Corrections to

MATHEMATICS IN POPULATION BIOLOGY

p.9, l.5-: $p_j = p(t_j) - p(t_{j+1}) = \Pi(t_j, r) - \Pi(t_{j+1}, r)$

p.10, l.5: partition of $[r, r + c]$

p.11: l.12: emigration rate η. By ...

p.16, l.7-: $N(t_0 + mp) = N(t_0)e^{m\bar{\rho}p}, \quad m \in \mathbb{Z},$

p.20, l.1-: Replace ds by dr.

p.26, l.6-,7-:

$$\begin{array}{ll} t_k \to 0 & \text{as } \alpha \to \infty, \\ t_k \to \pi/(2k) & \text{as } \alpha \to 0. \end{array}$$

p.41, l.6-,5-: ... $z' = \mu\dot{z}$ and $x' = \mu\dot{x}$.

p.43, l.12,13: ... $z' = \mu\dot{z}$ and $x' = \mu\dot{x}$.

p.43, l.11-: ... $N' = \mu N(x - 1)$ ...

p.43, l.10-: ... with $\alpha = \tilde{\alpha}/\mu$ and $\beta = \beta_0$.

p.66, l.16: $K = \frac{\beta-\mu}{\nu}$,

p.67, l.3: $\epsilon\dot{y} = \cdots$

p.68, l.4-: let $x' = \phi\dot{x}$ and $y' = \phi\dot{y}$ be

p.69, l.3: L, and ...

p.74, l.12: ... population will die ...

p.85, l.7-: $f(x) > x \geq a$ ...

p.85, l.1-: ..., applied to f^2 on $[a, z]$, ...

p.86, l.7:
... itself. Suppose there exist $c < d$ such that $[c, d] \subseteq [a_0, b_0] \cap f([c, d])$.

p.87, l.3: $\tilde{x} = \sup f((0, x^*])$. Then $b_0 > \tilde{x} \geq x^*$.

p.87, l.14: then $f(x) > a_0$ ...

p.87, l.15: So, $f([a_0, b_0]) \subseteq [a_0, \infty)$, ...

p.110, l.18: ... number, $[r]_+ = \max\{0, r\}$.

p.112, l.8: $z' = \mu \dot{z}$ and $x' = \mu \dot{x}$.

p.155, l.7: $\cdots - \frac{\alpha(0,0)}{\xi} V$.

p. 163, l.13 - (Theorem 11.8):
that is a source and unstable.

p.163, l.5 -: ... first coordinate of an (unstable) source

p.189, l.10-: $\mathcal{F}(a) = 0$

p.234, l.4-: $\mathcal{F}_0(a) = \int_a^\infty f_0(t) dt$

p.234, l.1-: $-\check{\mathcal{F}}_0(\lambda) = \int_0^\infty e^{-\lambda a} f_0(a) da$

p.235, l.10-: $-\check{\mathcal{F}}_0(\lambda) = \cdots$

p.257, l.1: $s \approx \ln \mathcal{R}_0 / E_{\mathcal{R}}$

p.302, l.6 -: $1 = x_0 e^{z_0 - z(t_{\max})}, \qquad x_\infty = e^{z(t_{\max}) - z_\infty}$.

p.302, l.3 -, Cor. 18.10: $z_\infty - z(t_{\max}) \geq z(t_{\max}) - z_0$.

p.323, formula (21.17): η instead of γ

p. 342, (22.1) equation for R,

$$= -\mu(a) R(t, x) + v(a) S(t, a) + \gamma(a) I(t, a)$$

p.350, l.6-: There should be a "$-$" in front of the integral

p.351, l.3: There should be a "$-$" in front of the integral

p.354, l.7: replace $\bar{\phi}$ by $\bar{\psi}$

p.423, l.12: ... $[0, b), b \in (0, \infty]$.

p.431, l.6-: sufficiently large t by the intermediate value theorem for derivatives (Kirkwood, 1989, 1995, Exercise 18 in Section 5-2). Further f' must be bounded away from 0. ...

p.440, l.4- (Theorem A.34): ... total orbit $w : \mathbb{R} \to B$ ...

p.441, l.7: ρ-persistent

p. 445, l.11:
..., assume that $\alpha'(\mu_0) \neq 0$.

p.446, l.12-l.16:
If $a < 0$, the bifurcating periodic orbits are locally asymptotically stable; this case is called *supercritical bifurcation*. If $a > 0$, the bifurcating periodic orbits are unstable; this case is called *subcritical bifurcation*.
One can ...

p.477, l.7-: replace dt by dr

p.477, l.6-: replace dt by dr.

p.531: Mollison, D. (ed.), 1995, *Epidemic models: their structure and relation to data*, Cambridge University Press, Cambridge