

WILLIAM A. LINK

PERSONAL INFORMATION

email wlink@usgs.gov
website www.usgs.gov/staff-profiles/william-link
phone (301) 497 5631

WORK EXPERIENCE

*USGS Patuxent
Wildlife Research
Center*
1987–Present **Mathematical Statistician**
Developed statistical methods for wildlife studies, with emphasis on population monitoring, demographic analysis, and contaminant studies. Recent research has focused on Bayesian multimodel inference and hierarchical modeling.

*Towson State
University*
1986–1987 **Assistant Professor of Mathematics**
Taught undergraduate mathematics and statistics; served as statistical consultant.

EDUCATION

M.A., Ph.D.
1980–1986 **The University of Massachusetts at Amherst**
Thesis: *Contributions to Reliability Theory and Survival Analysis*
Developed and investigated models for informative censoring, and tests of exponentiality against monotone failure rate average alternatives.
Advisors: Profs. Ramesh KORWAR, Hui-Kuang HSIEH, Constantine GATSONIS, and David HOSMER

B.A.
1976–1980 **Western Maryland College**
Mathematics – Emphasis in probability and statistics.

PUBLICATIONS

*Bayesian Inference,
with Ecological
Applications*
Spring 2010 **Book**
This text provides a mathematically sound but accessible and engaging introduction to Bayesian inference specifically for environmental scientists, ecologists and wildlife biologists. It emphasizes the power and usefulness of Bayesian methods in an ecological context.
Authors: W.A. LINK, R.J. BARKER

*>125 publications,
with >50 as first
author*
1988–Present **Articles in peer-reviewed journals**
Biological Journals, including *American Naturalist*, *Auk*, *Ecology*, *Ecological Applications*, *Journal of Wildlife Management*, *Methods in Ecology and Evolution*, *Oikos*, *Proceedings of the National Academy of Science*
Statistical Journals, including *American Statistician*, *Austrian Journal of Statistics*, *Biometrics*, *Communications in Statistics*, *Journal of Applied Statistics*, *JASA*, *JABES*, *Journal of Computational and Graphical Statistics*, *Journal of Environmental and Ecological Statistics*.

Sample Publications

Link, W.A., Schofield, M.R., Barker, R.J., and Sauer, J.R. 2018. On the robustness of N-mixture models. *Ecology* 99: 1547-1551.

Link, W.A., and Sauer, J.R. 2016. Bayesian cross-validation for model evaluation and selection, with application to the North American Breeding Bird Survey. *Ecology* 97: 1746-1758.

Link, W.A., and Miller-Hesed, K. 2015. Individual heterogeneity in growth and age at sexual maturity: A gamma process analysis of capture-mark-recapture data. *Journal of Agricultural, Biological and Environmental Sciences* 20: 343-352.

Barker, R.J. and Link, W.A. 2013. Bayesian multimodel inference by RJMCMC: a Gibbs sampling approach. *American Statistician* 67: 150-156.

Higgs, M.D., Link, W.A., White, G.C., Haroldson, M., and Bjornlie, D.D. 2013. Insights into the latent multinomial model through mark-resight data on female grizzly bears with cubs-of-the-year. *Journal of Agricultural, Biological and Environmental Sciences* 18: 556-577.

Rotella, J.J., Link, W.A., Chambert, T., Stauffer, G.E., and Garrott, R.A. 2012. Evaluating the demographic buffering hypothesis with vital rates estimated for Weddell seals from 30 years of mark-recapture data. *Journal of Animal Ecology*, 81: 162-173.

Link, W.A., Yoshizaki, J., Bailey, L. L., and Pollock, K.H. 2010. Uncovering a latent multinomial: Analysis of mark-recapture data with misidentification. *Biometrics* 66: 178-185.

Link, W.A. and Barker, R.J. 2006. Model weights and the foundations of multimodel inference. *Ecology* 87: 2626-2635.

Link, W.A. 2003. Nonidentifiability of population size from capture-recapture data with heterogeneous detection probabilities, *Biometrics* 59: 1123-1130.

Link, W.A., and Sauer, J.R. 2002. A hierarchical analysis of population change with application to Cerulean Warblers. *Ecology* 83: 2832-2840.

For a complete listing of publications, see

<https://scholar.google.com/citations?user=p4xPms4AAAAJ&hl=en&oi=ao>

PRESENTATIONS

- >150 technical presentations,
>70 invited Various professional societies, including *American Statistical Association, American Ornithological Union, Biometrics Society, Ecological Society of America, EURING, International Environmetric Society, SEEM Conferences, Society for Conservation Biology, Wildlife Society*
- >15 workshops Multiday workshops on *Estimation of population change from count data; Introduction to Bayesian inference*

August 17, 2018