Errata for: Mathematical Models in Biology
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Text:
'*' denotes corrected in the second printing,
'•' denotes not corrected yet.

* p. 14; Figure 1.2: The equation above the graph should read
  "`next_p=p+.7*p*(1–p/10)`".

• p. 34; Line 1: The formula should read: $P_{t+1} = P_t e^{r(1-P_t/K)}$

* p. 35; Fig 1.12: The vertical intercept should be $e^r - 1$, not r.

• p. 37; Problem 1.4.3b: The formula should be $\Delta P/P = R(K - P)(P - L)$

• p. 48; Fourth displayed line of mathematics: A g is missing from the
  equation for y_2

* p. 54; Line 7: Should say "60 through 74"

• p. 83; Problem 2.4.3: Should say "... of the Usher matrix ..."

* p. 92; Problem 3.1.2: Should say "... counterclockwise pattern ..."

* p. 105; Problem 3.3.8.a: Second equation should be:

$$Q_{t+1} = (1 - u)Q_t + vP_tQ_t$$

• p. 141: Both $\mathbf{p}_1$ and $\mathbf{p}_2$ have the second and third column entry reversed.
  The offset equations should read

$$\mathbf{p}_1 = M\mathbf{p}_0 = \begin{pmatrix} .225 \\ .300 \\ .275 \\ .200 \end{pmatrix}, \quad \mathbf{p}_2 = M\mathbf{p}_1 = \begin{pmatrix} .222 \\ .320 \\ .274 \\ .183 \end{pmatrix}.$$

* p. 208; Line 1 and line 3, "boostrapping" should be "bootstrapping"

* p. 213: The `m`-file `flhiv` mentioned in the middle of the page should be
  `flhivdata`.

- p. 311: The first sentence is almost incomprehensible. A better version follows. (We welcome further suggestions for improving this.)

  If the female population were wholly susceptible to gonorrhea, that is, if $S_t^f = N^f$, then the expression $\frac{N^f}{\rho^f} = \frac{\alpha^f}{\gamma^f} N^f$ would give the average number of (infective females) $\cdot$ (time steps) caused by an infective male during a single time step.

Solution Manual of 2003:
The following have been corrected in the Jan. 14, 2005 version, which should be posted on the CUP website shortly. We recommend simply getting the corrected version.

- p. 9; 1.2.9c: Diagram is wrong. Cobweb should descend toward 0.

- p. 11; 1.3.9: Should refer to $|1+r| < 1$, $|1+r| > 1$, $|1-r| < 1$, $|1-r| > 1$, not < 0 and > 0.

- p. 12; 1.4.3b: The first paragraph should say:

  The graph of the polynomial $y = R(K - P)(P - L)$ has horizontal-axis intercepts at $P = L$ and $P = K$. Since $0 < L < K$, the polynomial's values are negative when $0 < P < L$ (when only the last factor is negative) and $K < P$ (when only the middle factor is negative), and positive when $L < P < K$ (when all factors are positive).

- p. 18; 2.3.4b: The dominant eigenvalue for the altered model should be 1.1326.

- p. 28; 4.2.12b: A space is missing in '*no change*'.

- p. 28; 4.2.12c: Should be: $1(.985)^3 + 3(.985)(.015)^2 = .9563365$.

- p. 32; 4.4.15b: Insert the word 'distribution' after 'base'.

Solution Manual of Jan. 14, 2005 and earlier:
The following have not yet been corrected.

- p. 9; 1.2.9d: Diagram is wrong. Cobweb should not spiral into a stable equilibrium.

- p. 22; 3.1.10, line 5: Should read "... in the formula for Q is 0 when $Q = 0$ and ..."