



Using Point Counts to Study How Forestry Management Affects Avian Communities



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Introduction

- Climate change is having negative effects on habitats & species in the northeast^{1,2}
- Adaptive silviculture for climate change (ASCC) practices consider climate change as part of habitat management strategies³
- ASCC is a national collaborative effort between managers and scientist that establish experimental trials in different types of forest habitats
- This research sought to answer the following:
 - How do adaptive management practices affect northeastern avian communities?
 - How will passive acoustic recorders estimate songbird occupancy in forested habitats (future)?

Methods

- Focus on breeding birds in VT and NH
- Acoustic recorders were paired with camera traps as part of the New England ASCC network
- Study areas were the Nulhegan Basin, Silvio O. Conte Refuge (VT) and Mount Jefferson (NH)
- Avian point counts were conducted for 42 points from May-July beginning at sunrise for about 5 hours



Fig 1: Recording Points on Mt. Jefferson



Oh! Look a camera!

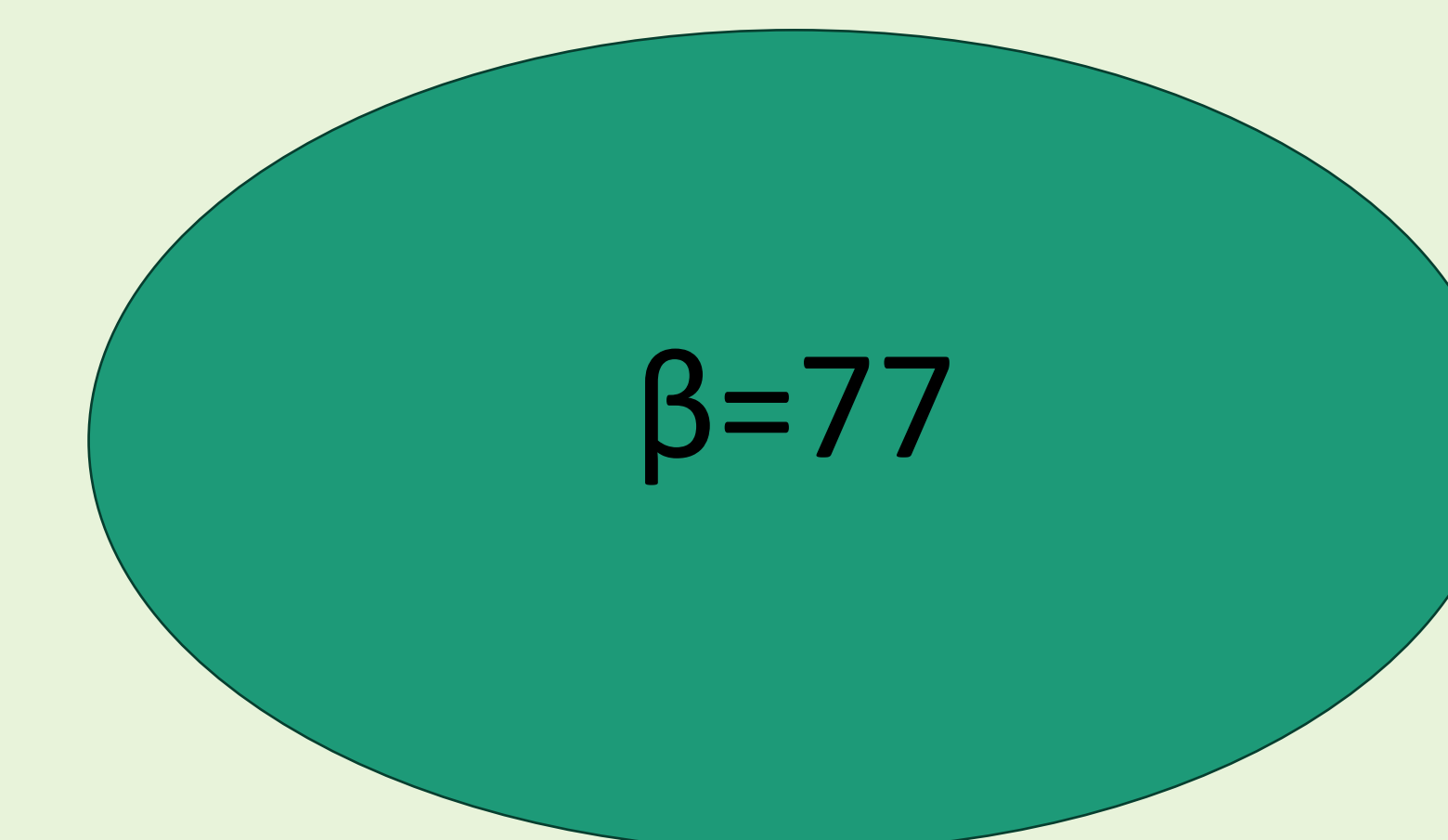
Results

Table 1: Top 5 Most Detected Species

Species	Nulhegan	Mt. Jefferson
WTSP	83	2
SWTH	37	16
OVEN	68	10
YBFL	42	18
WIWR	39	24

Table 2: Alpha Diversity

Site	α Diversity
Nulhegan	74
Mt. Jefferson	32



Future Directions

- Expand passive acoustic analysis to get a more complete picture of the avian community
- Analyze the impacts of different management practices on avian communities
- Addition of sites that use fire management in the Northeast

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Work Cited

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2. Jay et al. 2023. Ch1. Overview: Understanding risks, impacts, and responses. *Fifth National Climate Assessment*.
3. Nagel et al. 2017. Adaptive Silviculture for Climate Change: A National Experiment in Manager-Scientist Partnerships. *Joun. of Forestry* 3: 167-178.

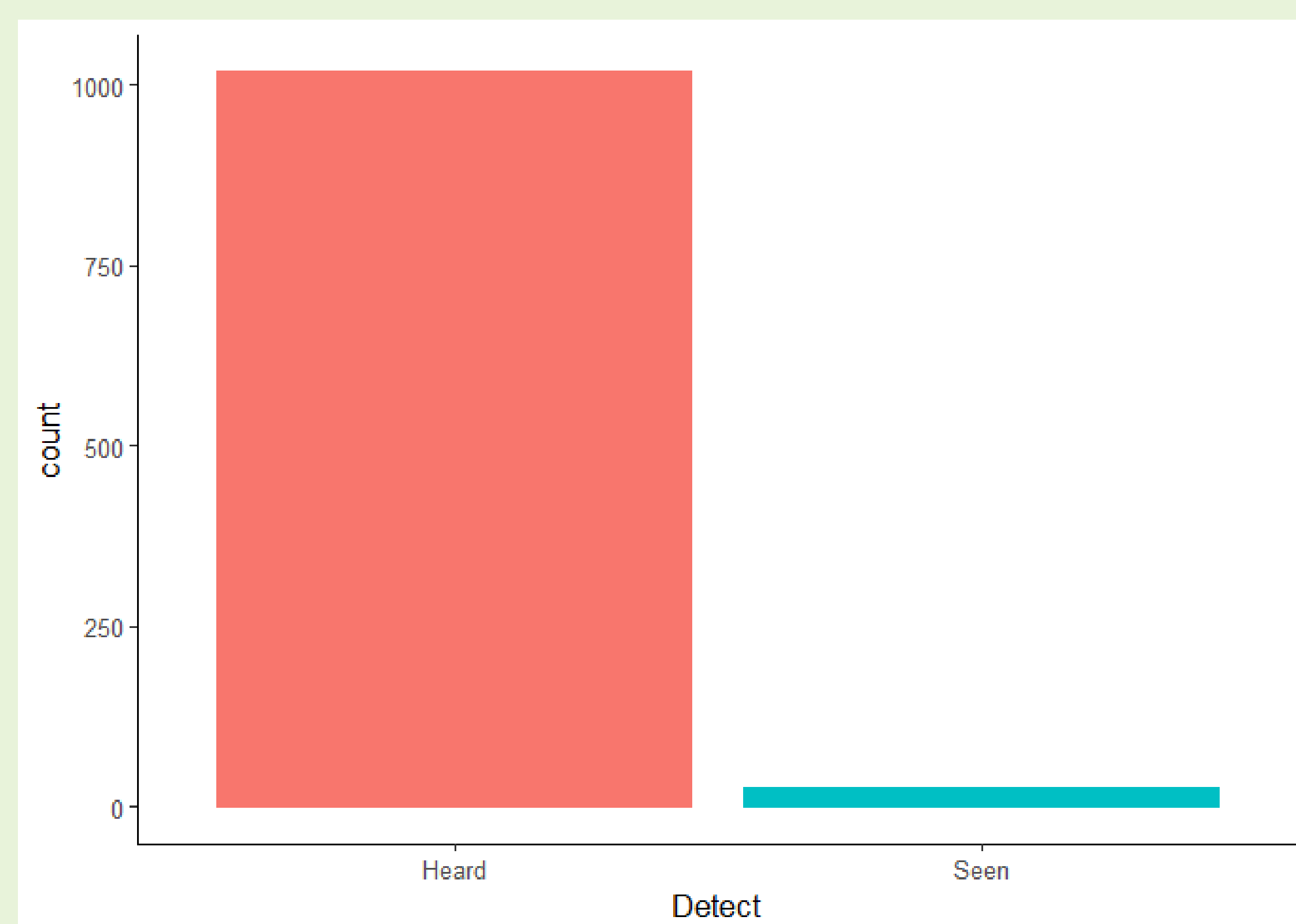


Fig.2
How were the birds detected?

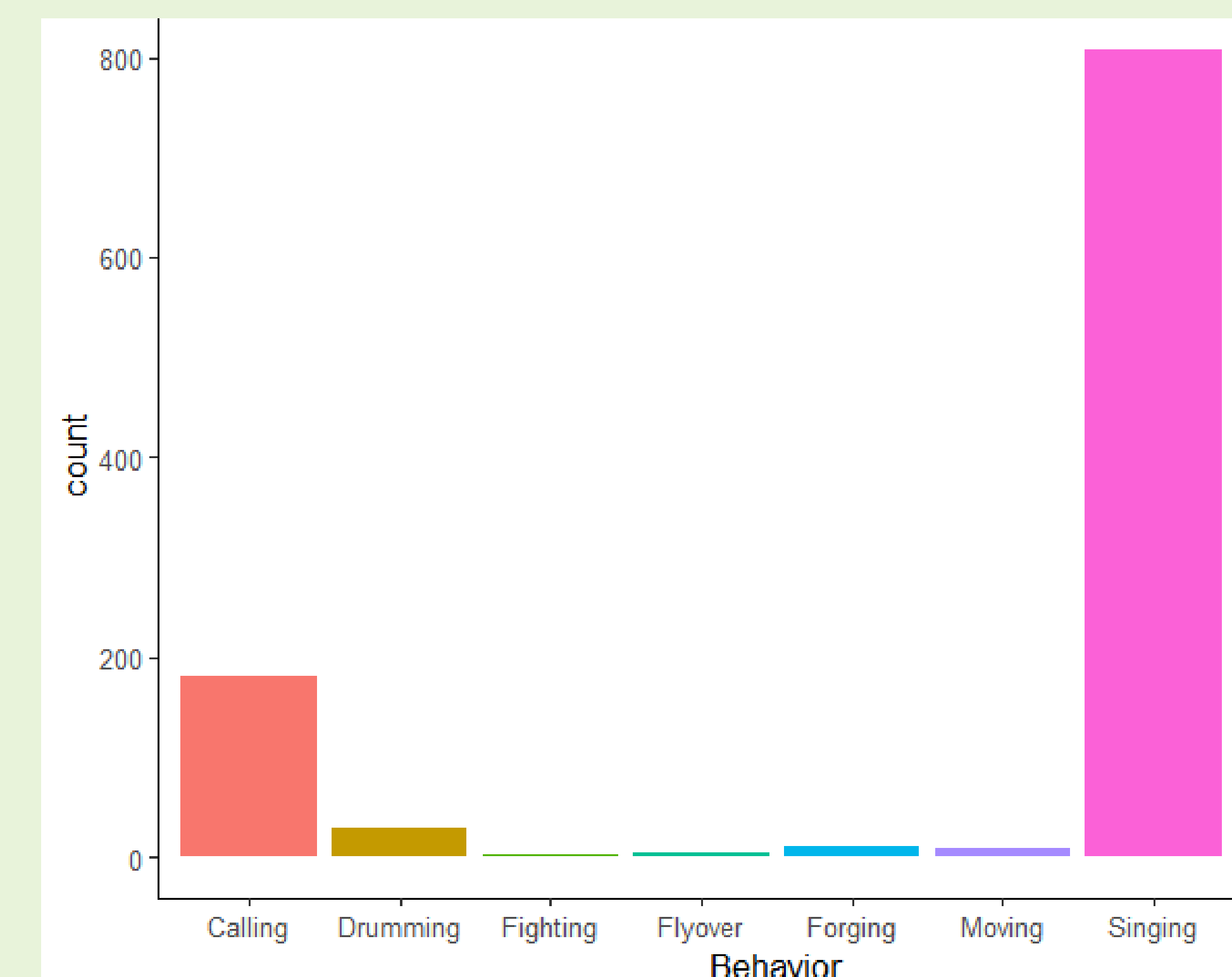


Fig.3
Observed Behaviors

