Comparison of Northern Saw-whet Owl (*Aegolius acadicus*) Frequency and the Prey Availability in Schmeeckle Reserve

Carter Freymiller, Michaela Meehl, Aiden Gehrke, Nicole Luoma, Sophie Reid, Cole Suckow, Madison Fell
Advisor: Dr. Jason Riddle
University of Wisconsin- Stevens Point | Student Chapter of The Wildlife Society

Introduction

- Northern saw-whet owls (NSWO) are a nocturnal mesocarnivore found throughout the US.
- NSWO diets consist of 85% rodents
- Small mammal project and fire crew trapped many species that compose the diet of NSWOs

Hypothesis

- Saw-Whet Owls (*Aegolius acadicus*) are more active when small mammals are abundant.

Saw-Whet Owl & Small Mammal Methodology

- *Study Area*: Schmeeckle Reserve, Stevens Point WI
- *NSWO:* 60mm mist nets arranged in a triangular formation, opened 8pm-2amfrom late September – early November (Th., Fri., Sat.)
  - Measurements: weight (g), wing & tail chord (mm), age, sex (determined by wing & weight)
- *Small Mammal:* 5x5 grid of sherman traps checked at 7am and 7pm (weekdays)
  - Measurements: weight (g), age, sex and ear length
- *Data Analysis:* Welch's T-test with Unequal Sample Size and Unequal Standard Deviation

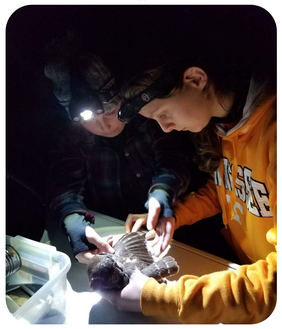


Figure 1. Morphometric measurements of NSWO Figure 2 sherman trap by Jonny Akenson

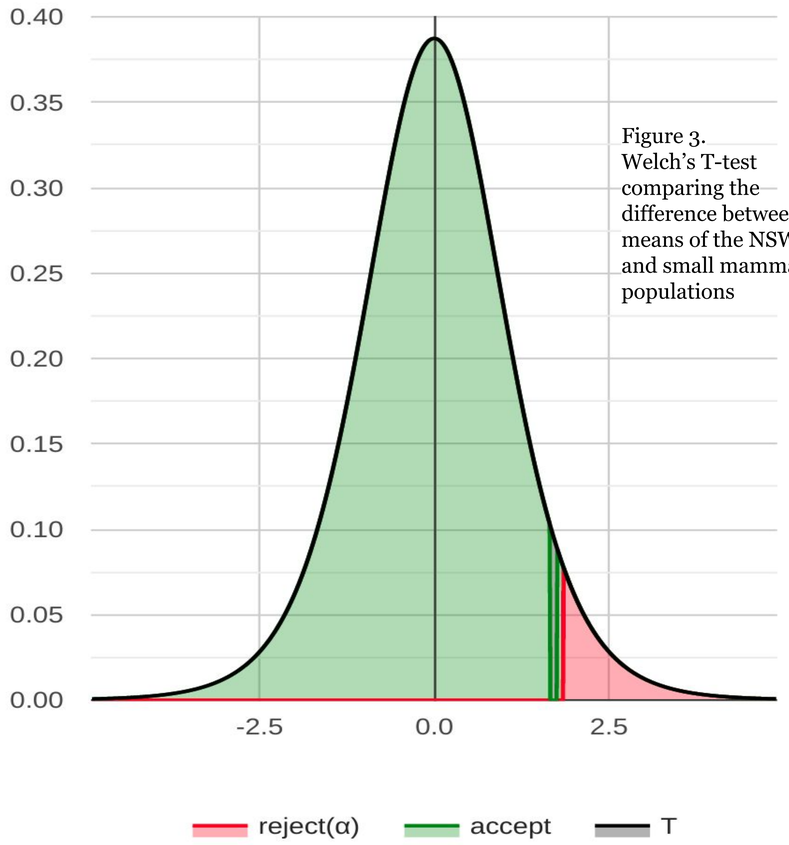
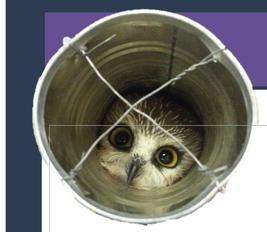


Figure 3. Welch's T-test comparing the difference between means of the NSWO and small mammal populations



Results

	Absence of NSWO (0)	Presence of NSWO (1)
Total # of Small Mammals Captured	142	35
Average # of SM Captured	15	7
SD	8.8	8.4

Discussion

- T-value of 1.71
  - Falls within 95% critical value acceptance range
  - Populations are not statistically significant
- Fail to reject null hypothesis (no change in small mammal population when owls are present or absent)
  - P-value of 0.06 > 0.05
- Results likely due to only 5 days of potential trapping overlap
  - Only 3 of those days had traps open for both populations surveyed
  - Not enough data collected
- Future of the project: Trap NSWOs on the same nights as small mammals

Comparision of Small Mammal and NSWO Captures

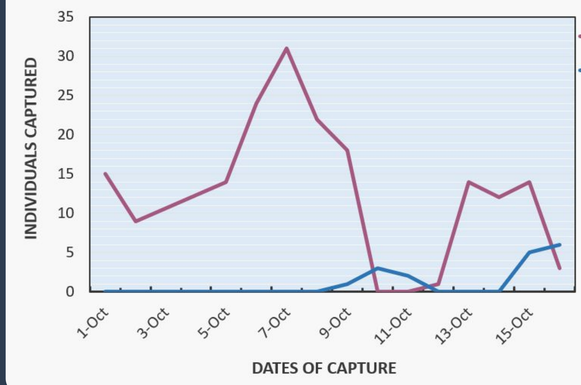


Figure 4. Comparison of small mammals and NSWOs trapped daily

Acknowledgements

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