

## Isle Royale

### Part 1: The Moose Arrive

Moose arrive on Isle Royale. Exponential and logistic growth models are examined. Carrying capacity is explored.

- The Isle Royale Natural Experiment
- Meet the Isle Royale Community
- Modeling Population Growth
- Carrying Capacity
- Summary of Part 1

### Part 2: The Wolves Arrive

Wolves arrive on Isle Royale. Wolf and moose populations cycle. Moose health is affected by predation.

- Predators Join the Community
- Population Cycling
- Can Predators Affect Prey Health?
- Fat Stores Data Collection
- Graphing Experimental Results
- Summary of Part 2

### Part 3: Changes in Climate

Changes in the length of the growing season affect moose and wolf population dynamics. Some effects are surprising!

- A Longer Growing Season
- Variation in Plant Production
- The Paradox of Enrichment
- Summary of Part 3

### Part 4: An Extended Exploration: The t-Test

Learn how to perform a t-test to examine differences in mean fat stores for moose.

- How Different is Different?
- Null and Alternative Hypotheses
- The Importance of Variability
- Calculate  $t$
- Rendering a Verdict: The p-value
- Summary of Part 4

### Part 5: Isle Royale Playground

Optional explorations with moose and wolves on Isle Royale.

- Explore the Playground

## **Part 6: Quiz Questions**

### Quiz Questions

- Quiz Questions