

## CURRICULUM VITAE

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### Education

Dates	Degree	Institution	Major
1963-65	-	Ventura College	Biology
1965-67	B.A.	University of California at Santa Barbara	Environmental Biology
1967-69	M.S.	Oregon State University	Fisheries and Wildlife
1969-71	-	University of South Florida	Zoology
1971-75	Ph.D.	Oregon State University	Fisheries and Wildlife

### Scholastic Honors

1967: Dean's List, University of California at Santa Barbara  
1971: Dean's List, University of South Florida  
1967-68, 1972: Honor Roll, Oregon State University

### Employment

1995-Present: Research Fish Biologist, USDA Forest Service, Olympia, Washington  
1974-1995: Aquatic Biologist, Weyerhaeuser Company, Tacoma, Washington  
1971-74: Research Assistant, Fisheries and Wildlife, Oregon State University  
1971: Science Instructor, Moorpark (California) High School  
1969-71: Teaching Assistant, Zoology, University of South Florida  
1968: Work-study appointment, Fisheries and Wildlife, Oregon State University

### Expertise

Structure and function of stream ecosystems  
Fish population dynamics and community structure  
Analysis of environmental data bases  
Environmental impacts of land use practices on aquatic ecosystems  
Zoogeography and systematics of freshwater fishes

## **Professional Societies**

American Fisheries Society  
American Society of Limnology and Oceanography  
Gilbert Ichthyological Society  
American Society of Ichthyologists and Herpetologists  
Fisheries Society of the British Isles (honorary)

Ecological Society of America  
North American Benthological Society  
Sigma Xi

## **Teaching**

- 1969-71: Teaching assistantship, University of South Florida. Courses: General Zoology, Ecology, Parasitology, and Marine Invertebrate Zoology.
- 1971: Substitute teacher in science and mathematics. Taught general science in summer school at Moorpark High School, Moorpark, California. Obtained California State general secondary teaching credential
- 1980: Part-time faculty member, Women's Studies Department, Lower Columbia College, Longview, Washington. Courses were oriented toward community service.
- 1986-89: Participated in training sessions on stream habitat classification for the Washington Department of Fisheries and the Northwest Indian Fisheries Commission, Olympia, Washington.
- 1987-91: Participated in Fish Habitat Management Short Course at Colorado State University. Subject: Limiting Factor Analysis.
- 1988-91: Participated in Timber, Fish and Wildlife training sessions sponsored by the University of Washington Center for Streamside Studies. Subjects: stream geomorphology and fish habitat, and professionalism and ethics for resource managers.
- 1988-91: Participated in training workshops on stream habitat and limiting factor analysis at Evergreen State College, Olympia, Washington, Prince of Wales Island, Alaska, and Salishan, Oregon (American Fisheries Society Continuing Education Workshop).
- 1992: Stream habitat training workshop: Bureau of Land Management, Salem, Oregon.
- 1993-95: Five guest lectures on fisheries/forestry interactions, Center for Streamside Studies and Fisheries Research Institute, University of Washington, Seattle, Washington.
- 1994: Stream habitat training workshop: The Willapa Alliance, Chinook, Washington.
- 1995: Biodiversity training workshop: Bureau of Land Management, Worland, Wyoming.
- 1996: Three guest lectures on river ecology and watershed management, University of Washington.
- 1996-97: Watershed and stream restoration workshop: US Forest Service, Cascade Locks, Oregon.
- 1997: Two guest lectures on watershed ecology, University of Washington.
- 1998: One guest lecture on salmon biology, University of Washington (College of Forest Resources); one guest lecture on stream nutrients at The Evergreen State College.
- 1999: Two guest lectures on salmon biology, University of Washington (College of Forest Resources)
- 1999: Participated in training workshop on experimental design: Mount Baker-Snoqualmie National Forest, Mountlake Terrace, Washington.
- 1999: Interagency stream habitat training workshop, Blacksburg, Virginia. Subject: Connecting landscape processes to streams.

- 2000: Two guest lectures on salmon biology, University of Washington (College of Forest Resources).
- 2000: Guest field trip lecturer on fish sampling, University of Washington.
- 2001: Three guest lectures on salmon biology, University of Washington (College of Forest Resources).
- 2002: Two guest lectures on forest and fish interactions, University of Washington (College of Forest Resources).
- 2003: Two guest lectures on forest and fish interactions, University of Washington (College of Forest Resources).
- 2003-5: Guest lecture on river restoration, University of Washington (College of Ocean and Fishery Sciences).
- 2003: Guest lecture on forest and fish interactions, University of Washington (College of Forest Resources).
- 2004-9: Guest lecture on fish community dynamics, University of Washington (College of Ocean and Fishery Sciences).
- 2005: Riparian Forest Management workshop, Washington Department of Natural Resources. Subject: aquatic and riparian ecological processes.
- 2005-6: Guest lecture on stream ecology of fishes, University of Washington (College of Ocean and Fishery Sciences).
- 2009: Guest lecture on salmon restoration in the Columbia River Basin, University of Washington (College of Ocean and Fishery Sciences).

### **Graduate Students**

- Busch, D. E. 1978. Ph.D., Oregon State University. Successional changes associated with benthic assemblages in experimental streams.
- White, S. T. 1981. Ph.D., University of Washington. Taxonomic composition and phenology of the Chironomidae in stream ecosystems in relation to canopy removal.
- Martin, D. J. 1984. Ph.D., University of Washington. Fish production following canopy removal in a coniferous forest stream.
- Sullivan, K. 1986. Ph.D., Johns Hopkins University. Hydraulics and fish habitat in relation to channel morphology. (Graduate committee member)
- Nielsen, J. L. 1990. M.S., University of California at Berkeley. Environmental and behavioral factors contributing to growth and development of juvenile coho salmon (*Oncorhynchus kisutch*) in fresh water.
- Berman, C. H. 1990. M.S., University of Washington. The effect of elevated holding temperatures on adult spring chinook salmon reproductive success. (Graduate committee member)
- Koneki, J. T. 1992. Ph.D., University of Washington. Stock-specific life history adaptations to water temperature in coho and chum salmon. (Graduate committee member)
- Pearsons, T. N. 1994. Ph.D., Oregon State University. Formation and maintenance of stream fish assemblages in the John Day Basin. (Graduate committee member)

- Lonzarich, D. G. 1994. Ph.D. University of Washington. Dynamics and organization of stream communities in different hydrologic regions of Washington. (Graduate committee member)
- Jones, R. P., Jr. 1994. M.S., University of Washington. The effects of timber harvest on fish habitat and the production of anadromous and resident salmonids in Bear Creek, Washington. (Graduate committee member)
- Sauter, K. 1994. M.S., University of Washington. Compliance of timber harvesting landowners with regulations regarding riparian areas in the Pacific Northwest. (Graduate committee member)
- Hirsch, C. 1995. M.S., Oregon State University. Seasonal shifts in redband trout use of pools and their microhabitats in three central Oregon streams. (Graduate committee member)
- Fieth, S. L. 1995. M.S., Oregon State University. Food-habitat interactions of salmonids in an Oregon coastal stream. (Graduate committee member)
- Sabo, J. L. 1995. M.S., University of Washington. Competitive exclusion, resource partitioning and habitat segregation in sympatric populations of stream-dwelling juvenile coastal cutthroat trout and coho salmon. (Graduate committee member)
- Leonetti, F. 1996. M.S., University of Washington. Mineral dissolution, water flow in lakes and streams, and salmon spawning studies. (Graduate committee member)
- Beechie, T. 1998. Ph.D., University of Washington. Alteration and loss of fish habitat in the Skagit River basin, Washington. (Graduate committee member)
- Nelson, K. 1998. M.S., University of Washington. The influence of sediment supply and large woody debris on pool characteristics and habitat complexity: a reach scale perspective. (Graduate committee member)
- Bateman, D. 1998. M.S., Oregon State University. Riparian silviculture in coastal Oregon watersheds. (Graduate committee member)
- Rhodes, J. 1998. M.S., University of Washington. Environmental influences on summer survival of resident and hatchery fish when hatchery reared coho are released into natural streams. (Graduate committee member)
- Wenburg, J. 1998. Ph.D., University of Washington. Ecology, life history traits, migration patterns and genetic population structuring of coastal cutthroat trout (*Oncorhynchus clarki clarki*) in Washington. (Graduate committee member)
- Mackey, G. 1999. M.S., University of Washington. Factors that contribute to reproductive success in steelhead. (Graduate committee member)
- Glasgow, J. 1999. M.S., University of Washington. Effects of river regulation on the biota downstream. (Graduate committee member)
- Elliott, S. 2000. M.S., University of Washington. Seston as a measure of riparian restoration and stream rehabilitation. (Graduate committee member)
- Coe, T. 2001. M.S., University of Washington. Off-channel habitats of the Queets River: classification and summer use by juvenile salmonids (*Oncorhynchus* spp.). (Graduate committee member)
- Haas, G. 2001. Ph.D., University of British Columbia. The evolution through natural hybridizations of the Umatilla dace (Pisces: *Rhinichthys umatilla*), and their associated ecology and systematics. (External examiner)
- Fox, M. 2001. M.S., University of Washington. Evaluation of a method of assessing salmon habitat in streams based on large woody debris. (Graduate committee member)

- Grady, J. 2001. M.S., University of Washington. Effects of buffer width on organic matter input to headwater streams in the western Cascade Mountains of Washington State. (Graduate committee member)
- Latterell, J. 2002. M.S., University of Washington. Geomorphic constraints on native trout distribution: a comparison of unlogged and logged streams in the Cascade Mountain Range, USA. (Graduate committee member)
- Clayton, S. 2003. M.S., University of Idaho. Quantifying the effects of stream restoration from the cross section to reach scale. (Graduate committee member)
- Fox, M. 2003. Ph.D., University of Washington. Characteristics of instream wood in natural forested basins within Washington State. (Graduate committee member)
- Claeson, S. 2005. M.S., Oregon State University. Primary and secondary trophic level responses to differing densities of decomposing salmon carcasses. (Graduate committee member)
- Erickson, M. 2005. M.S., University of Washington. Fish communities in bedrock and gravel dominated streams in the Willapa basin. (Graduate committee member)
- Liles, G. 2005. M.S., University of Washington. Effects of timber harvest on headwater stream and soil chemical properties at Capitol State Forest. (Graduate committee member)
- Boxall, G. 2006. M.S., Oregon State University. Distribution patterns and movement of Lahontan cutthroat trout (*Oncorhynchus clarki henshawi*) in a high desert stream. (Graduate committee member)
- White, S. 2008. Ph.D., Oregon State University. How the animals found their places: pattern detection, experimentation, and epistemology in a high desert stream fish assemblage. (Graduate committee member)
- Armstrong, J. (in progress). M.S., University of Washington. Effects of spawning sockeye salmon on stream-dwelling salmonids. (Graduate committee member)
- Boxall, G. (in progress). Ph.D., Oregon State University. The effect of topography on the distribution of Lahontan cutthroat trout in a fragmented landscape. (Graduate committee member)

## **Research Grants**

- 1974: N.S.F. Coniferous Forest Biome of U.S.I.B.P. For modeling of Weyerhaeuser Company's Kalama Springs laboratory long-term data base for use in construction of Biome stream model. (\$10,000) GB36810X.
- 1975-77: Oregon Water Resources Research Institute - Weyerhaeuser Company. To C.D. McIntire, D. E. Busch and P. A. Bisson. Plant production in experimental streams. (\$22,500) Oregon WRRRI Project W55 (\$22,500) Weyerhaeuser Company Project No. 046-4104.
- 1976-79: Interagency funded program involving a timber industry consortium, Washington Department of Natural Resources, Washington Department of Ecology, U.S. Forest Service, and University of Washington Fisheries Research Institute. To E.O. Salo, with P.A. Bisson representing the industry consortium in this grant. Effects of streamside canopy removal on stream productivity. (\$225,000; Industry share \$60,000).
- 1978: Interagency funded program involving Washington Department of Fisheries, University of Washington, Oregon State University, U.S. Forest Service, U.S. National Park Service, Washington Department of Natural Resources and Weyerhaeuser Company. A synoptic view of a pristine river and its floodplain: South Fork Hoh River, Olympic National Park, Washington. (\$48,000).

- 1979-95: Served as project leader for the Stream Productivity Project at Weyerhaeuser. Duties included preparation of research proposals for client funding, annual budgets and progress reports. Annual budget: \$180,000-290,000.
- 1989-90: Washington Forest Protection Association and U.S. Fish and Wildlife Service. To T. P. Quinn and P. A. Bisson. Sublethal effects of elevated stream temperature on juvenile salmonids. (\$162,000).
- 1990-91: Washington Sea Grant Program. To T. P. Quinn, R. C. Wissmar, and P. A. Bisson. The impact of habitat disturbance on salmon production. (\$26,437).
- 1992-93: Simpson Timber Company. To R. J. Naiman, T. P. Quinn, D. J. Stouder, and P. A. Bisson. Factors contributing to the decline of Pacific Salmon. (\$20,000).
- 1993-94: The Pew Charitable Trusts. To the North Pacific International Chapter of the American Fisheries Society, with P. A. Bisson and K. D. Hyatt of the Endangered Species Committee acting as project coordinators. Status of anadromous salmon stocks in British Columbia. (\$106,217).
- 1995-96: The Weyerhaeuser Company Foundation. To J. Sayre, P. A. Bisson, C. V. W. Mahnken, and T. P. Quinn. Restoration of wild salmon in the Willapa Basin. (\$400,000).
- 1996-97 Olympic Natural Resources Center. To P. A. Bisson, M. G. Raphael, L. L. C. Jones, and R. E. Bilby. Ecology of aquatic and riparian ecosystems: an examination of forest management alternatives. (\$42,550).
- 1996-97 Environmental Protection Agency. To P. A. Bisson. Production and diversity of fishes in alluvial and bedrock stream channels as related to management history: a case study of the Willapa basin. (\$35,805).
- 1997-98: Olympic Natural Resources Center. To R. E. Bilby and P. A. Bisson. Nutrient enrichment of riparian areas by spawning salmon. (\$20,750).
- 1998-99: Olympic Natural Resources Center. To P. A. Bisson, M. G. Raphael, and L. L. C. Jones. Active management of aquatic and riparian ecosystems on the Olympic Peninsula. (\$20,000).
- 1999-2000: USDA Forest Service, Pacific Northwest Research Station. To P. A. Bisson, M. G. Raphael, and L. L. C. Jones. Ecology of aquatic and riparian ecosystems under alternative management regimes. (\$86,000).
- 1999-2003: USDA Forest Service, Pacific Northwest Research Station. To P. F. Hessburg, P. A. Bisson, R. E. Keane, and D. P. Lettenmeier. Modeling large scale disturbance processes in forested watersheds: long-term influences on watershed health and aquatic productivity. (\$200,000).
- 2004: USDA Forest Service, Pacific Northwest Research Station. To P. A. Bisson and S. M. Wondzell. Changes in aquatic communities associated with post-fire riparian succession. (\$20,000).
- 2004: USDA Forest Service, Pacific Northwest Research Station. To P. A. Bisson. Preliminary assessment of the potential for Atlantic salmon invasion in Pacific Northwest streams. (\$20,000).
- 2007: Oregon Watershed Enhancement Board. To S. M. Wondzell, P. A. Bisson, K. Burnett, W. Cohen, J. Ohman, M. Hemstrom, and J. Kagan. Simulating riparian vegetation and aquatic habitat dynamics in response to natural and anthropogenic disturbance regimes. (\$670,000)
- 2009: US Fish and Wildlife Service. To P. A. Bisson and S. Claeson. Knotweed control efficacy and riparian restoration. (\$20,915).

### **Professional Committee Memberships and Advisory Panels**

- 1976-78: U.S. Environmental Protection Agency - Tennessee Valley Authority, Thermal Studies National Technical Advisory Committee.
- 1980-83: Mount St. Helens Rehabilitation Task Force, Technical Advisor.
- 1984-96: Freshwater Habitat Inventory Committee, Western Division, American Fisheries Society (Chairman, 1990-1996).
- 1986-88: U.S. Environmental Protection Agency - Boise, Idaho, Sedimentation and Water Quality Technical Advisory Committee.
- 1987-89: American Fisheries Society, National Environmental Concerns Committee.
- 1987: Washington Stream Habitat Data Sharing Task Force, Stream Inventory Committee.
- 1987-88: Washington's Timber, Fish and Wildlife Stream Temperature Technical Committee, Biological Effects co-chairman.
- 1988-90: American Fisheries Society, Fisheries Specialist Certification Committee.
- 1988-93: Fisheries Steering Committee, Washington's Timber, Fish and Wildlife Program.
- 1989: Flathead Basin (Montana) cooperative monitoring study - scientific advisory panel.
- 1990: Symposium planning committee: New Perspectives for Watershed Management: Balancing Long-Term Sustainability with Cumulative Environmental Change, University of Washington.
- 1991-92: Symposium planning committee: Classification and Inventory of Stream Habitat. Coastal Oregon Productivity Enhancement Program, Oregon State University. (Co-chair).
- 1992-Present: American Fisheries Society, North Pacific International Chapter, Endangered Species Committee. (Chairman: 1992-95).
- 1992: American Fisheries Society, North Pacific International Chapter, Continuing Education Committee.
- 1992-95: National Academy of Sciences, National Research Council, Board on Environmental Studies and Toxicology, Committee on Protection and Management of Pacific Northwest Anadromous Salmonids.
- 1993: Fish/Watershed Viability Assessment Panel, Ecosystem Management Team, The President's Forest Conference Task Force, Portland, Oregon.
- 1993-94: American Fisheries Society, National Nominations Committee.
- 1993-94: American Fisheries Society, National Award of Excellence Committee.
- 1994: Waterways Advisory Panel, King County Surface Water Management Division, Seattle, Washington.
- 1994-96: Regional Fisheries Planning Team, The Willapa Alliance, South Bend, Washington.
- 1994: National Academy of Sciences, National Research Council, Water Science and Technology Board, Panel on Criteria for Establishing Watershed Sustainability, for the Natural Resources Task Force of The President's Council On Sustainable Development.
- 1995: Regional Needs Assessment Fisheries Task Force, King County Department of Public Works, Seattle, Washington.

- 1995-96: American Fisheries Society, National Membership Committee.
- 1995: Interagency Peer Review Team, Coquille Forest Management Strategy, Bureau of Indian Affairs and Oregon Governor's Office, Coos Bay, Oregon.
- 1995-96: Symposium planning committee: The Sustainable Fisheries Strategy Conference, Victoria, British Columbia.
- 1996: Advisory Board, The Willapa Alliance, South Bend, Washington.
- 1996: Chinook Watershed Advisory Team, Ecotrust, Portland, Oregon.
- 1996-98: National Academy of Sciences, National Research Council, Water Science and Technology Board, Committee on New Perspectives on Watershed Management: Integrating Ecological, Social, and Economic Dimensions.
- 1996-2005: Independent Scientific Advisory Board (ISAB), Northwest Power and Conservation Council, Columbia Basin Fish and Wildlife Authority, and National Marine Fisheries Service, Portland, Oregon. Elected Vice-Chair, 1999.
- 1997-98: Independent Scientific Review Panel (ISRP), Northwest Power and Conservation Council, Columbia Basin Fish and Wildlife Authority, and National Marine Fisheries Service, Portland, Oregon.
- 1997: Science Team, Timber/Fish/Wildlife Cooperative, Olympia, Washington.
- 1997-99: American Fisheries Society, Board of Appeals.
- 1997-99: Sustainable Fisheries Foundation Advisory Board, Nanaimo, British Columbia.
- 1998: Puget Sound Waterways Advisory Board, Seattle, Washington.
- 1998: Science Panel, Lower Snake River Compensation Plan, Boise, Idaho.
- 1998: Nominating Committee Chair, Independent Science Panel, Washington Governor's Salmon Team, Olympia, Washington.
- 1999-2004: Independent Scientific Review Panel (ISRP) Peer Review Group, Northwest Power Planning Council, Columbia Basin Fish and Wildlife Authority, and National Marine Fisheries Service, Portland, Oregon.
- 1999: Ecological Working Group, Northwest Power Planning Council and National Marine Fisheries Service, Portland, Oregon.
- 1999: Tri-County Science Team for Salmon Recovery, Seattle, Washington.
- 2000: Validation Monitoring Panel, Olympic Natural Resources Center, University of Washington.
- 2000: Co-Chair, Subbasin Assessment Template Development Committee, Multi-Species Framework Process, Northwest Power Planning Council, National Marine Fisheries Service, and Columbia Basin Fish and Wildlife Authority.
- 2001-2002: Liaison with Society for Range Management, American Fisheries Society, Bethesda, Maryland.
- 2001-04: Programme Committee, Fourth World Fisheries Congress, Vancouver, British Columbia, Canada.
- 2005: Technical Review Committee, California Bay Delta Authority, Ecosystem Restoration Program, Berkeley, California.

- 2005-2006: Vice-Chair, Independent Scientific Review Panel (ISRP), Northwest Power and Conservation Council, Portland, Oregon.
- 2005-2006: Resolutions Committee, American Fisheries Society, Bethesda, Maryland.
- 2006: Navigable Waters Habitat Conservation Plan ESA Science Review Panel, Washington Department of Natural Resources, Olympia, Washington.
- 2006-2007: Headwaters Habitat Conservation Plan Science Review Panel, Washington Department of Natural Resources, Olympia, Washington.

### **Editorial Responsibilities**

- 1985-88: Editorial Board, Journal of Freshwater Ecology.
- 1993-95: Associate Editor, Transactions of the American Fisheries Society.
- 1994-95: Co-Editor, Proceedings of a symposium on *Pacific Salmon and Their Ecosystems*. Center for Streamside Studies, University of Washington.
- 1995-96: Co-Editor, Proceedings of a symposium on *Sea-Run Cutthroat Trout: Biology, Management, and Future Conservation*. Oregon Chapter, American Fisheries Society.
- 1999-2003: Co-Editor, Book on *Strategies for Restoring Rivers: Sources of Variability and Uncertainty in Natural and Managed Systems*. American Fisheries Society.

### **Elected Offices and Affiliate Faculty Appointments**

- 1988-92: President's cycle (vice-president, president-elect, president, past president), North Pacific International Chapter, American Fisheries Society.
- 1988-Present: Affiliate faculty, College of Forest Resources and The Water Center, University of Washington, Seattle, Washington.
- 1989-Present: Affiliate faculty, School of Fisheries, College of Ocean and Fisheries Sciences, University of Washington, Seattle, Washington.
- 1989-Present: Special courtesy faculty, Department of Fisheries and Wildlife, Oregon State University, Corvallis, Oregon.
- 1995-99: President's cycle (vice-president, president-elect, president, past president), Western Division, American Fisheries Society.
- 2001-2004: Affiliate faculty, Department of Biological and Agricultural Engineering, College of Agricultural and Life Sciences, University of Idaho, Moscow, Idaho.
- 2004-2006: Nominating representative, Western Division, American Fisheries Society.

### **Awards and Citations**

- 1988: Best Paper, 1988 Annual Meeting, North Pacific International Chapter, American Fisheries Society.
- 1992: Past President's Award, North Pacific International Chapter, American Fisheries Society.
- 1993: Certificate of Appreciation, The President's Ecosystem Management Assessment Team.
- 1994: Award of Merit, North Pacific International Chapter, American Fisheries Society.
- 1995: Weyerhaeuser Forestry Research Special Recognition Award, for research describing the importance of nutrients derived from spawning salmon.
- 1996: Certificate of Appreciation, National Research Council, Board on Environmental Studies and Toxicology, for participation on the Committee for Protection and Management of Pacific Northwest Anadromous Salmonids.
- 1997: Certificate of Merit, The United States Department of Agriculture, for contributions to the scientific assessment of the interior Columbia Basin ecosystem management project.
- 1997: Certificate of Appreciation, California-Nevada Chapter of the American Fisheries Society, for special contributions to the 1997 AFS meeting in Monterey, California.
- 1997: Director's Science Award, Pacific Northwest Research Station, USDA Forest Service, for a paper co-authored with G. H. Reeves, L. E. Benda, K. M. Burnett, and J. R. Sedell, titled "A disturbance-based ecosystem approach to maintaining and restoring freshwater habitats of evolutionarily significant units of anadromous salmonids in the Pacific Northwest".
- 1998: Certificate of Appreciation, National Research Council, Water Science and Technology Board, for participation on the Committee on Watershed Management.
- 1998: Certificate of Merit, Pacific Northwest Research Station, for outstanding performance for completion of two books on the salmonid issues and biology in the Pacific Northwest.
- 1999: Certificate of Merit, United States Department of Agriculture, for outstanding contributions on the interactions between roads, fish habitat, and water quality during development and testing of the Forest Service Roads Analysis Procedure.
- 1999: Certificate of Appreciation, American Fisheries Society, in recognition of personal contributions to the advancement and improvement of fisheries science in the professional and public interest by serving as President of the Western Division of the American Fisheries Society and as a member of the Governing Board of the American Fisheries Society for the period of August 1997 – August 1998.
- 2000: Certificate of Merit, Pacific Northwest Research Station, for outstanding performance in dealing with sensitive personnel issues.
- 2001: Distinguished Graduate Award, Department of Fisheries and Wildlife, Oregon State University, Corvallis, Oregon.
- 2002: "Rise to the Future" Award for professional excellence in research (with James Sedell and Gordon Reeves), United States Department of Agriculture, Forest Service, Washington, D.C.
- 2002: Award of Excellence, Western Division of the American Fisheries Society, in recognition of outstanding professional achievements, exceptional competence, and numerous contributions to fishery science within the Western Division. (highest lifetime achievement award given by WDAFS)
- 2003: Certificate of Merit, Pacific Northwest Research Station, for planning and coordinating the ALI All-Hands Meeting, March, 2003.

- 2005: Honorary member, Fisheries Society of the British Isles.
- 2005: Aldo Leopold Conservation Award, Federation of Fly Fishers, Livingston, Montana (for lifetime conservation efforts to protect wild trout and salmon).
- 2007: Society of Technical Communication's International Technical Publications Merit Award for Books, presented to the "Mount St. Helens Writing Team" for the book titled *Ecological Responses to the 1980 Eruption of Mount St. Helens*.
- 2007: Science Findings Award, Pacific Northwest Research Station, for *Atlantic salmon as a potentially invasive species in the Pacific Northwest*.

### **Presentations at Scientific Meetings, Seminars, and Civic Lectures**

- 1973-74: Department of Fisheries and Wildlife, Oregon State University: *Distribution of fishes in southeast Oregon*.
- 1975: Oak Creek Biology Laboratory, Corvallis, Oregon: *Trout production in nitrogen-enriched experimental streams*.
- 1975: Ecological Society of America, Corvallis, Oregon: *Nitrate addition and primary production in a spring-fed experimental stream*. (Abstr. in Bull. Ecol. Soc. Am. 56(2):24.)
- 1977: American Society of Limnology and Oceanography, Pacific Section, San Francisco, California: *Diel variation in food selection by two sizes of rainbow trout (*Salmo gairdneri*) in an experimental stream*. (ASLO abstr. p.19.)
- 1978: American Society of Limnology and Oceanography, Victoria, B.C., Canada: *Invertebrate colonization of shaded and unshaded riffles in experimental streams*. With D. Busch and C. D. McIntire. (ASLO abstr.)
- 1978: American Society of Limnology and Oceanography, Victoria, B.C., Canada: *Effects of current velocity on diatom accumulation in nitrogen limited experimental flowing troughs*. With M. L. Bothwell. (ASLO abstr.)
- 1978: American Society of Limnology and Oceanography, Victoria, B.C., Canada: *Succession of algal assemblages in experimental streams*. With D. Busch and C. D. McIntire. (ASLO abstr.)
- 1979: Oregon Department of Fish and Wildlife, Research Division, Portland, Oregon: *Habitat requirements of coho salmon, steelhead trout and cutthroat trout*. With J. R. Sedell.
- 1979: American Society of Limnology and Oceanography, Stony Brook, New York: *Aluminum shadowing - direct projection photomicroscopy of diatom frustules*. With M. L. Bothwell (ASLO abstr.)
- 1977-82: Fly fishing clubs (7) in Washington State: *Trout feeding ecology and the effects of logging on salmon and trout habitat*.
- 1979: American Fisheries Society, North Pacific International Chapter, Bellingham, Washington: *The role of large debris in maintaining fish habitat quality in streams*. With J. R. Sedell. (AFS abstr.)
- 1979: Conference on Forest Fertilization, Alderbrook, Washington: *Effect of forest fertilization on stream productivity*. With J. R. Sedell and R. N. Thut.

- 1979: Pacific Fishery Biologists, Annual Meeting, Ocean Shores, Washington: *Streamside vegetation and debris management*. With J. R. Sedell.
- 1980: Oregon Clear Water Conference, McKenzie Bridge, Oregon: *Managing riparian zones for stream habitat protection*.
- 1981: American Fisheries Society, Western Division Annual Meeting, Albuquerque, New Mexico: *A system of naming habitat types in small streams*. (AFS abstr.)
- 1982: American Fisheries Society, Oregon Chapter, The Dalles, Oregon: *Winter habitat utilization by salmonid fishes in streams*. (Session chairman: Hydrology and Fish Habitat)
- 1982: National Council for Air and Stream Improvement, West Coast Annual Meeting, Portland, Oregon: *Habitat preferences of salmon and trout in streams*. (NCASI abstr.)
- 1983: Pacific Fishery Biologists, Annual Meeting, Warm Springs, Oregon: *The floodplain of small streams*. (PFB abstr.)
- 1983: Society of American Foresters, Oregon Chapter: *Forest management for improved fish habitat protection*.
- 1984: American Fisheries Society, Western Division Annual Meeting, Victoria, B.C., Canada: *Experimental release of coho salmon (*Oncorhynchus kisutch*) into a stream impacted by Mount Saint Helens volcano*. With J. L. Nielsen and J. W. Ward. (WDAFS abstr.)
- 1984: Department of Fisheries and Wildlife, Oregon State University, Corvallis, Oregon: *The riparian floodplain and its importance to the winter habitat requirements of salmon and trout*.
- 1984: North American Benthological Society, Annual Meeting, Corvallis, Oregon: *Channel hydraulics, body morphology and habitat selection by salmonid fishes in Pacific Northwest streams*. (NABS abstr.)
- 1985: Ecological Society of America, Annual Meeting, Hilton Head, South Carolina: *Factors affecting the emigration of coho salmon fry from small streams*. With R. E. Bilby.
- 1986: Forestry/Fisheries Interactions Symposium, University of Washington, Seattle, Washington: *Large woody debris - who needs it?*
- 1986: American Fisheries Society, Pacific Northwest International Chapter Annual Meeting, Bellingham, Washington: *Methods of electrofishing individual habitats in small streams*. (NPIC-AFS abstr.)
- 1986: American Fisheries Society, Western Division Annual Meeting, Portland, Oregon: *Identification of factors limiting smolt production: the key to successful habitat management*. (WDAFS abstr.)
- 1986: American Fisheries Society, Western Division Annual Meeting, Portland, Oregon: *History of the discovery of the cutthroat trout, *Salmo clarki**. With P. C. Trotter. (WDAFS abstr.)
- 1986: American Fisheries Society, Western Division Annual Meeting, Portland, Oregon: *Ethics of fish and wildlife professionals*. (Session organizer)
- 1986: Bonneville Power Authority, Stream Enhancement Evaluation Workshop, Portland, Oregon: *Importance of identifying limiting factors in an evaluation program*.
- 1987: Carnation Cr. 15-Year Review Workshop, Malaspina College, Nanaimo, B.C.: *Significance of the Carnation Cr. study to private industry*. (comments in Proceedings)
- 1987: American Fisheries Society, Oregon Chapter Annual Meeting, Salem, Oregon: *Pitfalls in identifying factors limiting salmonid populations*.

- 1987: Conference on Managing Oregon's Riparian Zones, Oregon State University, Corvallis, Oregon: *The role and management of large woody debris in streams: past, present and future.*
- 1987-91: Fish Habitat Management Short Course, Colorado State University. *Limiting factor analysis.*
- 1987: Pacific Fishery Biologists, Annual Meeting, Ocean Shores, Washington: *Panel discussion on the importance of maintaining year-round stream flow requirements for fish habitat in connection with hydroelectric development.*
- 1988: Oregon Logging Conference, Springfield, Oregon: *A new view of fisheries research.*
- 1988: American Fisheries Society, North Pacific International Chapter Annual Meeting, Alderbrook, Washington: *Winter habitat ecology and management.* (Session organizer)
- 1988: American Fisheries Society, North Pacific International Chapter Annual Meeting, and Western Division Annual Meeting, Albuquerque, New Mexico: *Summer production of coho salmon stocked in Mount St. Helens streams from three to six years posteruption.* (AFS abstr.)
- 1988: University of Washington, College of Forestry graduate seminar: *Professionalism and ethics for resource managers.*
- 1988: University of Washington Center for Streamside Studies workshop, Pack Forest, Washington: *The surfaces upon which fish live.*
- 1988: The Evergreen State College, Olympia, Washington: *Stream habitat classification.*
- 1988: Conference on Chinook and Coho, sponsored by the American Fisheries Society, Bellingham, Washington: *Relative importance of allochthonous vs. autochthonous carbon sources as factors limiting coho salmon production in streams.* With R. E. Bilby. (AFS abstr.)
- 1988: National Council for Air and Stream Improvement, West Coast Annual Meeting, Portland, Oregon: *Summary of Weyerhaeuser's biological studies in the Deschutes River basin.* (NCASI abstr.)
- 1989: Regional Forest Nutrition Cooperative Annual Research Review, University of Washington: *Timber, Fish and Wildlife-sponsored research on the water quality impacts of forest fertilization.*
- 1989: American Fisheries Society, Oregon Chapter Annual Meeting, Bend, Oregon, and North Pacific International Chapter Annual Meeting, New Westminster, B.C.: *Functional guild classification of stream fish communities: a potential technique for assessing cumulative effects.* (AFS abstr.)
- 1989: Riparian Resource Management Workshop, Billings, Montana. Session chairman: *Forestry in riparian areas.*
- 1989: American Fisheries Society, Annual Meeting, Anchorage, Alaska: *Habitat mediated response of stream-dwelling coho salmon to experimentally elevated food availability.* With B. R. Fransen and J. L. Nielsen. (AFS abstr.)
- 1989: American Fisheries Society, Annual Meeting, Anchorage, Alaska: *Habitat requirements: direct and indirect dependence of fish on the forest.* With R. E. Bilby. (AFS abstr.)
- 1989: American Fisheries Society, Annual Meeting, Anchorage, Alaska: *The Center for Streamside Studies, University of Washington, and its relationship to the Timber/Fish/Wildlife Program.* With R. J. Naiman and E. O. Salo. (AFS abstr.)
- 1989: American Fisheries Society, Annual Meeting, Anchorage, Alaska: *Relative importance of allochthonous and autochthonous carbon sources in the trophic support of coho salmon.* With R. E. Bilby. (AFS abstr.)

- 1989: Fisheries Research Institute, University of Washington, Seattle, Washington: *Salmon and trout habitat requirements in streams and rivers.*
- 1990: American Fisheries Society, Oregon Chapter Annual Meeting, Rippling River, Oregon: *Habitat mediated response of stream-dwelling coho salmon to experimentally elevated food availability.* With B. R. Fransen and J. L. Nielsen. (AFS abstr.)
- 1990: American Fisheries Society, North Pacific International Chapter Annual Meeting, Everett, Washington, and Western Division Annual Meeting, Sun Valley, Idaho: *Cyclic rebound of salmonid productivity in Mt. St. Helens streams: implications for long-term monitoring.* With B. R. Fransen. (AFS abstr.)
- 1990: Forestry/Fisheries seminar, University of British Columbia, Vancouver. *Recruitment and function of large woody debris in streams.*
- 1990: American Fisheries Society, Western Division Annual Meeting, Sun Valley, Idaho: *Conservation of biodiversity: An issue for the 90s and beyond.* (Session organizer)
- 1990: Symposium on New Perspectives for Watershed Management, University of Washington, Seattle, Washington: *Best management practices, cumulative effects, and long-term trends in fish abundance in Pacific Northwest river systems.* With T. P. Quinn, G. H. Reeves, and S. V. Gregory.
- 1991: Washington Wildlife Commission, Legislative Hearings, Olympia, Washington: *Potential hazards of breeding and releasing exotic aquarium fishes that could establish self-reproducing populations in Washington's streams and lakes.*
- 1991: Symposium on Forest Fertilization in the Douglas-fir Region, Sponsored by the Regional Forest Nutrition Cooperative, Seattle, Washington: *Effects of forest fertilization on water quality and aquatic resources in the Douglas-fir region.* With G. G. Ice, C. J. Perrin, and R. E. Bilby.
- 1991: Washington Forest Protection Association, Olympia, Washington: *Salmon and trout stocks at risk of extinction in Washington State.*
- 1991: Symposium on the Biology and Management of Pink and Chum Salmon, Nanaimo, British Columbia, and Western Division American Fisheries Society Annual Meeting, Bozeman, Montana: *Enhancing fisheries resources through active management of riparian areas.* With R. E. Bilby (senior author)
- 1991: American Fisheries Society, North Pacific International Chapter Annual Meeting, Penticton, British Columbia: *Biodiversity of Pacific Northwest fishes.* (Session organizer)
- 1991: Society of American Foresters, Umpqua Chapter, Roseburg, Oregon: *Difficulties in assessing the cumulative effects of forestry operations on fish habitat.*
- 1991: Workshop on Managing Forest Biodiversity -- a Coastal Northwest Perspective, sponsored by the Coastal Oregon Productivity Enhancement Program, Corvallis, Oregon: *Comprehensive approaches for managing diversity: the fishes' perspective.* With G. H. Reeves. (extended abstr. in Proceedings, p.55-62)
- 1991: 6<sup>th</sup> Grade Class, South Bay Elementary School, Olympia, Washington. *The life cycle of salmon.*
- 1991: American Fisheries Society, Western Division Annual Meeting, Bozeman, Montana: *Effects of size at release, timing, and initial number on summer survival and growth of hatchery coho salmon (*Oncorhynchus kisutch*) stocked in western Washington streams.* With B. R. Fransen (senior author) and R. E. Bilby. (AFS abstr.)
- 1991: Washington Forest Practices Board, Legislative Hearing, Bellingham, Washington: *Summary of the cumulative effects of forest management on fish habitat in Washington State.*

- 1991: Portland Chamber of Commerce, Portland, Oregon: *Cumulative effects of forest management on fishes.*
- 1992: American Fisheries Society, Oregon Chapter, Bend, Oregon, and Fisheries Research Institute, University of Washington: *Salmon and trout on the rebound: case studies of population recovery after severe disturbances in Pacific Northwest streams.* (AFS abstr.)
- 1992: Conference on Salmon in the City, College of Forest Resources, University of Washington, Pack Forest Conference Center, Eatonville, Washington: *Habitat needs of salmon in the city.*
- 1992: Fourth North American Fish Habitat Restoration Workshop, Everett, Washington: *Stream habitat restoration and the life cycle requirements of Pacific salmon.*
- 1992: Stream habitat workshop, US Bureau of Land Management, Salem, Oregon: *Stream ecology; Limiting factors; Effects of forestry operations on fish populations.*
- 1992: Coho salmon workshop, Nanaimo, British Columbia. *Physical and biological constraints on summer rearing of juvenile coho salmon in western Washington streams.* With B. R. Fransen (senior author), R. E. Bilby, and J. W. Ward.
- 1992: Northwest Indian Fisheries Commission, Olympia, Washington: *Cost-effective stream habitat restoration in western Washington.*
- 1992: Oregon Department of Forestry Blue Ribbon Panel -- Salmon Restoration, Portland, Oregon: *Restoration of fish habitat as a management tool.*
- 1992: Conference on Managing Forest Lands for Pacific Salmon Stocks on the Olympic Peninsula, Olympic Learning Center, Quinalt, Washington: *Determining limiting factors on stocks and stream carrying capacity.*
- 1992: Chehalis Basin Fisheries Task Force Conference, Ocean Shores, Washington: *Cost-effective restoration of habitat and water quality in the Chehalis Basin.*
- 1992: Oregon Governor's Coastal Salmon Restoration Initiative Conference, Newport, Oregon: *Influences of natural events and human activities on natural production -- rearing habitat.*
- 1992: Workshop on Cumulative Impact Assessment, Toronto, Ontario: *Cumulative effects perspective from Washington and Oregon, with regard to forestry practices.*
- 1993: Conference on Stream Habitat: Application of Geomorphic and Ecological Principles, Corvallis, Oregon: *An ecosystem view of habitat change and future conditions: Evaluating current status and detecting changes.*
- 1993: Center for Streamside Studies Annual Research Review, University of Washington, Seattle: *Do juvenile salmonids eat salmon carcasses in streams?*
- 1993: American Fisheries Society, North Pacific International Chapter, Richmond, B.C.: *Washington and Oregon's new forest practices rules: Comparing apples and oranges.* (AFS abstr.)
- 1993: American Fisheries Society, North Pacific International Chapter, Richmond, B.C.: *A phylogeny of endangered salmon studies.* (Session chair: Endangered and Exotic Species)
- 1993: New Century High School, Olympia, Washington: *Stream habitat and fish population measurements.*
- 1993: Society of American Foresters, Washington Chapter, Alderbrook, Washington: *Fisheries -- Key lessons learned.* With J. R. Sedell. (SAF abstr.). Abstract submitted but paper not presented due to cancellation of meeting.

- 1993: American Fisheries Society, Western Division, Sacramento, California: *Use of inert dye to characterize habitat complexity in small streams*. With B. R. Fransen and N. P. Peterson (WDAFS abstr.)
- 1993: American Fisheries Society, Portland, Oregon: *Defining stream habitat: Are we there yet?* (AFS abstr.)
- 1993: American Fisheries Society, Portland, Oregon: *Role of coho salmon carcasses in maintaining stream productivity: Evidence from nitrogen and carbon stable isotope analysis*. With R. E. Bilby (senior author) and B. R. Fransen (AFS abstr.)
- 1993: American Fisheries Society, Portland, Oregon: *Restoring ecologically functional riparian systems in Pacific Northwest watersheds*. With R. E. Bilby (senior author) and L. Mycek (AFS abstr.)
- 1993: Society of American Foresters, Dean's Tour, Olympia, Washington: *Recovery of fishery resources in Mt. St. Helens streams*.
- 1993: Willapa Alliance, Salmon Enhancement Workshop, Chinook, Washington: *Techniques of fish habitat evaluation*.
- 1993: Society of American Foresters, Portland, Oregon: *Reading the landscape map -- fisheries and water quality*.
- 1994: Conference on Pacific Salmon and Their Ecosystems, Center for Streamside Studies, Seattle, Washington. *Desired future conditions?* With G. H. Reeves, R. E. Bilby, and J. R. Sedell (Conference abstr.)
- 1994: Association of Women in Environmental Professions, Seattle, Washington. *The Committee on Protection and Management of Pacific Northwest Anadromous Salmonids*.
- 1994: American Fisheries Society, North Pacific International Chapter, Wenatchee, Washington: *Interannual variation in salmonid populations: Implications for long-term monitoring*. With T. E. Nickelson and S. V. Gregory (AFS abstr.)
- 1994: American Fisheries Society Symposium, Monterey, California: *Ecosystem and habitat conservation: more than just a problem of geography*. (AFS abstr.; session organizer)
- 1994: Symposium on Conservation of Pacific Salmon, Corvallis, Oregon: *Restoration of salmon and their ecosystems: illusion or conservation?* (Conference abstr.)
- 1994: Tacoma Parks and Recreation Department Community Education Series, Tacoma, Washington: *Plight of Pacific salmon*.
- 1994: Center for Streamside Studies, University of Washington, Seattle, Washington: *Occurrence of Eastern brook trout in headwater tributaries of Coos River, Oregon, and Willapa River, Washington: a zoogeographic enigma*.
- 1994: American Fisheries Society Workshop on Chinook and Coho Salmon, Eugene, Oregon: *Role of coho salmon carcasses in maintaining stream productivity: evidence from stable isotope analysis*. With R. E. Bilby (senior author) and B. R. Fransen (AFS abstr.)
- 1994: The Evergreen State College, Olympia, Washington: *Ecosystem management*.
- 1995: Law Seminars International and King County Surface Water Management Division, 3rd Annual Regional Conference on the Endangered Species Act, Seattle, Washington: *Critical biological issues of the Pacific salmon*.

- 1995: American Fisheries Society, North Pacific International Chapter, Vancouver, B. C.: *Role of salmon carcasses in maintaining stream productivity: ecological significance and management considerations*. With R. E. Bilby (senior author) and B. R. Fransen (AFS abstr.)
- 1995: American Fisheries Society, North Pacific International Chapter, Vancouver, B. C.: *The snail and the brook trout*. With P. E. Reimers (AFS abstr.)
- 1995: American Fisheries Society, North Pacific International Chapter, Vancouver, B. C.: *Salmonid stocks at risk: challenges in management*. (Session organizer)
- 1995: National Marine Fisheries Service, Montlake Laboratory, Seattle, Washington: *Salmon carcasses and ecosystem management*.
- 1995: American Fisheries Society, Western Division, Park City, Utah: *Active management of riparian vegetation in forested landscapes to “restore” aquatic habitat: a time for caution*. With R. E. Bilby and G. H. Reeves (AFS abstr.)
- 1995: Bonneville Power Authority and Battelle Pacific Northwest Laboratory, Portland, Oregon: *Ecological carrying capacity for salmonids in tributaries of the Lower Columbia River*. (Executive summary)
- 1995: Symposium on the biology, management and conservation of sea-run cutthroat trout, Reedsport, Oregon. *A roundtable discussion on management options*. (Session moderator)
- 1995: Association of Ecosystem Research Centers, Washington, D.C. *Willapa Basin fisheries: case study of a local attempt to achieve sustainable co-management*.
- 1996: Keynote address, 6<sup>th</sup> Annual Meeting of the South Puget Sound Salmon Enhancement Group, Olympia, Washington: *Watershed restoration*.
- 1996: Center for Streamside Studies 1996 Annual Review, Seattle, Washington: *The Willapa Cooperative Salmon Restoration Project*.
- 1996: Plenary Session address, The Sustainable Fisheries Conference, Victoria, B.C.: *Overview of status and trends of salmonid habitats*.
- 1996: American Fisheries Society, Western Division, Eugene, Oregon: *Response of juvenile steelhead and coho to placing carcasses from hatchery-spawned salmon into winter rearing areas*. With R. E. Bilby (senior author), B. R. Fransen and J. Walter (AFS abstr.)
- 1996: American Fisheries Society, Western Division, Eugene, Oregon, Watershed Restoration Workshop: *Restoration: how do we know when we get there?* (AFS abstr.)
- 1996: 10<sup>th</sup> International Stream Habitat Improvement Workshop, Corvallis, Oregon: *Monitoring biological success of stream habitat improvement projects*. (COPE extended abstr.)
- 1996: Olympic Natural Resources Center conference on “Forest Policy: Ready for Renaissance”, Forks, Washington: *Managing salmon in the Pacific Northwest: lessons from history*.
- 1996: Timber, Fish & Wildlife Type 4-5 Stream Management Workshop, Seattle, Washington: *Concluding remarks: What have we learned from recent research?*
- 1996: National Marine Fisheries Service Workshop on Assessing Extinction Risk for West Coast Salmon, Seattle, Washington: *Population risk and habitat condition*. (Workshop proceedings)
- 1997: Stream Nutrient Enhancement Workshop, Washington Department of Fish and Wildlife, Olympia, Washington: *Research on the role of salmon carcasses in western Washington streams*.

- 1997: Wildlife, Fisheries, Ecology, Watershed and Subsistence Workshop, USFS Alaska Region, Juneau, Alaska: *Ocean to land: transport of oceanic nutrients to terrestrial and freshwater ecosystems by Pacific salmon.*
- 1997: Riparian Alternative Silviculture Workshop, Vancouver, Washington: *A regional network of reference sites for experimental riparian zone restoration.* (Meeting organizer)
- 1997: Washington Wildlife Commission Special Symposium on Balancing Wild and Hatchery Salmonids, Olympia, Washington: *A prognosis for salmon habitat in the Pacific Northwest.*
- 1997: Willapa Science Conference, Long Beach, Washington: *Fish populations in bedrock and alluvial stream channels in the Willapa Basin.*
- 1997: Symposium moderator: *Symposium on Watershed Analysis: present and future.* National Marine Fisheries Service, Seattle, Washington.
- 1997: U.S.F.S. Region 6 Forest Managers meeting, Hood River, Oregon: *Salmon carcasses and watershed productivity.*
- 1997: U.S.F.S. Region 6 Stream and Watershed Restoration Design and Implementation Workshop, Hood River, Oregon: *Contemporary approaches to riparian rehabilitation on the west side.*
- 1997: Contributed papers organizer and chair, American Fisheries Society Annual Meeting, Monterey, California.
- 1997: Symposium organizer and chair: *Managing riparian zones in western North America.* American Fisheries Society Annual Meeting, Monterey, California.
- 1997: Second Annual U.S./British Columbia Watershed Restoration Technical Transfer Workshop, Glacier, Washington: *Restoring riparian zones in Pacific Northwest coastal watersheds.*
- 1997: American Fisheries Society, Alaska Chapter, Juneau, Alaska: *Aquatic vertebrates in western Washington headwaters with different natural disturbance regimes: recovery patterns and potential sensitivity to human disturbance.* With L.L. C. Jones, M. G. Raphael, C. M. Crisafulli, and C. P. Hawkins (AFS abstr.)
- 1998: Forum on *Accounting for Uncertainty and Risk in Salmon Harvest Management*, Olympia, Washington: Panel discussion moderator
- 1998: USDA Forest Service Conference on Water, Soils, and Floods, Springfield, Oregon: *Recovery of fish populations after floods: regional patterns and implications for long-term productivity.*
- 1998: Oregon Department of Forestry Riparian and Aquatic Habitat Workshop, Salem, Oregon: *Characteristics of riparian vegetation needed to maintain aquatic habitat functions.*
- 1998: Contributed papers session chair, American Fisheries Society, North Pacific International Chapter Annual Meeting, Alderbrook, Washington.
- 1998: Washington Department of Natural Resources Committee on Riparian Zone Management, Olympia, Washington: *Active management of riparian zones in the US Forest Service.*
- 1998: Stream Ecology Class, The Evergreen State College, Olympia, Washington: *Nutrient dynamics in streams.*
- 1998: American Fisheries Society, Western Division Annual Meeting, Anchorage, Alaska: *Using standards to predict aquatic habitat conditions in dynamic environments: a need for new approaches.* (AFS abstr.)

- 1998: Contributed papers session chair, American Fisheries Society, Western Division Annual Meeting, Anchorage, Alaska.
- 1998: Symposium organizer and panel discussion participant, Society for Ecological Restoration Northwest Annual Meeting, Tacoma, Washington: *Symposium on riparian management*.
- 1998: Washington Sea Grant Program symposium, “Nature of Hood Canal”, Alderbrook, Washington: *A comparison of salmon recovery plans for the Columbia Basin*.
- 1999: Coastal Oregon Productivity Enhancement Program, Symposium on Forests and Streams of the Oregon Coast Range: Building a Foundation for Integrated Resource Management, Corvallis, Oregon: *The Alsea Watershed Study: a comparison with other multi-year fisheries investigations in the Pacific Northwest*. With S. V. Gregory and T. E. Nickelson (COPE abstr.)
- 1999: Washington Salmon Collaboration retreat, Seattle, Washington: *Habitat needs for chinook salmon in Puget Sound*.
- 1999: University of Washington, Center for Streamside Studies Annual Review: *Salmon recovery plans in the Columbia Basin: does a river run through them?* (CSS abstr.)
- 1999: Western Forestry and Conservation Association Annual Meeting, Portland, Oregon: *Sediment in streams: its effects on fishes and their habitats*. (Exec. Summary)
- 1999: Contributed papers session chair, American Fisheries Society, Western Division Annual Meeting, Moscow, Idaho.
- 1999: US Forest Service Region 6 Fish Manager’s Workshop, Hood River, Oregon: *Research on riparian zones and salmon carcasses in Washington State*.
- 1999: Columbia Basin Fish and Wildlife Foundation Workshop on Watershed Assessment, Portland, Oregon: *Concluding comments – getting the right science and getting the science right in watershed assessment*.
- 2000: Session chair, Center for Streamside Studies Annual Review, University of Washington, Seattle, Washington.
- 2000: Validation Monitoring Panel meeting, Olympic Natural Resources Center, Forks, Washington: *Methods of monitoring fish populations in the Pacific Northwest*.
- 2000: Symposium on Watershed Restoration, Sacramento, California: *Measuring salmonid response to watershed restoration*.
- 2000: American Fisheries Society, Western Division Annual Meeting, Telluride, Colorado: *Parasites and diseases influence the distribution of native and non-native fishes: examples from western North America*. With R. E. Gresswell (AFS abstr.)
- 2000: Contributed papers session chair, American Fisheries Society, Western Division Annual Meeting, Telluride, Colorado.
- 2000: American Fisheries Society, Annual Meeting, St. Louis, Missouri: *Fish-forestry interactions: a dynamic ecosystem perspective*. With G. H. Reeves (senior author) (AFS abstr.)
- 2000: International Conference on Wood in World Rivers, Corvallis, Oregon: *Trends in using wood to restore aquatic habitats and fish communities*. With G. H. Reeves and S. V. Gregory (abstr.)
- 2000: International Conference on Wood in World Rivers, Corvallis, Oregon: *Influence of wood on aquatic and riparian biodiversity*. With S. M. Wondzell (senior author) (abstr.)

- 2001: Session chair, Center for Streamside Studies Annual Review, University of Washington, Seattle, Washington.
- 2001: Session chair, National Silviculture Workshop, Hood River, Oregon.
- 2001: Plenary session on adaptive management, moderator and discussion leader, Society for Ecological Restoration Northwest Annual Meeting, Bellevue, Washington.
- 2001: Symposium co-organizer and session chair: *Riparian management: current issues and contemporary solutions*. Co-sponsored by the Society for Range Management and the Western Division American Fisheries Society. American Fisheries Society, Annual Meeting, Phoenix, Arizona.
- 2001: Implementation Team Meeting, National Marine Fisheries Service, Portland, Oregon: *A comparison of salmon recovery strategies for the Columbia River Basin*.
- 2001: Oregon AFS Watershed Restoration Workshop, Eugene, Oregon: *Instream fish habitat projects, valuable or not? Lessons learned from past projects*.
- 2001: USDA Forest Service, Pacific Northwest Research Station, Wood Compatibility Workshop, Skamania, Washington: *Influence of site and landscape features on vertebrate assemblages of the Olympic Peninsula*. With M. G. Raphael, A. D. Foster, and L. L. C. Jones. (workshop abstr.)
- 2002: National Marine Fisheries Service, Recovery Science Review Panel, Seattle, Washington: *Challenges to habitat recovery planning*.
- 2002: USDA Forest Service Region 6 Fish Passage Workshop, Eugene, Oregon: *Aquatic ecology considerations*. (workshop abstracts)
- 2002: Small Stream Symposium, University of British Columbia, Vancouver, B.C.: *Relative importance of site- and landscape-scale features to aquatic vertebrates in western Washington*. With M. G. Raphael, A. D. Foster, and L. L. C. Jones. (symposium abstracts)
- 2002: Workshop on Developing Delisting Criteria for Endangered Salmon, University of Portland, Portland, Oregon: *Are delisting criteria feasible? What are the technical and practical constraints?* (workshop abstracts)
- 2002: Workshop on Fire and Aquatic Ecosystems, Boise, Idaho: *Synthesis of workshop findings*. With G. H. Reeves.
- 2002: Symposium on Breaking Down the Scientific Barriers to Salmon Recovery in the Columbia River Basin, sponsored by the Western Division of the American Fisheries Society, Sustainable Fisheries Foundation, and the Lake Roosevelt Forum, Spokane, Washington: *Breaking down the science and environmental barriers to salmon recovery*.
- 2003: Session chair, Center for Water and Watershed Studies Annual Review, University of Washington, Seattle, Washington.
- 2003: Aquatic and Lands Interactions Program Meeting, Kelso, Washington: *Fire and aquatic ecosystems: current knowledge and key questions*.
- 2003: Symposium on Fire and Aquatic Ecosystems, sponsored by the Western Division American Fisheries Society, San Diego, California: *Summary of current knowledge of the effects of fire on aquatic ecosystems in western North America*.
- 2003: US Forest Service Region 6 Fish Managers annual workshop, Eugene, Oregon: *What we do and don't know about fire and aquatic ecosystems*.

- 2003: Olympia Senior Citizens Club, Olympia, Washington: *Salmon: what's all the fuss about?*
- 2003: Columbia Basin Fish and Wildlife Authority annual meeting, Astoria, Oregon: *Restoring tributary habitat in light of the Redden decision.* With R. E. Bilby.
- 2003: NOAA Fisheries Workshop, Winthrop, Washington: *Landscape analysis of tributary habitat restoration priorities.*
- 2004: Washington Department of Natural Resources, Olympia, Washington: *Progress on the riparian ecosystem management study.*
- 2004: Session chair, Center for Water and Watershed Studies Annual Review, University of Washington, Seattle, Washington.
- 2004: American Fisheries Society, Oregon Chapter Annual Meeting, Bend, Oregon: *Fire and aquatic ecosystem management.* (meeting abstracts)
- 2004: American Fisheries Society, Western Division Annual Meeting, Salt Lake City, Utah: *Food and space as regulators of salmonid populations in streams: worldwide patterns and seasonal trends.* (meeting abstracts)
- 2004: 4<sup>th</sup> World Fisheries Congress, Vancouver, B.C., Canada: *Reconciling fisheries with conservation in watersheds.* With T. J. Beechie and G. R. Pess. (Congress program)
- 2004: North American Benthological Society, Annual Meeting, Vancouver, B.C., Canada: *Salmon in the Columbia River Basin: the rise and fall of an environmental icon.* (plenary session address)
- 2004: Ecological Society of America, Annual Meeting, Portland, Oregon: *Amphibian and fish responses to the 1980 eruptions of Mount St. Helens.* With C. M. Crisafulli (senior author), C. Dahm, C. P. Hawkins, and J. A. MacMahon. (ESA meeting abstracts)
- 2005: Center for Water and Watershed Studies, Annual Review, Seattle, Washington: *The effects of riparian harvesting on headwater streams in western Washington.* With G. Liles (senior author), R. Edmonds, D. Vogt, R. Bigley, and J. Ritchey. (poster presentation)
- 2005: All-hands Meeting, Aquatic and Land Interactions Program, Pacific Northwest Research Station, Welches, Oregon. *Headwater stream temperature study in the Colville National Forest: implications for defining the permanent drainage network.*
- 2006: North American Benthological Society, Annual Meeting, Anchorage, Alaska: *Effect of streamside buffers on the export rates of invertebrates and organic matter from headwater streams.* With S. Claeson (senior author). (NABS meeting abstracts)
- 2006: National Research Council "Hydrologic Impacts of Forest Management" Committee meeting, H. J. Andrews Experimental Forest, Blue River, Oregon: *Forest management, hydrology, and Pacific Northwest fishes.*
- 2007: Symposium on Riparian Management in Headwater Catchments, University of British Columbia, Vancouver, B.C., Canada: *Evolving views of headwater streams.* (keynote address)
- 2007: Symposium on Riparian Management in Headwater Catchments, University of British Columbia, Vancouver, B.C., Canada: *Approaches, surprises, and lessons learned from 10 Years of headwater stream studies in western Washington.* With M. G. Raphael, R. E. Bigley, A. D. Foster, S. M. Claeson, K. I. Wilk, R. J. Wilk, and S. M. Wondzell. (symposium abstracts)

- 2007: Symposium on Riparian Management in Headwater Catchments, University of British Columbia, Vancouver, B.C., Canada: *Establishment of the western Washington forest headwater stream riparian ecosystem management studies (REMS) project: testing alternative headwater stream management options*. With R. E. Bigley (senior author), M. G. Raphael, J. D. Ricklefs, A. D. Foster, and R. J. Wilk. (symposium abstracts)
- 2007: Symposium on Riparian Management in Headwater Catchments, University of British Columbia, Vancouver, B.C., Canada: *Forest harvest effects on temperature of small headwater streams with and without riparian buffers*. With S. M. Wondzell (senior author), J. E. Janisch, and W. J. Ehinger. (symposium abstracts)
- 2007: Symposium on Riparian Management in Headwater Catchments, University of British Columbia, Vancouver, B.C., Canada: *Effects of alternative headwater stream buffers on aquatic macroinvertebrates, detrital export, and riparian litter fall in western Washington*. With S. M. Claeson (senior author), K. I. Wilk, and A. D. Foster. (symposium abstracts)
- 2007: Symposium on Riparian Management in Headwater Catchments, University of British Columbia, Vancouver, B.C., Canada: *The fueling and practice of adaptive management of headwater streams for state lands in Washington State*. With R. E. Bigley (senior author) and J. D. Ricklefs. (symposium abstracts)
- 2007: Symposium on Riparian Management in Headwater Catchments, University of British Columbia, Vancouver, B.C., Canada: *Testing the effects of riparian buffers on terrestrial mollusks along headwater streams*. With A. D. Foster (senior author), S. M. Claeson, and K. I. Wilk. (poster presentation)
- 2007: Symposium on Pathways to Resilience, sponsored by Oregon Sea Grant, Portland, Oregon: *Freshwater ecosystems of Pacific salmon: implications of managing from a resilience perspective*. With G. H. Reeves. (plenary session address)
- 2007: Northwest Power and Conservation Council Meeting, Boise, Idaho: *Independent Scientific Panel 2006 Retrospective Report overview*. With E. J. Loudenslager.
- 2007: Conference on Building Better Salmon Habitat Projects, sponsored by the Washington Salmon Recovery Funding Board, Tacoma, Washington: *Habitat restoration: lessons from the past, tools for the future*. (plenary session address)
- 2007: Contributed papers session chair, American Fisheries Society, North Pacific International Chapter Annual Meeting, Tacoma, Washington.
- 2007: American Fisheries Society, North Pacific International Chapter Annual Meeting, Tacoma, Washington: *Assessment of the risk of invasion of National Forest streams in the Pacific Northwest by farmed Atlantic salmon*. (conference abstracts)
- 2007: American Fisheries Society, North Pacific International Chapter Annual Meeting, Tacoma, Washington: *Ecological issues of Washington's rediscovered (submerged) wood resources*. With L. Dominguez (senior author). (conference abstracts)
- 2007: Pacific Northwest Research Station Congressional Briefings, Olympia, Washington: *Climate change, management, and aquatic restoration in western Washington*.
- 2007: Science and Policy Exchange, Northwest Power and Conservation Council, Portland, Oregon: *Restoring nutrients and aquatic productivity in the Pacific Northwest: progress and cautions*. (conference abstracts)
- 2008: USDA Forest Service: Watershed, Fish, Wildlife, Air, and Rare Plants Division, Washington, D.C.: *Riparian vegetation and aquatic habitat dynamics model in the Interior Columbia River Basin*. With S. Wondzell (senior author) and M. Hemstrom.

- 2008: The Water Center, University of Washington, Seattle, Washington. *18<sup>th</sup> annual review of research*. Afternoon Session Moderator.
- 2008: Forest Service Climate Change Workshop, H.J. Andrews Experimental Forest, Blue River, OR: *Climate change and Pacific Northwest fishes*.
- 2008: American Fisheries Society, North Pacific International Chapter Meeting, Bellingham, Washington: *An overview of the state of science in headwater research on Washington State Managed lands*. With R. Bigley (senior author) J. Ricklefs, A. Foster, and S. Claeson. (conference abstracts)
- 2008: American Fisheries Society, Western Division Annual Meeting, Portland, Oregon: *Developing a riparian vegetation and aquatic habitat dynamics model to inform management decisions in the Interior Columbia River Basin*. With Steve Wondzell (senior author) and Miles Hemstrom. (conference abstracts)
- 2008: American Fisheries Society, Western Division Annual Meeting, Portland, Oregon: *Network dynamics and the resilience of native fishes*. With Jason Dunham (senior author) and Gordon Reeves. (conference abstracts)
- 2008: American Fisheries Society, Western Division Annual Meeting, Portland, Oregon: *Long-term monitoring of fish, stream temperature, and channel characteristics following the 1980 eruption of Mt St. Helens*. With Brian Fransen (senior author) and Jason Walter. (conference abstracts)
- 2008: American Fisheries Society, Western Division Annual Meeting, Portland, Oregon: *Population growth, climate change, and fish habitat in the Columbia River Basin*. Panel discussion.
- 2008: American Fisheries Society, Western Division Annual Meeting, Portland, Oregon: *Fish and habitat monitoring to support large-scale management decisions: what worked and what hasn't*. Session Moderator.
- 2008: Congressional briefing, Olympia Forestry Sciences Laboratory, Olympia, WA: *Research on native fishes at Mount St. Helens*.
- 2008: Forest Service Region 6 Fish and Hydrology Managers Meeting, Hood River, OR: *Invasive riparian plants: serious threat to habitat restoration*.
- 2009: University of Washington Climate Impacts Group Symposium, Seattle, WA: *Climate change impacts on native fishes in the Pacific Northwest*. (conference abstracts)
- 2009: The Water Center, University of Washington, Seattle, Washington. *19<sup>th</sup> annual review of research*. Afternoon Session Moderator.
- 2009: Department of Natural Resources, Olympia, WA: *Olympic Experimental State Forest synthesis of riparian research and monitoring*.
- 2009: Smith Research Fellows Workshop, Islandwood Center, Bainbridge Island, WA: *The role of conservation science in a complex management problem: a case study of salmon in the Pacific Northwest*. (workshop abstracts)
- 2009: American Fisheries Society, Washington-British Columbia Annual Meeting, Shelton, WA: *Wildfire, climate change, and fish in the Pacific Northwest*. (conference abstracts)
- 2009: American Fisheries Society, Washington-British Columbia Annual Meeting, Shelton, WA: *Rainbow trout diet in Spirit Lake, Mount St. Helens*. With S. Claeson (senior author) and C. Crisafulli. (poster session - conference abstracts)

- 2009: Conference on Climate Change, Northwest Indian College, Bellingham, WA: *Climate change and freshwater fishes in the Pacific Northwest*.
- 2009: The Water Center Seminar Series, University of Washington, Seattle, WA: *Climate change and fish in the Pacific Northwest: case study of the Snoqualmie River Basin*.
- 2009: NOAA Fisheries Workshop, Washington, DC: *Effectiveness of habitat restoration actions under the FCRPS BiOp*.
- 2010: American Fisheries Society, Oregon Chapter Annual Meeting, Eugene, OR: *Wildfire, climate change, and fish in the Pacific Northwest*. (conference abstracts)
- 2010: Climate Change Seminar Series, Washington Department of Fish and Wildlife, Olympia, WA: *Climate change and salmon in the Pacific Northwest*.
- 2010: Denman Lecture, College of the Environment, University of Washington, Seattle, WA: *Forests and the health of Puget Sound*.

### **Peer-Reviewed Publications**

- Bisson, P. A., and C. E. Bond. 1971. Origin and distribution of the fishes of Harney Basin, Oregon. *Copeia* 1971(2):268-281.
- Bisson, P. A., and G. E. Davis. 1976. Production of juvenile chinook salmon, *Oncorhynchus tshawytscha*, in a heated model stream. U.S. Fish and Wildlife Service Fishery Bulletin (NOAA) 74(4):763-774.
- Bisson, P. A. 1976. Increased invertebrate drift in an experimental stream caused by electrofishing. *Journal of the Fisheries Research Board of Canada* 33(8):1806- 1808.
- Bisson, P. A. 1977. Occurrence of the shorthead sculpin, *Cottus confusus*, in a headwater tributary of Deschutes River, Washington. *Northwest Science* 51(1):43-45.
- Bisson, P. A., and P. E. Reimers. 1977. Geographic variation among Pacific Northwest populations of longnose dace, *Rhinichthys cataractae*. *Copeia* 1977(3):518-522.
- Bisson, P. A. 1978. Diel food selection by two sizes of rainbow trout (*Salmo gairdneri*) in an experimental stream. *Journal of the Fisheries Research Board of Canada* 35(7):971-975.
- Quackenbush, D. W., M. L. Bothwell, and P. A. Bisson. 1980. Aluminum shadowing- direct projection photomicroscopy of diatom frustules. *Canadian Journal of Fisheries and Aquatic Sciences* 37(7):1160-1166.
- Sedell, J. R., P. A. Bisson, J. A. June, and R. W. Speaker. 1982. Ecology and habitat requirements of fish populations in South Fork Hoh River, Olympic National Park. Pages 35-42 In E. E. Starkey, J. F. Franklin, and J. W. Matthews, technical coordinators. *Ecological research in national parks of the Pacific Northwest. Proceedings of the 2nd conference on scientific research in the national parks, 1979 November, San Francisco, California*. Oregon State University Forest Research Laboratory, Corvallis, Oregon, USA.
- Bisson, P. A., J. L. Nielsen, R. A. Palmason, and L. E. Grove. 1982. A system of naming habitat types in small streams, with examples of habitat utilization by salmonids during low streamflow. Pages 62-73 In N. B. Armantrout, editor. *Acquisition and utilization of aquatic habitat inventory information. Proceedings of a symposium held 28-30 October, 1981, Portland, Oregon*. Western Division, American Fisheries Society, Bethesda, Maryland, USA.
- Bisson, P. A., and R. E. Bilby. 1982. Avoidance of suspended sediment by juvenile coho salmon. *North American Journal of Fisheries Management* 4:371-374.

- Bisson, P. A., and J. R. Sedell. 1984. Salmonid populations in logged and unlogged stream sections of western Washington. Pages 121-129 In W. R. Meehan, T. R. Merrell, Jr., and T. A. Hanley, editors. Fish and wildlife relationships in old-growth forests. Proceedings of a symposium held April 12-13, 1982, Juneau, Alaska. American Institute of Fishery Research Biologists. John W. Reintjes, Morehead City, North Carolina, USA.
- Bisson, P. A., J. L. Nielsen, M. W. Chilcote, B. A. Crawford, and S. A. Lieder. 1986. Occurrence of anadromous brown trout in two Lower Columbia River tributaries. *North American Journal of Fisheries Management* 6(2):290-292.
- Bisson, P. A., R. E. Bilby, M. D. Bryant, C. A. Dolloff, G. B. Grette, R. A. House, M. L. Murphy, K. V. Koski, and J. R. Sedell. 1987. Large woody debris in forested streams of the Pacific Northwest: past, present and future. Pages 143-190 In E. O. Salo and T. W. Cundy, editors. Proceedings of a Symposium on Forestry/Fishery Interactions, Contribution Number 57, University of Washington, Seattle, Washington, USA.
- Bilby, R. E. and P. A. Bisson. 1987. Emigration and production of hatchery coho salmon (*Oncorhynchus kisutch*) stocked in streams draining an old-growth and a clear-cut watershed. *Canadian Journal of Fisheries and Aquatic Sciences*. 45(8):1397- 1407.
- Trotter, P. C., and P. A. Bisson. 1988. History of the discovery of the cutthroat trout. *American Fisheries Society Symposium* 4:8-12.
- Bisson, P. A., K. Sullivan, and J. L. Nielsen. 1988. Channel hydraulics, habitat use, and body form of coho salmon, steelhead, and cutthroat trout in streams. *Transactions of the American Fisheries Society* 117:262-273.
- Bisson, P. A., J. L. Nielsen, and J. W. Ward. 1988. Summer production of coho salmon stocked in Mount St. Helens streams 3-6 years after the 1980 eruption. *Transactions of the American Fisheries Society* 117:322-335.
- Sedell, J. R., P. A. Bisson, F. J. Swanson, and S. V. Gregory. 1988. What we know about large trees that fall into streams and rivers. Pages 47-81 In C. Maser, R. F. Tarrant, J. M. Trappe, and J. F. Franklin, technical editors. From the forest to the sea: a story of fallen trees. USDA Forest Service and USDI Bureau of Land Management, General Technical Report, PNW-GTR-229, Portland, Oregon, USA.
- Hicks, B. J., J. D. Hall, P. A. Bisson and J. R. Sedell. 1991. Response of salmonid populations to habitat changes. In W. R. Meehan, editor. Influences of forest and rangeland management on salmonid fishes and their habitat. *American Fisheries Society Special Publication* 19:483-518.
- Bisson P. A. 1991. Streams and rivers. Pages 135-143 In J. Stolz and J. Schnell, editors. Trout. Stakpole Books, Harrisburg, Pennsylvania, USA.
- Bilby, R. E., and P. A. Bisson. 1992. Relative contribution of allochthonous and autochthonous organic matter to the trophic support of fish populations in clear-cut and old-growth forested headwater streams. *Canadian Journal of Fisheries and Aquatic Sciences* 49(3):540-551.
- Bisson, P. A., G. G. Ice, C. J. Perrin, and R. E. Bilby. 1992. Effects of forest fertilization on water quality and aquatic resources in the Douglas-fir region. Pages 179-193 In H. N. Chappell, G. F. Weetman, and R. E. Miller, editors. Forest fertilization: sustaining and improving nutrition and growth of western forests. Contribution 73, Institute of Forest Resources, University of Washington, Seattle, Washington, USA.
- Bisson, P. A., T. P. Quinn, G. H. Reeves, and S. V. Gregory. 1992. Best management practices, cumulative effects, and long-term trends in fish abundance in Pacific Northwest river systems. Pages 189-232 In R. J. Naiman, editor. Watershed management: Balancing sustainability and environmental change. Springer-Verlag, New York, N.Y., USA.

- Naiman, R. J., T. J. Beechie, L. E. Benda, P. A. Bisson, L. H. MacDonald, M. D. O'Connor, C. Oliver, P. Olson, and E. A. Steel. 1992. Fundamental elements of ecologically healthy watersheds in the Pacific Northwest Coastal Ecoregion. Pages 127-188 In R. J. Naiman, editor. Watershed management: Balancing sustainability and environmental change. Springer-Verlag, New York, N.Y., USA.
- Hawkins, C. P., J. L. Kershner, P. A. Bisson, M. D. Bryant, L. M. Decker, S. V. Gregory, D. A. McCullough, C. K. Overton, G. H. Reeves, R. J. Steedman, and M. K. Young. 1993. A hierarchical approach to classifying stream habitat features. *Fisheries* 18(6):3-12.
- Trotter, P. C., P. A. Bisson, and B. R. Fransen. 1993. Status and plight of the searun cutthroat trout. Pages 203-212 In J. G. Cloud and G. H. Thorgaard, editors. Genetic conservation of salmonid fishes. Plenum Press, New York, N.Y., U.S.A.
- Bisson, P. A. 1995. Ecosystem and habitat conservation: more than just a problem of geography. Pages 329-333 In J. L. Nielsen, editor. Evolution and the aquatic ecosystem: defining unique units in population conservation. American Fisheries Society Symposium 17, Bethesda, Maryland, USA.
- Reeves, G. H., L. E. Benda, K. M. Burnett, P. A. Bisson, and J. R. Sedell. 1995. A disturbance-based ecosystem approach to maintaining and restoring freshwater habitats of evolutionarily significant units of anadromous salmonids in the Pacific Northwest. Pages 334-349 In J. L. Nielsen, editor. Evolution and the aquatic ecosystem: defining unique units in population conservation. American Fisheries Society Symposium 17, Bethesda, Maryland, USA.
- Bilby, R. E., B. R. Fransen, and P. A. Bisson. 1996. Incorporation of nitrogen and carbon from spawning coho salmon into the trophic system of small streams: evidence from stable isotopes. *Canadian Journal of Fisheries and Aquatic Sciences* 53:164-173.
- Magnuson, J. J., F. W. Allendorf, R. L. Beschta, P. A. Bisson, H. L. Carson, D. W. Chapman, S. S. Hanna, A. R. Kapuscinski, K. N. Lee, D. P. Lettenmeier, B. J. McKay, G. M. MacNabb, T. P. Quinn, B. E. Riddell, and E. E. Werner. 1996. Upstream: salmon and society in the Pacific Northwest. National Academy Press, Washington, D.C., USA.
- Bisson, P. A., and D. R. Montgomery. 1996. Valley segments, stream reaches, and channel units. Pages 23-52 In F. R. Hauer and G. A. Lamberti, editors. Methods in stream ecology. Academic Press, San Diego, California, USA.
- Bisson, P. A., G. H. Reeves, R. E. Bilby, and R. J. Naiman. 1997. Watershed management and Pacific salmon: desired future conditions. Pages 447-474 In D. J. Stouder, P. A. Bisson, and R. J. Naiman, editors. Pacific salmon and their ecosystems. Chapman and Hall, New York, USA.
- Gregory, S. V., and P. A. Bisson. 1997. Degradation and loss of anadromous salmonid habitat in the Pacific Northwest. Pages 277-314 In D. J. Stouder, P. A. Bisson, and R. J. Naiman, editors. Pacific salmon and their ecosystems. Chapman and Hall, New York, USA.
- Sedell, J. R., G. H. Reeves, and P. A. Bisson. 1997. Habitat policy for salmon in the Pacific Northwest. Pages 375-388 In D. J. Stouder, P. A. Bisson, and R. J. Naiman, editors. Pacific salmon and their ecosystems. Chapman and Hall, New York, USA.
- Stouder, D. J., P. A. Bisson, and R. J. Naiman. 1997. Where are we? Resources at the brink. Pages 1-10 In D. J. Stouder, P. A. Bisson, and R. J. Naiman, editors. Pacific salmon and their ecosystems. Chapman and Hall, New York, USA.
- Naiman, R. J., P. A. Bisson, R. G. Lee, and M. G. Turner. 1997. Approaches to management at the watershed scale. Pages 239-253 In K. A. Kohm and J. F. Franklin, editors. Creating a forestry for the 21st century: the science of ecosystem management. Island Press, Washington, D.C., USA.
- Hall, J. D., P. A. Bisson, and R. E. Gresswell, editors. 1997. Sea-run cutthroat trout: biology, management, and future conservation. Oregon Chapter, American Fisheries Society, Corvallis, Oregon, USA.

- Cederholm, C. J., R. E. Bilby, P. A. Bisson, T. W. Bumstead, B. R. Fransen, W. J. Scarlett, and J. W. Ward. 1997. Response of juvenile coho salmon and steelhead to the placement of large woody debris in a coastal Washington stream. *North American Journal of Fisheries Management* 17(4):947-963.
- Bisson, P. A. 1998. One hundred years of Pacific Northwest salmon management: goals, results, and lessons learned. Pages 149-169 *In* J. M. Calhoun, editor. *Forest policy: ready for renaissance*. Institute of Forest Resources Contribution Number 78, College of Forest Resources, University of Washington, Seattle, Washington, USA.
- Reeves, G. H., P. A. Bisson, and J. M. Dambacher. 1998. Fish communities. Pages 200-234 *In* R. J. Naiman and R. E. Bilby, editors. *River ecology and management: lessons from the Pacific coastal ecoregion*. Springer-Verlag, New York, N.Y., USA.
- Bilby, R. E., and P. A. Bisson. 1998. Function and distribution of large woody debris. Pages 324-346 *In* R. J. Naiman and R. E. Bilby, editors. *River ecology and management: lessons from the Pacific coastal ecoregion*. Springer-Verlag, New York, N.Y., USA.
- Bisson, P. A., and R. E. Bilby. 1998. Organic matter and trophic dynamics. Pages 373-398 *In* R. J. Naiman and R. E. Bilby, editors. *River ecology and management: lessons from the Pacific coastal ecoregion*. Springer-Verlag, New York, N.Y., USA.
- Naiman, R. J., P. A. Bisson, R. G. Lee, and M. G. Turner. 1998. Watershed management. Pages 642-661 *In* R. J. Naiman and R. E. Bilby, editors. *River ecology and management: lessons from the Pacific coastal ecoregion*. Springer-Verlag, New York, N.Y., USA.
- Bilby, R. E., B. R. Fransen, P. A. Bisson, and J. K. Walter. 1998. Response of juvenile coho salmon (*Oncorhynchus kisutch*) and steelhead (*Oncorhynchus mykiss*) to the addition of coho salmon carcasses to small streams in southwestern Washington, U.S.A. *Canadian Journal of Fisheries and Aquatic Sciences* 55:1909-1918.
- Williams, R. N., P. A. Bisson, D. L. Bottom, L. D. Calvin, C. C. Coutant, M. W. Erho, C. A. Frissell, J. A. Lichatowich, W. J. Liss, W. E. McConaha, P. R. Mundy, J. A. Stanford, and R. R. Whitney. 1999. Return to the river: scientific issues in the restoration of salmonid fishes in the Columbia River. *Fisheries* 24(3):10-19.
- Graf, W. L., C. J. Aichinger, B. P. Anderson, G. Benoit, P. A. Bisson, M. W. Garcia, J. P. Heaney, C. A. Johnston, L. J. Lane, C. H. Olson, G. W. Peterson, M. J. Pfeffer, L. Shabman, J. Stanford, and S. W. Trimble. 1999. New strategies for America's watersheds. National Academy Press, Washington, D.C., USA.
- Bilby, R. E., J. T. Heffner, B. R. Fransen, J. W. Ward, and P. A. Bisson. 1999. Effects of immersion in water on deterioration of wood from five species of trees used for habitat enhancement projects. *North American Journal of Fisheries Management* 19:687-695.
- Naiman, R. J., R. E. Bilby, and P. A. Bisson. 2000. Riparian ecology and management in the Pacific coastal rain forest. *Bioscience* 50(11):996-1011.
- Independent Scientific Advisory Board: P. A. Bisson, C. C. Coutant, D. Goodman, R. Gramling, D. Lettenmeier, J. Lichatowich, W. Liss, E. Loudenslager, L. McDonald, D. Philipp, and B. Riddell. 2002. Hatchery surpluses in the Pacific Northwest. *Fisheries* 27(12):16-27.
- Bisson, P. A., M. G. Raphael, A. D. Foster, and L. L. C. Jones. 2002. Influence of site and landscape features on vertebrate assemblages in small streams. Pages 61-72 *In* A. C. Johnson, R. W. Haynes, and R. A. Monserud, editors. *Congruent management of multiple resources: Proceedings from the Wood Compatibility Workshop*. General Technical Report, PNW-GTR-563, USDA Forest Service, Pacific Northwest Research Station, Portland, Oregon, USA.

- Raphael, M. G., P. A. Bisson, L. L.C. Jones, and A. D. Foster. 2002. Effects of streamside forest management on the composition and abundance of stream and riparian fauna of the Olympic Peninsula. Pages 27-40 In A. C. Johnson, R. W. Haynes, and R. A. Monserud, editors. Congruent management of multiple resources: Proceedings from the Wood Compatibility Workshop. General Technical Report, PNW-GTR-563, USDA Forest Service, Pacific Northwest Research Station, Portland, Oregon, USA.
- Bisson, P. A., B. E. Rieman, C. Luce, P. F. Hessburg, D. C. Lee, J. L. Kershner, G. H. Reeves, and R. E. Gresswell. 2003. Fire and aquatic ecosystems of the western USA: current knowledge and key questions. *Forest Ecology and Management* 178(2003):213-229.
- Wissmar, R. C., and P. A. Bisson, editors. 2003. Strategies for restoring river systems: sources of variability and uncertainty in natural and managed systems. American Fisheries Society, Bethesda, Maryland.
- Independent Scientific Advisory Board: P. A. Bisson, C. C. Coutant, D. Goodman, R. Gramling, J. Lichatowich, W. Liss, E. Loudenslager, L. McDonald, D. Philipp, and B. Riddell. 2003. Decision support models as tools for developing management strategies: examples from the Columbia River Basin. Pages 233-242 In R. C. Wissmar and P. A. Bisson, editors. Strategies for restoring river systems: sources of variability and uncertainty in natural and managed systems. American Fisheries Society, Bethesda, Maryland.
- Bisson, P. A., and R. C. Wissmar. 2003. Strategies for restoring rivers: problems and opportunities. Pages 245-262 In R. C. Wissmar and P. A. Bisson, editors. Strategies for restoring river systems: sources of variability and uncertainty in natural and managed systems. American Fisheries Society, Bethesda, Maryland.
- Bilby, R. E., E. W. Beach, B. R. Fransen, J. K. Walter, and P. A. Bisson. 2003. Transfer of nutrients from spawning salmon to riparian vegetation in western Washington. *Transactions of the American Fisheries Society* 132:733-745.
- Bisson, P. A., S. M. Wondzell, G. H. Reeves, and S. V. Gregory. 2003. Trends in using wood to restore aquatic habitats and fish communities in western North American rivers. Pages 249-264 *in* S. V. Gregory, K. L. Boyer, and A. M. Gurnell, editors. The ecology and management of wood in world rivers. American Fisheries Society, Symposium 37, Bethesda, Maryland.
- Wondzell, S. M., and P. A. Bisson. 2003. Influence of wood on aquatic diversity. Pages 391-406 *in* S. V. Gregory, K. L. Boyer, and A. M. Gurnell, editors. The ecology and management of wood in world rivers. American Fisheries Society, Symposium 37, Bethesda, Maryland.
- Latterell, J. J., R. J. Naiman, B. R. Fransen, and P. A. Bisson. 2003. Physical constraints on trout (*Oncorhynchus* spp.) distribution in the Cascade Mountains: a comparison of logged and unlogged streams. *Canadian Journal of Fisheries and Aquatic Sciences* 60:1007-1017.
- Willson, M. F., S. M. Gende, and P. A. Bisson. 2004. Anadromous fishes as ecological links between ocean, fresh water, and land. Pages 284-300 *in* G. A. Polis, M. E. Power, and G. R. Huxel, editors. Food webs at the landscape level. University of Chicago Press, Chicago, Illinois.
- Elliott, S. R., R. J. Naiman, and P. A. Bisson. 2004. Riparian influences on the biophysical characteristics of seston in headwater streams. *Northwest Science* 78(2):150-157.
- Bisson, P. A., C. M. Crisafulli, B. R. Fransen, R. E. Lucas, and C. P. Hawkins. 2005. Responses of fish to the 1980 eruption of Mount St. Helens. Pages 163-182 In V. H. Dale, F. R. Swanson, and C. M. Crisafulli, editors. Ecological responses to the 1980 eruption of Mount St. Helens. Springer, New York, USA.
- Bisson, P. A., J. A. Lichatowich, W. J. Liss, D. Goodman, C. C. Coutant, L. L. McDonald, D. Lettenmeier, E. J. Loudenslager, and R. N. Williams, 2006. The federal approach to salmon recovery at the millennium. Pages 571-600 In R. N. Williams, editor. Return to the river: restoring salmon to the Columbia River. Elsevier Academic Press, Burlington, MA.

- Williams, R. N., J. A. Stanford, J. A. Lichatowich, W. J. Liss, C. C. Coutant, W. E. McConaha, R. R. Whitney, P. R. Mundy, P. A. Bisson, and M. S. Powell. 2006. Conclusions and strategy for salmon restoration in the Columbia River Basin. Pages 629-666 *In* R. N. Williams, editor. *Return to the river: restoring salmon to the Columbia River*. Elsevier Academic Press, Burlington, MA.
- Claeson, S. M., J. L. Li, J. E. Compton, and P. A. Bisson. 2006. Response of nutrients, biofilm, and benthic insects to salmon carcass addition. *Canadian Journal of Fisheries and Aquatic Sciences* 63:1230-1241.
- Bisson, P. A., D. R. Montgomery, and J. M. Buffington. 2006. Valley segments, stream reaches, and channel units. Pages 23-49 *In* F. R. Hauer and G. A. Lamberti, editors. *Methods in stream ecology – 2<sup>nd</sup> edition*. Elsevier Academic Press, Burlington, MA.
- Reeves, G. H., P. A. Bisson, B. E. Rieman, and L. E. Benda. 2006. Postfire logging in riparian areas. *Conservation Biology* 20(4):994-1004.
- Wondzell, S. M., M. A. Hemstrom, and P. A. Bisson. 2007. Simulating riparian vegetation and aquatic habitat dynamics in response to natural and anthropogenic disturbance regimes in the Upper Grande Ronde River, Oregon, USA. *Landscape and Urban Planning* 80 (2007):249-267.
- McDonald, L. L., R. Bilby, P. A. Bisson, C. C. Coutant, J. M. Epifanio, D. Goodman, S. Hanna, N. Huntly, E. Merrill, B. Riddell, W. Liss, E. J. Loudenslager, D. P. Philipp, W. Smoker, R. R. Whitney, and R. N. Williams. 2007. Research, monitoring and evaluation of fish and wildlife restoration projects in the Columbia River basin: lessons learned and suggestions for large-scale monitoring programs. *Fisheries* 32(12):582-590.
- Bisson, P. A., S. V. Gregory, T. E. Nickelson, and J. D. Hall. 2008. The Alsea Watershed study: a comparison with other multi-year investigations in the Pacific Northwest. Pages 259-290 *In* J. Stednick, editor. *Hydrological and biological responses to forest practices: the Alsea Watershed study*. Ecological Studies 199, Springer, New York, USA.
- Gregory, S. V., J. S. Schwartz, J. D. Hall, R. C. Wildman, and P. A. Bisson. 2008. Long-term trends in habitat and fish populations in the Alsea basin. Pages 237-258 *In* J. Stednick, editor. *Hydrological and biological responses to forest practices: the Alsea Watershed study*. Ecological Studies 199, Springer, New York, USA.
- Bisson, P. A., T. J. Beechie, and G. R. Pess. 2008. Reconciling fisheries with conservation in watersheds: tools for informed decisions. *Proceedings of the 4<sup>th</sup> World Fisheries Congress*. American Fisheries Society Symposium 49:1865-1880.
- Bisson, P. A. 2008. Session summary: the role of watersheds in reconciling fisheries with conservation. *Proceedings of the 4<sup>th</sup> World Fisheries Congress*. American Fisheries Society Symposium 49:1839-1841.
- Bisson, P. A. 2008. Salmon and trout in the Pacific Northwest. U.S. Department of Agriculture, Forest Service, Climate Change Resource Center. [online] URL: <http://www.fs.fed.us/ccrc/topics/salmon-trout.shtml>
- Reeves, G. H., and P. A. Bisson. 2009. Fish and old-growth forests. Pages 70-82 *In* T. A. Spies and S. L. Duncan, editors. *Old growth in a new world: a Pacific Northwest icon reexamined*. Island Press, Washington, D. C., USA.
- Bisson, P. A., J. B. Dunham and G. H. Reeves. 2009. Freshwater ecosystems and resilience of Pacific salmon: habitat management based on natural variability. *Ecology and Society* 14(1): 45, 18p. [online] URL: <http://www.ecologyandsociety.org/vol14/iss1/art45/> 18p.

### **Selected Non-Peer Reviewed Publications**

- Bisson, P. A. 1974. Artificial streams tell fish story. *Oregon's Agriculture Progress* 21(2):13-14.

- Sedell, J. R., P. A. Bisson, J. A. June, and R. W. Speaker. 1982. Ecology and habitat requirements of fish populations in South Fork Hoh River, Olympic National Park. Pages 35-42 In E. E. Starkey, J. F. Franklin, and J. W. Matthews, technical coordinators. Ecological research in national parks of the Pacific Northwest. Proceedings of the 2nd conference on scientific research in the national parks, 1979 November, San Francisco, California. Oregon State University Forest Research Laboratory, Corvallis, Oregon, USA.
- Bisson, P. A., J. L. Nielsen, and J. W. Ward. 1985. Experimental release of coho salmon (*Oncorhynchus kisutch*) into a stream impacted by Mount Saint Helens volcano. Pages 422-435 In Proceedings of the Annual Meeting of the Western Division American Fisheries Society and the Western Association of Fish and Wildlife Agencies, held July 16-19, Victoria, British Columbia, Canada.
- Helm, W. T., M. L. Aceituno, C. Armour, P. A. Bisson, J. D. Hall, G. Holton, and M. A. Shaw. 1986. A glossary of stream habitat and inventory methods. Western Division, American Fisheries Society. Department of Fisheries and Wildlife, Utah State University, Logan, Utah, USA. 34 p.
- Bisson, P. A. 1987. Professionalism and ethics: some issues of increasing concern for fishery biologists. Pages 51-55 In Proceedings of the 1986 Annual Meeting of the Western Division American Fisheries Society and the Western Association of Fish and Wildlife Agencies, Portland, Oregon, USA.
- Bilby, R. E., and P. A. Bisson. 1989. Relative importance of allochthonous vs. autochthonous carbon sources as factors limiting coho salmon production in streams. Pages 123-135 In B. G. Shepherd, editor. Proceedings of a workshop on chinook and coho salmon, held October 2-4, 1988, Bellingham, Washington. Sponsored by North Pacific International Chapter, American Fisheries Society, and available from B.C. Ministry of Environment, 3547 Skaha Lake Road, Penticton, B.C., Canada.
- Bisson, P. A. and B. R. Fransen. 1990. Cyclic rebound of salmonid productivity in Mount St. Helens streams: implications for long-term monitoring. In Proceedings of the 1989 Annual Meeting of the Western Division American Fisheries Society and the Western Association of Fish and Wildlife Agencies, Sacramento, California, USA.
- Bilby, R. E., and P. A. Bisson. 1991. Enhancing fisheries resources through active management of riparian areas. Pages 201-209 In B. White and I. Guthrie, editors. Proceedings of the 15th Northeast Pacific pink and chum salmon workshop, Pacific Salmon Commission and Canada Department of Fisheries and Oceans, Vancouver, B.C., Canada.
- Fransen, B. R., P. A. Bisson, R. E. Bilby, and J. W. Ward. 1993. Physical and biological constraints on summer rearing of juvenile coho salmon (*Oncorhynchus kisutch*) in small western Washington streams. Pages 271-288 In L. Berg and P. Delaney, editors. Proceedings of a Workshop on Coho Salmon, held May 26-28, 1992, at Nanaimo, British Columbia. Department of Fisheries and Oceans, Vancouver, B.C., Canada.
- Bilby, R. E., B. R. Fransen, and P. A. Bisson. 1994. Role of coho salmon carcasses in maintaining stream productivity: evidence from nitrogen and carbon stable isotopes. Pages 160-170 In Keefe, M. L., editor. Proceedings of the 1994 Northeast Pacific Chinook and Coho Salmon Workshop. Oregon Chapter, American Fisheries Society, Corvallis, Oregon.
- Bisson, P. A. 1996. Ecological carrying capacity for salmonids in tributaries of the Lower Columbia River. In Proceedings of a workshop on ecological carrying capacity for Columbia River salmon habitats, Bonneville Power Authority and Battelle Pacific Northwest Laboratory, Portland, Oregon, USA.
- Bisson, P. A. 1997. Population risk and habitat condition. Proceedings of a National Marine Fisheries Service Workshop on Assessing Extinction Risk for West Coast Salmon, Seattle, Washington, USA.
- Bisson, P. A. 1997. A prognosis for salmon habitat in the Pacific Northwest. Proceedings of a Washington Wildlife Commission Special Symposium on Balancing Wild and Hatchery Salmonids, Olympia, Washington, USA.
- Coutant, C. C., P. A. Bisson, and P. Brouha. 1997. Management audit gives AFS headquarters good marks, makes suggestions for improvement. Fisheries 22(8):16-18.

- Bisson, P. A. 1997. Monitoring biological success of stream habitat improvement projects. COPE Newsletter, Hatfield Marine Science Center, Oregon State University, Newport, Oregon, USA. 10(1):17-19.
- Botkin, D. B., D. L. Peterson, F. Allendorf, R. J. Beamish, G. Belovsky, R. E. Bilby, P. A. Bisson, K. W. Cummins, T. Dunne, J. F. Franklin, J. Innes, M. J. Sobel, D. Schneider, F. B. Schwing, and J. Zedler. 2000. The scientific basis for validation monitoring of salmon for conservation and restoration plans. College of Forest Resources, University of Washington, Seattle, Washington, USA.
- Schaffer, A., D. Myers, J. Brennan, L. Hallock, P. Bisson, P. Roni, R. Carman, R. Plotnikoff, C. Simenstad, S. Rumrill, and T. Mumford. 2007. Washington DNR Aquatic Resources Program HCP Review Panel final report: comments and recommendations on covered species and potential effects analysis. Washington Department of Natural Resources, Aquatic Resources Program, Olympia, Washington, USA.
- Bisson, P. A., and S. M. Wondzell. 2009. Olympic Experimental State Forest synthesis of riparian research and monitoring. Report to the Olympic Experimental State Forest, Washington Department of Natural Resources, Olympia, Washington, USA. 62 p.

### **Selected Technical Reports and Reviews**

- Bisson, P. A., R. B. Herrmann, and R. N. Thut. 1975. Trout production in fertilizer nitrogen enriched experimental streams. Weyerhaeuser Company, Project 046-4104. 62 p.
- Bisson, P. A. 1976. Food and space limitation on rainbow trout production in experimental streams. Weyerhaeuser Company, Project 046-4104. 8 p.
- Bisson, P. A. 1976. Effect of nitrate-nitrogen, phosphate-phosphorus and EDTA additional on algal accumulation at Kalama Springs. Weyerhaeuser Company Project 046- 4108. 10 p.
- Bisson, P. A. 1976. Suitability of using multiple fish species in experimental stream research. Weyerhaeuser Company, Project 046-4104. 6 p.
- Bisson, P. A., and D. J. McGreer. 1977. Persistence of fine sediments in a coho salmon spawning stream following culvert replacement. Weyerhaeuser Company, Project 042-4402. 17 p.
- Bisson, P. A. 1978. Thompson River (Canada) biological survey: Savona and Walhachin. Weyerhaeuser Company, Project 046-4211. Submitted to B.C. Pollution Control Branch. 28 p.
- Bisson, P. A. 1979. Columbia River water quality survey and pulp mill effluent dye tracer study. Weyerhaeuser Company, Project 046-4006. 12 p.
- Bisson, P. A., and J. R. Sedell. 1979. The relationship of channel and bank stability, pool quality and debris to fish populations in southwest Washington streams. Weyerhaeuser Company, Project 042-4402-06. 31 p.
- Bisson, P. A. 1980. Cutthroat trout response to prolonged high turbidity in Hard Creek, a headwater tributary of Deschutes River, Washington. Weyerhaeuser Company, Project 042-7107-80-26. 11 p.
- Bisson, P. A. 1982. Annual forest fertilization and water quality - final report. Weyerhaeuser Company, Project 050-5411-02. 32 p.
- Bisson, P. A. 1982. Salmon enhancement in streams. Progress Report No. 1. Weyerhaeuser Company, Project 050-5717/4. 28 p.
- Bisson, P. A. and J. L. Nielsen. 1983. Winter habitat utilization by salmonids in streams: The role of woody debris. Weyerhaeuser Company, Project 050-5405. 28 p.
- Bisson, P. A., R. E. Bilby, J. L. Nielsen, J. T. Heffner, and J. W. Ward. 1983. Salmon enhancement in streams. Progress Report No. 2. Weyerhaeuser Company, Project 050-5405. 52 p.

- Bisson, P. A., J. L. Nielsen, and J. W. Ward. 1985. Salmon enhancement in streams. Progress Report No. 3. Weyerhaeuser Company Project 054-5405. 31 p.
- Bisson, P. A. 1986. Importance of identification of limiting factors in an evaluation program. Proceedings of a workshop on stream enhancement evaluation. Sponsored by Bonneville Power Authority, Portland, Oregon. Buell and Associates, Beaverton, Oregon, USA.
- Bisson, P. A. 1988. 1988 Weyerhaeuser forest fertilization/water quality monitoring studies: Forks Creek, Ryderwood, Silver Lake. Weyerhaeuser Company, Project 044-5006. 26 p.
- Bisson, P. A. 1991. Salmon stocks in streams flowing through Weyerhaeuser Company tree farms at risk of extinction in Washington and Oregon: a summary of the AFS Endangered Species Committee report. Weyerhaeuser Company, Project 050-9003. 40 p.
- R. N. Williams (Chair), P. A. Bisson, C. C. Coutant, D. Goodman, J. L. Lichatowich, W. J. Liss, L. McDonald, P. Mundy, B. Riddell, J. A. Stanford, and R. R. Whitney. 1997. Report of the Independent Scientific Advisory Board Regarding a Research Proposal for Inclusion in the Columbia River Basin Fish and Wildlife Program: Lake Pend Oreille Fishery Recovery Project. Independent Scientific Advisory Board for the Northwest Power Planning Council and the National Marine Fisheries Service, ISAB Report 97- 4, Northwest Power Planning Council, Portland, Oregon, USA.
- R. N. Williams (Chair), P. A. Bisson, C. C. Coutant, D. Goodman, J. L. Lichatowich, W. J. Liss, L. McDonald, P. Mundy, B. Riddell, J. A. Stanford, and R. R. Whitney. 1997. Review of a Draft Programmatic Environmental Impact Statement: Impacts of Artificial Salmon and Steelhead Production Strategies in the Columbia River Basin. Independent Scientific Advisory Board for the Northwest Power Planning Council and the National Marine Fisheries Service, ISAB Report 97- 5, Northwest Power Planning Council, Portland, Oregon, USA.
- R. N. Williams (Chair), J. L. Lichatowich (Co-chair), P. A. Bisson, C. C. Coutant, R. Francis, D. Goodman, N. Huntly, L. McDonald, B. Riddell, J. A. Stanford, and S. S. Hanna. 1997. Review of the Columbia River Basin Fish and Wildlife Program as directed by the 1996 amendment to the Power Act. Report of the Independent Scientific Review Panel for the Northwest Power Planning Council, ISRP Report 97-1, Northwest Power Planning Council, Portland, Oregon, USA.
- R. N. Williams (Chair), J. L. Lichatowich (Co-chair), P. A. Bisson, C. C. Coutant, R. Francis, D. Goodman, N. Huntly, L. McDonald, B. Riddell, J. A. Stanford, and S. S. Hanna. 1997. Review of "A Method and Criteria for Evaluating the Technical Merits and Feasibility of Watershed/Habitat Projects". Report of the Independent Scientific Review Panel for the Northwest Power Planning Council, ISRP Report 97-2, Northwest Power Planning Council, Portland, Oregon, USA.
- Bisson, P. A. (Chair), R. E. Bilby, C. Burger, R. Hilborn, T. P. Quinn, and F. M. Utter. 1997. A review of the State of Washington Wild Salmonid Policy Draft Environmental Impact Statement. American Fisheries Society, Bethesda, Maryland, USA.
- R. N. Williams (Chair), P. A. Bisson, C. C. Coutant, D. Goodman, J. L. Lichatowich, W. J. Liss, L. McDonald, P. Mundy, B. Riddell, J. A. Stanford, and R. R. Whitney. 1998. Proposal Reviewed: Comparative Survival Rate Study of Hatchery PIT Tagged Chinook. Report of the Independent Scientific Advisory Board for the Northwest Power Planning Council, ISAB Report 98-1, Northwest Power Planning Council, Portland, Oregon, USA.
- R. N. Williams (Chair), P. A. Bisson, C. C. Coutant, D. Goodman, J. L. Lichatowich, W. J. Liss, L. McDonald, P. Mundy, B. Riddell, J. A. Stanford, and R. R. Whitney. 1998. The scientific basis for juvenile fish passage improvements in the federal Columbia River power system: John Day Dam extended length turbine intake screens and Bonneville Dams bypass system outfalls. Report of the Independent Scientific Advisory Board for the Northwest Power Planning Council, ISAB Report 98-4, Northwest Power Planning Council, Portland, Oregon, USA.

- R. N. Williams (Chair), P. A. Bisson, C. C. Coutant, D. Goodman, J. L. Lichatowich, W. J. Liss, L. McDonald, P. Mundy, B. Riddell, J. A. Stanford, and R. R. Whitney. 1998. Recommendation for stable flows in the Hanford Reach during the time when juvenile fall chinook are present each spring. Report of the Independent Scientific Advisory Board for the Northwest Power Planning Council, ISAB Report 98-5, Northwest Power Planning Council, Portland, Oregon, USA.
- R. N. Williams (Chair), P. A. Bisson, C. C. Coutant, D. Goodman, J. L. Lichatowich, W. J. Liss, L. McDonald, P. Mundy, B. Riddell, J. A. Stanford, and R. R. Whitney. 1998. Review of “Development of a Regional Framework for Fish and Wildlife Restoration in the Columbia River Basin”. Report of the Independent Scientific Advisory Board for the Northwest Power Planning Council, ISAB Report 98-6, Northwest Power Planning Council, Portland, Oregon, USA.
- R. N. Williams (Chair), J. L. Lichatowich (Co-chair), P. A. Bisson, C. C. Coutant, R. Francis, D. Goodman, N. Huntly, L. McDonald, B. Riddell, J. A. Stanford, and S. S. Hanna. 1998. Review of the Columbia River Basin Fish and Wildlife Program for fiscal year 1999 as directed by the 1996 Amendment to the Northwest Power Act. Report of the Independent Scientific Review Panel for the Northwest Power Planning Council and National Marine Fisheries Service, ISRP Report 98-7, Northwest Power Planning Council, Portland, Oregon, USA.
- Bisson, P. A., R. N. Williams (Chair), C. C. Coutant, D. Goodman, J. L. Lichatowich, W. J. Liss, L. McDonald, P. Mundy, B. Riddell, J. A. Stanford, and R. R. Whitney. 1999. Looking for common ground: comparison of recent reports pertaining to salmon recovery in the Columbia River Basin. Report of the Independent Scientific Advisory Board for the Northwest Power Planning Council, ISAB Report 99-3, Northwest Power Planning Council, Portland, Oregon, USA.
- Bisson, P. A., C. C. Coutant, D. Goodman, R. Gramling, J. L. Lichatowich, E. Loudenslager, W. J. Liss, L. McDonald, D. Philipp, and B. Riddell. 1999. Review of the National Marine Fisheries Service draft Cumulative Risk Analysis addendum. Report of the Independent Scientific Advisory Board for the Northwest Power Planning Council, ISAB Report 99-7, Northwest Power Planning Council, Portland, Oregon, USA.
- Bisson, P. A., D. A. Cleaves, F. H. Everest, J. R. Furnish, M. J. Furniss, R. S. Holthausen, C. Manning, G. L. Peterson, T. Pettigrew, R. Phillips, R. Prausa, M. G. Raphael, B. Timko, and R. R. Ziemer. 1999. Roads analysis: informing decisions about managing the National Forest transportation system. Miscellaneous Report FS-643, US Department of Agriculture, Forest Service, Washington, D.C., USA.
- Bisson, P. A., C. C. Coutant, D. Goodman, R. Gramling, J. L. Lichatowich, E. Loudenslager, W. J. Liss, L. McDonald, D. Philipp, and B. Riddell. 2000. Consistency of the Council’s artificial production policies and implementation strategies with multi-species framework principles and Scientific Review Team guidelines. Report of the Independent Scientific Advisory Board for the Northwest Power Planning Council, ISAB Report 2000-3, Northwest Power Planning Council, Portland, Oregon, USA.
- Bisson, P. A., C. C. Coutant, D. Goodman, R. Gramling, J. L. Lichatowich, E. Loudenslager, W. J. Liss, L. McDonald, D. Philipp, and B. Riddell. 2001. Model synthesis report: An analysis of decision support tools used in Columbia River Basin salmon management. Report of the Independent Scientific Advisory Board for the Northwest Power Planning Council, ISAB Report 2001-1, Northwest Power Planning Council, Portland, Oregon, USA.
- Bisson, P. A., C. C. Coutant, D. Goodman, R. Gramling, J. L. Lichatowich, E. Loudenslager, W. J. Liss, L. McDonald, D. Philipp, and B. Riddell. 2001. A review of salmon recovery strategies for the Columbia River Basin. Report of the Independent Scientific Advisory Board for the Northwest Power Planning Council, ISAB Report 2001-7, Northwest Power Planning Council, Portland, Oregon, USA.
- Bilby, R. E., P. A. Bisson, C. C. Coutant, D. Goodman, R. Gramling, S. Hanna, E. Loudenslager, L. McDonald, D. Philipp, and B. Riddell. 2003. A review of strategies for recovering tributary habitat. Report of the Independent Scientific Advisory Board for the Northwest Power and Conservation Council, ISAB Report 2003-2, Northwest Power and Conservation Council, Portland, Oregon, USA.

- Bilby, R. E., P. A. Bisson, C. C. Coutant, D. Goodman, R. Gramling, S. Hanna, E. Loudenslager, L. McDonald, D. Philipp, and B. Riddell. 2003. Review of salmon and steelhead supplementation. Report of the Independent Scientific Advisory Board for the Northwest Power and Conservation Council, ISAB Report 2003-3, Northwest Power and Conservation Council, Portland, Oregon, USA.
- Bilby, R. E., P. A. Bisson, C. C. Coutant, D. Goodman, R. Gramling, S. Hanna, E. Loudenslager, L. McDonald, D. Philipp, and B. Riddell. 2004. A joint ISAB and ISRP Review of the draft Research, Monitoring & Evaluation Plan for the NOAA-Fisheries 2000 Federal Columbia River Power System Biological Opinion. Independent Scientific Advisory Board for the Northwest Power and Conservation Council, ISAB Report 2004-1, Northwest Power and Conservation Council, Portland, Oregon, USA.
- Bisson, P. A., C. C. Coutant, D. Goodman, J. Epifanio, S. Hanna, N. Huntly, E. J. Loudenslager, W. J. Liss, L. McDonald, B. Riddell, W. Smoker, R. Whitney, and R. Williams. 2005. Independent Scientific Review Panel retrospective report 1997-2005. Independent Scientific Review Panel for the Northwest Power and Conservation Council, ISRP Report 2005-14, Northwest Power and Conservation Council, Portland, Oregon, USA.
- Bilby, R. E., P. A. Bisson, C. C. Coutant, D. Goodman, R. Gramling, S. Hanna, E. Loudenslager, L. McDonald, D. Philipp, and B. Riddell. 2005. Report on harvest management of Columbia Basin salmon and steelhead. Independent Scientific Advisory Board for the Northwest Power and Conservation Council, ISAB Report 2005-4, Northwest Power and Conservation Council, Portland, Oregon, USA.
- Allredge, J. R., P. A. Bisson, J. Epifanio, L. Hardesty, C. Henny, C. Levings, W. Liss, E. Loudenslager, K. Myers, T. Poe, and B. Ward. 2006. Final review of proposals submitted for fiscal years 2007-2007 through the Columbia Basin Fish and Wildlife Program. ISRP Report 2006-6, Northwest Power and Conservation Council, Portland, Oregon, USA.
- Bisson, P. A. 2006. Assessment of the risk of invasion of national forest streams in the Pacific Northwest by farmed Atlantic salmon. United States Department of Agriculture, Forest Service, Pacific Northwest Research Station, General Technical Report PNW-GTR-697, Portland, Oregon, USA.
- Allredge, J. R., P. A. Bisson, J. Epifanio, L. Hardesty, C. Henny, C. Levings, W. Liss, E. Loudenslager, K. Myers, T. Poe, and B. Ward. 2007. ISRP 2006 retrospective report. Independent Scientific Review Panel for the Northwest Power and Conservation Council, ISRP Report 2007-1, Northwest Power and Conservation Council, Portland, Oregon, USA.
- Hard, J. J., J. M. Myers, M. J. Ford, R. G. Kope, G. R. Pess, R. S. Waples, G. A. Winans, B. A. Berejikian, F. W. Waknitz, P. B. Adams, P. A. Bisson, D. E. Campton, and R. R. Reisenbichler. 2007. Status review of Puget Sound steelhead (*Oncorhynchus mykiss*). National Oceanic and Atmospheric Administration Technical Memorandum NMFS-NWFSC-81, National Marine Fisheries Service, Northwest Fisheries Science Center, Seattle, Washington, USA.
- Allredge, J. R., P. A. Bisson, J. Epifanio, L. Hardesty, C. Henny, C. Levings, W. Liss, E. Loudenslager, K. Myers, T. Poe, and B. Ward. 2009. Wildlife category review: final review of 2009 proposals. Independent Scientific Review Panel for the Northwest Power and Conservation Council, ISRP Report 2009-17, Northwest Power and Conservation Council, Portland, Oregon, USA.
- Adams, S., K. Burnett, P. Bisson, B. Harvey, K. Nislow, B. Rieman, and J. Rinne. 2010. The role of the Forest Service in aquatic invasive species research. Pages 55-66 in M. E. Dix and K. Britton, editors. A dynamic invasive species research vision: opportunities and priorities 2009-29. United States Department of Agriculture, Forest Service, Research and Development, General Technical Report WO-70, Washington, D.C., USA.

## **Book Reviews**

- Bisson, P. A. 2000. A review of *Salmon Without Rivers*. Restoration Ecology 10(3):1-3.

Bisson, P. A. 2004. A review of *Restoration of Puget Sound Watersheds*. Transactions of the American Fisheries Society 133:1290-1292.

Bisson, P. A. 2008. A review of *Restoring Colorado River Ecosystems: A Troubled Sense of Immensity*. Quarterly Review of Biology 83(1):137-138.