

**James R. Faulkner**  
*Curriculum vitae*

**Contact**

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Northwest Fisheries Science Center  
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**PROFESSIONAL EXPERIENCE**

2005–Present    Mathematical Statistician, National Oceanic and Atmospheric Administration, Northwest Fisheries Science Center, Seattle, WA  
2008–Present    Statistical Consultant for biomedical research, Liu Associates, Bellevue, WA  
2001–2005       Statistical Research Associate, Fred Hutchinson Cancer Research Center, Seattle, WA  
2000              Statistical Consultant, Statistics Department, Oregon State University, Corvallis, OR  
1997–1999       Research Technician, Department of Forest Science, Oregon State University, Corvallis, OR

**TEACHING EXPERIENCE**

1999–2001 Graduate Teaching Assistant, Statistics Department, Oregon State University, Corvallis, OR  
Courses:  
Principles of Statistics (ST 201,202). Tutoring and grading.  
Introduction to Statistical Methods (ST 351). Computer labs and grading.  
Mathematical Statistics (ST 521, 522). Recitations, occasional lectures, and grading.  
Methods of Data Analysis (ST 513). Computer labs and grading.  
Statistical Methods (ST 522). Computer labs, occasional lectures, and grading.

**EDUCATION**

Ph.D. Candidate, Quantitative Ecology and Resource Management, University of Washington, Seattle, WA  
M.S. Statistics, 2001. Oregon State University, Corvallis, OR  
B.S. Wildlife Science, Minor Statistics, 1999. *Summa cum laude*. Oregon State University, Corvallis, OR

**Scholarships**

Lyle Calvin Scholarship in Statistics, 1999-2000  
Chan Schenck Conservation Scholarship, 1997, 1998  
Mace Watchable Wildlife Scholarship, 1997  
Roland E. Dimick Memorial Scholarship, 1996  
Ursula Bolt Knaus Scholarship, 1996, 1997, 1998

## AWARDS AND HONORS

- NOAA Department Gold Medal Award for NOAA's Federal Columbia River Power System Team work on the Federal Columbia River Power System Biological Opinion, 2010.
- NOAA Special Service Award for development of the COMPASS passage model, 2006.
- NOAA Special Service Award for response to Independent Scientific Advisory Board review of the COMPASS passage model, 2006.
- NOAA Special Service Award for serving on the planning committee for the 1<sup>st</sup> Annual Northwest Fisheries Science Center Symposium, 2006.
- Outstanding Undergraduate Research Project Award, Oregon Chapter of The Wildlife Society, 1998
- Research Experience for Undergraduates, selected participant, 1997

## PUBLICATIONS

### Journals

- Waples, R., A. Elz, B. Arnsberg, J. Faulkner, J. Hard, E. Timmins-Schiffman, and L. Park. 2017. Human-mediated evolution in a threatened species? Juvenile life-history changes in Snake River salmon. *Evolutionary Applications* (accepted).
- Faulkner, J.R., and V.N. Minin. 2017. Locally-adaptive smoothing with Markov random fields and shrinkage priors. *Bayesian Analysis* (accepted).
- Waples, R.S., G. Luikart, J. R. Faulkner, and D. A. Tallmon. 2013. Simple life-history traits explain key effective population size ratios across diverse taxa. *Proceedings of the Royal Society B: Biological Sciences* 280:20131339.
- Walters, A.W., D. Holzer, J.R. Faulkner, C. Warren, P. Murphy, and M.M. McClure. 2012. Quantifying cumulative entrainment impacts for Chinook salmon in a heavily irrigated watershed. *Transactions of the American Fisheries Society* 141(5):1180-1190.
- Waples, R.S. and J.R. Faulkner. 2009. Modelling evolutionary processes in small populations: not as ideal as you think. *Molecular Ecology* 18(9):1834-1847.
- Zabel, R.W., J.R. Faulkner, S.G. Smith, J.J. Anderson, C. Van Holmes, N. Beer, S. Iltis, J. Krinke, G. Frederics, B. Bellerud, J. Sweet, and A.E. Giorgi. 2008. Comprehensive Passage (COMPASS) Model: a model of downstream migration of juvenile salmonids through a hydropower system. *Hydrobiologia* 609:289-300.
- Higano, C.S., C.M. Tangen, W.A. Sakr, J. Faulkner, S.E. Rivkin, F.J. Meyers, M. Hussain, L.H. Baker, K. J. Russell, E.D. Crawford. 2008. Treatment options for muscle-invasive urothelial cancer for patients who were not eligible for cystectomy or neoadjuvant chemotherapy with methotrexate, vinblastine, doxorubicin, and cisplatin: report of Southwest Oncology Group Trial 8733. *Cancer* 112(10):2181-2187.
- Hussain, M., C.M. Tangen, C. Higano, P.F. Schellhammer, J. Faulkner, E.D. Crawford, G. Wilding, A. Akdas, E.J. Small, B. Donnelly, G. MacVicar, and D. Raghavan. 2006. Absolute prostate specific antigen value after androgen deprivation is a strong independent predictor of survival in new metastatic prostate cancer: data from Southwest Oncology Group trial 9346 (INT-0162). *Journal of Clinical Oncology* 24(24):3984-3990.
- Swanson, G.P., J.R. Faulkner, S.R. Smalley, M.J. Noble, R.L. Stephens, T.J. O'Rourke, G.R. Weiss, D.P. Quick, I.M. Thompson Jr., and E.D. Crawford. 2006. Locally advanced prostate cancer treated with concomitant radiation and 5-fluorouracil: Southwest Oncology Group study 9024. *Journal of Urology* 176:548-553.
- Vaishampayan, U.N., J.R. Faulkner, E.J. Small, B.G. Redman, W.L. Keiser, D.P. Petrylak, and E.D. Crawford. 2005. Phase II trial of carboplatin and paclitaxel in cisplatin-pretreated advanced transitional cell carcinoma: a Southwest Oncology Group study. *Cancer* 104(8):1627-1632.
- Van Veldhuizen, P.J., J.R. Faulkner, P.N. Lara, Jr., P.H. Gumerlock, J.W. Goodwin, S.R. Dakhil, H.M. Gross, R.C. Flanigan, and E.D. Crawford. 2005. A phase II study of flavopiridol in patients with advanced renal

cell carcinoma: results of Southwest Oncology Group trial 0109. *Cancer Chemotherapy and Pharmacology* 56:39-45.

Herr, H.W., J.R. Faulkner, H.B. Grossman, and E.D. Crawford. 2004. Pathologic evaluation of radical cystectomy specimens: a Cooperative Group report. *Cancer* 100(11):2470-2475.

Herr, H.W., J.R. Faulkner, H.B. Grossman, R.B. Natale, R. de Vere White, M.F. Sarosdy, and E.D. Crawford. 2004. Surgical factors influence bladder cancer outcomes: a Cooperative Group report. *Journal of Clinical Oncology* 22(14):2781-2789.

Tangen, C.M., J.R. Faulkner, E.D. Crawford, I.M. Thompson, D. Hirano, M. Eisenberger, and M. Hussain. 2003. Ten-year survival in patients with metastatic prostate cancer. *Clinical Prostate Cancer* 2(1):41-45.

### Book Chapters

Hsu, L., J.R. Faulkner, D. Grove, D.P. Ankerst. 2006. Some practical considerations for analysis of spotted microarray data. Pgs 397-418 in Crowley J. and Pauler Ankerst D., eds., *Handbook of statistics in clinical oncology*, second edition. CRC Press, Taylor Francis Group, Boca Raton, FL.

Pauler, D.K., J. Hardin, J.R. Faulkner, M. LeBlanc, and J.C. Crowley. 2004. Survival analysis with gene expression arrays. Pages 675-688 in Balakrishanan N. and Rao C.R., eds. *Handbook of statistics, vol 23: advances in survival analysis*. Elsevier B.V., Amsterdam.

### Technical Reports

Faulkner, J.R., D.L. Widener, S.G. Smith, T.M. Marsh, and R.W. Zabel. 2016. Survival estimates for the passage of spring-migrating juvenile salmonids through Snake and Columbia River dams and reservoirs, 2015. Report to the Bonneville Power Administration, 111 p.

Faulkner, J.R., S.G. Smith, D.L. Widener, T.M. Marsh, and R.W. Zabel. 2015. Survival estimates for the passage of spring-migrating juvenile salmonids through Snake and Columbia River dams and reservoirs, 2014. Report to the Bonneville Power Administration, 107 p.

Faulkner, J.R., S.G. Smith, D.L. Widener, T.M. Marsh, and R.W. Zabel. 2014. Survival estimates for the passage of spring-migrating juvenile salmonids through Snake and Columbia River dams and reservoirs, 2013. Report to the Bonneville Power Administration, 105 p.

Faulkner, J.R., S.G. Smith, D.M. Marsh, and R.W. Zabel. 2013. Survival estimates for the passage of spring-migrating juvenile salmonids through Snake and Columbia River dams and reservoirs, 2012. Report to the Bonneville Power Administration, 104 p.  
<https://pisces.bpa.gov/release/documents/documentviewer.aspx?doc=P132163>

Faulkner, J.R., S.G. Smith, W.D. Muir, D.M. Marsh, and R.W. Zabel. 2012. Survival estimates for the passage of spring-migrating juvenile salmonids through Snake and Columbia River dams and reservoirs, 2011. Report to the Bonneville Power Administration, 102 p.  
<https://pisces.bpa.gov/release/documents/documentviewer.aspx?doc=P125904>.

Faulkner, J.R., S.G. Smith, W.D. Muir, D.M. Marsh, and J.G. Williams. 2011. Survival estimates for the passage of spring-migrating juvenile salmonids through Snake and Columbia River dams and reservoirs, 2010. Report to the Bonneville Power Administration, 100 p.  
<http://pisces.bpa.gov/release/documents/documentviewer.aspx?doc=P12042>.

Faulkner, J.R., S.G. Smith, W.D. Muir, D.M. Marsh, and J.G. Williams. 2010. Survival estimates for the passage of spring-migrating juvenile salmonids through Snake and Columbia River dams and reservoirs, 2009. Report to the Bonneville Power Administration, 131 p.  
<http://pisces.bpa.gov/release/documents/documentviewer.aspx?doc=P116291>.

Faulkner, J.R., S.G. Smith, W.D. Muir, D.M. Marsh, and J.G. Williams. 2009. Survival estimates for the passage of spring-migrating juvenile salmonids through Snake and Columbia River dams and reservoirs, 2008.

Report to the Bonneville Power Administration, 125 p.

<http://pisces.bpa.gov/release/documents/documentviewer.aspx?doc=P112186>.

Faulkner, J.R., S.G. Smith, W.D. Muir, D.M. Marsh, and J.G. Williams. 2008. Survival estimates for the passage of spring-migrating juvenile salmonids through Snake and Columbia River dams and reservoirs, 2007.

Report to the Bonneville Power Administration, 119 p.

<http://pisces.bpa.gov/release/documents/documentviewer.aspx?doc=P108838>

Faulkner, J.R., S.G. Smith, W.D. Muir, D.M. Marsh, and J.G. Williams. 2007. Survival estimates for the passage of spring-migrating juvenile salmonids through Snake and Columbia River dams and reservoirs, 2006.

Report to the Bonneville Power Administration, 117 p.

<http://pisces.bpa.gov/release/documents/documentviewer.aspx?doc=P103914>.

## Abstracts

Hayden, K.A., C.M. Moinpour, J. Faulkner, C.M. Tangen, E.D. Canby-Hagino, D. Lemmon, S. Breslin, I.M. Thompson, and E.D. Crawford. 2005. Short- and long-term genitourinary symptom status and global quality of life (QOL) from a Southwest Oncology Group (SWOG) Trial. *Journal of Clinical Oncology* 23(16):391S Part 1 Suppl. S.

Sakr, W.A., J.R. Faulkner and D. Wood. 2004. Low rate of confirming prostate cancer on repeat biopsies following diagnosis of high grade prostatic intraepithelial neoplasia: preliminary analysis of Southwest Oncology Group study s9917. [Abstract] *Proceedings of the American Association for Cancer Research* 45: A-1333, 305, 2004.

Petrylak, D, J.R. Faulkner, P.J. Van Veldhuizen, et al. 2003. Evaluation of ZD1839 for advanced transitional cell carcinoma (TCC) of the urothelium: a Southwest Oncology Group Trial. *Proc Am Soc Clin Oncol*. 2003;22:403. Abstract 1619.

Hussain, M., J. Faulkner, U. Vaishampayan, P. Lara, D. Petrylak, D. Colevas, W. Sakr, and E.D. Crawford. 2004. Epothilone B (Epo-B) analogue BMS-247550 (NSC #710428) administered every 21 days in patients (pts) with hormone refractory prostate cancer (HRPC): a Southwest Oncology Group study. *Journal of Clinical Oncology* 22(14):384S Suppl. S. Abstract 4510.

## **PRESENTATIONS**

Locally adaptive Bayesian nonparametric inference for phylodynamics. Joint Statistical Meetings, Chicago, IL, 2016.

Adaptive nonparametric smoothing for capture-recapture models. International Biometrics Conference, Victoria, BC, 2016.

Adaptive nonparametric smoothing for capture-recapture models. International Statistical Ecology Conference, Seattle, WA, 2016.

Toward improvements to survival estimation for migrating juvenile salmon. Northwest Fisheries Science Center Symposium, Seattle, WA, 2016.

Accounting for density dependent predation in survival of juvenile salmon. American Fisheries Society Meeting, Portland, OR, 2015.

Bayesian trend filtering: temporal smoothing with shrinkage priors. Western North America Region Biometric Society Meeting, Boise, ID, 2015.

Travel time of migrating juvenile steelhead: do the operations of hydroelectric dams make a difference? Northwest Fisheries Science Center Symposium, Seattle, WA, 2012.

A new test for white noise in time series. Joint Statistical Meetings, Boston, MA, 2014.

Evidence for density-dependent avian predation on migrating juvenile salmon. Ecological Society of America, Portland, Oregon. 2012.

Bias of Cormack-Jolly-Seber survival estimators in release-recapture studies with low sampling effort. Joint Statistical Meetings, Salt Lake City, Utah. 2007.

Choice of weights in meta-analysis of mark-recapture survival studies. Joint Statistical Meetings, Seattle, Washington. 2006.

Poster: Modeling spill efficiency and fish guidance efficiency of migrating juvenile salmonids at hydroelectric dams using PIT tag detections. Northwest Fisheries Science Center Science Symposium, Seattle, WA, 2012.

Poster: Small mammal relative abundance in a fire-managed Willamette Valley Prairie. The Wildlife Society Northwest Section Meeting, Spokane, Washington. 1998.

Poster: Small mammal relative abundance among wetland vegetation habitats. Riparian Use, Ecology, and Management Workshop, Oregon State University. 1997.

#### Workshops

Northwest Fisheries Science Center R Workshop, 2011. Taught section on generalized linear models.

Northwest Fisheries Science Center R Workshop, 2010. Taught sections on optimization and generalized linear models.

### **PROFESSIONAL ACTIVITIES**

#### Reviewer

Journal of Theoretical Biology

Fisheries Biology

North American Journal of Fisheries Management

Transactions of the American Fisheries Society

#### Professional Affiliations

American Statistical Association

Biometrics Society

American Fisheries Society