

Resume of

JAMES A. LICHATOWICH

PERSONAL DATA

Address: P O Box 439, Columbia City, OR 97018
Phone: 503/366-6959 (Fax 503/366-7027)
Email: jal@salmonwithoutrivers.com
Date of Birth: May 10, 1941
Military Service: U.S. Marine Corps, 1959-63

EDUCATION

M.S.	Oregon State University, Corvallis, Oregon - Fisheries Science	1970
B.S.	Oregon State University, Corvallis, Oregon - Fisheries Science	1969

PROFESSIONAL EXPERIENCE

Alder Fork Consulting, Private Consultant, Columbia City, OR, 1990 to present.

I have provided consulting services to: Oregon Business Council, State of Oregon, National Marine Fisheries Service, EcoTrust, Interrain Pacific, The Wilderness Society, Gordon and Betty Moore Foundation, Pacific Rivers Council, Native American Rights Fund, Jamestown S'Klallam Tribe, U. S. Forest Service-Quilcene Ranger District, Portland General Electric, PacifiCorp, Trout Unlimited, and Lower Elwha Klallam Tribe.

Independent Scientific Advisory Board (ISAB), Board Member (formerly Independent Scientific Group), Portland, OR, 1991 to 2001. Chairman 1999-2001.

ISAB is a panel of senior research scientists representing a broad range of disciplines. The ISAB provides an oversight function for the implementation of the Columbia River Fish and Wildlife Plan. The ISAB provides scientific review of various aspects of the restoration of Columbia River salmon for the National Marine Fisheries Service and the Northwest power Planning Council.

Independent Scientific Review Panel (ISRP), Panel Member, Portland, OR, March 1997 to 1999.

The ISRP is a panel of eleven scientists established by the Northwest Power Planning Council and mandated by Congress. The panel's purpose is to provide scientific peer review for projects proposed to be funded through the Bonneville Power Administration's annual fish and wildlife budget that implements the Council's Fish and Wildlife Program.

Independent Multidisciplinary Scientific Team (IMST), Team Member, Salem, OR. November 1997 to 2002.

The IMST was established by the 1997 Oregon Legislature to provide an independent evaluation of the science that underlies the Oregon Plan for Salmon and Watersheds and to provide scientific peer review of the plan's implementation.

Biologist, Mobrand Biometrics, Inc., 9920 Bank Road, Vashon, WA, 1991 to 1996.

While employed by Mobrand Biometrics I participated in the Regional Assessment of Supplementation Program. In that context, I developed the conceptual framework for a model of genetic risk and benefits of hatchery supplementation. In addition I prepared a report on the approach to the diagnosis and treatment of depleted Pacific salmon populations in freshwater ecosystems. The report based salmon restoration on rebuilding ecosystem health. Recent projects include analysis of chinook salmon in the Columbia River from an ecosystem perspective and a history of management frameworks used in the conservation of Columbia River salmon.

Timber, Fish and Wildlife Biologist, Jamestown S'Klallam Tribe, Sequim, WA, 1988 to 1991

My duties included review of timber harvest on federal, state, and private lands to ensure fishery habitat received adequate protection. I worked with Timber, Fish and Wildlife Committees at the technical and policy levels.

Assistant Chief of Fisheries, Oregon Department of Fish and Wildlife, Portland, OR, 1983 to 1988

Duties included the following:

- (i) Budget Development and Control – I was responsible for the preparation of the division's biennial budget, presentation to the State of Oregon Executive Department, and testimony before the Legislative Ways and Means Committee. Total budget was \$30,000,000 annually with 575 FTE.

(ii) Planning – I was responsible for the development of statewide species management plans. In addition, I was responsible for the preparation of management plans for Oregon's river basins. To accomplish the latter, public advisory groups were set up to encourage public involvement in the management of the state's fishery resource.

(iii) Fresh Water Fishery Management – I was responsible for all fisheries management programs in the state's fresh water areas.

Associate Professor, Courtesy Appointment, Department of Fisheries and Wildlife, Oregon State University, Corvallis, OR, 1984 to 1988

Supervisor, Fisheries Research Section, Oregon Department of Fish and Wildlife, Corvallis, OR, 1979 to 1983

I supervised fisheries research programs within all the major river basins in the state. The projects ranged from genetics of salmonids, life history, management, environmental impact of dams, hatchery evaluation, and population dynamics. I reviewed all project proposals and reports for technical quality, assigned new project responsibilities, and served as chairman of the Research Advisory Committee. This committee approved all new fish research projects. Administered a staff of 55 permanent and 50 seasonal employees.

Assistant Research Supervisor, Oregon Department of Fish and Wildlife, Corvallis, OR, 1978 to 1979

I supervised research on coastal salmon and steelhead and studies of spring chinook salmon in the Deschutes and John Day rivers (19 permanent employees). I edited and evaluated the technical quality of all reports and represented the agency on technical matters with funding agencies. I reviewed all proposals and sampling plans for technical quality.

PUBLICATIONS

Books and Book Chapters

Lichatowich, J. A. 2001. Pacific salmon life histories. Pages 59-63 in *Oregon Salmon: Essays on the State of the Fish at the turn of the Millennium*. Oregon Trout, Portland, OR.

Lichatowich, J. A. and S. Zuckerman. 1999. Muddied Waters, Muddled Thinking. Pages 17-31 in E. C. Wolf and S. Zuckerman (eds.) *Salmon Nation: People and Fish at the Edge*. EcoTrust, Portland, OR.

Lichatowich, J. A. 1999. *Salmon without Rivers: A History of the Pacific Salmon Crisis*. Island Press, Washington, DC.

Lichatowich, J. A., G. R. Rahr III, S. M. Whidden, and C. R. Steward. 1999. Sanctuaries for Pacific Salmon. In E. E. Knutson, C. R. Steward, D. D. McDonald, D. W. Reiser and J. E. Williams (eds.) *Sustainable Fisheries Management: Balancing the Conservation and Use of Pacific Salmon*, Ann Arbor Press.

Lichatowich, J. A. 1997. Evaluating the performance of salmon management institutions: The importance of performance measures, temporal scales and production cycles. Pages 69-87 in D. J. Stouder, P. A. Bisson, and R. J. Naiman (eds.) *Pacific Salmon and Their Ecosystems*, Chapman and Hall, New York, NY.

Nehlsen, W., and J. A. Lichatowich. 1996. Pacific salmon: Life histories, diversity, productivity. Pages 213-226 in P. K. Schoonmaker, B. von Hagen and E. C. Wolf (eds.) *The Rain Forests of Home: Profile of a North American Bioregion*. EcoTrust/Interrain Pacific, Island Press, Washington, DC.

Lichatowich, J. A. 1996. The Creed of a Salmon Capitalist—Commentary on R. D. Hume. Pages 60-74 in J. Cone and S. Riddlington (eds.) *The Northwest Salmon Crisis*. Oregon State University Press, Corvallis, OR.

Lichatowich, J. A. and J.D. McIntyre. 1987. Use of hatcheries in the management of Pacific anadromous salmon. Pages 131-136 in M.J. Dadswell, R.J. Klauda, C.M. Moffitt, R.L. Saunders, R..A. Rulifson, and J.E. Cooper (Eds.), *Common Strategies of Anadromous and Catadromous Fishes*. American Fisheries Society, Symposium I, Boston, MA, March 9-13, 1986.

Lichatowich, J. A. 1989. Habitat alteration and changes in abundance of coho (*Oncorhynchus kisutch*) and chinook (*O. tshawytscha*) salmon in Oregon's coastal streams. Pages 92-99 in C.D. Levings, L.B. Holtby, and M.A. Henederson, (Eds.), *Proceedings of the National Workshop on Effects of Habitat Alteration on Salmonid Stocks*. Canadian Special Publication of Fisheries and Aquatic Sciences 105, Ottawa, CAN.

Papers

Bisson, P. A. and 11 others. 2002. Hatchery surpluses in the Pacific Northwest. *Fisheries* 27:12 16-27.

Gresh, T., J. Lichatowich, and P. Schoonmaker. 2000. An estimation of historic and current levels of salmon production in the Northeast Pacific Ecosystem: Evidence of a nutrient deficit in the freshwater systems of the Pacific Northwest. *Fisheries* 25(1): 15-21.

Lichatowich, J. A., L. E. Mobernd, and L. C. Lestelle. 1999. Depletion and extinction of Pacific salmon (*Oncorhynchus* Spp.): A different perspective. *ICES Journal of Marine Science*, 56: 467-472.

Independent Scientific Group. 1999. Return to the river: Scientific issues in the restoration of salmonid fishes in the Columbia River. *Fisheries* 24(3): 10-19.

Independent Scientific Group. 1998. Return to the river: An ecological vision for the recovery of the Columbia River salmon. *Environmental Law* 38(3): 503-518.

Currens, K. P., F. W. Allendorf, D. Bayles, D. L. Bottom, C. A. Frissell, D. Hankin, J. A. Lichatowich, P. C. Trotter, and T. A. Williams. 1998. Conservation of Pacific salmon: Response to Wainwright and Waples. *Conservation Biology* 12: 1148-1149.

Rahr, G. R., J. A. Lichatowich, R. Hubley, and S. M. Whidden. 1998. Sanctuaries for native salmon: A conservation strategy for the 21st century. *Fisheries* 23(4): 6-7.

Mobrand, L. E., J. A. Lichatowich, and L. C. Lestelle. 1997. An approach to describing ecosystem performance "Through the eyes of salmon." *Canadian Journal of Fisheries and Aquatic Sciences* 54(12): 2964-2973.

Coutant, C. C., L. D. Calvin, M. W. Erho, jr., J. A. Lichatowich, W. J. Liss, W. E. McConnaha, P. R. Mundy, J. A. Stanford, R. R. Whitney, R. N. Williams, D. L. Bottom, and C. A. Frissell. 1997. The normative river: an ecological vision for the recovery of the Columbia River salmon. Pages 50-59, in D. J. Mahoney, editor. *WATERPOWER '97 Proceedings of the International Conference on Hydropower*. American Society of Civil Engineers, New York.

Stanford, J. A., J. V. Ward, W. J. Liss, C. A. Frissell, R. N. Williams, J. A. Lichatowich and C. C. Coutant. 1996. A general protocol for restoration of entire river catchments. *Regulated Rivers: Research and Management*, 12: 391-413.

Allendorf, F. W. and 9 others. 1997. Prioritizing Pacific salmon stocks for conservation. *Conservation Biology*, 11(1): 140-152.

Lichatowich, J., L. Mobrand, L. Lestelle, and T. Vogel. 1995. An approach to the diagnosis and treatment of depleted Pacific salmon populations in Pacific Northwest watersheds. *Fisheries* 20:1 10-18.

Lichatowich, J., W. Nehlsen and J. Williams. 1993. Pacific salmon: Resource at risk. *Current: The Journal of Marine Education* 12:2 26-28.

Nehlsen, W., J. A. Lichatowich, and J. Williams. 1992. Pacific salmon and the search for sustainability. *Renewable Resources Journal* 10:2 20-26.

Williams, J. E., J. A. Lichatowich, and W. Nehlsen. 1992. Declining salmon and steelhead populations: New endangered species concerns for the West. *Endangered Species Update* 9:4 1-8.

Lichatowich, J. A. 1992. Management for sustainable fisheries: Some social, economic, and ethical considerations. *In* G. Reeves and D. Bottom, (Eds.), *Ethical Questions for Resource Managers*. U.S.D.A., Forest Service, General Tech. Rept. PNW-GTR-288, January.

Lichatowich, J. A. and J. Nicholas. 1991. Oregon's first century of hatchery intervention in salmon production: Evolution of the hatchery program, legacy of a utilitarian philosophy and management recommendations. *Proceedings of International Symposium on Biological Interactions of Enhanced and Wild Salmonids*, Nanaimo, B.C., CAN., June 17-20, 1991.

Nehlsen, W., J. E. Williams and J. A. Lichatowich. 1991. Pacific salmon at the crossroads: Stocks at risk from California, Oregon, Idaho, and Washington. *Fisheries* 16:2 4-21.

Lichatowich, J. A. 1988. Wild fish management. *In* D. Guthrie, (Ed.), *Trout, Steelhead and Salmon in the 21st Century*, Oregon Trout, Portland, OR, July 1986.

Nickelson, T. E. and J. A. Lichatowich. 1983. The influence of the marine environment on the interannual variation in coho salmon abundance. *In* W.G. Pearcy (Ed.) *The Influence of Ocean Conditions on the Production of Salmonids in the North Pacific*. Oregon State University Sea Grant ORESU-W-83-001, Corvallis, OR. 36 p.

Ewing, R. D., H. J. Pribble, S. L. Johnson, C. A. Fustish, J. Diamond, and J. A. Lichatowich. 1980. Influence of size, growth rate, and photoperiod on cyclic changes in gill (Na+K)-ATPase activity in chinook salmon (*Oncorhynchus tshawytscha*). *Can. J. Fish. Aquat.* 37: 600-05.

Ewing, R. D., S. L. Johnson, H. J. Pribble, and J. A. Lichatowich. 1979. Temperature and photoperiod effects on gill (Na+K)-ATPase activity in chinook salmon (*Oncorhynchus tshawytscha*). *J. Fish. Res. Bd. Can.* 36:11 1347-53.

Johnson, S. L., R. D. Ewing, and J. A. Lichatowich. 1977. Characterization of gill (Na+K)-activated adenosine triphosphatase from chinook salmon, *Oncorhynchus tshawytscha*. *Journal of Experimental Zoology* 199:3 345-54.

Seim, W. K., J. A. Lichatowich, R. Ellis, and G. Davis. 1977. The effect of kraft mill effluent on juvenile salmon production in laboratory streams. *Water Research* 11: 189-96.

Reports

Independent Scientific Group. 2000. Return to the river: Restoration of salmonid fishes in the Columbia River ecosystem. Northwest Power Planning Council, Portland, OR

Independent Scientific Review Panel. 1999. Review of the BPA reimbursable account programs in the Columbia River Basin as requested in the Senate-House Conference Report on FY99 energy and water development appropriations bill. Northwest Power Planning Council, Portland, OR.

Bottom, D. L., J. A. Lichatowich, and C. A. Frissell. 1998. Variability of Pacific Northwest marine ecosystems and relation to salmon production. Pages 181-252 in G. R. McMurray and R. J. Bailey (eds.) *Change in Pacific Northwest Coastal Ecosystems*. NOAA Coastal Ocean Program, Decision Analysis Series No. 11, Silver Spring, MD.

Scientific Review Team (member). 1998. Review of salmonid artificial production in the Columbia River Basin. Independent Scientific Advisory Board 98-33, Portland, OR.

Independent Scientific Advisory Board (member). 1998. Independent Scientific Advisory Board Review of "Development of a Regional Framework for Fish and Wildlife Restoration in the Columbia River Basin." ISABA 98-6, Portland, OR.

Independent Scientific Advisory Board (member). 1998. Recommendation for stable flows in the Hanford Reach during the time when juvenile fall chinook are present each spring. Northwest Power Planning Council, Portland, OR.

Lichatowich, J. A. 1998. A conceptual foundation for the management of native salmonids in the Deschutes River. (with assistance from R. Williams and J. Nathan) Portland General Electric, Portland, OR.

Williams, R. , J. Lichatowich, P. Bisson, C. Countant, R. Francis, D. Goodman, N. Huntly, L. McDonald, B. Riddell, J. Stanford, and S. Hanna. 1997. Review of the Columbia River Basin Fish and Wildlife Program as directed by the 1996 amendment to the Power Act. Independent Scientific Review Panel, ISRP Report 97-1, Portland, OR.

Lichatowich, J. A. 1997. Three Sections for the Revised Oregon Coastal Salmon Restoration Initiative. (Independent Scientific Audit, Conceptual Foundation, Pacific Salmon Restoration: An Historical Perspective) Salem, OR.

Lichatowich, J. A. 1996. Review of Oregon's Coastal Salmon Restoration Initiative. Commissioned by Portland Audubon Society through funding from W. Alton Jones Foundation.

Independent Scientific Group. 1996. (Draft) Return to the river: Restoration of salmonid fishes in the Columbia River ecosystem. Northwest Power Planning Council, Portland, OR

Oregon Business Council. 1996. A new vision for Pacific Salmon. Developed by J. A. Lichatowich for Oregon Business Council, Portland, OR.

Lichatowich, J. A. 1996. A review of Trout Unlimited's salmon restoration projects in Southern Puget Sound. Trout Unlimited, 1500 Wilson Boulevard, Suite 310, Arlington, VA.

Lichatowich, J. A., L. E. Moberg, R. J. Costello and T. S. Vogel. 1996. A history of frameworks used in the management of Columbia River chinook salmon. Report submitted to Bonneville Power Administration, Portland, OR.

Lestelle, L. C., L. E. Mobrand, J. A. Lichatowich, and T. S. Vogel. 1996. Ecosystem Diagnosis and Treatment (EDT): Applied ecosystem analysis - A primer. Prepared for Bonneville Power Administration, Portland, OR.

McHenry, M. L., J. A. Lichatowich and R. Kowalski-Hagaman. 1996. Status of Pacific Salmon and their Habitats on the Olympic Peninsula, Washington. Lower Elwha Klallam Tribe, Port Angeles, WA.

Lichatowich, J. A. and L. Mobrand. 1995. Analysis of chinook salmon in the Columbia River from an ecosystem perspective. Bonneville Power Administration, DOE/BP-25105, Portland, OR.

Lichatowich, J. A. 1994. Review of salmon and steelhead restoration above Condit Dam in the White Salmon River, Washington. Prepared for Pacific Corp, Portland, OR, 64 p.

Whitney, R. R., L. D. Calvin, C. C. Coutant, J. A. Lichatowich, W. J. Liss, J. A. Stanford and R. N. Williams. 1993. Critical uncertainties in the Fish and Wildlife Program. SRG Report Number 93-3, Bonneville Power Administration, Portland, OR.

Lichatowich, J. A. 1993. Oral history of Dungeness River salmon. An Interview with Dick Goin. Prepared for Jamestown S'Klallam Tribe, Sequim, WA, 12 p.

Lichatowich, J. A. 1993. The status of anadromous fish stocks in the streams of eastern Jefferson County, Washington. Prepared for Dungeness-Quilcene Pilot Project, Jamestown S'Klallam Tribe, Sequim, WA, 102 p.

Lichatowich, J. A. 1993. Dungeness River pink and chinook salmon historic abundance, current status, and restoration. Prepared for Jamestown S'Klallam Tribe, Sequim, WA , 55 p.

Lichatowich, J. A. 1993. Review of the influence exerted by environmental factors on spring chinook salmon in the Dungeness River. Prepared for Jamestown S'Klallam Tribe, Sequim, WA, 23 p.

Lichatowich, J. A., L. G. Gilbertson, and L. E. Mobrand. 1993. A concise summary of Snake River chinook production. Technical assistance to the Snake River Salmon Recovery Team. Mobrand Biometrics, Inc., Vashon, WA.

Lichatowich, J. A. and B. Watson. 1993. Use of artificial propagation and supplementation for rebuilding salmon stocks listed under the Endangered Species Act: Recovery issues for threatened and endangered Snake River salmon: Technical Report 5 of 11. DOE/BP-99654-5 U.S. Dept. of Energy, Bonneville Power Administration, Division of Fish and Wildlife, Portland, OR, 103 p.

Lichatowich, J. A. 1993. Ocean carrying capacity: Recovery issues for threatened and endangered Snake River salmon: Technical Report 6 of 11. DOE/BP-99654-6, U.S. Dept. of Energy, Bonneville Power Administration, Division of Fish and Wildlife, Portland, OR, 25 p.

Lichatowich, J. A. 1993. The status of Pacific salmon stocks in the Quilcene Ranger District. Prepared for U.S. Forest Service, Olympic National Forest, Quilcene Ranger District, Quilcene, WA , 62 p.

Lichatowich, J. A. 1993. Historical perspective Pacific Northwest Salmon. Prepared for The Wilderness Society, 1424 Fourth Ave., Room 816, Seattle, WA 98101-2217.

Regional Assessment Supplementation Project. 1992. Supplementation in the Columbia Basin: Summary Report Series. DOE/BP-01830-14, U.S. Dept. of Energy, Bonneville Power Administration, Division of Fish and Wildlife, Portland, OR. (J. A. Lichatowich one among 15 contributors to report)

Lichatowich, J. A. 1992. Umatilla River Basin natural production monitoring and evaluation plan. Report to Confederated Tribes of the Umatilla Indian Reservation, Pendleton, OR.

J. Browne, T. Cross, W. Crozier, L. P. Hansen, J. A. Lichatowich, D. Piggins, T. Potter, B. Riddell, D. Shaughnessy, and N. Wilkins. 1990. The effects of stocked salmon and cage escapees on resident wild salmon stocks. An International Workshop organized by Matt Murphy, Sherkin Island Marine Station, Sherkin Island, Co. Cork, Ireland. May 23-25, 1990.

Hiss, J. and J. A. Lichatowich. "Executive Summary of the Dungeness River IFIM Study." Prepared for the Dungeness River Management Team, September 25, 1990.

Lichatowich, J. A. and S. P. Cramer. 1977. Parameter selection and sample sizes in studies of anadromous salmonids. Information Report Series, Fisheries No. 80-1. Oregon Department of Fish and Wildlife, Corvallis, OR, 25 p.

Lichatowich, J. A., H. H. Wagner, and T. Nickelson. 1978. Summary of the salmon task force meetings. Oregon Department of Fish and Wildlife, Corvallis, OR, manuscript 37 p.

Schluchter, M. and J. A. Lichatowich. 1977. Juvenile life histories of Rogue River spring chinook salmon as determined from scale analysis. Information Report Series, Fisheries No. 77-5. Oregon Department of Fish and Wildlife, Corvallis, OR, 24 p.

Lichatowich, J. A. 1977. Progress Report, Rogue Basin Evaluation Program, Oregon Department of Fish and Wildlife to Portland District, U.S. Army Corps of Engineers, Portland, OR, 86 p.

Lichatowich, J. A. 1976. Annual Report, Rogue Basin Evaluation Program, Oregon Department of Fish and Wildlife to Portland District, U.S. Army Corps of Engineers, Portland, OR, 68 p.

Lichatowich, J. A. 1974. Assessment of research needs to evaluate the impact of the Rogue Basin plan on the Rogue fishery resource. To Oregon Wildlife Commission, Corvallis, OR, 80 p.

Lichatowich, J. A., W.L. Templeton, and J.R. Vanderhorst. 1973. Thermal resistance of marine organisms. 1972 Annual Report to USAEC, Division of Biology and Medicine.

Strand, J. A., W. L. Templeton, and J. A. Lichatowich. 1973. Bioenvironmental effects of thermal effluents in marine waters. 1971 Annual Report to USAEC, Division of Biology and Medicine.

Strand, J. A., J. A. Lichatowich, and P. W. O'Keefe. 1973. Research report on the fate and effects of oil in the marine environment. To American Petroleum Institute, Committee on Environmental Affairs, 200 p.

Strand, J. A. and J. A. Lichatowich. 1971. Research report on the effects of insulation board plant (IBP) effluents on marine biota of Oakland Bay, Washington. To Simpson Timber Company, Redmond, WA, 91 p.

Strand, J. A. and J. A. Lichatowich. 1970. Research report on development of bioassay procedures for oil and oil dispersant chemicals. To American Petroleum Institute, Committee on Environmental Affairs, 110 p.

SOCIETIES AND ORGANIZATIONS

National Fish and Wildlife Foundation, Science Advisor
Wild Salmon Center, Scientific Advisor
Washington Trout, Board Member
Bonneville Environmental Foundation, Board Member
American Fisheries Society
Phi Kappa Phi
Sigma Xi

AWARDS

River Stewardship Award, Metro, Oregon Trout, Mt. Hood National Forest and Portland Water Bureau, 2002
Scientific Contribution of the Year, Native Fish Society, 2002
Distinguished Graduate Award, Oregon State University Department of Fisheries and Wildlife, May 8, 2000
American Fisheries Society Award of Merit, Western Division 2000
Washington Trout Conservationist of the Year, 2000
Oregon Rivers Council Conservation Achievement Award, 1992.
Trout Unlimited, Conservation Award, 1992
American Fisheries Society Award of Merit, Western Division, 1992
Clallam County, Washington Conservation Education Award, 1991
Oregon Trout, Wild Trout Award, 1987
American Fisheries Society Award of Merit, 1977
Graduated with Honors, Oregon State University, 1969
Crown Zellerbach Scholarship in Fisheries, 1967