

## Peter R. Leavitt: Professional Experience

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### Education:

Ph.D. 1989, Aquatic Biology, University of Notre Dame, Notre Dame, Indiana, USA.  
M.Sc. 1985, Limnology, Queen's University, Kingston, Ontario, Canada.  
B.Sc. 1981, Biology, Honours, 1st class, Queen's University, Kingston, Ontario, Canada.

### Research Experience:

Director. Canadian Institute of Ecology and Evolution (2012-present).  
Canada Research Chair in Environmental Change and Society (Tier I). University of Regina, Regina, Saskatchewan. (2003-2010; renewed 2010-2017).  
Director. Institute for Environmental Change and Society (IECS) (formerly Environmental Quality Analysis Laboratory, EQAL), University of Regina, Regina, Saskatchewan. (2000-present).  
Professor. Department of Biology, University of Regina, Regina, Saskatchewan. (2001-present).  
Fulbright Visiting Research Chair, University of California-Santa Barbara, Santa Barbara, California (2015).  
Center Fellow. National Center for Ecological Analysis and Synthesis, University of California-Santa Barbara, Santa Barbara, California (2007).  
Visiting Scholar. Department of Zoology, University of Washington, Seattle, Washington. (2000).  
Associate Professor. Department of Biology, University of Regina, Regina, Saskatchewan. (1997-2001).  
Assistant Professor. Department of Biology, University of Regina, Regina, Saskatchewan. (1993-1997).  
NSERC Research Fellow. Department of Zoology, University of Alberta, Edmonton, Alberta. Supervisor: D.W. Schindler (Jan. 1991-July 1993).  
Visiting Fellow. Freshwater Institute, Winnipeg, Manitoba. Supervisor: R. Hesslein. (Jan-July 1990).  
Postdoctoral Researcher. Center for Limnology, University of Wisconsin-Madison, WI. Supervisor: S.R. Carpenter (1989-1991).

### Research Interests:

Coupled Human-Natural Systems; Pathways of energy and mass transfer; Human impacts on environment; Climate change and social response; Long-term ecological research (LTER); Regulation of ecosystem structure and function; Variation as a system property; Social controls of biophysical environments; Paleolimnology and Paleoecology; Global cycles of major elements (C, N, P); Pollution ecology; Urbanization and the water cycle; Socio-economic trade-offs with ecosystem services; Centennial-scale effects of agricultural development; Regulation of primary production; Limnology and Aquatic Ecology; Environmental change; Disturbance; Regulation of food-web structure; Water.

### Teaching Experience:

Lecturer: Biology 101 - General Biology (Regina) (1994-98, 2002)  
Biology 276 – Environmental Biology (Regina) (2002-06, 2008-10, 2012, 2016)

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Biology 335 - Limnology (Regina) (1994-98, 2001-06, 2008-14,2016)  
Biology 364 - Nonvascular Plants/Biology of Algae (Regina) (1995-98)  
Biology 490BP - Undergraduate Research Project (Regina) (2012)  
Biology 835 - Climate Change and Impacts (Regina) (2003)  
Biology 837 - Food-web Ecology (Regina) (1996)  
Biology 837 - Practical Analysis of Plant Pigments (Regina) (1995)  
Botany 491 - Practical Analysis of Plant Pigments (Alberta) (1989)  
Co-lecturer: Biology 803 – Scientific Research Skills (Regina) (2008, 2010, 2012-14,2016)  
Guest Lecturer: Biology 455 – Developmental Endocrinology (Regina)  
Biology 375 - Systems Ecology (Regina)  
Biology 476 - Quaternary Ecology and Palynology (Regina)  
Biology 275 - Ecology (Regina)  
Zoology 464 - Limnology (Alberta)  
Zoology 322 - Community Ecology (Alberta)  
Botany 333 - Aquatic and Wetland Plant Ecology (Alberta).

### **Publications:** (*PRL trainees, see p. 37*) (Career total 149 papers)

- Vogt, R.J., S. Sharma, and P.R. Leavitt. 2017. Direct and interactive effects of climate, meteorology, river hydrology, and lake characteristics on water quality in productive lakes of the Canadian Prairies. *Can. J. Fish. Aquat. Sci.* 74: In press.
- Baron, J.S., A. Specht, E. Garnier, P. Bishop, C. A. Campbell, F.W. Davis, B. Fady, D. Field, L.J. Gross, S. M. Guru, B.S. Halpern, S.E. Hampton, P.R. Leavitt, T.R. Meagher, J.N. Parker, P. Price, C.H., Rawson, A. Rodrigo, L.A. Sheble, and M. Winter. 2017. Synthesis centers as critical research infrastructure. *BioScience* 67: In press.
- Steinman, A.D., G.A. Lamberti, P.R. Leavitt, and D.G. Uzarski. 2017. Biomass and pigments of benthic algae. In F.R. Hauer and G.A. Lamberti (eds.), *Methods in Stream Ecology*. 3rd edition. Academic Press.
- Bunting, L., P.R. Leavitt, G.L. Simpson, B. Wissel, K.R. Laird, B.F. Cumming, A. St. Amand, and D.R. Engstrom. 2016. Increased variability and sudden ecosystem state change in Lake Winnipeg, Canada, caused by 20<sup>th</sup> century agriculture. *Limnol. Oceanogr.* 61: 2090–2107. doi: 10.1002/lno.10355.
- Murray, D.L., D. Morris, C. Lavoie, P.R. Leavitt, H. MacIsaac, M. Masson, M-A Villard. 2016. Bias in research grant evaluation has dire consequences for small universities. *PLoS One* 11(6): e0155876. doi:10.1371/journal.pone.0155876.
- Sayer, C.D., T.A. Davidson, R. Rawcliffe, P.G. Langdon, P.R. Leavitt, G. Cockerton, N.L. Rose and T. Croft. 2016. Consequences of fish kills for long-term trophic structure in shallow lakes: Implications for theory and restoration. *Ecosystems* 19: 1289–1309. doi: 10.1007/s10021-016-0005-z.
- Vuillemin, A., D. Ariztegui, P.R. Leavitt, L. Bunting, and the PASADO Science Team. 2016. Recording of climate and diagenesis through sedimentary DNA and fossil pigments at Laguna Potrok Aike, Argentina. *Biogeosciences* 13: 2475-2492. doi: 10.5194/bg-13-2475-2016.
- Stevenson, M.A., S. McGowan, N.J. Anderson, R.H. Foy, P.R. Leavitt, Y.R. McElearney, D.R. Engstrom and S. Pla-Rabés. 2016. Impacts of forest plantation management on primary production in upland lakes from north-west Ireland. *Global Change Biol.* 22: 1490-1504. doi: 10.1111/gcb.13194.
- Glibert, P.M., F.P. Wilkerson, R.C. Dugdale, J.A. Raven, C. Dupont, P.R. Leavitt, A.E. Parker, J.M.

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- Burkholder, and T.M. Kana. 2016. Pluses and minuses of ammonium and nitrate uptake and assimilation by phytoplankton and implications for productivity and community composition, with emphasis on nitrogen-enriched conditions. *Limnol. Oceanogr.* 61: 165-197. doi:10.1002/lno.10203.
- Maheaux, H., P.R. Leavitt, and L.J. Jackson. 2016. Asynchronous onset of eutrophication among shallow prairie lakes of the northern Great Plains, Alberta, Canada. *Global Change Biol.* 22: 271–283. doi: 10.1111/gcb.13076.
- Einarsson, Á., U. Hauptfleisch, P.R. Leavitt, and A.R. Ives. 2016. Identifying consumer-resource population cycles using paleoecological data. *Ecology* 97: 361–371. doi 10.1890/15-0596.1.
- Tse, T.J., L.E. Doig, P.R. Leavitt, Z.J. *Quiñones-Rivera*, G. Codling, B.T. Lucas, K. Liber, J.P. Giesy, H. Wheeler, and P.D. Jones. 2015. Long-term spatial trends in sedimentary algal pigments in a narrow river-valley reservoir, Lake Diefenbaker, Canada. *J. Great Lakes Res.* 41(Suppl. 2): 56-66. doi:10.1016/j.jglr.2015.08.002.
- Karmakar, M., P.R. Leavitt, and B.F. Cumming. 2015. Enhanced algal abundance in Northwest Ontario (Canada) lakes during the warmer early- to mid-Holocene period. *Quat. Sci. Rev.* 123: 168-179. doi:10.1016/j.quascirev.2015.06.025.
- Samways*, K.M., P.R. Leavitt, P. Magnan, M.A. Rodriguez, and P. Peres-Neto. 2015. Convergent polymorphism between stream and lake habitats: The case of brook charr. *Can. J. Fish. Aquat. Sci.*, 72: 1406-1414. doi: 10.1139/cjfas-2015-0116.
- Quiñones-Rivera*, Z.J., K. *Finlay*, R.J. *Vogt*, P.R. Leavitt, and B. Wissel. 2015. Hydrologic, metabolic and chemical regulation of water-column metabolism and atmospheric CO<sub>2</sub> exchange in a large continental reservoir during spring and summer. *J. Great Lakes Res.*, 41 (Suppl. 2): 144-154. doi:10.1016/j.jglr.2015.05.005.
- Donald, D.B., B.R. Parker, J.-M. Davies, and P.R. Leavitt. 2015. Nutrient sequestration in the Lake Winnipeg watershed. *J. Great Lakes Res.* 41: 630-642. doi:10.1016/j.jglr.2015.03.007.
- Lawrence, J.R., E. Topp, M.J. Waiser, V. Tumber, J. Roy, G.D.W. Swerhorne, P. Leavitt, A. Paule, and D.R. Korber. 2015. Resilience and recovery: The effect of triclosan exposure timing during development, on the structure and function of river biofilm communities. *Aquat. Toxicol.* 161: 253-266. doi:10.1016/j.aquatox.2015.02.012
- Taranu, Z.E., I. Gregory-Eaves, P.R. Leavitt, L. *Bunting*, T. Buchaca, J. Catalan, I. Domaizon, P. Guilizzoni, A. Lami, S. *McGowan*, H. Moorehouse, G. Morabito, F. Pick, M. A., Stevensen, P. L. Thompson, and R. D. *Vinebrooke*. 2015. Acceleration of cyanobacterial dominance in lakes in north temperate-subarctic lakes during the Anthropocene. *Ecol. Lett.* 18: 375-384. doi:10.1111/ele.12420.
- Finlay*, K., R.J. *Vogt*, M.J. *Bogard*, B. Wissel, B.M. Tutolo, G.L. Simpson, and P.R. Leavitt. 2015. Decrease in CO<sub>2</sub> efflux from northern hardwater lakes with increasing atmospheric warming. *Nature* 519: 215-218. doi:10.1038/nature14172.
- Brahney, J., A. Ballantyne, P. Kociolek, P.R. Leavitt, G.L. Farmer, and J.C. Neff. 2015. Ecological changes in alpine lake ecosystems associated with human activity and dust transport in western Wyoming. *Limnol. Oceanogr.* 60: 678–695. doi:10.1002/lno.10050.
- Samways*, K.M., Z. J. *Quiñones-Rivera*, P.R. Leavitt, and R.A. Cunjak. 2015. Spatio-temporal responses of algae, fungal and bacterial biofilm communities in Atlantic rivers receiving marine-derived nutrient inputs. *Freshwat. Sci.* 34: 881–896. doi:10.1086/681723.
- Vogt*, R.J., S. Sharma, and P.R. Leavitt. 2015. Decadal regulation of phytoplankton abundance and water clarity in a large continental reservoir by climatic, hydrologic and trophic processes. *J. Great Lakes Res.*, 41 (Suppl. 2): 81-90. doi:10.1016/j.jglr.2014.11.007.

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- Starks, E., R. Cooper, P.R. Leavitt, and B. Wissel. 2014. Effects of drought and pluvial periods on fish and zooplankton communities in prairie lakes: Systematic and asystematic responses. *Global Change Biol.* 20: 1032-1042. doi:10.1111/gcb.12359.
- Vogt, R.J., B. Matthews, T.P. Cobb, M.D. Graham, and P.R. Leavitt. 2013. Food web consequences of size-based predation and vertical migration of an invertebrate predator (*Leptodora kindtii*). *Limnol. Oceanogr.* 58: 1790–1801. doi:10.4319/lo.2013.58.5.1790.
- Haig, H.A., M.V. Kingbury, K.R. Laird, P.R. Leavitt, R. Laing, and B.F. Cumming. 2013. A multiproxy assessment of drought over the past two millennia in near-shore sediment cores from a Canadian Boreal lake. *J. Paleolimnol.* 50: 175-190. doi:10.1007/s10933-013-9712-z.
- Catalan J., S. Pla-Rabés, A.P. Wolfe, J.P. Smol, K.M. Rühland, N.J. Anderson, J. Kopáček, E. Stuchlík, R. Schmidt, K.A. Koinig, L. Camarero, R.J. Flower, O. Heiri, C. Kamenik, A. Korhola, P.R. Leavitt, R. Psenner, and I. Renberg. 2013. Global change revealed by palaeolimnological records from remote lakes: a review. *J. Paleolimnol.* 49: 513–535. doi:10.1007/s10933-013-9681-2.
- Rogers, L.A., D.E. Schindler, P.J. Lisi, G.W. Holtgrieve, P.R. Leavitt, L. Bunting, B.P. Finney, D.T. Selbie, G. Chen, I. Gregory-Eaves, M.J. Lisac, and P.B. Walsh. 2013. Centennial-scale fluctuations and regional complexity characterize Pacific salmon population dynamics over the last five centuries. *Proc. Nat. Acad. Sci. USA* 110: 1750-1755. doi:10.1073/pnas.1212858110.
- Bjerring, R., J. Olsen, B.V. Odgaard, B. Buchardt, J. Heinemeier, S. McGowan, P.R. Leavitt, and E. Jeppesen. 2013. Climate-driven changes in water level: a decadal scale multi-proxy recording of the 8.2 kyr cooling event in Lake Sarup (Denmark). *J. Paleolimnol.* 49: 267-285. doi:10.1007/s10933-012-9673-7.
- Donald, D.B., M.J. Bogard, K. Finlay, L. Bunting, and P.R. Leavitt. 2013. Phytoplankton-specific response to enrichment of phosphorus-rich surface waters with ammonium, nitrate and urea. *PLOS One* 8: e53277. doi:10.1371/journal.pone.0053277.
- McLauchlan, K.K., I. Lascu, A. Myrbo, and P.R. Leavitt. 2013. Variable ecosystem response to climate change during the Holocene in northern Minnesota, USA. *Bull. Geol. Soc. Am.* 125: 445–452. doi: 10.1130/B30737.1
- Orihel, D.M., D.F. Bird, M. Brylinsky, H. Chen, D.B. Donald, D.Y. Huang, A. Giani, D. Kinniburgh, H. Kling, B.G. Kotak, P.R. Leavitt, C.C. Nielson, S. Reedyk, R.C. Rooney, S.B. Watson, R.W. Zurawell, and R.D. Vinebrooke. 2012. High microcystin concentrations occur only at low nitrogen-to-phosphorus ratios in nutrient-rich lakes. *Can. J. Fish. Aquat. Sci.* 69: 1457-1462. doi:10.1139/F2012-088.
- Lascu, I., K.K. McLauchlan, A. Myrbo, P. R. Leavitt, and S.K. Banerjee. 2012. Sediment-magnetic evidence for last millennium drought conditions at the prairie-forest ecotone of northern United States. *Palaeogeogr. Palaeoclimat. Palaeoecol.* 237-238: 99-107.
- Bogard, M.J., D.B. Donald, K. Finlay, and P.R. Leavitt. 2012. Distribution and regulation of urea in lakes of central North America. *Freshwat. Biol.* 57: 1277-1292.
- McGowan, S., P. Barker, E.Y. Haworth, P.R. Leavitt, S. Maberly, and J. Pates. 2012. Humans and climate as drivers of algal community change in Windermere since 1850. *Freshwat. Biol.* 57: 260-277.

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- Levine, S.N., A. Lini, L. Ostrofsky, L. *Bunting*, H. Burgess, P.R. Leavitt, D. Reuter, A. Lami, and P. Guilizzoni. 2012. The eutrophication of Lake Champlain's northeast arm: Insights from paleolimnological analyses. *J. Great Lake Res.* 38 (Suppl. 1): 35-48.
- Holtgrieve, G.W., D.E. Schindler, W.O. Hobbs, P.R. Leavitt, E.J. Ward, L. *Bunting*, and 13 others. 2011. A coherent signature of anthropogenic nitrogen deposition to remote watersheds of the Northern Hemisphere. *Science* 334: 1545-1548.
- Donald, D.B., M. J. *Bogard*, K. *Finlay*, and P.R. Leavitt. 2011. Comparative effects of urea, ammonium, and nitrate on phytoplankton abundance, community composition, and toxicity in hypereutrophic freshwaters. *Limnol. Oceanogr.* 56: 2161-2175.
- Toney, J.L., Y. Huang, and P.R. Leavitt. 2011. Alkenones are common in prairie lakes of interior Canada. *Org. Geochem.* 42: 707-712.
- Chen, G., D.T. Selbie, B.P. Finney, D.E. Schindler, L. *Bunting*, P.R. Leavitt, I. Gregory-Eaves. 2011. Long-term zooplankton responses to subsidies of nutrients and consumers to coastal lakes arising from migratory sockeye salmon (*Oncorhynchus nerka*). *Oikos* 120: 1317-1326.
- Hampton, S.E., S.C. Fradkin, P.R. Leavitt, and E.E. Rosenberger. 2011. Disproportionate importance of nearshore habitat for the freshwater food web. *Mar. Freshwat. Res.* 62: 350-358.
- Vogt, R.J., J.A. *Rusak*, A. *Patoine*, and P.R. Leavitt. 2011. Differential effects of energy and mass influx on the landscape synchrony of lake ecosystems. *Ecology* 92: 1104-1114.
- Chen, G., E. Saulnier-Talbot, D. T. Selbie, E. Brown, D.E. Schindler, L. *Bunting*, P.R. Leavitt, B.P. Finney, and I. Gregory-Eaves. 2011. Salmon-derived nutrients drive diatom beta-diversity patterns. *Freshwat. Biol.* 56: 292-301.
- McGowan, S., P.R. Leavitt, R.I. *Hall*, B.B. Wolfe, T.W.D. Edwards, T. Karst-Riddoch, and S.R. Vardy. 2011. Inter-decadal declines flood frequency increase lake primary production in a northern river delta. *Glob. Change Biol.* 17: 1212-1224.
- Wissel, B., R.N. Cooper, P.R. Leavitt, and S.V. *Pham*. 2011. Hierarchical regulation of pelagic invertebrates in lakes of the northern Great Plains: A novel model for inter-decadal effects of future climate change. *Glob. Change Biol.* 17: 172-185.
- Finlay*, K., P.R. Leavitt, A. *Patoine*, and B. Wissel. 2010. Magnitudes and controls of organic and inorganic carbon flux through a chain of hard-water lakes on the northern Great Plains. *Limnol. Oceanogr.* 55: 1551-1564.
- Finlay*, K., A. *Patoine*, D.B. *Donald*, M. *Bogard*, and P.R. Leavitt. 2010. Experimental evidence that pollution with urea can degrade water quality in phosphorus-rich lakes of the northern Great Plains. *Limnol. Oceanogr.* 55: 1213-1230.
- Savage, C., P.R. Leavitt, and R. Elmgren. 2010. Effects of land use, urbanization, and climate variability on coastal eutrophication in the Baltic Sea. *Limnol. Oceanogr.* 55: 1033-1046.
- Bunting*, L. P.R. Leavitt, R.P. Weidman, and R.D. *Vinebrooke*. 2010. Regulation of the nitrogen biogeochemistry of mountain lakes by subsidies of terrestrial dissolved organic matter and the implications for climate studies. *Limnol. Oceanogr.* 55: 333-345.
- Reuss, N., P.R. Leavitt, R.I. Hall, C. Bigler, and D. Hammarlund. 2010. Development and application of sedimentary pigments for assessing effects of climatic and environmental changes on subarctic lakes in northern Sweden. *J. Paleolimnol.* 43: 149-169.
- Dröscher*, I., A. *Patoine*, K. *Finlay*, and P.R. Leavitt. 2009. Climate control of spring clear-water phase through the transfer of energy and mass to lakes. *Limnol. Oceanogr.* 54: 2469-2480.
- Finlay*, K., P.R. Leavitt, B. Wissel, and Y.T. *Prairie*. 2009. Regulation of spatial and temporal variability of carbon flux in six hard-water lakes of the northern Great Plains. *Limnol. Oceanogr.* 54: 2553-2564.

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- Leavitt, P.R. S.C. Fritz, N.J. Anderson, P.A. Baker, T. Blenckner, L. *Bunting*, J. Catalan, D.J. Conley, W. Hobbs, E. Jeppesen, A. Korhola, S. *McGowan*, K. Rühland, J.A. *Rusak*, G. Simpson, N. Solovieva, and J. Werne. 2009. Paleolimnological evidence of the effects on lakes of energy and mass transfer from climate and humans. *Limnol. Oceanogr.* 54: 2330-2348.
- Selbie, D.T., B.P. Finney, D. Barto, L. *Bunting*, G. Chen, P.R. Leavitt, E.A. MacIsaac, D.E. Schindler, M.D. Shapley, and I. Gregory-Eaves. 2009. Ecological, landscape, and climatic regulation of sediment geochemistry in North American sockeye salmon lakes: Insights from paleoecological salmon investigations. *Limnol. Oceanogr.* 54: 1733-1745.
- Edlund, M.B., D.R. Engstrom, L. Triplett, B.M. Lafrancois, and P.R. Leavitt. 2009. Twentieth-century eutrophication of the St. Croix River (Minnesota-Wisconsin, USA) reconstructed from the sediments of its natural impoundment. *J. Paleolimnol.* 42: 641-657.
- Xenopoulos, M.A., P.R. Leavitt, and D.W. Schindler. 2009. Ecosystem-level regulation of boreal lake phytoplankton by ultraviolet radiation. *Can. J. Fish. Aquat. Sci.* 66: 2002-2010.
- Hill, A.C., J.A. Stanford, and P.R. Leavitt. 2009. Recent sedimentary legacy of sockeye salmon (*Oncorhynchus nerka*) and climate change in an ultraoligotrophic, glacially-turbid British Columbia nursery lake. *Can. J. Fish. Aquat. Sci.* 66: 1141-1152.
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- Finlay, K., B. Wissel, and P.R. Leavitt. 2009. Spatial and temporal synchrony of  $p\text{CO}_2$  in six hardwater lakes of central Canada. *Verh. Internat. Verein. Limnol.* 30: 1061-1066.
- McGowan*, S., and P.R. Leavitt. 2009. The role of paleoecology in whole-ecosystem science. p. 161-208, *In* S. Miao, S. Carstenn, and M. Nungesser (eds.), *Real World Ecology: Large-scale and Long-term Case Studies and Methods*. Springer.
- Wolfe, B.B., R.I. *Hall*, T.W.D. Edwards, S.R. Vardy, M.D. Falcone, C. Sjunneskog, F. Sylvestre, S. *McGowan*, P.R. Leavitt, and P. van Driel. 2008. Hydroecological responses of the Athabasca Delta, Canada, to changes in river flow and climate during the 20<sup>th</sup> century. *Ecohydrology* 1: 131-148.
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- Pham, S.V., P.R. Leavitt, S. *McGowan*, and P. Peres-Neto. 2008. Spatial variability of climate and land use effects on lakes of the northern Great Plains. *Limnol. Oceanogr.* 53: 728-742.
- Patoine*, A., and P.R. Leavitt. 2008. Landscape analysis of the role of  $\text{N}_2$  fixation in satisfying algal demand for N in eutrophic lakes. *Verh. Internat. Verein. Limnol.* 30: 366-370.
- Dröscher*, I., K. *Finlay*, A. *Patoine*, and P.R. Leavitt. 2008. *Daphnia* control of the spring clear-water phase in six polymictic lakes of varying productivity and size. *Verh. Internat. Verein. Limnol.* 30: 186-190.
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- Hall, R.I., P.R. Leavitt, J.P. Smol, A. Dixit, and R. Quinlan. Novel uses of century-long environmental monitoring data in water quality evaluation. Ecological Monitoring and Assessment Network National Science Meeting. Saskatoon, SK, 1997.
- Hall, R.I., P.R. Leavitt, J.P. Smol, A. Dixit, and R. Quinlan. Effects of agriculture and sewage treatment on lakes of the northern Great Plains: A paleoecological perspective. Canadian Society for Landscape Ecology and Management. Regina, SK, 1996.
- \*Leavitt, P.R., R.I. Hall, J.P. Smol, A. Dixit, and R. Quinlan. Effects of agriculture and sewage treatment on lakes of the northern Great Plains: A paleoecological perspective. Ecological Society of America. Providence, RI, 1996.
- Leavitt, P.R., D.W. Schindler, D.L. Findlay, and J.P. Smol. Algal responses to DOC loss during whole-lake acidification: Evidence from paleolimnology. American Society of Limnology and Oceanography. Milwaukee, WI, 1996.
- Teichreb, C.J., M.D. Graham, and P.R. Leavitt. Role of dissolved organic carbon in regulating

## Peter R. Leavitt: Professional Experience

- nutrient availability in prairie lakes and reservoirs. American Society of Limnology and Oceanography. Milwaukee, WI, 1996.
- Cobb, T.P., M.D. Graham, and P.R. Leavitt. Sex and size-dependent diel migration of *Leptodora* in an unstratified lake. American Society of Limnology and Oceanography. Milwaukee, WI, 1996.
- Graham, M.D., P.R. Leavitt, T.P. Cobb, and R.H. Hesslein. Omnivory and selective feeding by zooplankton in an eutrophic lake. American Society of Limnology and Oceanography. Milwaukee, WI, 1996.
- Hall, R.I., J.P. Smol, and P.R. Leavitt. Comparison of fossil algal pigments and diatoms as measures of lake eutrophication. American Society of Limnology and Oceanography. Milwaukee, WI, 1996.
- Vinebrooke, R.D., and P.R. Leavitt. Epilithic and epipelagic periphyton responses to ultraviolet radiation and zoobenthos in an alpine lake. North American Benthological Society. Flathead Lake, MO, 1996.
- Leavitt, P.R., R.D. Vinebrooke, M.A. Reasoner, M. Hickman, R. Pienitz, and J.P. Smol. Regulation of primary production in alpine lakes by climatic change, forest development, and UV radiation. Society of Canadian Limnologists. Montreal, PQ, 1996.
- Graham, M.D., P.R. Leavitt, and R.H. Hesslein. Omnivory and zooplankton trophic position: Testing the existence of a trophic continuum. Society of Canadian Limnologists. Montreal, PQ, 1996.
- Smol, J.P., A. Dixit, R. Quinlan, P.R. Leavitt, and K. Muir. Long-term water quality changes in the Qu'Appelle Valley (SK) lakes and reservoirs: The paleolimnology of Pasqua Lake. Society of Canadian Limnologists. Montreal, PQ, 1996.
- Vinebrooke, R.D., and P.R. Leavitt. Responses of phytoplankton and periphyton to ultraviolet radiation and invertebrates in an alpine lake. Society of Canadian Limnologists. Montreal, PQ, 1996.
- \*Vinebrooke, R.D., and P.R. Leavitt. Impact of solar ultraviolet radiation on aquatic ecosystems. International Association of Great Lakes Research. Toronto, ON, 1996.
- Leavitt, P.R., and R.D. Vinebrooke. Effects of human activity and recent climatic variability on lakes of the Palliser triangle. 1996 Canadian Association of Geographers. Saskatoon, SK, 1996.
- \*Hall, R.I., P.R. Leavitt, J.P. Smol, A. Dixit, and R. Quinlan. Effects of agriculture and sewage treatment on prairie lakes: A paleoecological perspective. Canadian Association of Geographers. Saskatoon, SK, 1996.
- Quinlan, R., J.P. Smol, and P.R. Leavitt. Chironomid (Diptera: Chironomidae) as indicators of past hypolimnetic oxygen changes in Qu'Appelle Valley Lakes. Canadian Association of Geographers. Saskatoon, SK, 1996.
- Wilson, S., B.F. Cumming, R. Pienitz, J.P. Smol, P.R. Leavitt, and M. Heinrichs. Tracking climatic and other environmental changes in closed-basin lakes from western Canada: The PISCES II project. Symposium on Climatic Variations and Biodiversity Change during the Last Millennium. Geological Survey of Canada. Ottawa, ON, 1996.
- Hall, R.I., P.R. Leavitt, J.P. Smol, A. Dixit, and R. Quinlan. Effects of agriculture and sewage treatment on the Qu'Appelle Valley lakes: A paleoecological perspective. Workshop on Lakeshore Management in Saskatchewan. Canadian Water Resources Association. Saskatoon, SK, 1996.
- Leavitt, P.R., D. Sherbot, A. Dixit, R. Quinlan, and J.P. Smol. Water quality changes in prairie lakes and reservoirs: Paleolimnological tools to assist lake managers. North American Lake Management Society. Toronto, ON, 1995.

## Peter R. Leavitt: Professional Experience

- Leavitt, P.R., D. *Sherbot*, A. Dixit, R. Quinlan, and J.P. Smol. Water quality changes in prairie lakes and reservoirs: Paleolimnological tools to assist lake managers. Canadian Society of Environmental Biologists. Regina, SK, 1995.
- Stager, J.C., R.I. *Hall*, and P.R. Leavitt. Paleolimnology and the study of eutrophication in Upper Saranac Lake, New York. North American Lake Management Society. Toronto, ON, 1995.
- Leavitt, P.R., R.D. *Vinebrooke*, B.F. Cumming, and J.P. Smol. Evaluation of pigments as paleoclimatic indicators in saline lakes. Ecological Society of America. Snowbird, UT, 1995.
- Leavitt, P.R., R.D. *Vinebrooke*, M.A. Reasoner, M. Hickman, R. Pienitz, and J.P. Smol. Regulation of primary production in alpine lakes by climatic change and forest development. American Society of Limnology and Oceanography. Reno, NV, 1995.
- Graham*, M.D., and P.R. Leavitt. Variation in trophic position of aquatic invertebrates across a lake productivity gradient: testing the trophic continuum hypothesis. American Society of Limnology and Oceanography. Reno, NV, 1995.
- Cumming, B., S.E. Wilson, J.P. Smol, P.R. Leavitt, I. Walker, and M. Heinrichs. Paleolimnological reconstructions of climatic and other environmental changes in closed-basin lakes from western Canada: The PISCES II Project. Canadian Quaternary Association (CANQUA). St. John's, NFLD, 1995.
- Vinebrooke*, R.D., and P.R. Leavitt. Effects of UV radiation and macrograzers on periphyton in an alpine lake. ASLO. Reno, NV, 1995.
- Verschuren, D., C. Cocquyt, and P.R. Leavitt. Patterns and mechanisms of biotic change in a fluctuating tropical soda lake: Lake Sonachi (Kenya), ca. 1815 to present. American Society of Limnology and Oceanography. Reno, NV, 1995.
- Vinebrooke*, R.D., and P.R. Leavitt. Can high ambient UV radiation levels directly affect phototrophs in alpine lakes? Society of Canadian Limnologists. Ottawa, ON, 1995.
- Cumming, B.F., S.E. Wilson, R. Pienitz, J.P. Smol, B.A. Zeeb, P.R. Leavitt, and M. Heinrichs. Tracking climatic and other environmental changes in closed-basin lakes from Western Canada: the PISCES-II project. American Society of Limnology and Oceanography (ASLO) / North American Benthological Society (NABS) joint symposium on climatic change. Leesburg, VA, 1994.
- Cumming, B.F., S.E. Wilson, R. Pienitz, J.P. Smol, B.A. Zeeb, P.R. Leavitt, and M. Heinrichs. Paleolimnological investigations of salinity, climatic, and environmental shifts - II (PISCES II): tracking environmental changes in closed-basin lakes from Western and Northern Canada. American Quaternary Association (AMQUA). Minneapolis, MN, 1994.
- Leavitt, P.R., D.E. Schindler, and D.W. Schindler. Effects of trout introduction on primary production in a fishless alpine lake. American Society of Limnology and Oceanography. Miami, FL, 1994.
- \**Dibble*, K.M., and P.R. Leavitt. Regulation of pigment deposition by photo-oxidation and zooplankton grazing: an individual-based model. American Society of Limnology and Oceanography. Miami, FL, 1994.
- \*Leavitt, P.R., B.F. Cumming, and J.P. Smol. Evaluation of pigments as paleoclimatic indicators in saline lakes. Society of Canadian Limnologists. Saskatoon, SK, 1994.
- Leavitt, P.R., B.J. Hann, B.L. Zeeb, D.L. Findlay, and D.W. Schindler. Calibration of fossil pigments, diatoms, and Cladocera with 20 years of plankton data from eutrophic Lake 227, Experimental Lakes Area, Ontario, Canada. Sixth International Palaeolimnology Symposium. Canberra, Australia, 1993.
- Smol, J.P., B.F. Cumming, S.E. Wilson, I.R. Walker, and P.R. Leavitt. Paleolimnological

## Peter R. Leavitt: Professional Experience

- investigations of salinity, climatic and environmental shifts (the PISCES project):  
Reconstructing environmental trends from western Canada. Sixth International  
Palaeolimnology Symposium, Canberra, 1993.
- \*Leavitt, P.R., A.J. Paul, A.K. Hardie, K. Kidd, and D.W. Schindler. Selective herbivory by  
zooplankton in two alpine lakes: Results from HPLC analysis of body pigments. ASLO.  
Edmonton, AB, 1993.
- Paul, A.J., P.R. Leavitt, D.W. Schindler, and A.K. Hardie. Trophic interactions in fishless alpine  
lakes: Direct and indirect effects of predation by copepods. American Society of Limnology  
and Oceanography. Edmonton, AB, 1993.
- Leavitt, P.R. Comparison of 20 years of whole-lake eutrophication and annual fossil pigment records  
as indicators of ecosystem variability. American Society of Limnology and Oceanography.  
Santa Fe, NM, 1992.
- \*Leavitt, P.R. and S.R. Sanford. Multiple effects of piscivory on food-web structure: Evidence from  
paleolimnology. American Society of Limnology and Oceanography. Halifax, NS, 1991.
- \*Leavitt, P.R. Use of fossil pigments for interpretation of whole-lake experiments. IV International  
Phycological Congress Workshop, Durham, NC, 1991.
- Leavitt, P.R. Herbivore and nutrient regulation of algal blooms in eutrophic Lake Mendota. American  
Society of Limnology and Oceanography. Williamsburg, VA, 1990.
- Smol, J.P., I.R. Walker and P.R. Leavitt. Paleolimnology and hindcasting climatic trends. Soc.  
Internat. Limnol., Munich, 1989.
- Leavitt, P.R., P. Sanford and J.F. Kitchell. Road-building, hypolimnetic aeration, liming and food-  
web manipulation: The annual record of fossil pigments. Vth International Symposium on  
Paleolimnology, Ambleside, England, 1989.
- Leavitt, P.R. and S.R. Carpenter. Sedimentary pigment concentrations record changes in fish  
community composition. American Society of Limnology and Oceanography. Boulder, CO,  
1988.
- Leavitt, P.R. and S.R. Carpenter. Whole-lake experiments: The sedimentary record of algal pigments.  
Ecological Society of America. Davis, CA, 1988.
- Leavitt, P.R. and S.R. Carpenter. Pigment budgets: Comparisons of select carotenoids. American  
Society of Limnology and Oceanography. Madison, WI, 1987.
- Leavitt, P.R. and S.R. Brown. Effects of *Daphnia* grazing on the carotenoids of *Oscillatoria*  
*utermöhl*i. American Society of Limnology and Oceanography. Vancouver, B.C., 1984.

### Other Invited Presentations:

- 2016 Prairie Provinces Water Board, University of Regina.
- 2015 University of California-Santa Barbara (3).
- 2012 File Hills Qu'Appelle Tribal Council, Sakimay First Nations Chief's Council, National Vice-  
Presidents Academic Association.
- 2011 Premier of Manitoba.
- 2010 University of Minnesota, University of Regina, Manitoba Water Stewardship.
- 2009 Last Mountain Lake Stewardship Association.
- 2008 Raincoast Conservation Foundation/Fisheries and Oceans Canada, Manitoba Clean  
Environment Commission.
- 2007 National Center for Ecological Analysis and Synthesis (NCEAS).
- 2006 NOAA (Seattle), McGill University, University of Lethbridge, Last Mountain Lake  
Watershed Advisory Committee.

## Peter R. Leavitt: Professional Experience

- 2005 SK Watershed Authority.
- 2004 University of Victoria, Alberta Environment Prairie Drought Workshop, US Long Term Ecological Research (LTER) Network Variability-Disturbance Workshop, University of Regina.
- 2003 Danish National Environmental Research Institute (LIMPACS, 2), Norlakes Symposium, (1), University of Minnesota (4), University of Alberta (2). Semi-Arid Network Workshop (PARC).
- 2002 Cornell University (2), University of Saskatchewan (2), University of Stockholm, Lund University.
- 2001 SaskPower Corporation, University of Arizona, Institute for Ecosystems Studies, Great Lakes Environmental Research Lab., University of Montreal, US-Geological Survey.
- 2000 University of Washington (5), University of Umeå, Sweden (4), University of Stockholm.
- 1999 BIOCAP Canada, Duke University, National Aeronautics and Space Administration, North Dakota State University, University of Montreal (in french), US Environmental Protection Agency, Government of Saskatchewan.
- 1998 University of Montana.
- 1997 British Antarctic Survey, Danish National Environmental Research Institute, University of Saskatchewan, University of Copenhagen-Hillerød.
- 1996 Loyola University of Chicago, Université Laval (in french), University of Minnesota (2), University of Wisconsin-Madison.

### Grants Awarded:

- 2016 Saskatchewan Ministry of Agriculture – Agricultural Development Fund (co-PI, \$255,030)
- 2016 NSERC Strategic Network Grant, with 9 others (co-PI, \$5,499,999).
- 2014 Fulbright Canada, Visiting Research Chair at University of California, Santa Barbara (PI, \$25,000 USD)
- 2013 State of Iowa, Research Sub-contract (PI, \$10,920 USD).
- 2013 Alberta Environment and Sustainable Resource Development, Research Contract, with 4 others (co-PI, \$100,000).
- 2013 NSERC Strategic Grant, with 4 others (co-PI, \$618,614).
- 2013 NSERC Strategic Grant, with 2 others (co-PI, \$217,740).
- 2013 NSERC Discovery Grant + Discovery Accelerator Supplement (PI, \$420,000).
- 2013 Saskatchewan Advanced Education and Employment, with 9 others (co-PI, \$662,873).
- 2012 Canada Foundation for Innovation, Leading Edge Fund, with 9 others (co-PI, \$662,873).
- 2012 Manitoba Ministry of Conservation and Water Stewardship (PI, \$50,000).
- 2012 NSERC Discovery Grant (PI, \$165,000; yr 2-5 declined).
- 2012 Science Museum of Minnesota (PI, \$9000 USD).
- 2011 Environment Canada, Lake Winnipeg Basin Stewardship Fund (PI, \$26,500).
- 2010 State of Utah, Research Contract (Co-PI, \$55,104 USD).
- 2010 Saskatchewan Environment, Research Contract (PI, \$9,000).
- 2010 Environment Canada, Lake Winnipeg Basin Stewardship Fund (PI, \$100,000).
- 2010 Canada Research Chair/Saskatchewan Advanced Education and Employment (Tier I renewal) (PI, \$1,400,000).
- 2010 Canada Foundation for Innovation /Saskatchewan Advanced Education and Employment (PI, \$505,065).
- 2010 Manitoba Ministry of Water Stewardship, Research Grant (PI, \$100,000).



## Peter R. Leavitt: Professional Experience

- 2010 Province of Saskatchewan, Advanced Education and Employment, Innovation and Science Fund, with 9 others (PI, \$2,799,999).
- 2009 Canada Foundation for Innovation, Leading Edge Fund, with 9 others (PI, \$2,799,999).
- 2009 Manitoba Ministry of Water Stewardship, Research Grant (PI, \$75,000).
- 2008 NSERC Special Research Opportunity, with P. Francus and 7 others (co-PI, \$794,356).
- 2007 NSERC Discovery Grant (PI, \$313,750).
- 2006 National Center for Ecological Analysis and Synthesis, Sabbatical Fellowship (PI, \$40,300 USD).
- 2005 Betty and Gordon Moore Foundation, with D.E. Schindler, B. Finney and I. Gregory-Eaves (co-PI, \$2,396,805 USD).
- 2004 Canada Foundation for Innovation Grant/ Saskatchewan Economic and Cooperative Development Strategic Initiative, with R. Bailey and 4 others (co-PI, \$1,876,503).
- 2003 Canada Research Chair/Western Economic Development (Tier I) (PI, \$2,200,000).
- 2003 Canada Foundation for Innovation/ Saskatchewan Economic and Cooperative Development Strategic Initiative (PI, \$456,222).
- 2002 NSF Research Grant (Biol. Oceanogr.), with D.E. Schindler and 3 others (Co-PI, \$527,703 USD).
- 2002 NSERC Research Grant (PI, \$307,500).
- 2000 BC Hydro Research Contract, with R.I. Hall and 4 others (co-PI, \$1,914,791).
- 2000 BIOCAP Canada Research Grant (PI, \$49,000).
- 1999 Canada Foundation for Innovation Grant/ Saskatchewan Economic and Cooperative Development Strategic Initiative, with 4 others at Regina (PI, \$768,970).
- 1998 NSERC Research Grant (PI, \$140,077).
- 1998 NSERC Equipment Grant (PI, \$33,943).
- 1997 NSERC Strategic Grant, with G. Chen, Regina (PI, \$278,104).
- 1997 Agri-food Innovation Fund (PI, \$31,000).
- 1996 Canadian Association of Universities and Colleges (PI, \$4000).
- 1995 NSERC Equipment Grant (PI, \$36,428).
- 1995 University of Regina, Natural and Applied Sciences Grant (PI, \$1,500).
- 1995 University of Regina, General Research Grant (PI, \$2,100).
- 1994 NSERC Research Grant (PI, \$108,000).
- 1994 NSERC Equipment Grant (PI, \$28,903).
- 1994 NSERC Strategic Grant, with J. Smol, Queen's Univ. (co-PI, \$310,000).
- 1994 NSERC-DFO Collaborative Research and Development Grant (PI, \$20,000).
- 1994 Department of Energy, Mines and Resources Research Grant (PI, \$11,000).
- 1994 University of Regina, President's NSERC General Research Grant (PI, \$2,826).
- 1994 University of Regina, Dean's Equipment Fund (PI, \$17,500).
- 1993 University of Regina, Dean's Equipment Fund (PI, \$25,000).
- 1993 University of Regina, President's NSERC General Research Grant (PI, \$5,000).
- 1992 Canadian Circumpolar Institute (PI, \$2,600).
- 1986 U.S. National Science Foundation. BSR-85-21832. Doctoral Dissertation Improvement Grant (PI, \$10,000 USD).
- 1986 Indiana Academy of Science. Grant-in-Aid-of-Research (PI, \$500 USD).
- 1986 Sigma Xi. Grant-in-Aid-of-Research (PI, \$900 USD).

## Awards and Recognition:

## Peter R. Leavitt: Professional Experience

- 2016 Sustaining Fellow of the Association for the Sciences of Limnology and Oceanography.
- 2010 Canada Research Chair in Environmental Change and Society (Tier I) (renewal).
- 2009 Selected for inclusion into Who's Who Canada.
- 2008 Co-recipient Zayed International Prize for the Environment (2008) for the Millennium Ecosystem Assessment (chapter co-author).
- 2007 Frank H. Rigler Memorial Award, Society of Canadian Limnologists. (Highest society honour in recognition of importance and influence of contributions to Canadian limnology).
- 2004 University of Regina Alumni Association Award for Excellence in Research.
- 2003 Canada Research Chair in Environmental Change and Society (Tier I).
- 1995 Kalium Professor of Natural Science and Engineering.
- 1991-2 NSERC Postdoctoral Fellowship.
- 1989 Visiting Fellowship in Canadian Government Laboratory.
- 1985-9 Notre Dame Tuition Scholarship.
- 1983 Senator F. Carrel Scholarship.
- 1983 Ontario Graduate Scholarship.
- 1982 Ontario Graduate Scholarship.
- 1981 Senator F. Carrel Scholarship.

### Professional Societies:

Association for the Sciences of Limnology and Oceanography (formerly American Society of Limnology and Oceanography)(ASLO), Canadian Society of Ecology and Evolution (CSEE), Canadian Society of Environmental Biologists (CSEB), Ecological Society of America (ESA), Geological Society of America (GSA), International Association for Great Lakes Research (IAGLR), International Palaeolimnology Association (IPA), International Society of Limnology (SIL), Sigma Xi (SX), Society of Canadian Limnologists (SCL).

### Professional Activities:

#### *Leadership*

- Director, Canadian Institute of Ecology and Evolution (CIEE) (2012-present).
- Founding Director, Institute of Environmental Change and Society (2011-present).
- Founding Director, Environmental Quality Analysis Laboratory (2000-present).
- Board of Directors, Association for the Sciences of Limnology and Oceanography (ASLO) (formerly American Society of Limnology and Oceanography) (2012-2015).
- Past-President (2006), President (2003-2005), and Vice-President (1999-2002), Society of Canadian Limnologists (SCL).
- Director, Limnology Laboratory, University of Regina (1993- ).

#### *Outreach*

- Scientific consultant to Prime Minister of Canada (2005), Leader of Official Opposition (2007), Premier of Manitoba (2010-11), Secretary to Manitoba Cabinet (2010-11), Environment Canada (2010), Chinese Environmental Protection Agency (2008), MB Clean Environment Commission (2008-10), Manitoba Water Stewardship (2008- ), SK Watershed Authority (2005), File Hills Qu'Appelle Tribal Council (2012), Sakimay First Nations Chief's Council (2012), Utah State Dept Environmental Quality (2011-12), Saskatchewan Environmental Resource Management (1999, 2002), Buffalo Pound Water Treatment Plant (2010), Alberta Minister of Environment (2001), Northern Alberta Development Council (2002), Last

## Peter R. Leavitt: Professional Experience

Mountain Lake Stewardship Association (2009), Mayor of Regina (2008), City of Regina (2003, 2008, 2012), Wascana Centre Authority (1997-98, 2002), Royal Saskatchewan Museum (2006), J.D. Mollard and Associates (2004), Clifton Associates (1999), Stantec Consulting (2003, 2011), Agricultural Producers Association (2001-03), National Crop Insurance Managers Association (2001), Vice-Presidents, Saskatchewan Water Corporation (1995).

- Media Liaison, Society of Canadian Limnologists (2001, 2002).
- 127 media interviews since 2005, including CBC *The National*, CBC *As it Happens*, *National Post*, *Globe and Mail*, Canadian Press, *National Geographic*, *Canadian Geographic*, *Maclean's*, Radio Canada International, Radio Netherlands International, Reuters, Al Jazeera, *Science* and regional news outlets. Career total: 254 unique media interviews.
- Expert testimony to Canadian Federal Court in matter of potash mining and aquatic resource use (2012).

### Scientific Service

- Conference Co-Chair, American Society of Limnology and Oceanography (2006).
- Conference Chair, Society of Canadian Limnologists (2001, 2002).
- National Organizing Committee, 2007 Congress of International Association of Theoretical and Applied Limnology (SIL).
- National Organizing Committee and Working Group Chair, 2008 Chapman Conference on Lakes and Reservoirs as Sentinels, Integrators, and Regulators of Climate Change, (ASLO, AGU).
- Editorial Board: *Ecology*, *Ecosphere* and *Ecological Monographs* (2002-2014); *Inland Waters* (2010-present); University of California Press, *Freshwater Ecology Series* (2007-2014), *Limnology and Oceanography: Letters* (2016-present).
- Guest Editor, *Proceedings of the National Academy of Science* (2011).
- US National Science Foundation (NSF) Committee of Visitors, Division of Environmental Biology (DEB) review (2015).
- US National Science Foundation (NSF) Grant Selection Panel, *Dynamics of Coupled Natural and Human Systems* (2009 and 2010).
- Committee Member, American Society of Limnology and Oceanography: Redfield Lifetime Award Committee (2007-2010; Chair 2010-2012); Nominating Committee (2008-2010); Awards Committee (2010-2012; Chair 2012-2015); Hutchinson Committee (Chair 2012-2015); Endowment Committee (1997-1999).
- Society of Canadian Limnologists Visioning Committee (2012-2013).
- Invited Panellist, *The Future of Limnology in Canada*, Society of Canadian Limnologists.
- Canada Research Chair, College of Reviewers (2002-present).
- Reviewer: *Advances in Limnology*, *Ambio*, *Applied and Environmental Microbiology*, *Aquatic Microbial Ecology*, *Aquatic Sciences*, *Archiv für Limnologie*, *Arctic Antarctic and Alpine Research*, *Biogeochemistry*, *Biogeosciences*, *Canadian Journal of Fisheries and Aquatic Sciences*, *Canadian Journal of Microbiology*, *Catena*, *Ecohydrology and Hydrobiology*, *Ecology*, *Ecology Letters*, *Ecological Applications*, *Ecological Monographs*, *Ecosystems*, *Environmental Management*, *Environmental Science and Technology*, *Estuaries*, *Estuaries and Coasts*, *Estuarine, Coastal and Shelf Science*, *Freshwater Biology*, *Fundamental and Applied Limnology*, *Geological Survey of Canada Bulletin*, *Geophysical Research Letters*, *Global Biogeochemical Cycles*, *Global Change Biology*, *Hydrobiologia*, *Inland Waters*, *Journal of Environmental Monitoring and Assessment*, *Journal of Global Planetary Change*, *Journal of Global Planetary Change*, *Journal of Great Lakes Research*, *Journal of*

## Peter R. Leavitt: Professional Experience

- Hydrology, Journal of Limnology, Journal of the North American Benthological Society, Journal of Paleolimnology, Lake and Reservoir Management, Lakes & Reservoirs: Research and Management, Limnology and Oceanography, Marine Ecology Progress Series, Mem, Ist. Ital. Idrobiol., Nature, Nature Communications, Oceanologia, Organic Geochemistry, Palaeogeography Palaeoclimatology Palaeoecology, Proceedings of the National Academy of Science, Quaternary Science Reviews, NPG Scientific Reports, Theoretical and Applied Climatology, Transactions of the American Fisheries Society, Trends in Ecology and Evolution, Water Air and Soil Pollution, Wetlands, Alberta Challenge Grants in Biodiversity, American Chemical Society, Canada Research Chairs, Canada Council for the Arts, Exxon Valdez Trustee Council, Fond de recherche sur la nature et les technologies (QC), Fonds sur Forderung (Austria), Geological Survey of Canada, Israel Science Foundation, Maryland Seagrant Program, MITACS, National Geographic Society, UK Natural Environmental Research Council (NERC), Natural Science and Engineering Research Council of Canada (NSERC), Netherlands Organization for Scientific Research, US Geological Survey.*
- Session Chair: Annual Meetings of American Society of Limnology and Oceanography; Ecological Society of America; Society of Canadian Limnologists, Canadian Society of Ecology and Evolution.
  - Student Presentation Award Judge, Annual Meeting of Ecological Society of America.

### *Indices of Academic Achievement*

- ISI H-index = 40 (42 in ResearchGate, 50 in Google Scholar); In 2006, University of Regina Biology Department was ranked in the top 1% of global “Plant and Animal Science” Departments by Thomson Reuters ISI.
- World’s most highly published limnologist in *Limnology and Oceanography* since 1995 (31 papers; source ASLO Board of Directors). *Limnology and Oceanography* is the top-ranked journal in freshwater and marine sciences (source Thomson Reuters ISI).
- Drought risk assessments used by 20 Federal, Provincial and local organizations to evaluate their vulnerability to future droughts, including MB Hydro Corp, SK Crop Insurance Corp, and MB Crop Insurance Corp, and Agriculture and Agri-Food Canada (formerly, Prairie Farm Rehabilitation Administration).
- Water quality research used as the basis for the *Save Lake Winnipeg Act*, passed into law unanimously by Manitoba Legislature in June 2011. Legislative transcript available on request.
- Outstanding Reviewer Citation, *Limnology and Oceanography* (2003).
- Certificate of Excellence in Reviewing, *Journal of Paleolimnology* (2016)

### **University Service:**

#### *Inter-University*

- NSERC grant pre-submission reviewer (2013 McGill, UQAM, Trent), (2011 UNB-SJ), (2009 Moncton), (2004 Regina).
- Canada Research Chair pre-submission reviewer (2010 UQAM), (2009 UNB-SJ).
- National Science Foundation (NSF) pre-submission reviewer (2010 MSU).
- Reviewer Tenure packages: McGill (2015), UQAM (2014), Maine (2012), Michigan State (2011), Western Ontario (2006), Lancaster UK (2005), Franklin and Marshall College (2005), Michigan State (2001), Queen’s (1999, 2001).
- Professor review (Mississippi) (2011).

## Peter R. Leavitt: Professional Experience

- Reviewer Kilham Fellowship (2011).
- PhD Examiner (U. Copenhagen) (2005).

### *University*

- Executive of Council (1994-2005, 2009-13, 2014-2017).
- Council Task Force on Executive Format and Operations (2010).
- Council Committee on Research (2011-13).
- Committee to Review Strategic Research Plan (2012).
- Internal reviewer for pre-submission grants to NSERC (2009-13), Canada Foundation for Innovation (2009, 2012), Canada Research Chair (2011, 2012) grant programs.
- Chair, Search Committee, Assistant Director of Canadian Institute of Ecology and Evolution.
- Presentation on behalf of University to NATVAC (2012), Canadian Senate Committee on Energy, the Environment and Natural Resources (2011), President Chengdu University, China (2011), Industry Canada (2011), U. Regina Senate (2009), NSERC Indirect Costs Committee (2009), Communities of Tomorrow (2006), Government of Saskatchewan Cabinet (2006, 2001), President Canada Foundation for Innovation (2004), NSERC Site Visit (2003), SK Minister of Leaning (2003), Drainage Research Institute Egypt (2003), SK Environmental Protection Branch (2003), Provincial Laboratories (2002), Sask Minister of Finance (2001), Deputy Minister Post-Secondary Education (1999), Minister of Post-Secondary Education (1995), Vice-President, Saskatchewan Water Corporation (1995).
- Local Steering Committee, Pacific Institute of Mathematics Sciences (2009-10).
- Public Debater: *Unscripted: A Harvest of Cultural Ideas* (Regina Public Library Series) (2009).
- Nominator, Regina Alumni Award for of Excellence in Teaching (M. Brigham, 2006).
- Photography Judge, Canadian Water Resources.
- University Scholarship Committee (1997-98).
- Risk Assessment Program Committee (1995).

### *Faculty of Science*

- Director (founding), Institute of Environmental Change and Society (IECS), formerly Environmental Quality Analysis Laboratory (EQAL) (2000- ).
- Faculty Review Committee (2003, 2011, 2012).
- Faculty Search Committees (2) for IECS staff scientists (2012).
- Canada Research Chair Search Committee (2003, 2006)
- Chair, Search Committee, Manager Environmental Quality Analysis Laboratory (1999, 2003, 2004).
- Faculty Scholarship Committee (1996-98).

### *Department of Biology*

- Supervisory committees:
  - PhD - Mohamed Anas (2013-), Joe Poissant (2010- ), Suzanne Lapp (2009-12), Heather Boyd (Calgary)(2010-12), Todd Rodenbaugh (1997-2003), Duane Peltzer (1997-2000), Martin Köecky (1996-99), Xiaping Xue (1993-97), Ning Xie (1993-97), Narjes Dashti (1993-94).
  - MSc - Mohamed Anas (2010-13), Elizabeth Stark (2010-13), Lara Bates (2010-11), Ryan Cooper (2008-10), Ray Poulin (1994-97), Janice Christian (1994-96), Alistair Hardie (Alberta, 1993-94), Andrew Paul (Alberta, 1993-94).
- Acting Head (2011).
- Research Seminar Co-ordinator (2010, 2005, 2003, 1998).

## Peter R. Leavitt: Professional Experience

- Faculty Search Committee; Plant Ecology (2014), Nursing Microbiology (2011), Microbiology (2009), Animal Physiology (2004), Environmental Microbiology (2003), Ecology (2003), Plant Biology (1999), Ecology (1998), Botany (1997), Molecular Biology (1996).
- NSERC University Research Fellow Search Committee (2005).
- Sessional Instructor Search Committee (1995, 1994).
- Biology Space Committee (2004-06).
- Public Relations Committee (2003).
- Computing Facilities Committee (1998-2003).
- First Year Laboratory Committee (1994-2003).
- Reviewer, Graduate Day of Seminars (1995-2003).
- Plant Growth Facilities Committee (1993-2002).
- Curriculum Committee (1997-2002).
- Equipment Committee (1994-97).
- Graduate Studies and Honours Committee (1996-97).

### Highly Qualified Personnel trained:

#### *Research Associates*

Deirdre Bateson (2015- )	Amy Morrison-Hennessy (2015)
Tyler Boa (2014-2015)	Vincent Ignatiuk (2008-14)
Zoraida Quiñones-Rivera (2006- )	Samantha Dietrich (2003-05)
Martin Callahan (2005-07)	Richard Hughes (2003-04)
Dunling Wang (2005-06)	Mark Graham (1999-02)
Nicole Knezacek (2001-03)	Jeff Hovdebo (1998-2001)
Curtis Brock (2000-01)	Tyler Cobb (1996)
Chris Teichreb (1997)	Daren Sherbot (1995)
Laura Ambrose (1995)	Alistair Hardie (1993)
Kim Cuddington (1993-94)	

#### *Post-Doctoral Researchers*

Nicole Hayes (2015- )	Emma Wiik (2015-2016)
Lynda Bunting (2004-15)	Richard Vogt (2010-14)
Kerri Finlay (2006-09)	Alain Patoine (2003-08)
Blake Matthews (2006)	Suzanne McGowan (2001-05)
James Rusak (1999-2002)	Sybille Wunsam (1999-2001)
Norman Scully (1999)	Olaf Olson (1998-99)
Roland Hall (1996-97)	

#### *PhD students*

Vanessa Swarbrick (2010- )	Heather Haig (2012- )
Lushani Nanayakkara (2011- )	Iris Droscher (2006-08)
Lynda Bunting (2001-04)	Rolf Vinebrooke (1994-98)

#### *MSc students*

Jared Wolfe (2014- )	Matthew Bogard (2008-11)
Derek Donald (2007-11)	Melanie Ness (2003-07)
Samantha Pham (Dietrich) (2004-08)	Curtis Brock (2003-06)
Kurt Samways (2006-08)	Kari Muir (1996)
Mark Graham (1994-96)	

## Peter R. Leavitt: Professional Experience

### *BSc students*

Derek Johnson (2016- )	Grayson Wihlsdal (2016- )	Ethan Cobb (2016- )
Terry Mattern (2015-2016)	Justin Odynski (2015-)	Justine Kerr (2015)
Brady O'Connor (2014-16)	Kristen Grey (2015- 2016)	Gregory Owens (2014-15)
Tiera McLeod (2014)	Michelle Lang (2014-15)	Eric Armit (2013)
Erin Hillis (Hons 2012-13)	Jared Wolfe (2013)	Chase Morell (2012-13)
Leanne Trembley (2013)	Kyleen Pangracs (2012-13)	Morgan Ollinger (2011-12)
Julia Hart (2012)	Katherine Miller (2012-13)	Ryan Schnell (2011)
Jacob Ziegler (Hons. 2011-12)	Jenna Toraruk (Hagen) (2008-11)	Garricks Elechi (2008-10)
Taylor Mason (2011)	Liam Donnelly (2011)	Cameron Hoggrath (2009)
Ashley Walchuk (2010)	Braden Schmidt (2010)	Vincent Ingatiuk (2006-08)
Anthony Freywald (2008-09)	Jason Unruh (2009)	Derek Donald (Hons. 2006-07)
Shelley Wellman (2008)	Paul Humenchuk (2008)	Christian Ruffolfo Lott (2007)
Kelsie Dale (2006-07)	Jennifer Rumancik (2007)	Martin Callahan (2006)
Adam Mitichuk (2006)	Rachel Magnus (2005-06)	Nathan Hazell (2005)
Brianna Wyn (Dopson) (Hons. 2002-05)	Jonas Fenn (2005)	Twlyya Jesse (2004)
Courtney Ebel (Hons. 2003-04)	Laura Pfeifer (Hons. 2003-05)	Shannon Smith (2002)
Michael Christensen (2003)	Samantha Dietrich (2002)	Curtis Brock (Hons. 1999-2000)
Brian Gordon (2001)	Rebecca Jane Schuler (2002)	Jeff Hovdebo (Hons. 1997-98)
Jarret Romanow (1999)	Ryan Suri (1999)	Jon Sweetman (1996-97)
Brent Smith (1998)	Chris Teichreb (Hons 1995-97)	Kerry Hecker (1996)
Mark Zurowski (1997)	Tyler Cobb (1995-96)	
Jon Nachtigall (1995)	Tara Ivanochko (1994)	

## Peter R. Leavitt: Professional Experience

### Teaching Evaluations

Year	Course Evaluation (out of 4.0)				mean	SD
	Biol 101	Biol 276	Biol 335	Biol 364		
1994	3.04, 3.33		3.09		3.15	
1995	3.43		3.31	3.38	3.37	0.06
1996	(72/166)		3.11	3.08		
1997	(19/150)		3.64			
1998	3.43		3.37	3.39	3.40	0.03
1999						
2000	<i>Sabbatical leave</i>					
2001	3.05		3.32		3.53	0.11
2002		3.61	3.45		3.30	0.01
2003		3.30	3.29		3.42	0.05
2004		3.38	3.45		3.57	0.09
2005		3.63	3.50		3.57	0.09
2006		3.63	3.50		3.61	0.01
2007	<i>Sabbatical leave</i>					
2008		3.62	3.60		3.61	0.01
2009		3.45	3.43		3.44	0.01
2010		3.31	3.57		3.44	0.18
2011			3.53		3.53	
2012*		3.40	3.10		3.25	0.21
2013*			3.70		3.70	
2014*			3.40		3.40	
2015*	<i>Sabbatical leave</i>					
2016*		3.50	3.50		3.50	0.00
Mean	3.30	3.48	3.41	3.28		
SD	0.21	0.13	0.18	0.18		

\* = voluntary electronic participation by students; prior participation mandatory