# Autocorrelation figures

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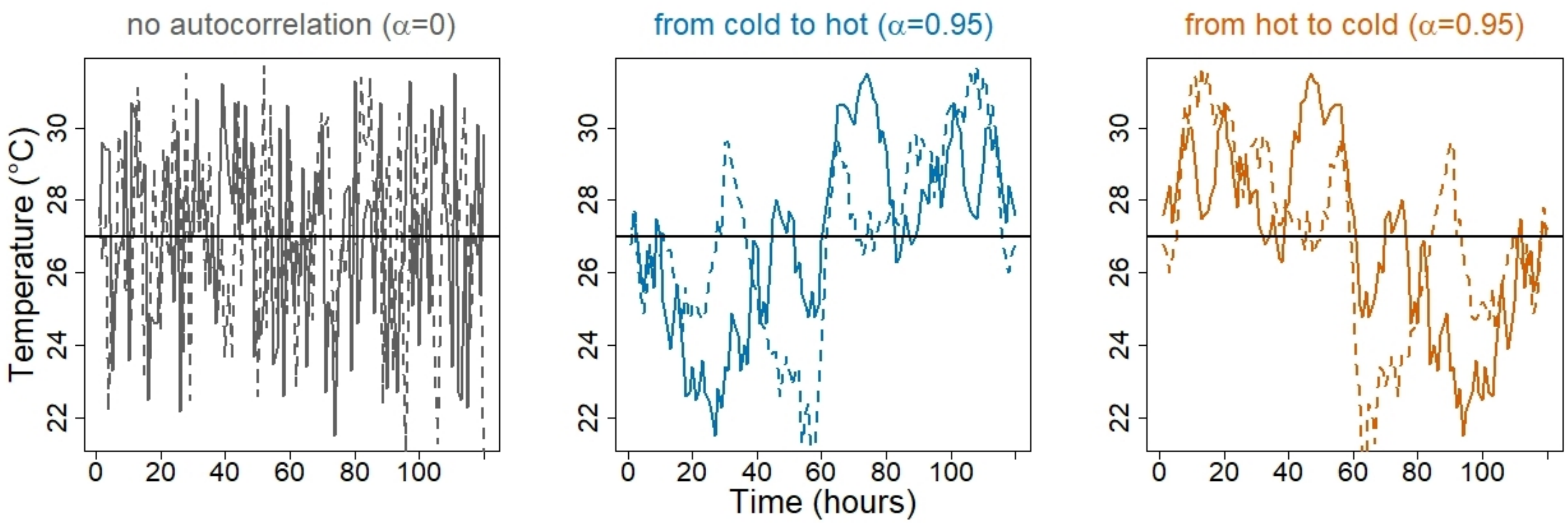
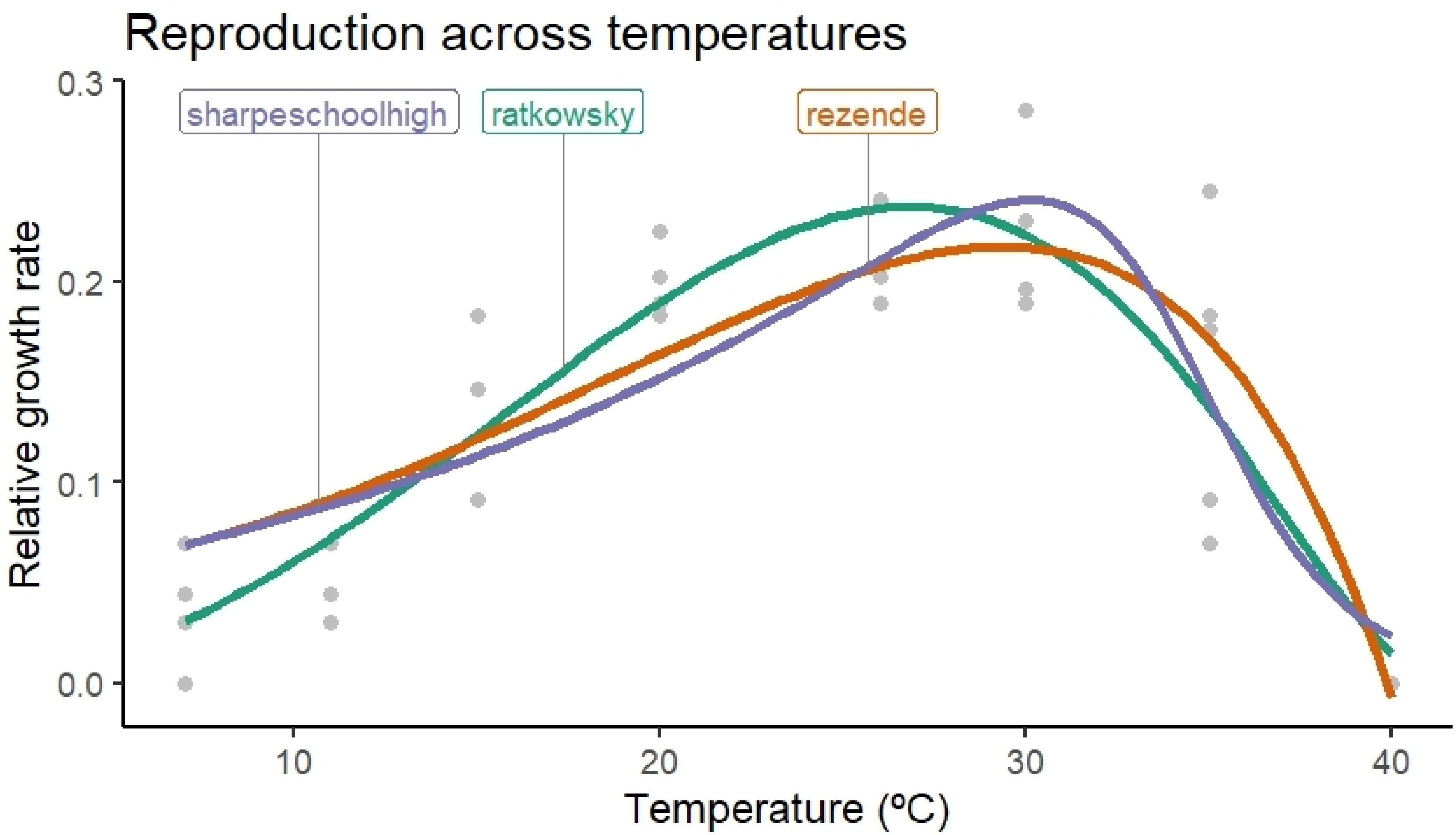
# Autocorrelation and duration of unfavorable events

- Strong autocorrelation: prolonged exposure to temperatures above or below the average
- Changes how temperatures are organized across time
- Solid and dashed lines: unique thermal regimes with same average temperature



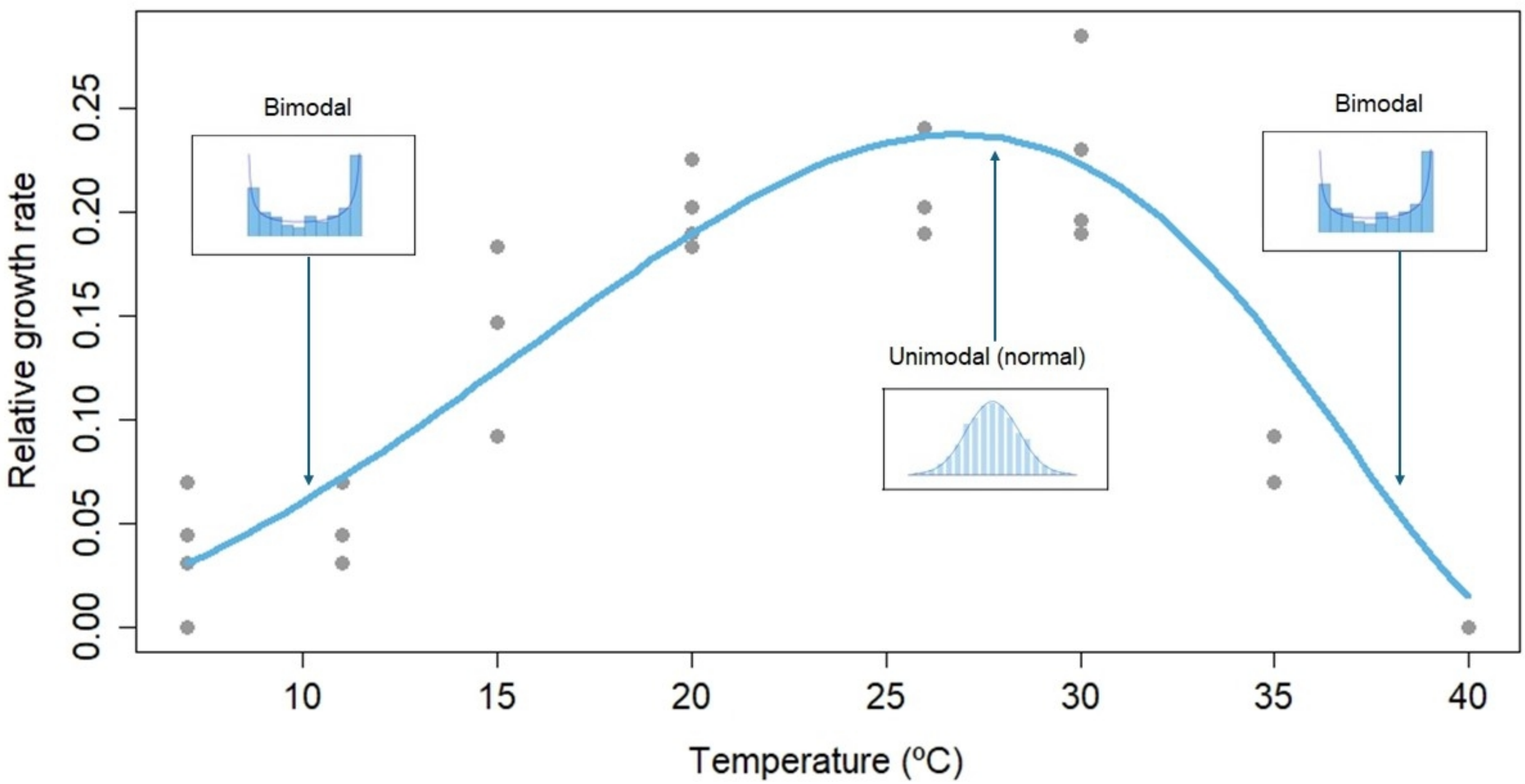
# Thermal performance curves

- Model selection: AICc score to choose model that best describes data



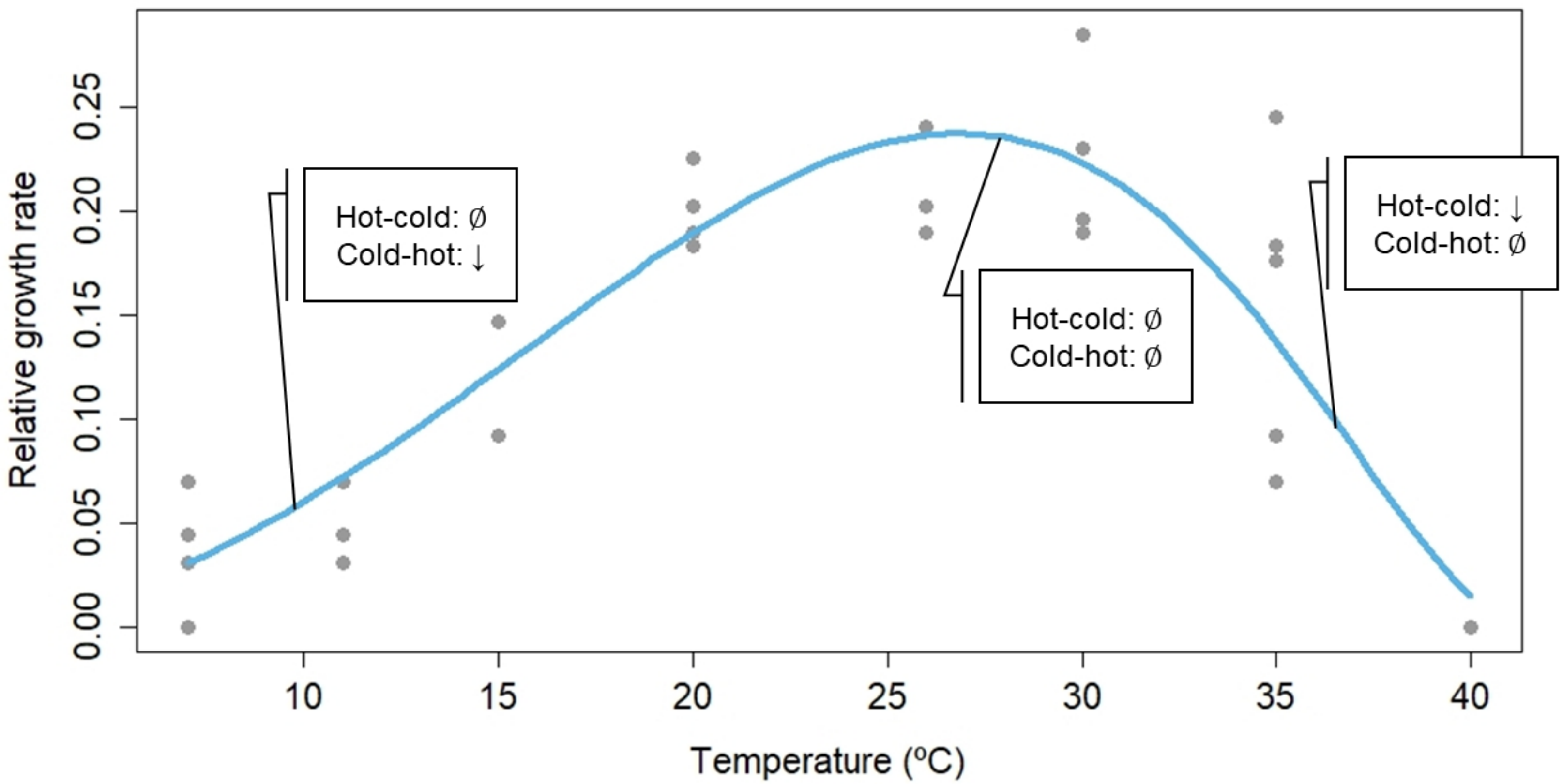
# Frequency distribution of performance

H1: Away from optimal temperatures, frequency distribution of performance is bimodal in the strong autocorrelation treatment and unimodal in the no autocorrelation treatment
Expectations for the strong autocorrelation treatment:



# H2: Timing of exposures

In relation to randomly varying control:
* Below optimal: cold start decreases performance
* Around optimal: no differences
* Above optimal: hot start decreases performance

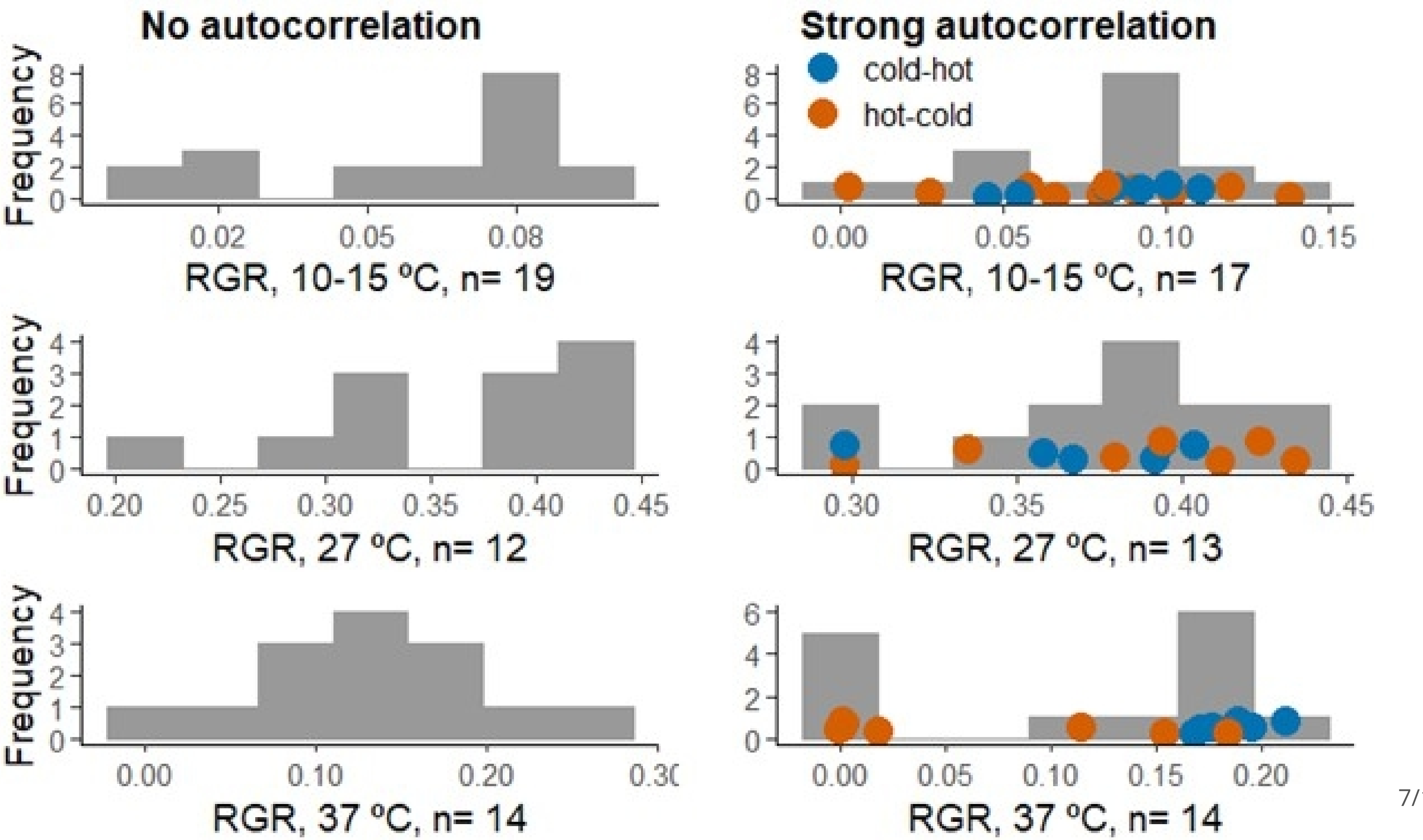


# Survival

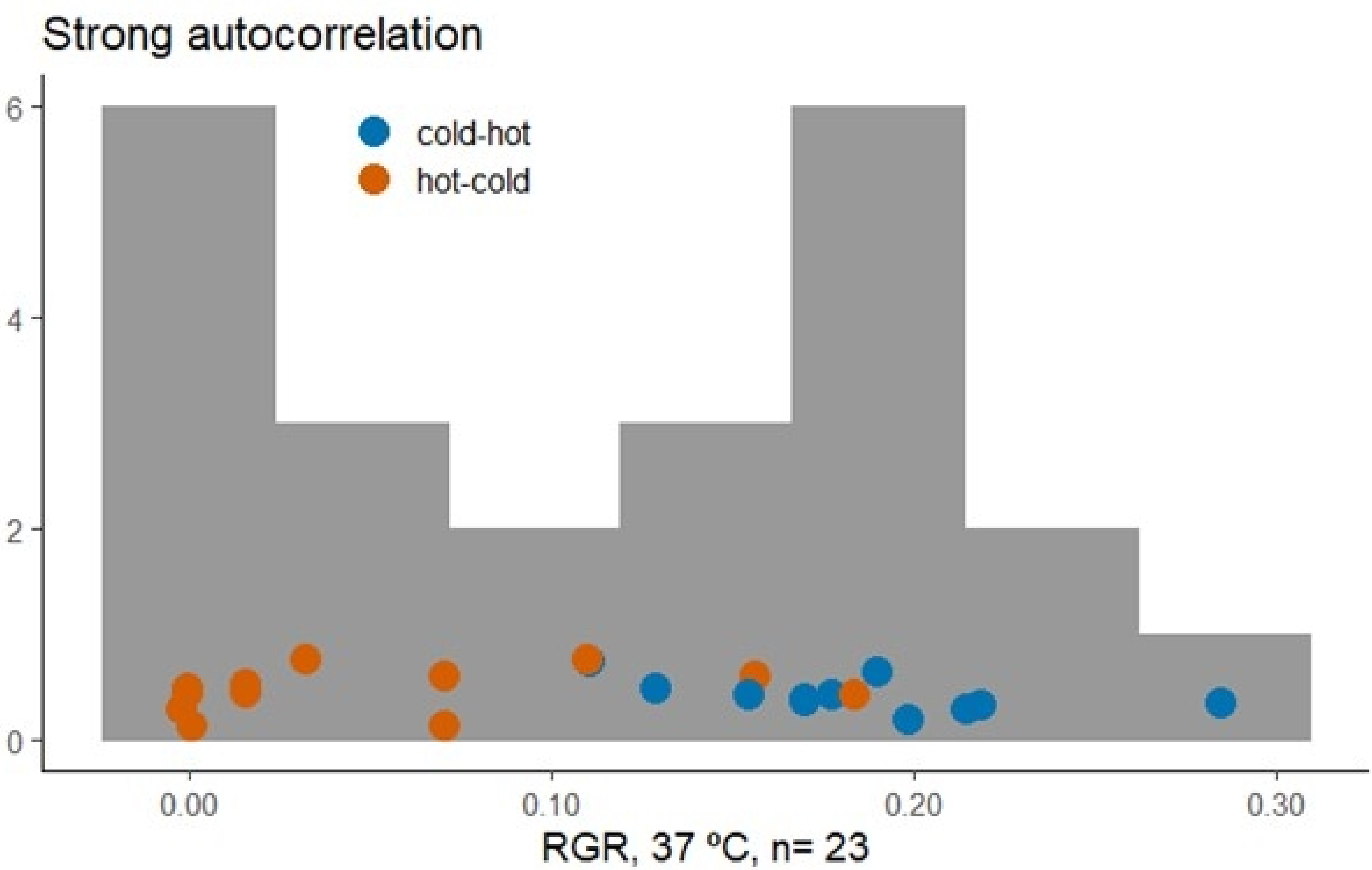
H3: A hot start will impact survival when average temperatures are hot

# Results

H1: Strong autocorrelation changes frequency distribution of performance away from optimal



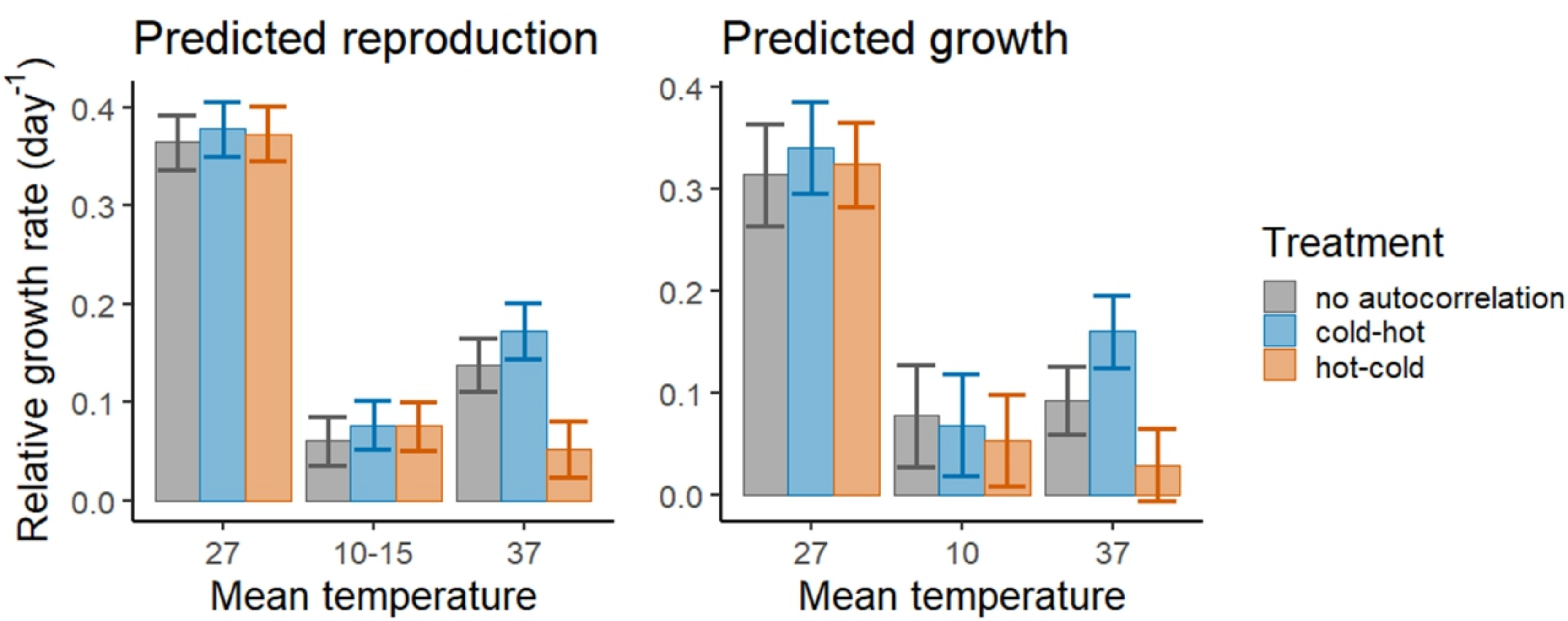
# Closer look at 37 ºC results



# H2: Does the timing of unfavorable conditions matter?

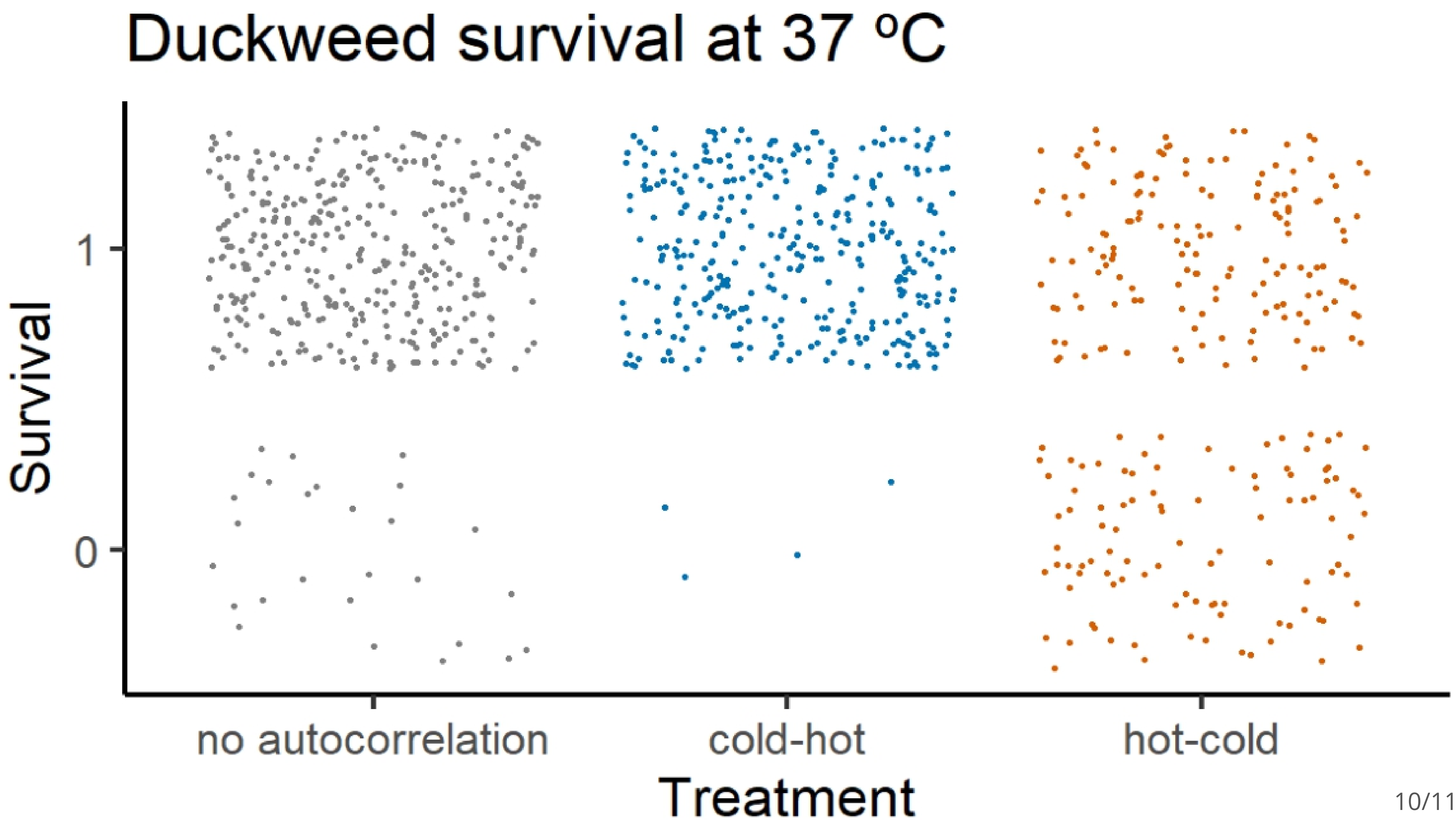
Reproduction: frond counts; Growth: surface area ($cm^2$)

$$RGR = \frac{log(measurement_{end}) - log(measurement_{start})}{time_{end} - time_{start}}$$



# H3: Suvival impacts of a hot start

- Individual counts
- Binary categorization of fronds: 1 = living; 0 = dead



# H3: Suvival analysis