

Editor's Comments

Dear authors,

Both reviewers have appreciated your changes and considered that the paper has been improved a lot.

One reviewer still has a few comments that should be dealt with easily. I encourage you to do these changes and resubmit a new draft of the paper before I recommend your preprint.

Best wishes

Denis Réale

Response: Thank you Prof. Réale. Your feedback has significantly improved the manuscript. We have made all of Reviewer 1's suggested changes.

Review's Comments

Reviewer 1: Comments

In this manuscript the authors present new empirical data of a predator-introduction experiment in natural settings. Following the introduction of an ecologically (but not evolutionary) novel mammalian predator, they monitored mammalian prey population size and dynamics, behavioural responses towards novelty and seed predation in replicated populations for several years. They found changes in prey demography and behaviour that might have cascading effects on lower trophic levels due to direct effects (reduced population size of consumers) and indirect effects (reduced seed predation by the consumer under predation risk). Prey in predator exposed populations had lower survival, faced decreasing population size, expressed lower levels of neophobia-related behaviours in novel-environment and novel-object tests, and removed less seeds from risky foraging patches.

Overall, this is an interesting experimental case study for those interested in behaviour-mediated indirect ecological interactions and the study is highly suitable for an ecological journal. In this revised

version of the manuscript the authors followed most of my (and the other's) suggestions. This version is largely improved, reads well, has clear figures, and includes all necessary detail. In my taste the discussion is still a bit lengthy in parts, but this is more for editorial decisions of the particular journal it will end up in. I only have a few very minor remarks (below).

General comments:

All my general comments have been taken up and I do not have any additional major comments.

Specific comments:

Comment: Introduction L100: In my view the predictions for the behavioural changes could be more nuanced. I do not think that in a predator-present population "foraging rates" in general decline but they might do in your specific experimental setting.

Response: Good point. We have broadened the expectations of our predictions by not placing expectations on the direction in which they may change. Evidence suggests it can be unpredictable and may go either way. Now: "If behavioural adjustments are able to reduce the demographic effects of a novel predator, we predict rapid behavioural changes in quoll-exposed melomys populations, such as changes in personality composition, foraging behaviour and responses to predator-scent, may manifest through time."

Comment: Methods L129: "quoll-free sites"

Response: Good catch. Pluralised from "site" to "sites".

Comment: L329: "number of seeds harvested as a linear function"

Response: Added the missing "as" between "harvested" and "a".

Comment: L336: Please give R version used.

Response: Added "R version 3.3.2"

Comment: Discussion L450-452: This sentence is hard to understand, consider rephrasing; What do you mean with "...that applies to the landscape becoming a fine-grained response..."?

Response: Good point. Changed to "Thus, we see a reduction in seed take resulting in a fine-scaled aversive response varying on a spatial scale measured in the tens of metres."

Comment: The authors did a great job in discussing the potential impacts of confounds on their findings and make clear judgments.

Response: Thanks you. We appreciate the feedback. And thank you for the detailed review, we agree that it has improved the manuscript.

Reviewer 2: Comments

Comment: I thank the authors for addressing all my comments. I am satisfied with the revisions made and have no other major comments to make. I congratulate the authors on a really nice manuscript.

Response: Thank you. We appreciate the feedback and the effort you went to in reviewing this manuscript. It was much improved by your suggestions.