RESEARCH

A sample article title

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Abstract

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Second part title: Text for this section.

Keywords: sample; article; author

Content

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Section title

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In this section we examine the growth rate of the mean of Z_0, Z_1 and Z_2. In addition, we examine a common modeling assumption and note the importance of considering the tails of the extinction time T_x in studies of escape dynamics. We will first consider the expected resistant population at vT_x for some $v > 0$, (and temporarily assume $\alpha = 0$)

$$E\left[Z_1(vT_x)\right] = \int_0^{v\wedge 1} Z_0(uT_x)\exp(\lambda_1)\,du.$$

If we assume that sensitive cells follow a deterministic decay $Z_0(t) = xe^{\lambda_0 t}$ and approximate their extinction time as $T_x \approx -\frac{1}{\lambda_0}\log x$, then we can heuristically estimate the expected value as

$$\begin{aligned} &E\left[Z_1(vT_x)\right] \\ &\quad = \frac{\mu}{r}\log x\int_0^{v\wedge 1} x^{1-u}x^{(\lambda_1/r)(v-u)}\,du. \end{aligned} \tag{1}$$

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Thus we observe that this expected value is finite for all $v > 0$ (also see ISSN International Centre (2006); Jones (1996); Kohavi (1995); Koonin et al. (1996); Margulis (1970); Schnepf (1993)).

Appendix

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Abbreviations
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Availability of data and materials
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Ethics approval and consent to participate
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Figures

Figure 1 Sample figure title

Figure 2 Sample figure title

Tables

Table 1 Sample table title. This is where the description of the table should go

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