N. J. Gotelli & A. M. Ellison. 2004. *A Primer of Ecological Statistics*. Sinauer Associates, Sunderland, Massachusetts

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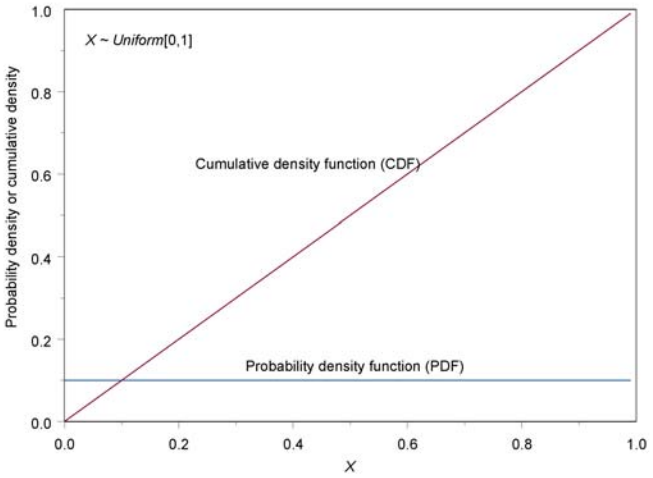
Errata from 2nd printing (printed: August 15, 2005)

Chapter 2

2.1. Page 44, Figure 2.5. The CDF on the figure should originate at (0,0), not



(0,0.1): .

The caption is correct as written. (*Thanks to Ingo Holz, Ernst-Moritz-Arndt-Universität Greifswald, Germany*)

Chapter 7

7.1. Page 189, Figure 7.12. Some of the replicates should have included the symbol for a control plot: ---------- (*Thanks to Ingo Holz, Ernst-Moritz-Arndt-Universität Greifswald, Germany*)

Chapter 9

9.1. Page 242, 4 lines from the bottom. "residual d_i" should be "squared residual d_i^2". (*Thanks to Jessica Hellman, University of Notre Dame*)

9.2 Page 242, bottom line. "residual d_i" should be "squared residual d_i^2". (*Thanks to Jessica Hellman, University of Notre Dame*)

9.3 Page 242, Equation 9.4. "d_i" should be "d_i^2". (*Thanks to Jessica Hellman, University of Notre Dame*)

9.4 Page 246, Equation 9.11. The demoninator "SS_{XX}" should be "SS_X". (*Thanks to Jessica Hellman, University of Notre Dame*)

9.5 Page 248, second paragraph, line 4. "SY_Y" should be "$SS_{Y"}$. (*Thanks to Ingo Holz, Ernst-Moritz-Arndt-Universität Greifswald, Germany*)

9.6 Page 254, 3 lines up from the bottom. the 95% confidence interval for the intercept ($ß_0$) should be 1.017 to 1.623, not 0.966 to 1.601. (*Thanks to Michael Meredith, WCS Malasyia Program*)

9.7 Page 257, lines 12 and 14. The point-prediction intervals given are 50% prediction intervals, not 95% prediction intervals. The correct 95% prediction intervals are 9 to 229 species (not 26 to 76) and 19 to 485 species (not 56 to 163). (*Thanks to Michael Meredith, WCS Malasyia Program*)

9.8 Page 269, Equation 9.33 has a missing subscript and should be: $\textit{residual} = \sum_{i=1}^{n} |Y_i - \hat{Y}_i| = \sum_{i=1}^{n} |d_i|$. (*Thanks to Ingo Holz, Ernst-Moritz-Arndt-Universität Greifswald, Germany*)

9.9 Page 291, 4 lines above Equation 10.1. "n = 1 to j replicates" should read "j = 1 to n replicates". (*Thanks to Jessica Hellman, University of Notre Dame*)

Chapter 10

10.1 Page 300, Table 10.4. The formula for the within-groups (residual) sum of squares $\sum_{i}\sum_{j}(Y_{ij} - \bar{Y}_{i})^2$ is incorrect. The correct formula is: $\sum_{i}\sum_{j}(Y_{ij} - \bar{Y}_{i} - \bar{Y}_{j} + \bar{Y})^2$. The correct version removes the effects of the blocks. (*Thanks to Stephen Roxburgh, Australian National University*)

10.2. Page 318, line 7. "Factor A is random, and Factor B is fixed" should say "Factor A is fixed, and Factor B is random". (*Thanks to Michael E. Meredith, WCS Malaysia Program*)

10.3. Page 339, Table 10.13. Column and row labels
for *Tedania* and *Haliclona* should be reversed. (*Thanks to Michael E. Meredith, WCS Malaysia Program*)

10.3. Page 339, Table 10.13. The 1st figure in the 3rd row (actually Unmanipulated vs. *Haliclona*) should be 0.436 (as in the first printing!) not 0.536; Unmanipulated vs. *Tedania* is 0.584, as in the 4th row. (*Thanks to Michael E. Meredith, WCS Malaysia Program*)

10.4. Page 340, Equation 10.29. The mean for foam is 0.712, not 0.715. (*Thanks to Michael E. Meredith, WCS Malaysia Program*). This error has cascading effects on other parts of the text:

10.5.1. Page 340, Equation 10.29. The corrected equation is: $MS'_{\text{foam vs living}} = \frac{((0)(0.3293)+(2)(0.7121)+(-1)(0.7650)+(-1)(0.9136))^2 \times 14}{0^2+2^2+(-1)^2+(-1)^2} = 0.1510$.

10.5.2. Page 340, two lines below Equation 10.29, "The F-ratio is 0.145/0.1642 = 0.882, with an associated *P*-value of 0.352" becomes "The F-ratio is 0.1510/0.1642 = 0.9196 and *P*-value 0.3420."

10.5.3. Page 341, lines 4 and 5, "F-ratio (14.02)" becomes "F-ratio (13.98)"

10.5.4.Page 342, Equation 10.32 becomes: 2.6014 = 0.1510 + 2.2958 + 0.1546

10.5.5. Page 343, Table 10.14 (***to 4 decimal places***) becomes:

Source	df	SS	MS	F-ratio	*P*-value
Treatments	3	2.6014	0.8671	5.2808	0.0030
Foam vs. living	1	0.1510	0.1510	0.9196	0.3420
Unmanipulated vs. living foam	1	2.2958	2.2958	13.9817	0.0005
Tedania vs. *Haliclona*	1	0.1546	0.1546	0.9415	0.3364
Residual	52	8.5388	0.1642		

Note that rounding the results to different precision may cause differences between the total sum of squares for the treatment effect and the summed sum of squares for

the contrast. Moreover, different computer programs (e.g., Systat, which we used for our calculations, or R, which Michael Meredith used) may not use the same precision for internal rounding and other calculations so that ANOVA tables may differ beyond a few decimal places. Some of the issues associated with the importance of appropriate process metadata that document such calculations, software packages and the like are discussed further by Ellison et al. (2006).

Chapter 11

11.1. Page 368, 8 lines from the bottom. This paragraph is not about computing the model fit of 11.20, it is about an initial chi-square test for independence of Table 11.5. To make this clearer, the first sentence of this paragraph should read: "Using S-Plus software, we computed expected values for Table 11.5, calculated the chi-square statistic (Equation 11.5) and its associated *P*-value, and tested the hypothesis that the four variables are independent." (*Thanks to Michael E. Meredith, WCS Malaysia Program*)

11.2. Page 368, 5 lines from the bottom. The *P*-value should be 0.01 (not 0.004). (*Thanks to Michael E. Meredith, WCS Malaysia Program*).

11.3. Page 371, 7th line below Equation 11.23. change "5 degrees of freedom" to "4 degrees of freedom". (*Thanks to Michael E. Meredith, WCS Malaysia Program*).

11.4. Page 380, 3 lines from the bottom. A better table of critical values for the Kolmogorov-Smirnov test for goodness-of-fit for a normal distribution is Lilliefors 1967, so change "(e.g., Rohlf and Sokal 1995)" to "(e.g. Lilliefors 1967)". The full reference that should be inserted into the Literature Cited is: Lilliefors, H.W. 1967. On the Kolmogorov-Smirnov test for normality with mean and variance unknown. *Journal of the American Statistical Association* 62: 399-402. (*Thanks to Michael E. Meredith, WCS Malaysia Program* for prompting additional research into this area, and for pointing out inconsistences between the K-S test and Sokal & Rohlf's table.)

11.5. Page 381, Legend to Figure 11.4, line 8. The critical value should be 0.206, not 0.173.

11.6. Page 381, text line 2. Change "0.173" to "0.206".

11.7. Page 381, text line 6. Change "0.178" to "0.206".

11.8. Page 381, bottom line. Add "(Lilliefors 1969)" after "exponential CDF". The associated reference to insert into the Literature Cited is: Lilliefors, H.W. 1969. On the Kolmogorov-Smirnov test for the exponential distribution with mean unknown. *Journal of the American Statistical Association* 64: 387-389.

Literature Cited

Page 488. The URL for Mecklin and Mundfrom's 2003 paper, "On using asymptotic critical values in testing for multivariate normality" has changed. The new URL is: http://interstat.statjournals.net/interstat/articles/2003/articles/jo3001.pdf. (*Thanks to James Sickel, Murray State University*)

Appendix

Page 478. The definition of a Type II error in the Appendix is incorrect. It currently reads: "Incorrectly failing to accept a false statistical null hypothesis." It should read: "Incorrectly accepting a false statistical null hypothesis". (*Thanks to Rodney Dever, West Virginia University*)