List of Online Supplements

Supplements for chapters *in* R. A. Gitzen, J. J. Millspaugh, A. B. Cooper, and D. S. Licht. 2012. *Design and Analysis of Long-term Ecological Monitoring Studies*. Cambridge University Press.

Chapter 5. Spatial sampling designs for long-term ecological monitoring

Trent McDonald, Western EcoSystems Technology, Inc., Cheyenne, Wyoming, USA.

Supplement 5.1. R code for GRS sampling

Chapter 7. The role of monitoring design in detecting trend in long-term ecological monitoring studies

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Supplement 7.1.Introduction to Chapter 7 supplements

- Supplement 7.2. Metadata underlying data used in the Chapter 7 examples
- Supplement 7.3. Variable names and brief variable descriptions for data used in Chapter 7
- Supplement 7.4. Original data set from which data were extracted for analysis in Chapter 7
- Supplement 7.5. Data analyzed for Chapter 7
- Supplement 7.6. SAS computations: Using a statistical model having only one slope
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- Supplement 7.8. R commands to compute the local estimate of variance
- Supplement 7.9. SAS output for the one-slope model
- Supplement 7.10. SAS output for the many-slopes model

Chapter 9: Variance components estimation for continuous and discrete data, with emphasis on cross-classified sampling designs

- Brian R. Gray, US Geological Survey, Upper Midwest Environmental Sciences Center, La Crosse, Wisconsin, USA.
- Supplement 9.1. SAS commands for evaluations summarized in Tables 9.1 and 9.2
- Supplement 9.2. SAS commands for evaluations summarized in Table 9.3 (MQL1, PQL1, RPQL1, and Laplace estimation)
- Supplement 9.3. R/WinBUGS code for evaluations summarized in Table 9.3 (MCMC estimation)
- Supplement 9.4. Estimating variance components and variance partition components on the probability scale for binary/binomial outcomes
- Supplement 9.5. SAS commands for evaluations summarized in Tables 9.4-9.5
- Supplement 9.6. Estimating variance components and variance partition components on the probability scale for binary/binomial outcomes using the "differencing" approach
- Supplement 9.7. SAS commands for evaluations summarized in Table 9.6

Chapter 12. Analytical options for estimating ecological thresholds – statistical considerations

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Supplement 12.1. Fitting the Bayesian change point models in JAGS and R

Supplement 12.2. R code for simulations presented in Chapter 12

Chapter 15. Structural equation modeling and the analysis of long-term monitoring data

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- Darren J. Johnson, IAP World Services, Inc., at US Geological Survey, National Wetlands Research Center, Lafayette, Louisiana, USA.
- Kenneth A. Bollen, Department of Sociology, University of North Carolina, Chapel Hill, North Carolina, USA.
- Supplement 15.1. Mplus output for final example model presented in Chapter 15, as summarized in Table 15.6

Supplement 15.1. Data used for the extended ecological example in Chapter 15