

ROBERT M. DORAZIO

Research Statistician / Adjunct Associate Professor

Florida Integrated Science Center, USGS
Department of Statistics, University of Florida
P.O. Box 110339
Gainesville, FL 32611-0339

Phone: 352-392-3081

Email: bdorazio@usgs.gov

EDUCATION

Ohio State University, B.S. (major in General Biology from Department of Biology, College of Arts and Sciences), 1979

University of Michigan, Ph.D. (major in Oceanography from Department of Atmospheric and Oceanic Science, College of Engineering), 1986

AREAS OF SPECIALIZATION

Statistical inference, mathematical modeling, population dynamics, ecology, conservation biology, [adaptive decision-making in management of natural resources](#)

SELECTED PUBLICATIONS

- Dorazio, R. M. 1993. Prerelease stratification in tag-recovery models with time dependence. *Canadian Journal of Fisheries and Aquatic Sciences* 50, 535–541.
- Dorazio, R. M., K. A. Hattala, C. B. McCollough, and J. E. Skjveland. 1994. Tag recovery estimates of migration of striped bass from spawning areas of the Chesapeake Bay. *Transactions of the American Fisheries Society* 123, 950–963.
- Dorazio, R. M. 1995. Mortality estimates of striped bass caught in Albemarle Sound and Roanoke River, North Carolina. *North American Journal of Fisheries Management* 15, 290–299.
- Dorazio, R. M. 1997. Modelling heterogeneity in the recoveries of marked animal populations with covariates of individual animals, groups of animals, or recovery time. *Environmental and Ecological Statistics* 4, 235–246, 347 (erratum).
- Dorazio, R. M. 1999. Design-based and model-based inference in surveys of freshwater mollusks. *Journal of the North American Benthological Society* 18, 118–131.
- Fabrizio, M. C., R. M. Dorazio, and S. T. Schram. 2001. [Dynamics of individual growth in a recovering population of lake trout \(*Salvelinus namaycush*\)](#). *Canadian Journal of Fisheries and Aquatic Sciences* 58, 262–272.
- Dorazio, R. M., and F. A. Johnson. 2003. [Bayesian inference and decision theory - a framework for decision making in natural resource management](#). *Ecological Applications*

13, 556–563.

- Dorazio, R. M., and J. A. Royle. 2003. [Mixture models for estimating the size of a closed population when capture rates vary among individuals](#). *Biometrics* 59, 351–364.
- Dodd, C. K., and R. M. Dorazio. 2004. [Using counts to simultaneously estimate abundance and detection probabilities in a salamander community](#). *Herpetologica* 60, 468–478.
- Dorazio, R. M., and J. A. Royle. 2005. [Estimating size and composition of biological communities by modeling the occurrence of species](#). *Journal of the American Statistical Association* 100, 389–398.
- Dorazio, R.M. and J.A. Royle. 2005. Rejoinder to “[The performance of mixture models in heterogeneous closed population capture-recapture](#).” *Biometrics* 61: 874–876.
- Dorazio, R. M., H. L. Jelks, and F. Jordan. 2005. [Improving removal-based estimates of abundance by sampling a population of spatially distinct subpopulations](#). *Biometrics* 61, *in press*.
- Dorazio, R.M., J.A. Royle, B. Söderström, and A. Glimskär. 2006. [Estimating species richness and accumulation by modeling species occurrence and detectability](#). *Ecology in press*.
- Royle, J. A. and R. M. Dorazio. *In review*. [Hierarchical models of animal abundance and occurrence](#). *Journal of Agricultural, Biological, and Environmental Statistics*.
- Royle, J.A., R.M. Dorazio, and W.A. Link. *In review*. [Analysis of multinomial models with unknown index using data augmentation](#). *Journal of Computational and Graphical Statistics*.
- Hooten, M.B., C.K. Wikle, R.M. Dorazio, and J.A. Royle. *In preparation*. [Describing spatio-temporal population dynamics of invasive species with a hierarchical matrix model](#).