

Some errata for the book

R. Nielsen and M. Slatkin (2013) *An Introduction to Populations Genetics: Theory and Applications*

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These errata do probably not cover those that are mentioned in a file on the homepage of Rasmus Nielsen¹, which cannot be reached currently.

Page 29, Figure 2.5

X-axis: The second number should be $.5 \times 10^8$. The figure legend claims that “it would take 10^8 generations for the population to reach equilibrium.” I would rather have written that it would take **in the order of** 10^8 generations for the population to reach equilibrium.

Page 31, line 13

“we can estimate t_{AB} as $2\mu/d_{AB}$ ” should be “we can estimate t_{AB} as $d_{AB}/(2\mu)$ ”

Page 31, line 7 from bottom

$(0.07/2)/25 \times 10^6$ should be $(0.07/2)/(25 \times 10^6)$

Page 55, Figure 3.9

The SFS is written as a vector $\mathbf{f} = (f_1, f_2, \dots, f_{n-1})$. Therefore, there should not be a column at Allele frequency 10.

Page 55, line 5 from bottom

“the expected time is $2N/[k(k-1)]$ ” should be “the expected time is $4N/[k(k-1)]$ ”.

Page 138, line 4 of main text

“**Box 7.5**” should be “**Box 7.4**”

Page 139, line 7 from bottom

“Figure 7.3” should be “Figure 7.5”

Page 156, Figure 8.3

“Fifty replicate trajectories” should be “Ten replicate trajectories”

Page 157, Figure 8.4

¹<http://cteg.berkeley.edu/errata.html>

The labels of the axes are wrong. The label for the X -axis should be s , not “ t (in generations)”. The labels for the three Y -axes should all be $u(s, N)$, not the allele frequency f_A .

Page 169, Box 8.4 last three lines of Table

The Combined fitness should be $(1-s)^2$, $2(1-s)^2$ and $(1-s)^2$ and not $(1-s)2$, $2(1-s)2$ and $(1-s)2$

Page 169, Box 8.4 last line

“Figure 8.9” should be “Figure 8.13”

Page 173, line 5 from bottom

“where θ is the mutation rate multiplied by $2N$ ” should be “where θ is the mutation rate multiplied by $4N$ ”

Page 221, line 11 from bottom

“As shown in **Figure 11.2**, there is largely a linear increase in oil content in the lines selected for higher values, which indicates that the heritability in oil content has not changed during this time.” **This is not correct.** Take a look at the table below, which is based on Dudley & Lambert². It clearly indicates a decreasing heritability over time.

Table 1: Change of heritability in longterm selection experiment in corn.

Generation	IHO	ILO
0–9	0.50	0.50
10–25	0.22	0.23
26–58	0.14	0.11
59–100	0.08	0.08

The abbreviations IHO and ILO are Illinois High Oil and Illinois Low Oil, respectively.

Page 225, figure 11.4

The Y -axis shows the frequency of the character in the population, not the frequency of allele A .

²J. W. Dudley and R. J. Lambert, 2004. 100 Generations of selection for oil and protein content in corn. *Plant Breed. Rev.* **24**:79–110.