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Introduction

Window-bird collisions have a significant impact on global bird populations. In just the United States, an estimated 365 million to 1 billion annual bird fatalities are due to birds striking windows.¹ For our research project, we are investigating lethal bird-window collisions at the USU Brigham City Classroom and Student Services Building, located in Brigham City, Utah (pictured below).



We predict that the C&SS building is a hotspot based on the large windows, which have been shown elsewhere to be a risk factor for fatal bird-window collisions.² We are conducting a daily census to understand the extent of the problem. The objective of this study is to discover if weather and the seasonal effects play a significant role in the magnitude of birds striking windows at the C&SS building. We plan to use any information found during our study to help make Brigham City a safer place for many species of birds.

Methods

In our census, we record the date when there is evidence that a bird has struck the C&SS building. Data has been collected at the C&SS building from August of 2020 to April of 2021 and then combined with previous data ranging from 2017-2019. The dates that birds struck windows at the C&SS building were then analyzed to determine what weather was present on each day and what season of the year was occurring. Differences in weather patterns were simply summarized as “sunny” and “stormy,” with “sunny” being days with no recorded precipitation and “stormy” being days that received any amount of precipitation.

Results

Year	Season	# of Fatal Collisions	Sunny	Stormy
2017	Summer	4	2	2
	Fall	9	7	2
2018	Spring	1	1	0
	Summer	6	6	0
2019	Fall	9	7	2
	Summer	2	1	1
2020	Fall	3	3	0
	Winter	0	0	0

Conclusions

Currently, we do not have a full year of data to analyze, so we are unable to draw conclusions based on the seasonal effects of bird-window collisions. A full year of data also prevents us from drawing conclusions regarding how weather patterns affect birds striking windows. Despite the current lack of data, it is expected that a correlation will be found between seasons and window-bird collisions, as other studies have found that there are more instances of fatal collisions during migratory seasons.¹

Future Directions

Should a correlation between weather patterns, seasonal effects and the number of window-bird collisions be found, this information will be communicated to campus administration to prevent as many bird fatalities as possible. This information could educate those who do not wish to put mitigation efforts in their windows year-round by explaining the times of year or weather patterns that are most frequent for window-bird collisions. We also plan to participate in a local summer camp over the summer to educate the public on how they can help to reduce the number of fatalities due to bird-window collisions.

Bibliography

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A red-breasted nuthatch found next to the C&SS Building (pictured above).