
Education

Ph.D. 2014, University of Washington, School of Aquatic and Fishery Sciences

M.S. 1999, North Carolina State University, Department of Zoology

B.S. 1994, Ohio State University, School of Natural Resources

Professional Experience

2002-present *Research Fishery Biologist, NOAA Fisheries, NWFSC, Fish Ecology Div., Seattle, WA*

1999-2002 *Research Biologist, North Carolina State University, Raleigh, NC*

1998-1999 *Web Developer, North Carolina State University, Raleigh, NC*

1996-1998 *Research Assistant, North Carolina State University, Raleigh, NC*

1994-1996 *Technician, Aquatic Ecology Laboratory, Columbus, OH*

Select Peer-reviewed Publications

- Burke, B. J.**, J. J. Anderson, and A. Baptista. 2014. Evidence for multiple navigational sensory capabilities by Chinook salmon. *Aquatic Biology* 20: 77–90.
- Byron, C. J. and **B. J. Burke**. 2014. Salmon ocean migration models suggest a variety of population-specific strategies. *Reviews in Fish Biology and Fisheries* 24:737-756.
- Caudill, C.C., M. L. Keefer, T. S. Clabough, G. P. Naughton, **B. J. Burke**, and C.A. Peery. 2014. Indirect Effects of Impoundment on Migrating Fish: Temperature Gradients in Fish Ladders Slow Dam Passage by Adult Chinook Salmon and Steelhead. *PLoS One* 8(12): e85586.
- Moser, M.L., M. L. Keefer, C. C. Caudill, and **B. J. Burke**. 2014. Migratory behavior of adult Pacific lamprey and evidence for effects of individual temperament on migration rate. Pages 132-151, In: H. Ueda and K. Tsukamoto (eds.) *Physiology and Ecology of Fish Migration*. CRC Press, Boca Raton, Florida.
- Zabel, R. W., **B. J. Burke**, M. L. Moser, and C. C. Caudill. 2014. Modeling temporal phenomena in variable environments with parametric models: An application to migrating salmon. *Ecological Modelling* 273:23-30.
- Burke, B. J.**, M. Liermann, D. Teel, J. J. Anderson. 2013. Environmental and geospatial factors drive juvenile Chinook salmon distribution during early ocean migration. *Canadian Journal of Fisheries and Aquatic Sciences* 70(8):1167-1177.
- Burke, B. J.**, B. R. Beckman, W. T. Peterson, C. Morgan, E. A. Daly, M. Litz. 2013. Multivariate Methods to Forecast Pacific Salmon Returns. *PLoS ONE* 8(1): e54134.
- Moser, M. L., M. S. Myers, J. E. West, S. M. O'Neill, and **B. J. Burke**. 2013. English sole (*Parophrys vetulus*) spawning migration and evidence for feeding site fidelity in Puget Sound, U.S.A. with implications for contaminant exposure. *Northwest Science* 87(4):317-325.
- Anderson, J. J., E. Gurarie, C. Bracis, **B. J. Burke**, K. L. Laidre. 2013. Modeling climate change impacts on phenology and population dynamics of marine migrating species. *Ecological Modelling* 264:83-97.
- Yu, H., H. Bi, **B. J. Burke**, J. Lamb, and W. T. Peterson. 2012. Spatial variations in the distribution of yearling spring Chinook off Washington and Oregon using COZIGAM analysis. *Marine Ecology Progress Series* 465: 253-265.
- Burke, B. J.**, K. E. Frick, R. E. Moses, and M. L. McHenry. 2008. Movements by Coho Salmon in the Lower Elwha River, Washington. *Northwest Science* 82:119-127.
- Zabel, R. W., **B. J. Burke**, M. L. Moser, and C. A. Peery. 2008. Understanding migrational delay of adult salmon at dams using “time-to-event” analysis and radiotelemetry data. *Proceedings of the Fourth Bioengineering Symposium*.
- Good, T. P., J. Davies, **B. J. Burke**, and M. H. Ruckelshaus. 2008. Incorporating catastrophic risk assessments into setting conservation goals for threatened Pacific salmon. *Ecological Applications* 18(1):246-257.

Select Peer-reviewed Publications (cont.)

- Caudill, C. C., W. R. Daigle, M. L. Keefer, C. T. Boggs, M. A. Jepson, **B. J. Burke**, R. W. Zabel, T. C. Bjornn, and C. A. Peery. 2007. Slow dam passage in Columbia River salmonids associated with unsuccessful migration: delayed negative effects of passage obstacles or condition-dependent mortality? *Canadian Journal of Fisheries and Aquatic Sciences* 64(7):979-995.
- Burke, B. J.** and M. A. Jepson. 2006. Performance of passive integrated transponder tags and radio tags in determining behavior of adult Chinook salmon and steelhead. *North American Journal of Fisheries Management* 26(3): 742-752.
- Craig, J. K., **B. J. Burke**, L. B. Crowder, and J. A. Rice. 2006. Prey growth dynamics and size-dependent predation interactions in juvenile estuarine fishes: experimental and model analyses. *Ecology* 87(9): 2366-2377.
- Keefer, M. L., C. A. Peery, W. R. Daigle, M. A. Jepson, S. R. Lee, C. T. Boggs, K. R. Tolotti, and **B. J. Burke**. 2005. Escapement, harvest, and unknown loss of radio-tagged adult salmonids in the Columbia-Snake River Hydrosystem. *Canadian Journal of Fisheries and Aquatic Sciences* 62:930-949.
- Moser, M. L., R. W. Zabel, **B. J. Burke**, L. C. Stuehrenberg, and T. C. Bjornn. 2005. Factors affecting adult Pacific lamprey passage rates at hydropower dams: using "time to event" analysis of radiotelemetry data. *In Aquatic Telemetry: Advances and Applications*, 01-07, 2004. M. T. Spedicato, G. Marmulla, and G. Lembo, eds.
- Neill, W. H., T. S. Brandes, **B. J. Burke**, S. R. Craig, L. V. DiMichele, K. Duchon, R. E. Edwards, L. P. Fontaine, D. M. Gatlin III, C. Hutchins, J. M. Miller, B. J. Ponwith, C. J. Stahl, J. R. Tomasso, and R. R. Vega. 2004. Ecophys.Fish: a simulation model of fish growth in time-varying environmental regimes. *Reviews in Fisheries Science* 12:233-288.
- Burke, B.J.**, and J.A. Rice. 2002. A linked foraging and bioenergetics model for Southern Flounder. *Transactions of the American Fisheries Society*. 131:120-131.

Awards and Honors

Department of Commerce, Energy and Environmental Stewardship Award, Runner-up (2012)
Advanced Studies Program, NOAA Fisheries (2009-2010)
Department of Commerce Silver Medal Award (2007)

Funding

- Co-PI on a FATE-funded study (2013): Disentangling freshwater and marine drivers of salmon populations in the California Current Large Marine Ecosystem and projecting the impacts of climate change
- Co-PI for a collaborative project with researchers from the University of Idaho from 2003 to the present. Funding through the U. S. Army Corps of Engineers (COE) has totaled over \$2M to NOAA Fisheries.
- Co-PI on several offshoot projects that have emerged from the adult radiotelemetry work.
- Co-PI on a large study of salmon ecology in the Columbia River Plume, funded by the Bonneville Power Administration, 2007-present.
- Funded through the Internal Grants Program at the NWFSC to initiate a project in the Elwha River on the Olympic Peninsula, studying migration behavior of several salmonid species.

Collaborators (past 48 months)

NOAA Fisheries: Bill Peterson, David Teel, Brian Beckman, Michelle Rub, Rich Zabel, Mary Moser, Sean Hayes, Brian Wells, David Huff, Lisa Crozier; *Department of Fisheries and Oceans*: Marc Trudel; *Chesapeake Biological Station*: Hongsheng Bi, Hao Yu; *University of Washington*: James Anderson, David Beauchamp, Julie Keister; *Oregon State University*: Jessica Miller, Londi Tomaro; *Oregon Health and Science University*: Antonio Baptista; *University of Idaho*: Christopher Peery, Christopher Caudill, Mathew Keefer; *Gulf of Maine Research Institute*: Carrie Byron