



SDI Review Form 1.6

Journal Name:	<u>Physical Science International Journal</u>
Manuscript Number:	Ms_PSIJ_42472
Title of the Manuscript:	Weak Competition and Ideally Distributed Populations in a Cooperative Diffusive Model with Crowding Effects
Type of the Article	Original Research Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments	<p>This paper discusses the system solution, which involves two species. The dynamics model, which describes cooperation-competition between these two species, is studied. Weak competition and different resource functions are considered in the analysis. The results are well-discussed. However, the presentation of the paper could be further improved.</p> <p>Some comments are given as follow:</p> <ol style="list-style-type: none">1. Please do not mention “in my PhD thesis”. The PhD thesis that is mentioned in the text could be cited and put it in the reference list.2. In Page 3, see in the first important result, “... the steady state ($K(x)$, 0) of (1.1) is...” What is $K(x)$ in the text? Please mention clearly.3. Please do not use “part” or “portion” when state the content of the corresponding section. Use “section” is better.4. In Section 2, the proof for Proposition 1 and Lemma 1 is not given. Is there any reason?5. In Page 6, see sentence before Equation (2.13), the term of “$K(x)$” shall be written consistently, if use the term “K” in the text, then it is better to mention clearly. Any difference between “$K(x)$” and “K”?6. The notations σ_1 and $\phi(x)$ for Equations (3.2) and (3.3) shall not be the same since Equations (3.2) and (3.3) consider different steady state, that is, $(u^*(x), 0)$ and $(0, v^*(x))$. Moreover, the right-hand-side of the notations σ_1 and $\phi(x)$ is totally not the same. See Sections 3, 4 and 5 for the same comment.7. In Page 8, do not use “...the equation (3.4)...” Please use “Equation (3.4)” in the text.8. In Pages 8 and 9, do not use “proposition 2” and “proposition 3” in the text. They are special name, which refer to the corresponding proposition. Please use “Proposition 2” and “Proposition 3”.9. In Section 3, Theorem 1 does not have proof. Any reason?10. In Section 4, Theorems 4 and 5, and Lemma 8 do not have proof. Any reason?	



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<u>Minor</u> REVISION comments	<p>1. The numbering of the citations shall be put in order, for example, [1], [2], ... and so on.</p> <p>2. The numbering of equations shall be labelled in order, for example, (1), (2), ... and so on. The way used in the paper, which is (1.1), (2.1), (2.2)...., and so on, is for equation labelling in the thesis or the book.</p> <p>3. There are some grammatical mistakes. Please do the correction carefully.</p>	
<u>Optional/General</u> comments	Be careful to use the notation in order to represent the symbolic solution. Of course, using the same notation for different equations is much easier, but the solution would not be the same.	

Reviewer Details:

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