

Curriculum Vitae

Dr. MARVIN L. ROSENAU

Fish, Wildlife and Recreation Program
Instructor
BC Institute of Technology
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Burnaby, British Columbia
CANADA V5G 3H2



CAREER OBJECTIVE

To work in the field of fisheries/aquatic biology and environmental management, protection and science

EDUCATION

Doctor of Philosophy (science)	University of Waikato, Hamilton, NEW ZEALAND Supervisor: Dr Anne Chapman	1992
Master of Science (zoology)	University of British Columbia, Vancouver, CANADA Supervisor: Dr J. D. McPhail	1984
Bachelor of Science (honors)	University of British Columbia, Vancouver, CANADA Supervisor: Dr J. D. McPhail	1978

WORK HISTORY

Visiting Scholar, Australian Rivers Institute, Griffith University, Brisbane, Australia	2010
Instructor Fisheries Ecology and Management RENR 3225, 4224 Environmental Monitoring RENR 3190 British Columbia Institute of Technology	2006-
Instructor (secondment) Fisheries Ecology and Management RENR 3225, 4225 Environmental Monitoring RENR 3190 British Columbia Institute of Technology	2005-2006
Visiting Scientist (secondment) 2003-04 UBC Fisheries Centre (Dr Daniel Pauly, Supervisor)	
Fisheries Biologist – Sturgeon, Urban Fisheries, Endangered Fish Species,	1991-2006

**Hydro-Electric Fisheries Impacts, River Sediment
Management, Development Impacts on Floodplains,
Chair Habitat Conservation Fund Technical Cttee**

BC Ministry Environment/Water, Land and Air Protection/
Environment, Lands, and Parks

Director	1997-03
Fraser River Sturgeon Conservation Society	
Research and Reporting Habitat Issues Contracts for:	1998-09
Pacific Fisheries Resource Conservation Council	
Principal and Senior Fisheries Biologist/Scientist	1990-91
Marvin L. Rosenau Consulting Company, British Columbia	
Doctoral Student—Fisheries	1987-92
University of Waikato, Hamilton, New Zealand	
Salmon Stock-Assessment Fisheries Technician	1986
Pacific Salmon Commission, British Columbia	
Director and Sport-Fisheries Biologist (volunteer)	1984-87
Fraser Valley Salmon Society, British Columbia	
Highway-Construction-Impacts Fisheries Biologist	1984-86
Andrew Consulting Limited, British Columbia	
Railroad-Construction-Impacts Habitat Biologist	1983-84
DB Lister and Associates, British Columbia	
Salmonid Habitat-Research Fisheries Biologist/Technician	1982-83
BC Fish and Wildlife Branch, Ministry of Environment, British Columbia	
Master’s Graduate Student—Zoology (fisheries)	1979-84
University of British Columbia, Vancouver, British Columbia	
Biology of the Fishes Laboratory Instructor	1979-81
University of British Columbia, Vancouver, British Columbia	
Hydro-Electric Dam Construction Impacts—Fisheries Technician	1978
University of British Columbia, Vancouver, British Columbia	
Student Laboratory Technician	1977
University of British Columbia, Vancouver, British Columbia	

SCIENTIFIC and RELATED AWARDS

Roland Michener Conservation Award—Canadian Wildlife Federation	2010
Ted Barsby Award for outstanding contribution to conservation—BC Wildlife Federation	2009
Murray A. Newman Award for excellence in aquatic conservation—Vancouver Public Aquarium	1999

American Fisheries Society –“Best Paper Award” nomination (Transactions of the American Fisheries Society) 1988

Hilary Jolly Memorial Scholarship – University of Waikato DPhil Scholarship 1987

LEGAL EXPERT WITNESS

Min. Environment Lands and Parks v Horth 1999 gravel removal—MELP successfully defended appeal
BC Environmental Appeal Board hearing

Regina v Nguyen 2002 sturgeon poaching—conviction, jail term

Regina v Le 2004 sturgeon poaching—conviction, jail term

Regina v Douglas/Douglas/Quipp 2004 gravel removal HADD—no conviction

Regina v Goodman/Osadiuk/Bond 2005 sediment removal HADD—conviction

Quock, Dennis Jakesta, Doe, Doe, and persons 2007 fish habitat Klappan River—defendants successful
unknown v Shell Canada Energy

Cassiar Watch v Regina and Shell Canada Energy 2009 fish habitat—Cassiar Watch

VOLUNTEER

BC Wildlife Federation—2009-present—scientific and technical advice (gravel removal, Northern Gateway Enbridge Douglas Channel oil shipping)

Save Our Rivers Society—2008-present—Board of Advisors—scientific and technical advice

Fraser River Gravel Stewardship Committee—2007—scientific, technical and bureaucratic advice

Citizens Against Urban Sprawl Society (CAUSS)—2005-present—scientific and technical advice

Fraser River Sturgeon Conservation Society—1997 to 2003, 2006-present—director and scientific/technical advice

Alouette River Management Society—1994-present—scientific and technical advice

Fraser Valley Salmon Society –1984-1986—director
—2006-present—scientific and technical advice

THESES, PUBLICATIONS AND REPORTS

THESES

- Rosenau, M.L. 1992. The fluvial biology of Lake Taupo rainbow trout (*Oncorhynchus mykiss*). Doctor of Philosophy Thesis, University of Waikato, Hamilton, New Zealand. 214 pp. & appendices.
- Rosenau, M.L. 1984. A comparison of agonistic behaviour between two populations of juvenile coho salmon (*Oncorhynchus kisutch*). Master of Science Thesis, University of British Columbia, Vancouver, BC, Canada. 78 pp. & appendix.
- Rosenau, M.L. 1978. Interspecific aggression in Dolly Varden char (*Salvelinus malma*) and coastal cutthroat trout (*Salmo clarki*). Bachelor of Science (Honours) thesis, University of British Columbia, Vancouver, BC, Canada. 45 pp. & appendices.

PRIMARY SCIENTIFIC JOURNALS

- Perrin, C.J., M.L. Rosenau, B. Stables, and K. Ashley. 2006. Restoration of a montane reservoir fishery via biomanipulation and nutrient addition. *North American Journal of Fisheries Management* 26:391-407.
- Nelson, T. C., M. L. Rosenau, and N. T. Johnston. 2005. Behavior and survival of wild and hatchery-origin winter steelhead spawners caught and released in a recreational fishery. *North American Journal of Fisheries Management* 25:931-943.
- Stables, T.B., C.J. Perrin, and M.L. Rosenau. 2005. Acoustic and trawl surveys to locate eulachon aggregations in the lower Fraser River, British Columbia. *North American Journal of Fisheries Management* 25:675-688.
- Perrin, C.J., L.L. Rempel, and M.L. Rosenau. 2003. White sturgeon spawning habitat in an unregulated river: Fraser River, Canada. *Transactions of the American Fisheries Society*. 132:154-165.
- Veinott, G., T.G. Northcote, M. L. Rosenau, and R. D. Evans. 1999. Concentrations of strontium in the pectoral fin rays of the white sturgeon (*Acipenser transmontanus*) by laser ablation sampling-inductively coupled plasma-mass spectrometry as an indicator of marine migrations. *Canadian Journal of Fisheries and Aquatic Sciences* 56:1981-1990.
- Rosenau, M.L. 1991. Natal-stream rearing in three populations of rainbow trout in Lake Taupo, New Zealand. *New Zealand Journal of Marine and Freshwater Research* 25:81-91.
- Murray, C.B., J.D. McPhail, and M.L. Rosenau. 1989. Reproductive and developmental biology of kokanee (*Oncorhynchus nerka*) from Upper Arrow Lake, British Columbia. *Transactions of the American Fisheries Society* 118:503-509.
- Murray, C.B., and M.L. Rosenau. 1989. Rearing of juvenile chinook salmon in nonnatal tributaries of the lower Fraser River, British Columbia. *Transactions of the American Fisheries Society* 118:284-289.
- Rosenau, M.L., and J.D. McPhail. 1987. Inherited differences in agonistic behaviour between two populations of coho salmon. *Transactions of the American Fisheries Society* 116:646-654.

SYMPOSIA POSTERS/PRESENTATIONS/PROCEEDINGS

- Wilson, G., Ashley, K., Harris, S., Stockner, J., McCusker, M., Rosenau, M., Woodruff, P., Sebastian, D., Dolecki, D., Vidmanic, L., Reddekopp, S., and R. Land. 2007. Restoration of coastal reservoir salmonid populations

- by inorganic fertilization: Alouette Reservoir, British Columbia, British Columbia, Canada. SIL 30th Congress of the International Association of Theoretical and Applied Limnology, Montreal, Quebec August 12-18 Palais des Congres.
- Nelson, T.C., W.J. Gazey, K.K. English, M.L. Rosenau, and R. Hansen. 2006. Using the population of white sturgeon (*Acipenser transmontanus*) in the lower Fraser River as an indicator of eco-change in the greater strait of Georgia. Global Challenges Facing Oceanography and Limnology conference, ASLO, June 4-9, Victoria, B.C.
- Rosenau, M.L., and M. Angelo. 2006. Low flows and increased temperatures are concerns for salmonid management of the Nicola River basin as the human demand for water increases and climate changes in south central British Columbia. Canadian Conference for Fisheries Research, January 5-7, 2006, Calgary, Alberta.
- Rosenau, M.L., and M. Angelo. 2005. Low flows and increased temperatures are concerns for salmonid management of the Nicola River basin as the human demand for water increases and climate changes in south central British Columbia. Climate and fisheries—Impacts, Uncertainties and responses of ecosystems and communities. Victoria Conference Centre, October 26-28, 2005, Victoria, British Columbia.
- Nelson, T.C., W.J. Gazey, K.K. English, and M.L. Rosenau. 2005. Success through Stewardship: White Sturgeon Monitoring and Assessment in the Lower Fraser River, B.C. In T.D. Hooper, editor. Proceedings of the Species at Risk 2004 Pathways to Recovery Conference. March 26, 2004, Victoria, British Columbia. Species at Risk 2004 Pathways to Recovery Conference Organizing Committee, Victoria, British Columbia.
- Perrin C.J., M.L. Rosenau, B. Stables, and K. Ashley. 2004. Restoration of a montane reservoir fishery using biomanipulation and nutrient addition. Lakes: Habitat for fish, habitat for people. November 3-5, 2004, Victoria, British Columbia. North American Lake Management Society.
- Nelson, T.C., R. Hansen, M.L. Rosenau, W.J. Gazey, and K.K. English. 2004. Success through stewardship: conservation of white sturgeon in the Lower Fraser River, B.C. Fourth World Fisheries Congress, May 2-6, 2004, Vancouver, BC.
- Nelson, T.C., M.L. Rosenau, and Rick Hansen. 2003. Success through stewardship: white sturgeon monitoring and assessment in the Lower Fraser River, BC 2003 Georgia Basin/Puget Sound Research Conference March 31-April 3rd, 2003.
- McCusker, M., G. Wilson, and M.L. Rosenau. 2002. Alouette Reservoir fertilization project, MELP, Lower Mainland Region, Surrey, British Columbia. for: Restoring Nutrients to Salmonid Ecosystems American Fisheries Society Conference, Eugene Oregon, 2002.
- Perrin, C., and M.L. Rosenau. 2002. Fish population restoration in a small oligotrophic reservoir using a coupling of nutrient addition and biomanipulation strategies. Limnotek R&D Inc., Vancouver, British Columbia. Restoring Nutrients to Salmonid Ecosystems, American Fisheries Society Conference, Eugene Oregon, 2002.
- Perrin, C.J., and M.L. Rosenau. 1998. Fish Stocking Strategies and Fertilization with Inorganic Nutrients for Restoration of kokanee and depletion of stickleback in a BC Reservoir. 1998 Meeting, Western Division American Fisheries Society, Alaska.
- Rosenau, M.L., and E.D. Lane. 1994. Status of the white sturgeon, *Acipenser transmontanus* (Pisces: Acipenseridae), in North America with special reference to Fraser River, British Columbia, populations. Oral presentation for: The International Conference on Sturgeon Biodiversity and Conservation. The Hudson River Foundation and the American Museum of Natural History, New York, New York, USA, July 28-30, 1994.

Rosenau, M.L., R. Snowdown, and K.D. Adam. 1991. Adaptive variation in two populations of rainbow trout from Lake Taupo, New Zealand. Poster paper for: Genetic Conservation of Salmonid Fishes Symposium. NATO Advanced Study Institute, Moscow, Idaho and Pullman, Washington, USA.

PACIFIC FISHERIES RESOURCE CONSERVATION COUNCIL REPORTS

Rosenau, M.L., and M. Angelo. 2009. Landscape level impacts to salmon and steelhead stream habitats in British Columbia. Pacific Fisheries Resources Conservation Council Background Paper. 129 pp.

Rosenau, M.L., and M. Angelo. 2007. Saving the heart of the Fraser: addressing human impacts to the aquatic ecosystem of the Fraser River, Hope to Mission British Columbia. Pacific Fisheries Resources Conservation Council Background Paper. 133 pp.

Rosenau, M.L., and M. Angelo. 2005. Conflicts between agriculture and salmon in the eastern Fraser Valley. Pacific Fisheries Resources Conservation Council Background Paper. 136 pp.

Rosenau, M.L., and M. Angelo. 2003. Conflicts between people and fish for water: Two British Columbia salmon and steelhead rearing streams in need of flows. Pacific Fisheries Resources Conservation Council Background Paper. 83 pp.

Rosenau, M.L., and M. Angelo. 2001. The role of public groups in protecting and restoring freshwater habitats in British Columbia, with a special emphasis on urban streams. Pacific Fisheries Resources Conservation Council Background Paper. 58 pp.

Rosenau, M.L., and M. Angelo. 2000. Sand and gravel management and fish-habitat protection in British Columbia salmon and steelhead streams. Pacific Fisheries Resources Conservation Council Background Paper No. 2000/3. 70 pp.

Rosenau, M.L., and M. Angelo. 2000. Water Use Planning: a tool to restore salmon and steelhead habitat in British Columbia streams. Pacific Fisheries Resources Conservation Council Background Paper No. 2000/1. 13 pp.

Rosenau, M.L., and M. Angelo. 1999. Freshwater habitat. Pacific Fisheries Resources Conservation Council Background Paper No. 1999/1a. pp. 3-96.

TECHNICAL REPORTS and ARTICLES

Nelson, T.C., W.J. Gazey, D. Robichaud, K.K. English, T. Mochizuk, M.L. Rosenau, and M. McAllister. 2011. Status of white sturgeon in the lower Fraser River: Report on the findings of the lower Fraser River white sturgeon monitoring and assessment program. Fraser River Sturgeon Conservation Society. 23 pp. & appendices.

Rosenau, M.L. 2005. Conflicts between agriculture and salmon in the eastern Fraser Valley. Fish Bytes—The Newsletter of the Fisheries Centre, University of British Columbia 11:6-7.

Rosenau, M.L., T.C. Nelson, and W.J. Gazey. 2004. White sturgeon conservation in the lower Fraser River. Fish Bytes—The Newsletter of the Fisheries Centre, University of British Columbia 10:1-2.

Nelson, T.C., W.J. Gazey, K.K. English, and M.L. Rosenau. 2004. Status of white sturgeon in the lower Fraser River: Report on the findings of the lower Fraser River white sturgeon monitoring and assessment program 1999-2004. LGL Limited Environmental Research Associates. 32 pp. & tables & figures & appendices.

- Nelson, T.C., M.L. Rosenau, J. Rissling, CEJ Mussell, and P.A. Caverhill. 2004. Run timing, migration, distribution, spawning locations, survival-to-spawning, and survival-to-kelt of angler-caught wild and hatchery adult steelhead in the Vedder/Chilliwack River, BC. for: Ministry of Water, Land and Air Protection, British Columbia. by: LGL Limited Environmental Research Associates, Sidney, British Columbia. 33 pp. & tables & figures & appendices.
- Ellis, E., M. Church, and M. Rosenau. 2004. Characterization of 4 floodplain side channels of the lower Fraser River. Department of Geography, University of British Columbia, Vancouver, Canada. 104 pp. & appendices.
- Nelson, T.C., CEJ Mussell, P. van Dishoeck, and M. L. Rosenau. 2003. Assessment of steelhead and coho salmon behavior in the Capilano River related to East Abutment construction impacts using radio-telemetry techniques. Prepared for Ministry of Water, Land and Air Protection and the Greater Vancouver Regional District. LGL Limited Environmental Research Associates. 17 pp. & appendices.
- Rosenau, M.L., K.R. Conlin, R. Penner, D. Fields, P. Delaney, D. Mullen-Dalmer, and B. Turmel. 1998. Water-Use Plans: a mechanism involving stakeholders to manage water-use conflicts at Hydro facilities. In: Mountains to the sea: Human interaction with the hydrologic cycle. Editor: Y. Alila. Canadian Water Resources Association 51st annual conference proceedings, June 10-12, 1998, Victoria, B.C., Canada. pp. 154-159.
- Lane, E.D., M.L. Rosenau, and six others. 1995. The conservation of sturgeon stocks in the Lower Fraser River watershed: a baseline investigation of habitat, distribution, and age and population of juvenile white sturgeon (*Acipenser transmontanus*) in the Lower Fraser River, downstream of Hope BC. Habitat Conservation Fund Project Final Report, Fisheries and Aquaculture, Malaspina College, Nanaimo, British Columbia, Canada. 96 pp. + appendices.
- Inglis, S.D., and M.L. Rosenau. 1994. Non-tidal sturgeon angler fishery of the Lower Fraser River – angler card analysis. British Columbia Ministry of Environment, 10334-152A Street, Surrey, British Columbia, Canada. Regional Fisheries Report No. LM241. 46 pp. + appendices.
- Inglis, S.D., A. Lorenz, and M.L. Rosenau. 1992. Distribution and habitat of the endangered Salish sucker (*Catostomus sp.*). B.C. Environment, Lands and Parks, Fish and Wildlife Management, Surrey, B.C. Regional Fisheries Report No. LM230. 14 pp. + appendices.
- Rosenau, M.L., and B. Usher. 1992. Telephone survey to determine attitudes of anglers to proposed changes in non-tidal sturgeon fishing regulations in Region 2, 1992. BC Ministry of Environment, Lands and Parks, Regional Fisheries Report No. LM220, Region 2 Surrey, B.C. 10 pp. + appendices.
- Slaney, P.A., A.D. Martin, G.D. Taylor, M.L. Rosenau, G.E. Reid, and D.H.G. Ableson. 1984. Towards and effective management strategy for resident salmonid stream fisheries in British Columbia. British Columbia Fisheries Branch, Fisheries Technical Circular No. 66. 19 pp. + appendices.
- Slaney, P.A., M.L. Rosenau, A.D., Martin, G.D. Taylor, G.E. Reid, and D.H.G. Ableson. 1984. Yield, effort and catch characteristics of resident trout and char fisheries on streams. British Columbia Fisheries Branch, Fisheries Technical Circular No. 65. 11 pp. + appendices.
- Slaney, P.A., M.L. Rosenau, D.H.G. Ableson, and R.L. Morley. 1984. Habitat capability of the Nechako River for rainbow trout and char and the effects of various flow regimes. British Columbia Fisheries Branch, Fisheries Technical Circular No. 63. 28 pp. + appendices.

MANUSCRIPT REPORTS

- Rosenau, M.L., D. Wilson, L. Dutta, B. Clark, and C. Lawson. 1993. Assessment of the stranding of fish during normal evening peaking-plant water-flow reductions. BC Hydro Lower Mainland Technical Committee for Fisheries. 8 pp.
- Rosenau, M.L., and P.A. Slaney. 1991. A population assessment and stocking evaluation of rainbow trout in the Sumallo River. For Ministry of Environment, Recreational Fisheries Branch, Research and Development Section, UBC, Vancouver, B.C. Marvin L. Rosenau, Fisheries Consulting, Abbotsford, B.C., Canada. 82 pp.
- Rosenau, M.L. 1990. Monitoring of fisheries concerns during the stream-channel reconstruction of the upper Deadman River at Vidette Lake Bridge. For Interior Roads, Ltd, Kamloops, B.C. Marvin L. Rosenau, Fisheries Consulting, Abbotsford, B.C. 12 pp.
- Rosenau, M.L. 1990. 1990 Flood assessment/monitoring of fisheries concerns in the South-Central Interior British Columbia: Deadman and Bonaparte Rivers. For Ministry of Environment, Kamloops, B.C. Marvin L. Rosenau, Fisheries Consulting, Abbotsford, B.C. 48 pp. + appendices
- Rosenau, M.L., F.J. Andrew, and L. Berg. 1987. Protection of Coldwater River salmonid habitat from potential effects of Coquihalla Highway construction. Andrew Consulting Limited, Burnaby, B.C., Canada. 6 pp. + appendices.
- Berg, L., F.J. Andrew, and M.L. Rosenau. 1987. Methods for evaluating highway construction impacts on salmonid rearing habitat in Coldwater River. Andrew Consulting Limited, Burnaby, B.C., Canada. 42 pp.
- Andrew, F.J., L. Berg, and M.L. Rosenau. 1986. Thompson River salmonid enhancement opportunities. Andrew Consulting Limited, Burnaby, B.C., Canada. 96 pp.
- Rosenau, M.L., L. Berg, and F.J. Andrew. 1985. Data report for evaluation of effects of highway construction on salmonid rearing habitat in Coldwater River. Andrew Consulting Limited, Burnaby B.C. Canada. 76 pp.
- Lister, D.B., and M.L. Rosenau. 1984. Report on fish investigation studies. In: Environmental design report – CN Twin Track Project Valemount to Vancouver – Albreda Sub. Mile 123.4 to Clearwater Sub. Mile 8.5. D.B. Lister and Associates Limited, Clearbrook, B.C., Canada. 24 pp. + appendices.
- Rosenau, M.L., and P.A. Slaney. 1983. A preliminary capability model for estimating the standing crop of resident salmonids in streams. British Columbia Fisheries Branch, University of British Columbia, Vancouver, B.C., Canada, 19 pp.