

Applied Research Experience (continued)

4) Provide statistical consulting for staff at ODFW.

Implemented regression, ANOVA, BACI, generalized linear models, mixed effects models, hierarchical models, meta-analysis, generalized additive models, variograms, kriging, conditional autoregressive spatial analysis, time series analysis, state-space models, PCA, MANOVA, ordination, regression trees, neural networks, LASSO and other shrinkage techniques, model selection with AIC, BIC, WAIC, DIC, Bayes factors, likelihood ratios.

Frequently addressed questions from staff about power analysis, mark-recapture analysis, monitoring designs, spatially-explicit analyses, analysis of existing data.

Provided review and recommendations for economic/budget analyses for executive administrators.

5) Represent agency and communicate science to diverse audiences

Member of the Hatchery Scientific Review Group, established by the U.S. Congress.

Taught workshops and delivered presentations at professional societies and academic institutions

Published ideas and

Publications (continued)

- Falcy, M.R., and Danielson, B.J.** 2013. Assessment of competitive release of endangered beach mouse (*Peromyscus polionotus ammobates*). *Journal of Mammalogy* 94: 584-590.
- Duthie, A.B., and **Falcy, M.R.** 2013. The influence of habitat autocorrelation on plants and their seed-eating pollinators. *Ecological Modelling* 251:260-270.
- Bangs, B., **Falcy, M.R.**, Scheerer, P.D., and Clements, S. 2013. Comparison of three methods for marking a small floodplain minnow. *Animal Biotelemetry* 1:18.
- Falcy, M.R., and Danielson, B.J.** 2011. When sinks rescue sources in dynamic environments. In Liu, J., Hull, V., Morzillo, A., and Weins, J. (Eds.). *Sources, Sinks, and Sustainability*. Cambridge Studies in Landscape Ecology.
- Chilcote, M.W., Goodson, K.W., and **Falcy, M.R.** 2011. Reduced recruitment performance in natural populations of anadromous salmonids associated with hatchery-reared fish. *Canadian Journal of Fisheries and Aquatic Sciences* 68:511-522.
- Deitloff, J., **Falcy, M.R.**, Krenz, J.D., and McMillan, B.R. 2010. Correlating small mammal abundance to climatic variation over twenty years. *Journal of Mammalogy* 91(1):193-199.
- Falcy, M.R.** 2009. Theoretical perspectives on habitat destruction. In Kudrow, N.J. (Ed.). *Conservation of Natural Resources*. Nova Sciences Publishers. ISBN: 978-1-60741-178-9
- Falcy, M.R., and Estades, C.F.** 2007. Effectiveness of corridors relative to enlargement of habitat patches. *Conservation Biology* 21(5):1341-1346.

Oral Presentations at Conferences and Universities

- Science as Bayesian model averaging, with applications to density dependence. 2020. Oregon Chapter of the American Fisheries Society. Bend, OR.
- Middle Fork John Day Spring Chinook life cycle PVA. 2019. AMIP LCM Meeting. Hood River, OR.
- Detecting management regime shifts in dynamic environments. 2019. North Pacific Anadromous Fish Commission Meeting. Portland, OR.
- SNO BiRD: Stream network optimizer for biological reserve design. 2019. Fisheries Department, Oregon State University. Corvallis, OR.
- Designing biological reserves on stream networks. 2019. Oregon Chapter of American Fisheries Society. Bend, OR.
- Effects of sea lions on Willamette River winter steelhead viability. 2018. Fisheries Department, Oregon State University. Corvallis, OR.
- Effects of sea lion predation on Willamette River winter steelhead viability. 2018. Salmon Ocean Ecology Meeting. Newport, OR.
- Effects of sea lions on Willamette River winter steelhead viability. 2018. U.S. Army Corps of Engineers Willamette River Science Review. Corvallis, OR.
- Population viability of Willamette River winter steelhead: An assessment of the effects of sea lions at Willamette Falls. 2018. Pacific Coast Steelhead Management Meeting. WallaWalla, Wa.

Oral Presentations at Conferences and Universities (continued)

Teaching Experience (continued)

Instructor, Oregon State University, Department of Integrative Biology (formerly Zoology).

Duration: September 2009 to March 2010. 30 hours/week.

Taught evolution to 110 upper-division undergraduates and graduate students. Responsible for all aspects of this course, including development of lecture material, homework assignments, exercises, exams, and final grades.

Instructor,

