregon State University (B.S., 1987) and Arizona State University (M.S., 1995), and a degree in Ecology,

Evolution, and Conservation Biology from the University of Nevada-Reno (Ph.D., 1996). He also holds a courtesy appointment in the Department of Fisheries and Wildlife at Oregon State University and adjunct affiliations with the Departments of Biology at Boise State University and University of Nevada-Reno.

**Dr. Phil Williams** has been engaged in a wide range of national and international hydrologic and engineering hydraulics work since he received his Ph.D. in 1970. In 1976, after working in civil engineering and environmental planning firms, he opened his own practice, expanding to form Philip Williams & Associates in 1979. During the past two decades, he has developed considerable expertise in a wide range of technical issues and water-related policy issues both in the U.S. and abroad. From his original research field of sediment hydraulics, Dr. Williams has pioneered practical technical analyses in wetland hydrology, multiobjective river corridor management, lake water balances, the impacts of climate change, the hydraulics of coastal lagoons, and estuarine management. His work has addressed a wide variety of problems, including flood management, salt marsh restoration, reservoir operation, harbor maintenance dredging, riparian management, watershed sediment yield, groundwater management, and coastal lagoon restoration. The majority of Dr. Williams' work has been assessment of the environmental effects of hydrologic change, often in working with professionals of other disciplines to prepare feasibility studies, management plans, and environmental impact studies. He has directed more than 250 such studies, including projects on flood control, wetland restoration, river management, national park plans, water resources development, and estuarine management plans.

**Colin Thorne** is Professor and Chair of Physical Geography at the University of Nottingham in the United Kingdom. He has over twenty-five years of professional experience, including appointments at Colorado State University, the US Army Corps of Engineers Waterways Experiment Station, and the USDA, Agricultural Research Service National Sedimentation Laboratory. Thorne has published over 120 journal papers, authored 2 books, and edited a further 7. His research concentrates on fluvial hydraulics and sediment transport in natural, modified and managed rivers, particularly with respect to the implications for erosion, sedimentation and flood risk. Thorne performs original research and consultancy nationally within the UK and internationally throughout Europe, the USA, China, Bangladesh, Argentina, Ethiopia and New Zealand, concentrating particularly on large rivers and their coastal deltas. Currently, he is leading a project to establish trends and changes in sediment loads carried by the Lower Mississippi River as part of plans for the conservation, protection and restoration of the Louisiana coast. Thorne is also a PI on the UK Flood Risk Management Research Consortium ([www.floodrisk.org.uk](http://www.floodrisk.org.uk)) and a joint China-UK study of future flood and coastal erosion risks in the Taihu Basin around Shanghai.

**Dave Buchanan** is the fourth generation of his family to farm the fertile banks at the confluence of Muddy and Beaver creeks in the Marys River watershed in Benton County. His daughter plans to be the fifth generation. Placing his property in a 30-year conservation easement through the Wetlands Reserve Program allows Dave to protect the habitat values of his land in the near future while giving his daughter a decision-making role in the long term. A former fish biologist, Dave values the riparian and wetland attributes of his

property. While he continues to earn income from cultivating filberts and wine grapes and operating the Tyee Wine Cellars, conservation is his priority. With the help of the Wetlands Reserve Program, he is restoring wet prairies and wetlands and expanding the bottomland hardwood forest on 246 acres of his 460-acre property. In addition, he is creating habitat for specific at-risk species, the endangered Fender's blue butterfly, by planting its threatened host plant, Kincaid's lupine. He is also planting milkweed for the monarch butterfly and other rare native plants such as Roemer's fescue.

**Rob Sampson** is an expert in sediment transport analysis and the impact of three-dimensional hydraulic patterns on stream form and function. He is a licensed civil, environmental, and agricultural engineer in Oregon, Alaska, and Idaho. Sampson has designed dozens of instream works and channels that complement the natural tendencies of the stream and enhance fish and wildlife habitat or other values. Sampson's designs incorporate physical hydrology, runoff processes, hydraulics, and structural and soil mechanics. His 24 years as an NRCS conservation engineer have extended his restoration practice throughout the western US. Sampson has provided technical leadership to diverse groups of landowners and public entities with wide-ranging goals. As State Conservation Engineer of Idaho, Sampson places special emphasis on communicating interactions between physical processes in stream, riparian and floodplain ecosystems. Sampson is a Regional Board Director for River Restoration Northwest.

**Leslie Reid** is a Research Geologist for the Pacific Southwest Research Station Redwood Sciences Laboratory, CA. Her focus is study on the "Cumulative Effects of Forest Mgmt on Hillslope Processes, Fishery Resources, and Downstream Environments"

**Scott Wright**, PE is Senior Water Resources Engineer for River Design Group in the Corvallis, Oregon office. Scott has over 14 years of private and public sector water resources experience and has been the engineer of record and project manager for numerous stream, river, and wetland restoration projects totaling over \$4 million. Scott's skills include field assessment, hydraulic modeling, restoration design, and project implementation. His expertise has focused on restoration, fish passage projects, fish passage barrier assessments, large-scale in-stream structures, and river structures throughout the Willamette Valley. Scott formerly served as an Area Engineer for the Natural Resources Conservation Service (NRCS) and is thoroughly familiar with agency practice standards and trained in government contracting requirements. Scott was a committee member that reviewed and updated the nationwide fish passage practice standards for NRCS. Scott continues to be a guest lecturer and instructor for river mechanics and restoration classes at Oregon State University and Portland State University.

**Brian Bair's** career has been devoted to watershed restoration. Brian has worked throughout the Pacific Northwest, Alaska and Canada on large scale watershed restoration projects. Brian's primary responsibilities for the past 16 years have been to assess, design and implement watershed rehabilitation projects. Brian is a level III, Construction Contract COR with an extensive heavy equipment background. Brian worked with the international program to assist the Ministry of Environment, British Columbia, Canada with restoration projects in Williams Lake BC (1997) and the Queen Charlotte Islands, BC (1999 and 2000).

In 2003-2004 Brian served as the team lead for the Pacific Northwest Regional Restoration Assistance Team to assist with stream restoration and fish passage issues on National Forest in Oregon and Washington. Brian's recent focus (2005-present) has been with the design and implementation of the following large scale restoration projects in Region 10, Alaska; Resurrection Creek Stream Channel and Riparian Restoration (Chugach National Forest), FUBAR Creek Restoration and Sal Creek Restoration (Tongass National Forest).