John R. Brandon, PhD

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John provides modeling and statistical support as an independent consultant to his clients, including: a National Science Foundation (NSF) research center initiative, and The Makah Tribal Council. This work involves evaluating the performance of alternative management strategies using computational statistics. He also prepares testimony on these applications as an expert witness under federal judicial oversight of aboriginal whaling. Previously, he worked as a staff consultant, leading the development of survey designs based on statistical power analysis. These studies successfully informed operational management decisions for foreign and multinational corporate clients under multi-billion dollar natural resource development projects.

Professional Positions

2016—present Population Dynamics and Statistical Consultant to the **Makah Tribal Council**.

2014–present Management Strategy Consultant to the (U.S.) **Science Center for Marine Fisheries**.

2009–2015 Biostatistician / Survey Scientist (Staff at **LGL** and **Greeneridge Sciences, Inc.**).

Academic Degrees

2003-2009 **PhD, School of Aquatic and Fisheries Sciences, University of Washington (UW)**.

1994-1998 BSc, Ecology, Behavior and Evolution, University of California, San Diego (UCSD).

Additional Coursework

- High Performance Scientific Computing, **Applied Mathematics 483/583**, UW.
- Computer Intensive Statistical Techniques, SIO-279, Scripps Institute of Oceanography.
- UCSD Computer Science and Engineering Department Extension:
  - Visual Basic II: Intermediate, **CSE-40159**.
  - Visual Basic III: Advanced Programming with ActiveX/COM, **CSE-40328**.

Applied Statistics

- Simulation modeling of dynamic feedback systems (*e.g.* **Brandon *et. al.* 2017** + **open source code**).
- Bayesian inference (*e.g.* **Brandon *et. al.* 2007**).
- Regression / Generalized linear models.
- Mixed-effects and Bayesian hierarchical models.

Computing Experience

- Git / **GitHub**.
- R %>% **R Markdown Notebooks**.
- Bash shell scripting and Makefiles.
- Fortran 90/95.
- **AD Model Builder** C++ language expression for auto differentiation.
- LaTeX
- Twitter **@BeachPooBot**