



22 April 2020

Dr Dustin Brisson
PCI Evolutionary Biology

Dear Dustin (Denis / Thomas)

Thank you for your review of our resubmitted manuscript. We appreciate the effort involved in getting to grips with this challenging piece of work. Your contributions (and those of the other reviewers) were really valuable. Of course we are delighted that you found the revised version substantially improved and essentially ready for the PCI stamp of approval.

In preparing this final version, we have taken note of each query on the annotated manuscript and the general comments. In many cases we think that things are clear, if not on first reading, then definitely on second reading, and especially so when the figures (plus captions) are also consulted. An important message to get across is the connection between this paper and that previously published in *Nature* in 2014. The two papers, which are different aspects of the same experiment, really need to be read together. This is particularly true of methodological aspects.

Nonetheless, we have taken on board requests for additional clarification of Methods. We have at your suggestion moved the methods section so that it now follows the Introduction. We have also re-worked this section to make it more recipe-like, we have made clear the maturation and dispersal phases and further elaborated on the method of fitness measurement. We have additionally included specific details in response to minor queries to avoid any ambiguity in the experimental description that features at the start of the Results and Discussion section.

We have not separated the Results and Discussion. We merged them after the first submission because of the clear need to discuss results as they arise. To leave this to the Discussion required a restatement of the relevant results and then discussion. It was overwhelming and clunky. We really think the combined approach works better than one in which the two sections are separated.

Slightly jarring, we acknowledge, was the Summary and Conclusions sections. To make this more approachable we have placed the previous summary section inside the Results and Discussion (and titled it “summary of principle findings”) and we have re-titled the Conclusions section “Perspective” (which is what it is).

Yours sincerely

Paul Rainey and Caroline Rose (on behalf of the authors).