2nd report on the manuscript "When does gene flow facilitate evolutionary rescue?" by Tomasini and Peischl, 2019

In general, I feel satisfied by how the authors addressed the big majority of my comments. However, I still have few other comments and suggestions, which follow. I am indicating them in different points, referring to the order used in my previous revision.

Comments and suggestions

3(b). I appreciate how you addressed this point. As a last comment I would suggest you to write eq (5) using $p^{(1)}(0), p^{(2)}(0)$ instead of $p^{(1)}, p^{(2)}$.

5(d). Nice to see you added Figure 1. I was wondering why there is a drop in population size in deme 2 at time zero. It might be worth to explain it in the caption.

6(b). Maybe add a reference to Table 1 in the text introducing the parameters (between lines 107-123)?

7(a). I am glad you included this and I agree with you that it is enough to have it in the Supplementary material. Just please check if in line 44 (Supplementary Material) you actually refer to the LHS of eq (S5) or, as I feel, you refer to the first term of the RHS of eq. (S4).

7(b). Great. Maybe you could also add a reference to what stated in the Appendix between the lines 225-228 of the main text

9. I still have some doubts about this. While the Appendix B is quite clear, in the section *When does intermediate migration favors rescue?* you state "Our model allows us to derive a condition for when intermediate migration helps chances of survival by calculating when the derivative .. with respect to m at $m = 0$ is positive " (line 267-268). I understand the need of clarity in the text, but I still feel that using "intermediate" would require showing more than $P'_{rescue}(0) > 0$. For the moment I feel that the condition (11) addresses only the more general question "When does migration favors rescue?".

14 (eq.(18)). Now it is much clearer, but I just feel that changing the notation in this way can be quite confusing (up to this point N_i has always been the number of wt individuals in deme i)

Few other minor comments or suggestions

- line 135: Especially in light of the fact that these lines are recalled in line 162 as a discussion, I think this point could be further clarified by reminding that mutations are deleterious in the original environment.
- line 185: you refer to eq (S4) as for the solutions of (10) but (S4) refers only to the solution N_1 in phase 1.
- line 254: Are you referring to S7 only or also to S6? And about caption in Figure S7: in the main text (line 252-254 and 322-323) you say that the estimation is correct for small values of m, while in the caption you say the expectations differ from simulations (which actually does not look like from the figures).