Reproductive Consequences of Population Divergence through Sexual Conflict

Martin, Oliver and Hosken, David. Current Biology Vol 14. pgs. 906-910 25th May 2014

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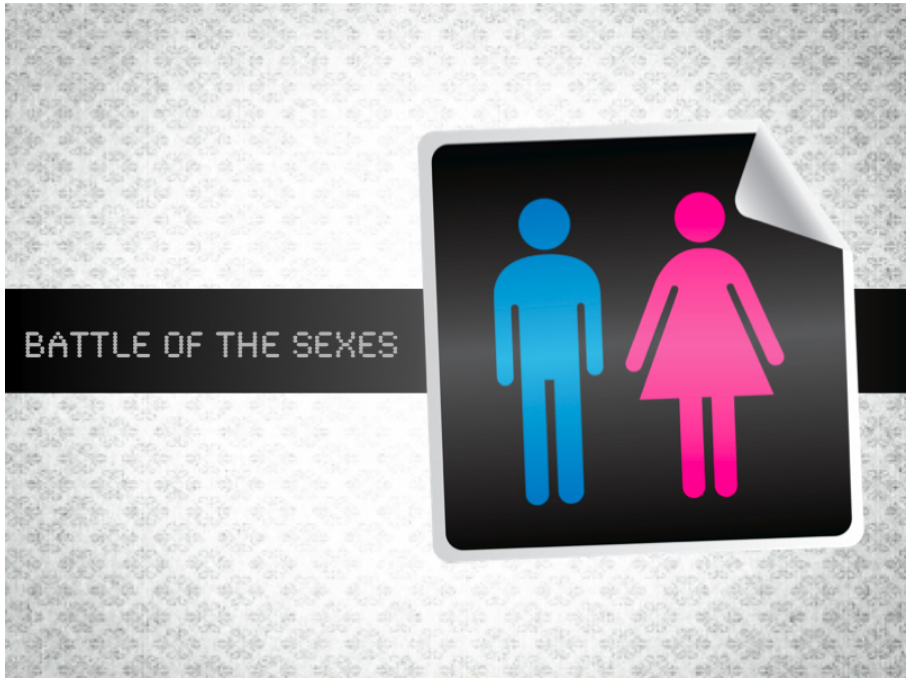
5th March 2013

Evolution Spring 2013

Introduction

- Sexual Selection research as a whole
- Sexual divergence between males and females
- Antagonistic Coevolution



Major Questions of the Paper

- A. What are the consequences of 3 different levels of sexual conflict on reproduction?

- A1. What are the effects of housing and conflict on Longevity?

- A2. What are the effects of sexual conflict on number of offspring?

Background

- Sepsis Cynipsea
- Three different levels of conflict (High, low, relaxed)
- 42 generations
- 2 generations relaxed

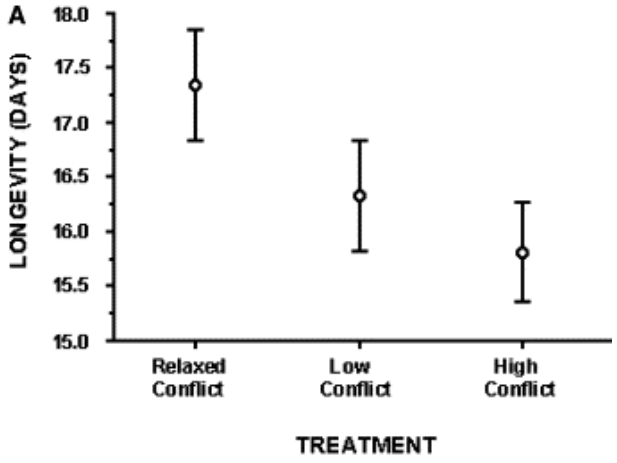
Methods

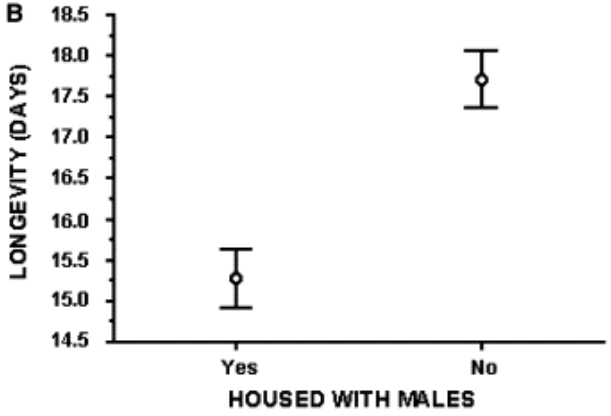
- Females with single males
- 20 females copulated from each
- 10 and 10 division

How was Studied

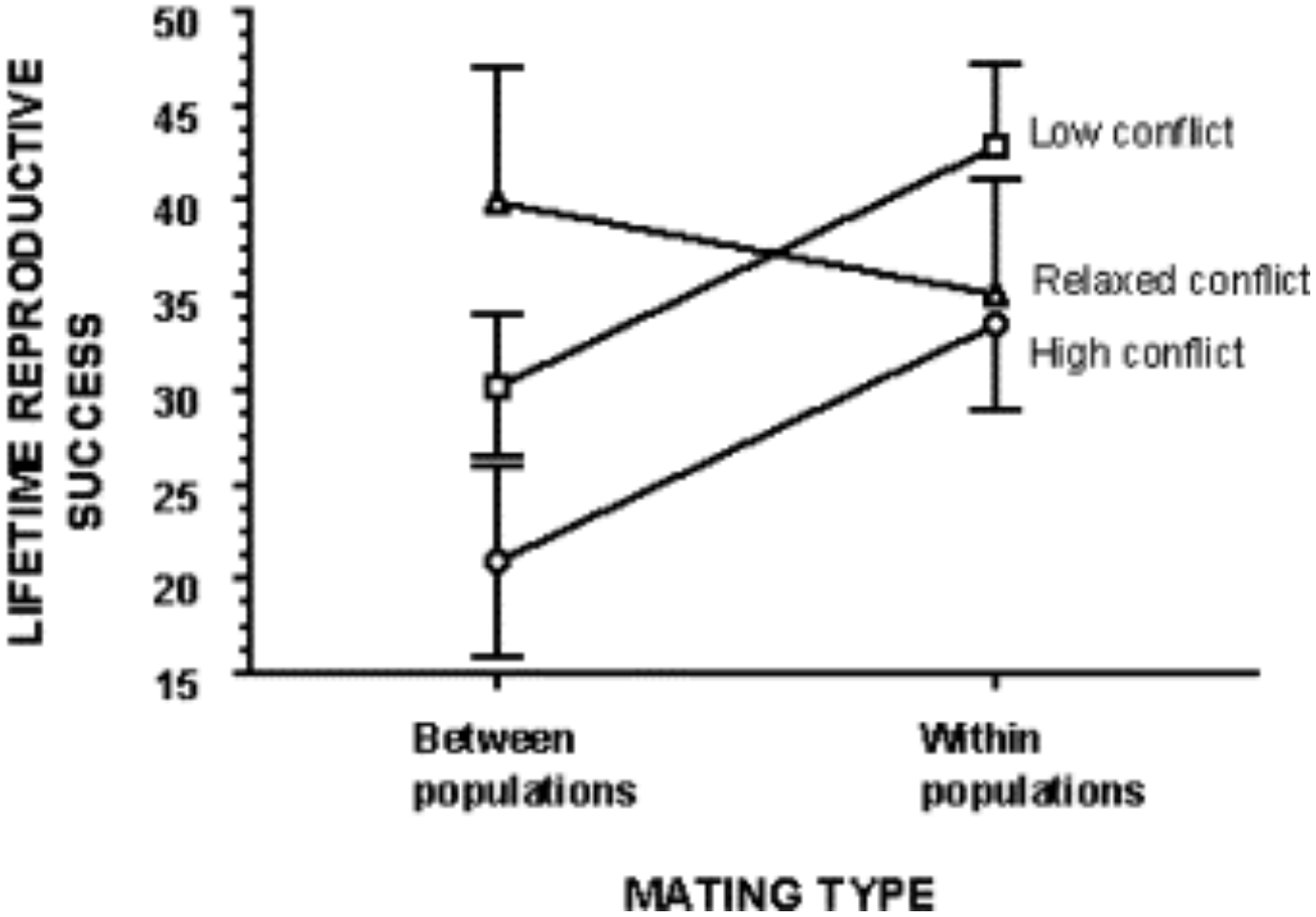
- Multivariate (conflict, mating type, housing)
- Univariate (conflict and housing on longevity)
- Mean values for LRS, female longevity, copulation time

Results A1 Longevity





Results A2 LRS



Copulation

- High conflict situations had more pairs that did not mate
- Between vs. Within populations
- Duration

Conclusions

- Foreign males from conflict populations reduce fitness more
- Lower fitness in populations with more selection
- Male-female coevolution is antagonistic
- Matches Drosophila studies

References

- Martin, Oliver Y., and D. J. Hosken. "The Evolution of Reproductive Isolation Through Sexual Conflict." *Nature 423 (2003): 979-82. Print.*

- Martin, Oliver Y., and David J. Hosken. "Reproductive Consequences of Population Divergence through Sexual Conflict." *Current Biology 14.10 (2004): 906-10. Print.*

- "Sepsis Cynipsea." *BioLib. N.p., 24 June 2010. Web. 01 Mar. 2013.*