

Report on the paper

Eco-evolutionary dynamics further weakens mutualistic interaction and coexistence under population decline

(revision of *Plant eco-evolution weakens mutualistic interaction with declining pollinator populations*)

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I have only few minor comments in order to improve the new version of the manuscript. My main comments concern, first, the removal of repetitions in Sections A and B, and second, Section C added in Supplementary Material, which is a mathematical analysis of a particular case. It is not clear why this particular case is treated and I suggest to add some explanations about that.

Comments

1. eq. (6): write $r_P(\alpha)$ instead of r_P ;
2. Supp. Mat.: some repetitions occur in Sections A and B. I suggest to merge these 2 sections in order to make them clearer.
3. Supp. Mat., top of p.2: Check the english grammar: I think that “the dynamic is” should be replaced by “the dynamics are”. Moreover “zeros” should be “zero”.
4. Eq (B8): $\hat{\epsilon}^2 \rightarrow \hat{\alpha}^2$
5. Supp. Mat.: Check all equation references and take into account the change of numbering. For example (old) equation (5) is now equation (7). At the beginning of Section “Conditions for invasibility”: the trade-off is not defined in Appendix A, but in eq. (6) in the main article. Eq (C3) does not exist; I think you wanted to refer to (C19).
6. I think that Section C in the current state is not really useful. My suggestion: Either explain clearly in the main text that $s = 2$ appears numerically as a threshold for the existence of 2 singular strategies and notice that the mathematical proof is not easy to derive but that we can however prove it in a particular case. Moreover add a sentence like “We prove in this section that $s = 2$ is a threshold for the existence of a second singular strategy in the case $r_A = 0$ for concave trade-off.” as introduction of Section C. Or delete this section.