Building Nests to Impress: The Impact of Female Zebra Finches on Nest Building

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Introduction

- **Male zebra finches** are the primary nest builder [1]
- **Female zebra finches** typically do not select or deposit nest material [1]

Research question: Do females affect male nest-building behaviour?

Methods

- Male and female zebra finches paired
- 10 pairs each given 50 pieces of string
- Videos of the nest building were recorded until all material was deposited in the nest

Behavioural Measure: Deposits of material into the nest by the male when:

- Female was on the nest (green circles in graphs)
- Females was off the nest (orange squares in graphs)

Figure 1. Zebra finch pair on dome-shaped nest. Male (left) and Female (right) in the nest entrance.

Results

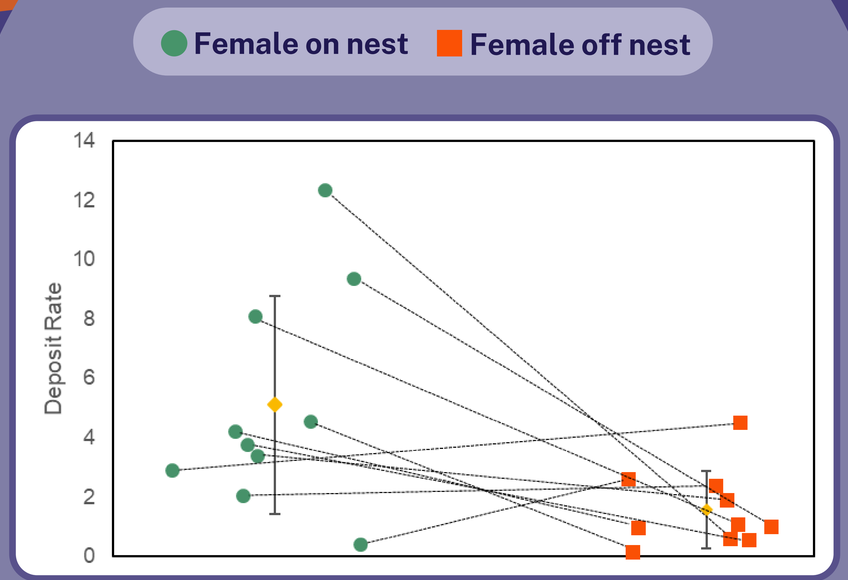

Figure 2. Rate (material deposits by male per hour, y-axis) when his partner is on the nest (green circles) versus off the nest (orange squares, x-axis). Yellow diamonds represent the mean and error bars represent the standard deviation. Dashed lines represent one pair. The males building rate is faster when the female is on the nest ($t(9) = 2.48$, $p = 0.02$)

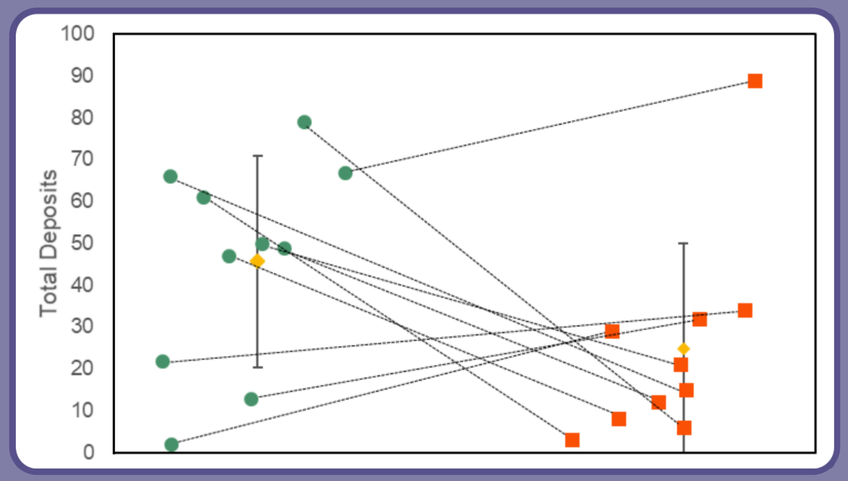

Figure 3. Nest material deposits by the male (y-axis) when his partner is on the nest (green circles) versus off the nest (orange squares, x-axis). Yellow diamonds represent the mean and error bars represent the standard deviation. Dashed lines represent one pair. The same amount of material is deposited regardless of the females' location ($t(9) = 1.76$, $p = 0.06$)

Summary

- Males build the nest at a **faster rate** when Females are **on the nest**
- Female behaviour has some impact on the total deposits made

Conclusions

- Female zebra finches **influence males' nest-building behaviour.**
- Male Zebra finches may be **more motivated** to engage in nest-building behaviour when the female is present and on the nest.

Citation

[1] Lambert, C.T., Balasubramanian, G., Camacho-Alpizar, A., & Guillette, L.M. (2020). Do sex differences in construction behavior relate to differences in physical cognitive abilities? *Animal Cognition, 25*(3), 605-615. DOI: 10.1007/s10071-021-01577-2

ACRG Website

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