Peerage of Science
Peer review, for the Peers, by the Peers

Review by Peer 254 on manuscript:

Manuscript title censored

Revision recommendation: Major revision

ADDED INFO ABOUT PUBLICLY FEATURED REVIEW

Author of this peer review is

an Assistant Professor at a university in USA.

PEQ = 4.4 / 5

Peer reviewed by 5 Peers.

Introduction

In this study, the authors address whether male [redacted] are 'choosy' about [redacted] of their mates by conducting an experiment that [redacted]. A female mate choice experiment was also conducted.

Merits

score: 4.0 / 5

The primary merit of this study is that, if full support for [redacted] can be found, his may be the first study of its kind (or one of only a few - see below) to demonstrate such behavior.

Critique

score: 4.5 / 5

One major problem with this manuscript is that the authors do not demonstrate a mastery of their field in their introduction and discussion sections. Too few studies are cited, and too many claims are left unjustified. I am not left fully concinved of the novelty of this work or its impact on the field. Most glaringly, the authors state that this would be the first study to demonstrate [redacted]. I was able to quickly find at least one paper that has already demonstrated this phenomenon ([redacted]), alongside many papers showing [redacted] can be based on [redacted] ([redacted]).This doesn't, of course, make the goal of the paper any less interesting, but it does underscore why one should be particularly careful when making the claim that one's work represents the "first" finding of something. In the same vein, far more background is needed regarding the history of male mate choice, inbreeding depression and genetic quality.

A second major problem is one that the authors themselves make reference to. The experimental design used here is problematic in that it does not allow one to distinguish between [redacted] and female

competition. While the assertion that the current experimental setup represents a more "natural situation" is probably true (although some discussion of the mating ecology of [redacted] in nature would be helpful here), that doesn't really help deal with the problem. Further, since mating pairs are removed each time a mating occurs, sex ratios are changing over time in different ways in each treatment / replicate. This adds another, unaccounted for, variable. Single-pair or two-way choice experiments must be used in concert with the current setup to allow the reader to be more confident in these findings. To eliminate [redacted] and perhaps to explicitly test for a role for [redacted] on mate choice, females (one control, one [redacted]) could be visually hidden from single males, which would then choose to orient towards one or the other based on [redacted]. Without additional experiments, the current results are only somewhat suggestive of [redacted], and do not allow the authors to confidently reject other equally viable alternative hypotheses.

Discussion score: 4.8 / 5

Overall, I think this is a study with promise, in that the authors have a system where [redacted] and genetic quality are experimentally manipulatable. However, two things would need to happen before it were ready for publication in any peer reviewed journal. 1) A much greater effort needs to be made toward describing the hypotheses and results in terms of the current state of the field. 2) additional experiments need to be conducted to help evaluate the promise of other competing hypotheses that might explain the current findings.

References

[1] Anonymous authors (2012) [redacted] (unpublished manuscript) - Peerage of Science

2. [redacted]

3. [redacted]

Additional comments for authors

Ln 6, 29: Need to actually define "genetic quality"

Ln 6: Start with a more general statement about [redacted] and why mate choice to [redacted] may benefit organisms

Ln 9: "...was not (significantly) affected...

Ln 10: "a slight (positive? negative?) effect.."

Ln 14: "Avoiding" is a loaded word [redacted] . Does this indicate actual antagonism of males by females?

Ln 30: Is this redundant? Doesn't [redacted] imply an effect on fitness traits? How could a population experience [redacted] that did not affect fitness traits?

Ln 46: The authors need to further explain how and why [redacted] was negligible (don't just cite another paper).

Ln 80: name source of food coloring (company, location)

Ln 107: "(significantly?) more likely..." need more stats here in this section in addition to reference to table 3.

Figure 1 could use indications of significant differences between treatments, as well as a slightly expanded and more descriptive legend.