Tom's Favorite Bayesian Texts

December 18, 2020

The text I use most these days is Gelman et al. (2013), the widely used Bayesian text for graduate courses. The book I used to get started writing code is McCarthy (2007). It is a great followup to this course. I also frequently refer to Gelman and Hill (2009). The best book for population and community ecologists in my view is Royle and Dorazio (2008). I also use code from Kéry and Schaub (2012) from time to time. My favorite text for understanding the complete data likelihood and finite population sampling is Link and Barker (2010). This is also the best source for learning reversible jump MCMC, which is needed for approximating the probability of the model. And of course, my all time favorite is Hobbs and Hooten (2015). Mevin and I will submit the manuscript for the second edition during the fall of 2021 (hope springs eternal).

Literature Cited

Gelman, A., J. B. Carlin, H. S. Stern, D. Dunson, A. Vehhtari, and D. B. Rubin, 2013. Bayesian data analysis. Chapman and Hall / CRC, London, UK.

Gelman, A. and J. Hill, 2009. Data analysis using regression and multilievel / hierarchical modeling. Cambridge University Press, Cambridge, UK.

Hobbs, N. T. and M. B. Hooten, 2015. Bayesian models: A statistical primer for ecologists. Princeton University Press, Princeton New Jersey, USA.

Kéry, M. and M. Schaub, 2012. Bayesian population analysis using WinBUGS: A hierarchical perspective. Academic Press, Waltham, MA, USA.

Link, W. A. and R. J. Barker, 2010. Bayesian inference with ecological applications. Academic Press.

McCarthy, M. A., 2007. Bayesian methods for ecology. Cambridge University Press, Cambridge, UK.

Royle, J. A. and R. M. Dorazio, 2008. Hierarchical modeling and inference in ecology: the analysis of data from populations, metapopulations, and communities. Academic Press, London, UK.