

Peer Review

Review of: "Partial Sex-Role Reversal of the Pink Bollworm Moth (*Pectinophora gossypiella*)"

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Reviewer Sayuri Muñoz Arroyo

I only have a few comments that I noticed as I read through the manuscript that the authors might want to address before publication:

Introduction

In the first paragraph, you explain conventional and sex role reversal but do not mention how the operational sex ratio (OSR, the average ratio of fertilizable females to sexually active males at any given time; Emlen and Oring 1977; Kvarnemo and Ahnesjö 1996) affects sex roles. At the end of this paragraph, could you explain how biases in OSR influence sex roles?

You can review these concepts in the following studies: Andersson M., Iwasa Y. 1996. Sexual selection. *Trends Ecol Evol* 5347:53-58. Barlow GW (2005) How do we decide that a species is sex role sexual? *Q Rev Biol* 80:28-35.

Materials and Methods

In this section, my main doubt is about the experimental design. Could you explain why you only used treatments biased towards females (Experiment 2. Females' choosiness) and did not carry out an experiment that also included treatments with a sex ratio biased towards males that could be called: Experiment 3. Males' choosiness?

Did you base this sex bias on how such sex ratios occur in the wild?

Discussion

In the discussion section, could you add a few lines explaining how a female-biased sex ratio might be affecting sex roles in this species?

Declarations

Potential competing interests: No potential competing interests to declare.