

Bat Flight Presentation

Quantitative Methods in Ecology and Evolution

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Introduction

- ▶ Little brown bats (*Myotis lucifugus*)
- ▶ Held in captivity at McMaster
- ▶ Previous work found they couldn't/not willing to fly so this is a simulation of a new experiment to address that.

Introduction continued

- ▶ Introduction continued here

Hypothesis and predictions

- ▶ Hypothesis: Keeping bats active in captivity ensures better flight ability
- ▶ Predictions: Exercised bats will be more willing to fly and have longer flight time than non-exercised bats.

Study design

- ▶ 30 bats measured for 60 days
- ▶ Mass before and during
- ▶ Treatment of exercise or no exercise as a control
- ▶ Measure flight time

Simulation process

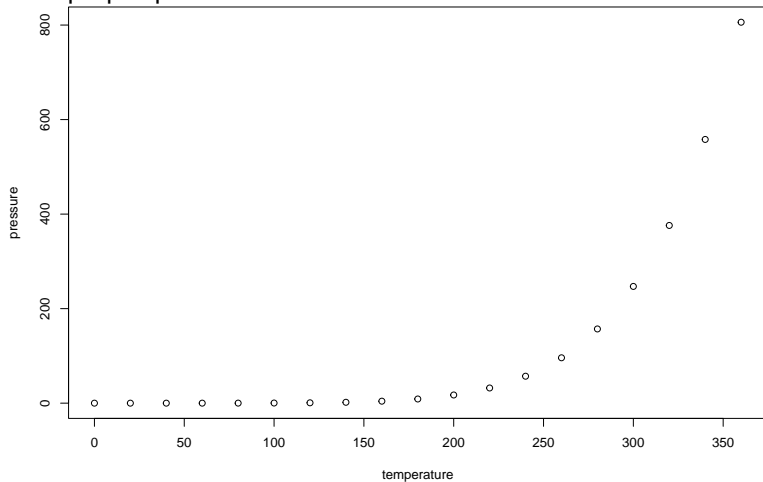
- Add proper code here

```
summary(cars)
```

##	speed	dist
##	Min. : 4.0	Min. : 2.00
##	1st Qu.:12.0	1st Qu.: 26.00
##	Median :15.0	Median : 36.00
##	Mean :15.4	Mean : 42.98
##	3rd Qu.:19.0	3rd Qu.: 56.00
##	Max. :25.0	Max. :120.00

Preliminary results

► Add proper plot here



Preliminary results continued

- ▶ Add plot here

Preliminary results cont

Next steps

- ▶ Running the simulation more times
- ▶ Power analysis

Questions?