Errata and Explanations: Hobbs, N.T. and M.B. Hooten. (2015). Bayesian Models: A Statistical Primer for Ecologists. Princeton University Press.

April 12, 2019

- Page 30, line 4: "quanties" should be "quantities."
- Page 47, Figure 3.4.3: x-axis label should be z, not u, on both panels.
- Page 55, The corrected sentence (with equation 3.4.21 appearing first) should read "To modify equation 3.4.21 so that the parameter k represents dispersion (as in equation 3.4.20), substitute..."
- Page 135, footnote 13: Should refer to box 6.2.2, instead of box 6.2.1.
- Page 153, line after eqn 7.3.9 should read "which, of course, you recognize as the posterior density evaluated at $\theta^{(k)}$."
- Page 176, eqn 7.3.50: Left-hand side should read: $[\boldsymbol{\theta}_o, \boldsymbol{\theta}_p, \mathbf{z}|\mathbf{y}]$.
- Page 178, Box 7.4: The variance parameter ς should be squared in the posterior distribution on the left hand side of the first expression. The posterior should read $[\alpha, \beta, \mathbf{z}, \sigma^2, \varsigma^2|\mathbf{Y}]$.
- Page 189: lines -3 and -2 should read: "that is, the standard deviation of $\mathbf{y}$ divided by the mean of $\mathbf{y}$.

- Page 189, Footnote 4: The indicator function inside the double integral should read: $I_{\{T(\mathbf{y}^{\text{new}},\boldsymbol{\theta})\geq T(\mathbf{y},\boldsymbol{\theta})\}}$.

- Page 202, line -2: "a priori" should be italicized as "*a priori*."

- Page 203, lines 6-7 of section 8.5.2: The test statistic for new data on the kth MCMC iteration should read:
$T(\mathbf{y}^{\text{new}},\boldsymbol{\theta})^{(k)} = \sum_t (y_t^{\text{new}(k)} - N_t^{(k)})^2/y_t^{\text{new}(k)}$.

- Page 221, equation 9.1.24: Should read as $z_j \sim \text{Bernoulli}(\phi)$, so that the Bernoulli probability is not confused with the number of regression coefficients p.

- Page 261, end of paragraph 1: the term $\beta_2 x_{1,i}$ should be $\beta_1 x_{1,i}$.

- Page 273, Afterword: To clarify, in the statement about unobserved quantities and latent variables, we mean that unobserved quantities, including latent variables, that are not fixed and known in Bayesian models should have probability distributions. These probability distributions can be dependent on further unobserved random quantities (i.e., hyperparameters) or they can depend on fixed quantities. In the former case, the distribution is referred to as a process model or hierarchical prior. In the latter case, the distribution is a prior and appears as a terminal node in the DAG and is considered a prior.

- Page 279, Poisson PMF should read: $[z|\lambda] = \frac{\lambda^z e^{-\lambda}}{z!}$.

- Page 280, Multinomial PMF should read: $[\mathbf{z}|\eta,\boldsymbol{\phi}] = \eta! \prod_{i=1}^k \frac{\phi_i^{z_i}}{z_i!}$.

- Page 282, Table A.3, Binomial PMF should read: $y_i \sim \text{binomial}(N,\phi)$ for $i = 1,\ldots,n$, then the posterior is $\phi|\mathbf{y} \sim \text{beta}(\sum_{i=1}^n y_i + \alpha, nN - \sum_{i=1}^n y_i + \beta)$.

- Page 282, Table A.3, Posterior distribution for σ^2, when y_i has a Log-Normal data model, should be: inverse gamma$(n/2+\alpha, \frac{\sum_{i=1}^n (\log(y_i)-\mu)^2}{2} + \beta)$.