Hedrick, Genetics of Populations, Third Edition

Potential Errors

Note: this is a compilation of errors reported by several readers of the text. Not all of these have been verified as being in error

Page 11 fourfold and twofold "degeneracy" are misspelled

Page 58 Delete first "important" in first sentence of last full paragraph.

Page 80, after 2.10c, the second derivative of the log likelihood contains a mistake.

In a text book, it says
$$d2log(L)/dp2 = -(2N11+N12)/p^2 - (N11+2N22)/(1-P)^2$$

but it would be
$$d2\log(L)/dp2 = -(2N11+N12)/p^2 - (N12+2N22)/(1-P)^2$$

Page 81 Table 2.8 q-bar-hat equation for Codominance is incorrect.

Correct equation for q-bar-hat in Table 2.8 is q-bar-hat =
$$(N_{12} + 2N_{22} + N_2)/(2N_f + N_m)$$
 for x-linked.

Page 87 Table 2.12a, N should be separate from "Blue" label

- Page 94 Column headings of "Heterozygotes" and "Homozygotes" in table above Table 2.14 are switched. Also, replace "heterozygotes" in sentence between tables with "homozygotes."
- Page 105 Equations 2.23a and 2.23b are incorrect.
- Page 110 Table 2.20. Rounding is excessive.

Book has Secretor
$$X^2 = [2 (1179) (.0002)]/[0.53) (.47)] = 1.89$$

I calculated Secretor
$$X^2 = [2 (1179) (.000229)]/[0.528089) (1. - .528089)] = 2.16255 ~2.16$$

- Page 111 Q9. Melanics, insularia etc., are not described in this chapter.
- Page 166 Change sign on formula

$$\Delta q_f = + [1/2 p_f q_m - q_f (1/2 p_m + 5_f q_m p_f)]/[1-5_f q_f q_m]$$

- Page 169 Question 3, Compare to answers on page 722. Eventual allele frequency of R would be 0, .337, .337, 1.0. (Answer is reverse of what it should be)
- Page 170 Question 7, Check answers are given by Hedrick at top of page 162. Hedrick answers are $P_1 = .83$, $P_2 = .07$ and $P_3 = .10$ for A, S, and C.

RDS calculated $P_{1e}(A) = .837$, $P_{2e}(S) = .086$ and $P_{3e}(C) = .078$.

Question 10. Hedrick rounds excessively to get approximately 0.54 using expression 3.6c (page 722). When RDS used expression 3.6c, he calculated S = 0.503178.

- Page 304 Sewall Wright was not born in Illinois. Sewall Wright was born 21 December 1889 in Melrose, Massachusetts.
- Page 365 Figure is incorrect; should be at 0.81 for $v = 10^{-6}$
- Page 485 Equation 9.5b add brackets.

$$m = 1 - e^{[\ln{(1 - ivl)}]/t}$$

- Page 523 Question 4. Replace second "M" by "m".
- Page 580 Section title should be "d. Age of a Favorable **Mutant**"
- Page 594 The wording in question 2 is not consistent with the variables used in the main text: should be x_{11} not x_1 , x_{12} not x_2 etc.
- Page 721 Chapter 21. Replace "61.7" with "61.8".
- Page 722 Chapter 4. Delete "0.4". Should be 0.35, 0.35, 0.325??
- Page 723 Chapter 7. Delete extra space. "2. 0.909; 41,240"

Chapter 7. 6. Replace "0.000954" with "0.000955".

Chapter 7. 7. Replace "0.0016" with "0.00016".

Chapter 7. 15. May have the wrong answer