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Food preference of backyard birds in Siskiyou County, CA

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Introduction

- **Background:**
  - Grew up watching birds on feeders with my grandmother, great grandmother and aunt
  - Encouraged me to test if backyard birds had a preference on the foods with different fat contents
- **Study Area:** Siskiyou County, CA
- **Hypothesis:**
  - Choice of seeds by migrating birds will be determined by the food's fat content
- **Predictions:**
  - Backyard birds will prefer the Nut N' Berry mix with the higher fat content
  - More seed will be eaten at warmer temperatures
  - Locations that have a higher number of species present at the feeder will have more seed eaten

Methods

- Four "Nature's Way Bird Products CWF3 Cedar Platform Tray Bird Feeders" were used to reduce disease transmission (Wilcox 2003)
- There are two seed mixes that we used (Fig. 1)
  - 3-D Pet Products Premium Nut N' Berry Blend Dry Wild Bird Food
  - Pennington Select Black Oil Sunflower Seed Dry Wild Bird Feed
- Four feeders will be placed out at locations marked with Yellow Stars and rotated to the Green Flag locations the following week (Fig. 2)
- Direct and game camera observations were made
- Feeders were left out for 72 hours before being taken down and reweighed (Tryjanowski et al. 2018)
- Feeders are cleaned with hot soapy water and a bristle brush between trials
- A total of 32 trials

Figure 1. Seed in feeder. Left: Nut N' Berry Mix Right: Sunflower seeds

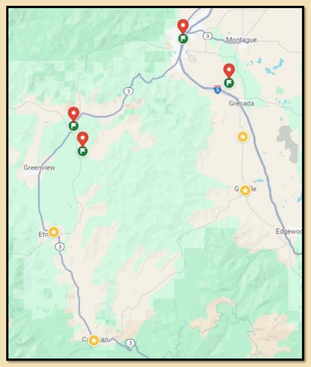

Figure 2. Feeder locations in Siskiyou County, CA

Results

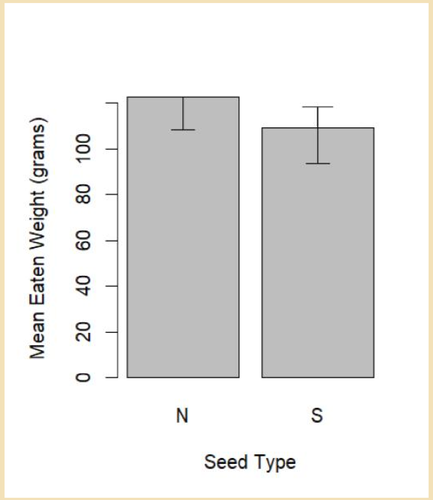

Figure 3. There was significant difference in the mean eaten weight of the two food types (p = 0.01)

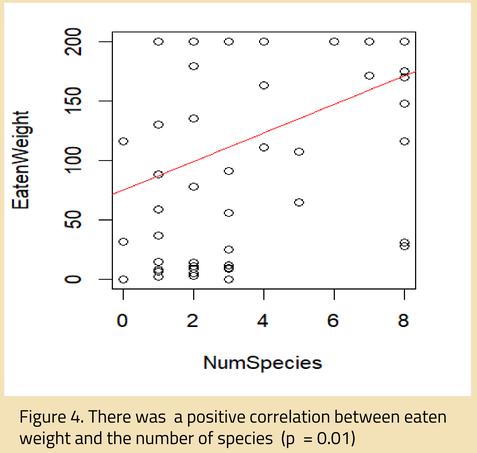

Figure 4. There was a positive correlation between eaten weight and the number of species (p = 0.01)

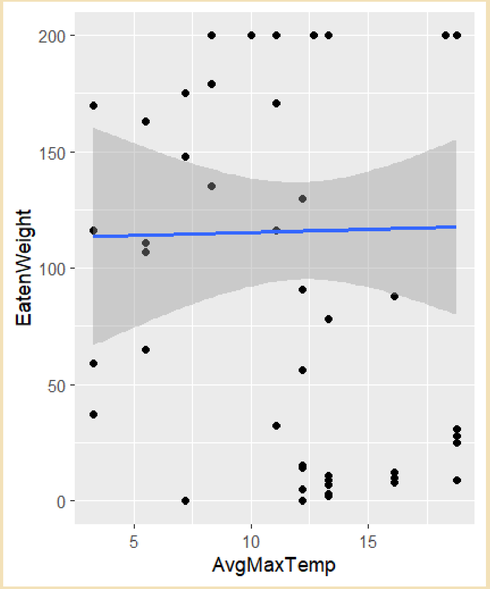

Figure 5. There was no correlation between eaten weight and the average maximum temperature (p < 0.05)

Figure 6. Surprise visitor to the feeder

Discussion

- The results did confirm our hypothesis (Fig. 3)
- The results did confirm our prediction eaten weight was dependent on the number of species at the feeder (Fig. 4), but eaten weight was not dependent on average maximum temperature (Fig. 5)
- We assume that the results were skewed due to the food was eaten before we picked up the feeders

Conservation Implications

- Backyard bird feeders can facilitate positive human-wildlife interactions
  - Watching and identifying the birds in your backyard
  - Being a safe distance from birds while watching them at feeders
  - Proper cleaning and feeder type to help reduce disease spread
- An understanding of what food to put out to attract backyard birds to your home

Acknowledgements

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Citations

Tryjanowski, P., A. P. Møller, F. Morelli, P. Indykiewicz, P. Zduniak, and L. Myczko. 2018. Food preferences by birds using bird-feeders in winter: a large-scale experiment. Avian Research 9:e16

Willcox, E. V., M. E. Hostetler, M. B. Main, and M. Voigt. 2003. Attracting backyard birds: bird feeder selection. IFAS Extension University of Florida, Publication #WEC 162. <https://edis.ifas.ufl.edu/publication/UW192>. Accessed 1 Jan 2024.

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