

# Selecting for long and short sperm storage organs in female fruit flies influences the mating success of the sons



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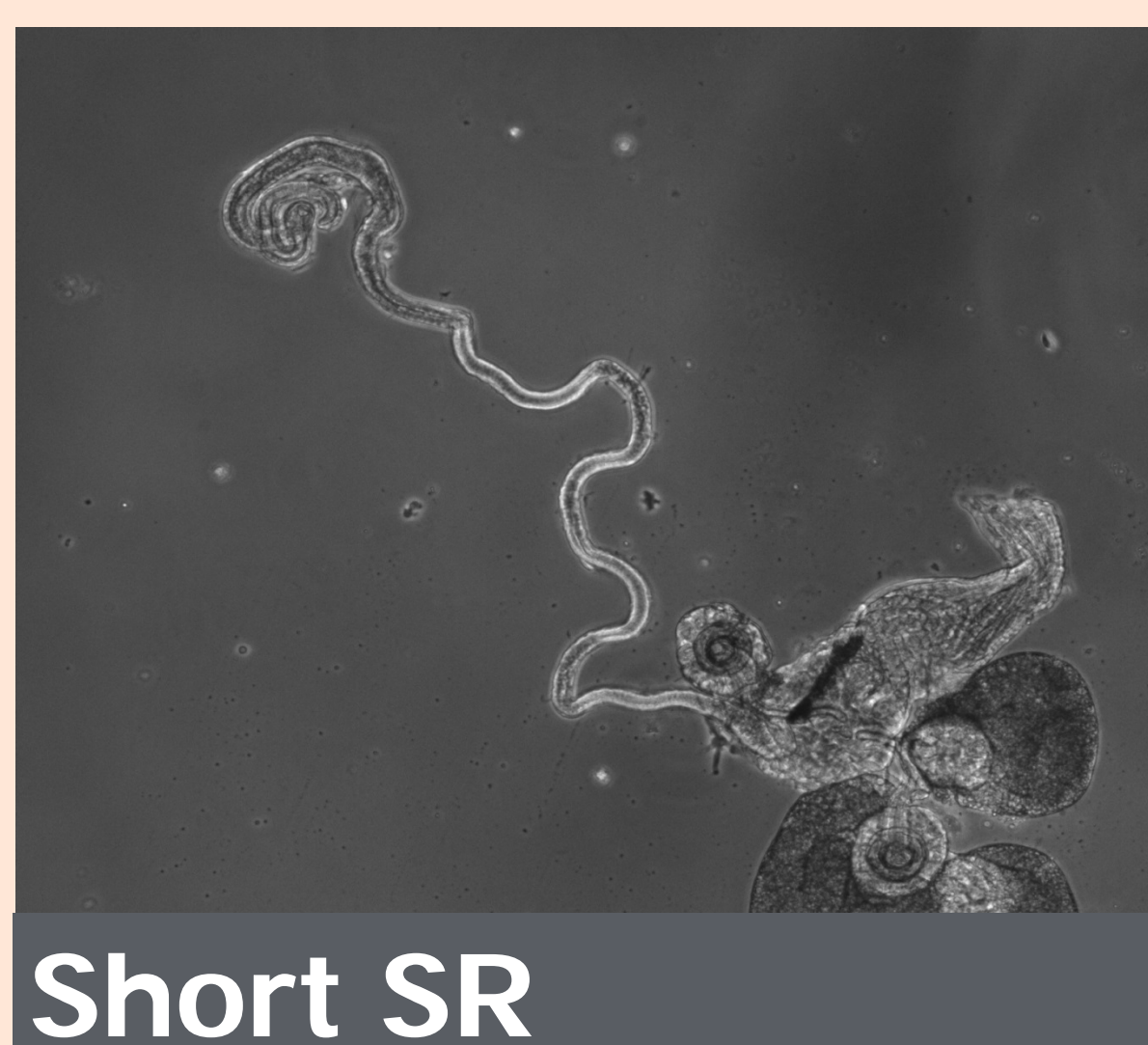
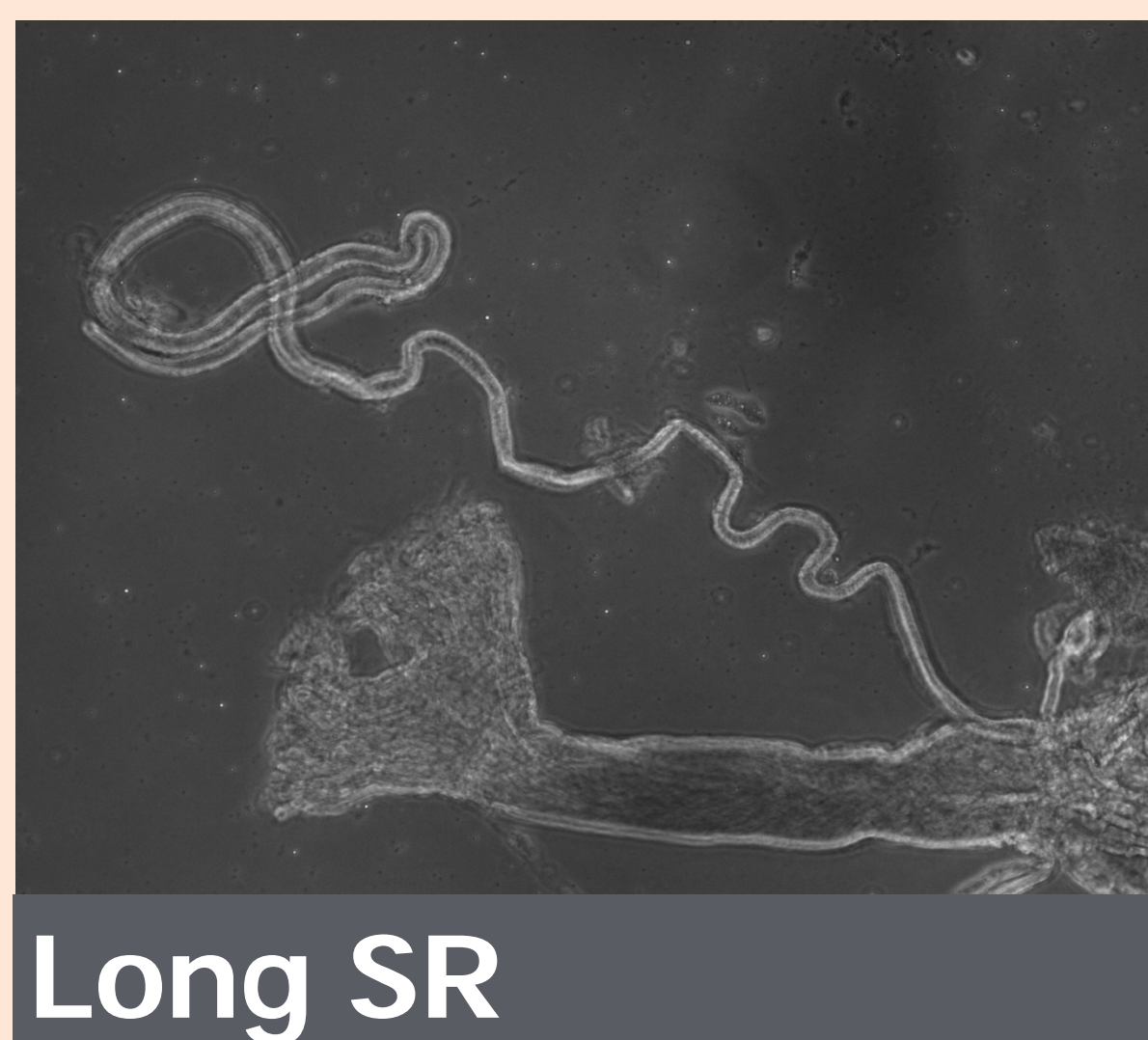
## Introduction

Seminal Receptacle (SR) – Female sperm storage organ

Used isolines<sup>1</sup> that were artificially selected for long and short

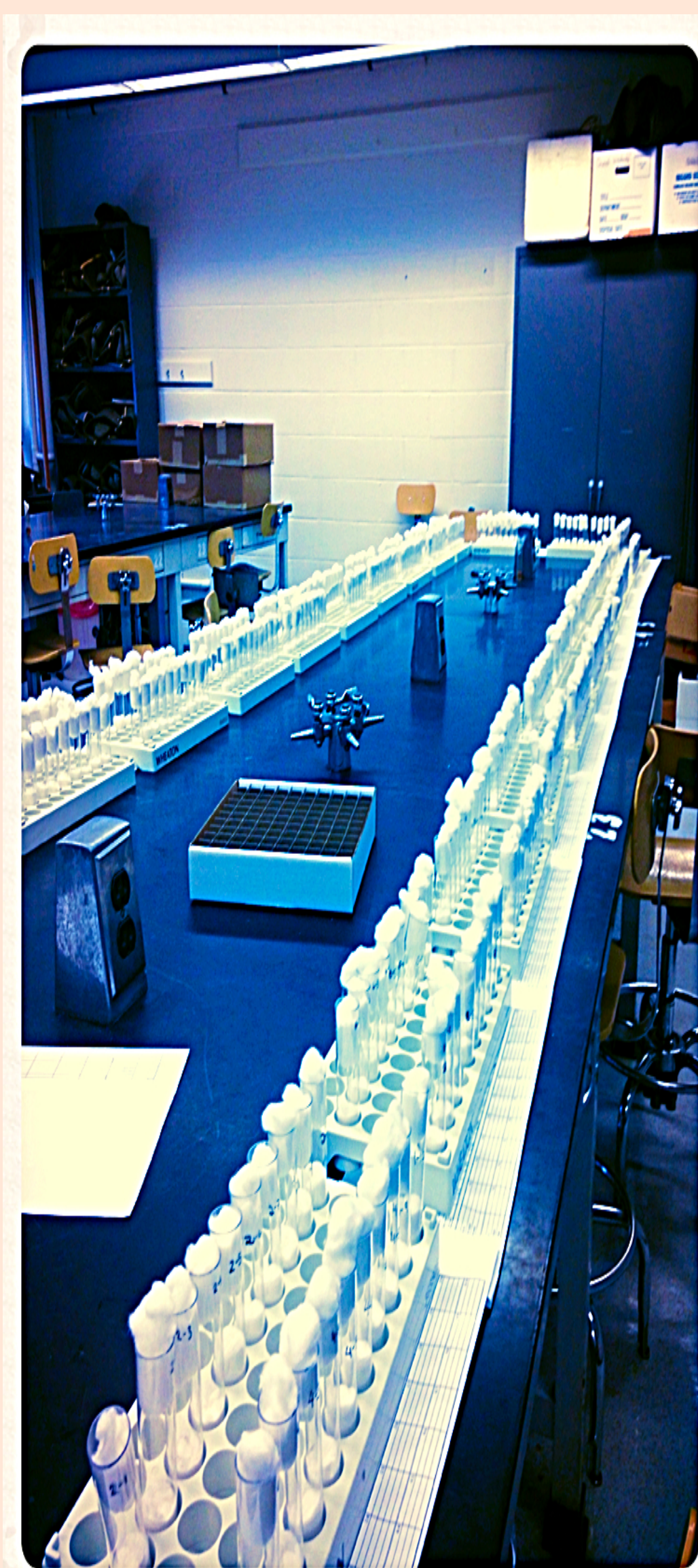
Q: Does selection on SR length influence life history traits such as **mating behavior**, **longevity**, and **reproductive success** in offspring?

Q: Does **inbreeding** influence these traits in offspring?

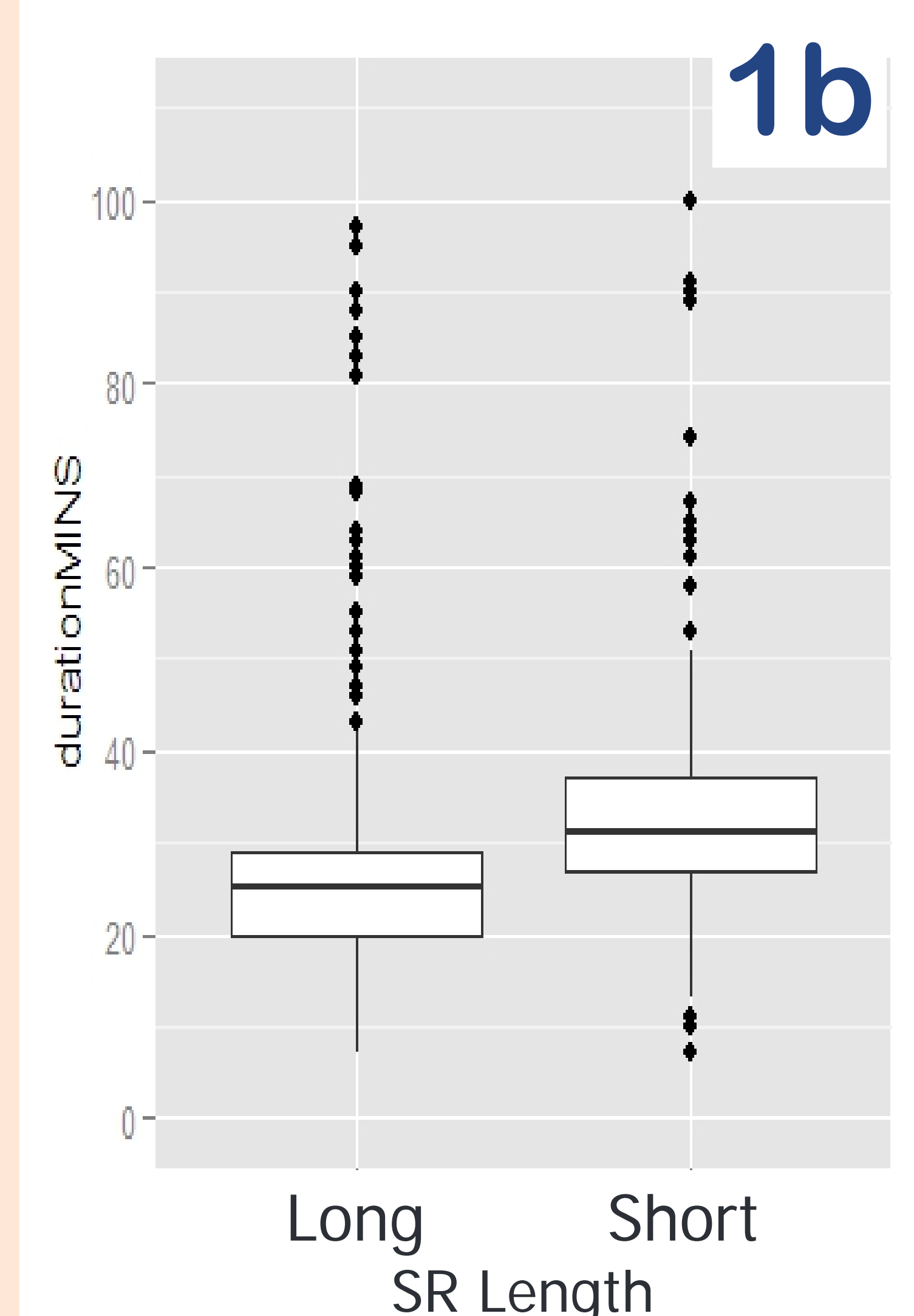
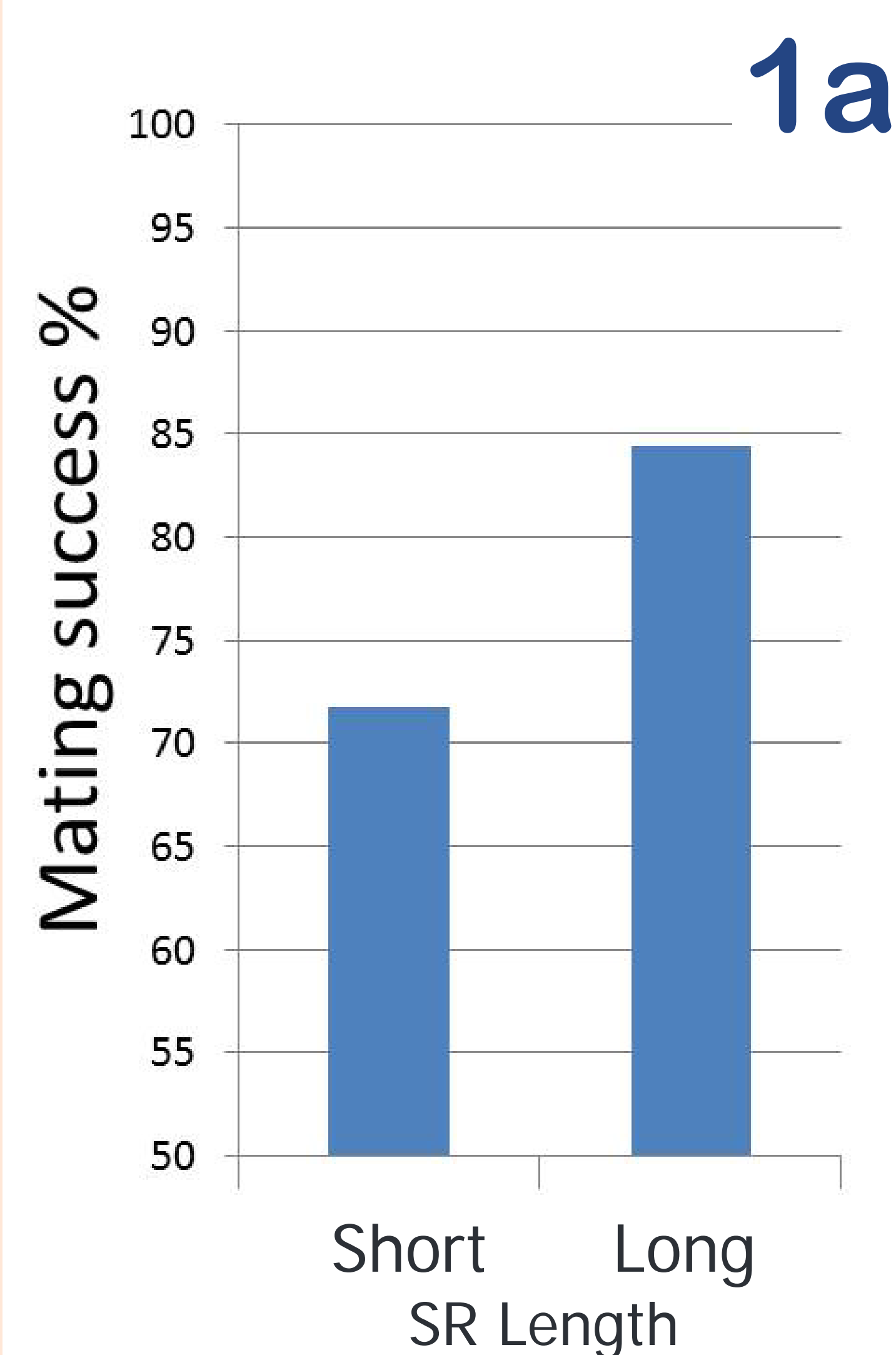


## Methods

- 8 SR length selection isolines (4 Short/ 4 Long)
- 2 breeding regime (inbred/outbred)
- single-pair mating vials (assay males & wildtype virgin females (4 hours / week, total: 8 weeks))
- Recorded **mating latency** and **copulation duration**



## Results & Discussion



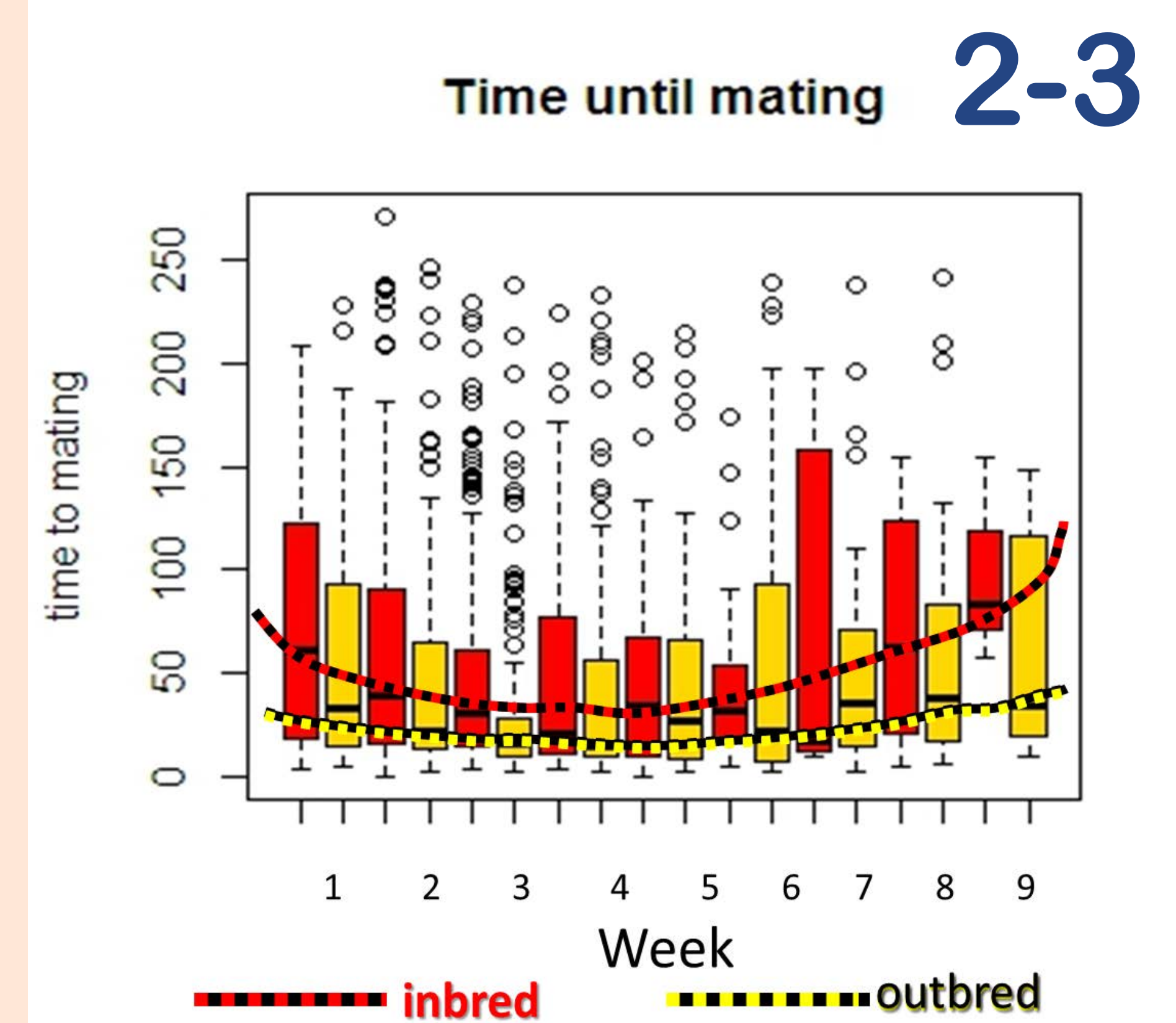
1. SR length influences male mating behavior

a) Long SR sons more likely to mate

b) short SR sons mate for longer

2. Inbreeding negatively affects mating success and time until a mating starts

3. Mating behavior changes over time



## Acknowledgements

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<sup>1</sup>Miller, et al. Science 298, 1230 (2002)