

Reviewer 1

I am fine with that as a selling point, though I still think most researchers are already aware of the problem of generalizing ecological adaptations from a single species. It would help if the authors could come up with a few case examples to illustrate their concern on this point.

We thank the reviewer for helping to frame our focus here. The point is not so much in generalizing ecological adaptations from a single species – we agree that most people are aware of this limitation. The main point here is that we need to understand a model species to be able to utilise it in a sensible and appropriate way, and interpret results through an appropriate ecological and evolutionary framework. We have sharpened this message in the conclusion:

Our final sentences now read:

The main issue here isn't just about being careful not to use laboratory studies of a single species to generalise more broadly about all members of a particular taxon. Future studies need to think carefully about the appropriateness of using the zebra finch for a particular research question in the context of its evolutionary history, and behavioural and life-history differences to many other passerines. Greater insight will result from future studies that interpret laboratory outcomes of future work on the Zebra Finch in the context of a better understanding of the uniqueness of this species, and its adaptations to a particular ecological context, far from the laboratories in which it will continue to be extensively used.

We agree that it will also be useful to use an example and have significantly expanded the later section of the manuscript with some specific issues around mate choice. The newly added section is as below:

An example of the consequences here on research can be seen in the area of mate choice. The Zebra Finch has been the focus of dozens of studies into mate choice with rather equivocal results [82]. Typically laboratory experiments hold zebra finches in single sex groups before exposing males or females to members of the opposite sex to 'choose' a partner on the basis of a wide range of phenotypic traits. In the wild zebra finches are never found in single sex groups, and indeed are paired for life [5], spending time in very close association with their partner in breeding and non-breeding periods [83]. Given the long life-history strategy of the species, and the benefits of repeatedly breeding with the same individual [81,84] it is likely that social coordination with a partner built over time is more important than mate choice on the basis of phenotypic traits that will only reliably predict quality in the short-term [81]. Condition dependent secondary sexual traits such as colour or song are likely to be of greater importance in a short-lived seasonal breeder where pair bonds are formed immediately prior to a breeding event and the duration of bonds rarely outlasts a single reproductive event. In a species like the Collared Flycatcher, in which males and females arrive separately from Africa onto the European breeding grounds, it makes sense for a female to base her choice of partner on whatever information she can glean from his phenotype (and territory) as quickly as possible given the short time available to breed successfully. The typical mate choice experimental approach used in research on the Zebra Finch is a very good approximation of the ecology of mate choice for a species like the Collared Flycatcher, but does not represent the ecology of mate choice in the zebra finch.

Editor

I, as E-in-C, had also given some suggestions for the ms during the 1st review round; unfortunately, it seems that you have not followed them adequately. I will repeat my notes below again. Thus, follow them as detailed as possible;

Apologies. We didn't see the Editor in Chief's comment when revising the MS. We only worked through the comments of the reviewers. We have now amended the MS as below to account for these comments.

2) the readers might be also interested in about the differences between the concepts (definitions) of the model and indicator species. IF YOU WILL FEEL THIS UNIMPORTANT, JUST SKIP THIS.

I apologise but we did not understand what you mean by this comment, and have therefore been unable to make any change.

3) Check and correct writing style of English bird species names; should be written as e.g. Zebra Finch; Dark-eyed Junco etc. (check the whole ms; simple summary, abstract, tables etc.); but note the that right writtin styles of mammals names should be like, brown rat

We believe that we've now fixed this issue.

4) give always the English name of the species, and Latin name only when firstly mentioned, also in the Simple Summary and Abstract

Yes, we believe that we have now corrected that issue.

5) Define, what are "big x modeling" species cited at the beginning of the intro on L37

I have now altered this sentence slightly, by adding “not one of the big six model species that have been so influential in modern biology through extensive laboratory research”. I’m not completely sure what you wished to see here. However, I feel that the big six model species are very well discussed in the citation given in this sentence. Furthermore, as this was only the first part of the sentence introducing the zebra finch we are limited in how much we could write here without having to majorly edit the structure of the whole sentence and first paragraph. Hopefully the change that I have made will achieve what you wished.

6) WofS search: perhaps a little bit more about the search method used should be written also in the main text, e.g. how the readers can be sure that all important species are considered/searched related to the table 1. Describe the search words etc. so that when repeating the search, the readers will get exactly the same number of hits than you got.

We have now included the following in the legend of the Table. “(this is an indicative analysis and there may be some well-researched species that were not searched)”. This is an important point. We believe that we have presented the most researched species in this table but it is not a quantitative analysis.

The full text of the Table title is as follows. This text should provide all of the information required for readers to be able to repeat the search and generate the same numbers (although they will be slightly larger due to new citations after 18th December).

“The number of papers found on searches for a collection of the most widely researched avian species (this is an indicative analysis and there may be some well-researched species that were not searched). From Web of Science (Clarivate analytics), accessed on the topic search “[scientific name of each species]” on 18th December 2020 searching for "Topic" between 2000-2020. "Topic" searches title, abstract, author keywords and keywords plus.”

7) Check lastly the layout of the reference list

Yes, we're not sure if there was a specific problem here but this is how the reference list come out using the Word template and the endnote style downloaded. Hopefully this is OK.