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Education: B.Sc. UBC Biology 1973; M.Sc. UBC Zoology 1980

**My Current Work** is focused on modeling and data analysis associated with fisheries management issues. I am winding up a variety of my BCMOE projects while continuing to work on projects associated with management of rainbow trout fisheries in small lakes and kokanee/piscivore systems in large lakes. I act as both a consultant working with clients who are willing to fund this work as well as in my emeritus position with BC MOE.

**My previous role within the BC Ministry of Environment (BCMOE)** was to lead research initiatives that were relevant to high-priority environmental management issues. I worked with teams of 2-8 people made up of professors, graduate students and resource managers from government and industry. My responsibilities within the team included: writing grant proposals, reporting to granting agencies, developing methods for and performing data analysis, presenting results to research and resource management professionals, revising publication drafts by team members and managing budgets. Over the last 10 years, I have supervised a budget that has averaged over \$150,000/yr (excluding my salary and admin support).

**My Role at UBC** includes: Sitting on graduate student advisory committees, Supervision of monetary support from MOE to graduate student projects, Access to large data sets maintained by BCMOE and Presentation of research finding to student audiences. Over the last 10 years I have participated in advisory committees for 19 PhD and MSc students from UBC and SFU. In most of these, I have been involved in all phases of the research: project proposal, assisting in data collection and analysis, reviewing thesis drafts. Funding commitments, supervised by me, from BCMOE to graduate student projects in 2008 total \$68,000. An example of access to BCMOE data sets is my collaborative work with Dr. R.D. Moore (UBC Geography) on the prediction of stream temperatures in BC. Three publications are currently in preparation on this project. Recent lectures are: The Biology and Management of Rainbow Trout Sportfisheries in small BC Lakes, (CONS 486, Fish Conservation and Management, March 09), Defining Fisheries Sensitive Watersheds under the BC Forest and Range Practices Act (FRST 386 Aquatic Ecosystems and Fish in Forested Watersheds, March 09).

**Projects in which I am a Principle Investigator:**

Quantifying the relationships between density, growth, survival, predators and food supply for rainbow trout in small lakes (1998-present)

Evaluating alternative management policies on small lakes using simulation modelling (2001-present)  
 Development of a strategy for classifying and preserving ecotype variation in rainbow trout (1997-present)  
 Identifying temperature sensitive streams from observed clines in fish community structure and physical models of stream temperature (2006-present)  
 Identifying watersheds that have both high fisheries value and high sensitivity to forest harvesting using GIS modelling at a provincial scale (2003-present)  
 Quantifying aquatic biodiversity values using GIS modelling at a Provincial scale (2002-present)  
 Quantifying habitat requirements of endangered salmonids with respect to forest harvesting activities (2007-present)

### **Recent Publications:**

- Post, JR., L. Persson, L. Parkinson, EA, van Kooten, T. 2008. Angler Numerical Response Across Landscapes and the Collapse of Freshwater Fisheries. *Ecol. Appl.* (accepted).
- Keeley ER, Parkinson EA, Taylor EB. 2007. The origins of ecotypic variation of rainbow trout: a test of environmental vs. genetically based differences in morphology. *J. Evol. Biol.* 20:725-736.
- Askey PJ, Post JR, Parkinson EA. 2007. Estimation of gillnet efficiency and selectivity across multiple sampling units: A hierarchical Bayesian analysis using mark-recapture data. *Fish. Res.* 83:162-174.
- Biro PA, Abrahams, MV, Post JR and Parkinson EA. 2006. Behavioural trade-offs between growth and mortality explain evolution of submaximal growth rates. *J. Anim. Ecol.* 75: 1165–1171.
- Askey PJ, Richards, SA, Post JR, Parkinson EA. 2006. Linking Angling Catch Rates and Fish Learning under Catch-and-Release Regulations. *N. Am. J. Fish. Mgmt.* 26:1020–1029.
- Keeley, ER, Parkinson, EA, Taylor, EB. 2005. Ecotypic differentiation of native rainbow trout (*Oncorhynchus mykiss*) populations from British Columbia. *Can. J. Fish. Aquat. Sci.* 62: 1523-1539.
- Parkinson, EA, Post, JR, Cox, SP. 2004. Linking the dynamics of harvest effort to recruitment dynamics in a multistock, spatially structured fishery. *Can. J. Fish. Aquat. Sci.* 61: 1658-1670.
- Biro, PA, Morton, AE, Post, JR, Parkinson, EA, 2004. Over-winter lipid depletion and mortality of age-0 rainbow trout (*Oncorhynchus mykiss*). *Can. J. Fish. Aquat. Sci.* 61: 1513-1519.
- Biro PA, Abrahams, MV, Post JR and Parkinson EA. 2004. Predators select against high growth rates and risk-taking behaviour in domestic trout populations. *Proc. R. Soc. Lond. B* 271:2233-2237.
- Biro PA, Post JR and Parkinson EA. 2003. From individuals to populations: prey fish risk-taking mediates mortality in whole-system experiments. *Ecology* 84: 2419–2431.
- Biro PA, Post JR and Parkinson EA. 2003. Population consequences of a predator-induced habitat shift by trout in whole-lake experiments. *Ecology* 84: 691–700
- Biro PA, Post JR and Parkinson EA. 2003. Density-dependent mortality is mediated by foraging activity for prey fish in whole-lake experiments. *J. of Anim. Ecol.* 72: 546–555
- Post, JR, Sullivan, M, Cox, S, Lester, NP, Walters, CJ, Parkinson, EA, Paul, AJ, Lackson, L, Shuter, BJ. 2002 Canada's Recreational Fisheries: The Invisible Collapse? *Fisheries* 27:6-19.
- Post, JR, Parkinson, EA. 2001. Energy allocation strategy in young fish: allometry and survival. *Ecology* 82: 1040-1051
- Rosenfeld, J, Porter, M, Pearson, M, Wicks, B, Dishoeck, Pvan, Patton, T, Parkinson, E, Haas, G, McPhail, D. 2001. The influence of temperature and habitat on the distribution of chiselmouth, *Acrocheilus alutaceus*, in British Columbia. *Environmental Biology of Fishes [Environ. Biol. Fish.]*. 62: 401-413.
- Mccusker, RM, Parkinson, EA, Taylor, EB. 2000. Mitochondrial DNA variation in rainbow trout (*Oncorhynchus mykiss*) across its native range: testing biogeographical hypotheses and their relevance to conservation. *Molecular Ecology [Mol. Ecol.]* 9:2089-2108.
- Porter, MS, Rosenfeld, J, Parkinson, EA. 2000. Predictive Models of Fish Species Distribution in the Blackwater, British Columbia. *N. Am. J. Fish. Manage.* 20:349-359.

- Rosenfeld, J, Porter, M, Parkinson, E. 2000. Habitat factors affecting the abundance and distribution of juvenile cutthroat trout (*Oncorhynchus clarki*) and coho salmon (*Oncorhynchus kisutch*). *Can. J. Fish. Aquat. Sci.* 57, no. 4: 766-774.
- Post, JR, Parkinson, EA, Johnston, NT. 1999. Density-dependent processes in structured fish populations: Interaction strengths in whole-lake experiments. *Ecol. Monogr.* 69: 155-175.
- Landry, F, Post, JR, Parkinson, EA. 1999. Spatial ontogeny of lentic age-0 rainbow trout, *Oncorhynchus mykiss*: whole-lake manipulations of population size structure. *Can. J. Fish. Aquat. Sci.* 56: 1916-1928.
- Post, JR, Parkinson, EA, Johnston, NT. 1998. Spatial and Temporal Variation in Risk to Piscivory of Age-0 Rainbow Trout: Patterns and Population Level Consequences. *Trans. Am. Fish. Soc.* 127: 932-942.
- Benoit, HP, Post, JR, Parkinson, EA, Johnston, NT. 1998. Colonization by lentic macroinvertebrates: Evaluating colonization processes using artificial substrates and appraising applicability of the technique. *Can. J. Fish. Aquat. Sci.* 55: 2425-2435.

**Recent Technical Reports:**

- Parkinson, EA, Keeley, ER, Taylor, EB, Pollard, S, Tautz, AF. 2005. A population database for defining conservation units in steelhead trout. *BC Fish. Mgmt Rept.* 119:72p.
- Porter, M., G. Haas and E. Parkinson. 2000. Sensitivity of British Columbia's Freshwater Fish to Timber Harvest: Using Species Traits as Predictors of Species at Risk. *BC Fish. Mgmt Rept.* 114:39p.
- Mccusker, RM, Parkinson, EA, Taylor, EB.. 2000. Phylogenetic Conservation Units for Rainbow Trout in British Columbia. *BC Fish. Mgmt Rept.* 112:35p
- Porter, M., J. Rosenfeld, and E. Parkinson. 1998. Macrohabitat Use and Predictive Models of Fish Distribution in the Blackwater Drainage. *BC Fish. Mgmt Rept.* 108:26p.