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CORRECTION

Correction to: Slow–fast analysis of a modified Leslie–Gower model with Holling type I functional response

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The article was published with errors in equations (35), (36) and (37). To derive the standard slow–fast normal form near the folded singularity Q, we use the transformation $X = x - x_3, Y = y - y_3, \mu = b - b^*$ and the linear scaling $X' = -\frac{1}{k\sqrt{a}}X,\ Y' = -\frac{1}{ka}Y,\ t' = \sqrt{a}t$. The equations (35a)–(35b) then should appear as

$$\frac{dX'}{dt'} = -Y'h_1(X', Y', \mu') + X'^2 h_2(X', Y', \mu') + \epsilon h_3(X', Y', \mu'), \tag{35a}$$

$$\frac{dY'}{dt'} = \epsilon\left(X'h_4(X', Y', \mu') - \mu' h_5(X', Y', \mu') + Y'h_6(X', Y', \mu')\right), \tag{35b}$$

where $h_1 = 1, h_2 = 1, h_3 = 0, h_4 = 1 + 4a^{\frac{3}{2}}X' + \mathcal{O}(|X', Y', \mu'|^2), h_5 = 1 + \mathcal{O}(X', Y', \mu'), h_6 = -\frac{1}{\sqrt{a}} + \mathcal{O}(X', Y', \mu'),\ \mu' = \frac{\mu}{ka^{\frac{3}{2}}}$. Correspondingly, the corrected equations (36a)–(36f) will be as follows

$$a_1 = \frac{\partial h_3}{\partial X'}(0, 0, 0) = 0, \tag{36a}$$

$$a_2 = \frac{\partial h_1}{\partial X'}(0, 0, 0) = 0, \tag{36b}$$

$$a_3 = \frac{\partial h_2}{\partial X'}(0, 0, 0) = 0, \tag{36c}$$

$$a_4 = \frac{\partial h_4}{\partial X'}(0, 0, 0) = 4a^{\frac{3}{2}}, \tag{36d}$$

$$a_5 = h_6(0, 0, 0) = -\frac{1}{\sqrt{a}}, \tag{36e}$$

$$A = -a_2 + 3a_3 - 2a_4 - 2a_5 = \frac{8b^*}{k\sqrt{a}}(1 + 2a) > 0. \tag{36f}$$

The singular Hopf bifurcation and maximal canard curves are then given by $\mu = \mu_H\left(\sqrt{\epsilon}\right) = \frac{ka\epsilon}{2} + \mathcal{O}(\epsilon^{3/2}),\ \mu = \mu_c\left(\sqrt{\epsilon}\right) = \frac{ka}{4}\left(1 + 4a^2\right)\epsilon + \mathcal{O}(\epsilon^{3/2})$, and the equations (37a)–(37b) should be read as

$$b_H\left(\sqrt{\epsilon}\right) = b^* + \frac{ka\epsilon}{2} + \mathcal{O}(\epsilon^{3/2}), \tag{37a}$$

$$b_c\left(\sqrt{\epsilon}\right) = b^* + \frac{ka}{4}\left(1 + 4a^2\right)\epsilon + \mathcal{O}(\epsilon^{3/2}). \tag{37b}$$

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