

Fatal Bird-Window Collisions Occurring on USU's C&SS Building, Brigham City, Utah

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Introduction

Window collisions are the second highest anthropogenic cause of bird death in the world, in the U.S. alone they account for between 365,000,000 and 988,000,000 bird deaths each year.³ As such, they are a major cause for nationwide conservation concerns. For our project, we are investigating fatal bird-window collisions on the Classroom and Student Services Building (C&SS building) at the USU campus in Brigham City, UT 84302. (Shown below)



We have identified the C&SS building as a potential location for a high frequency of bird-window collisions because of its several large windows, interior vegetation, and surrounding trees.

- Multiple studies have indicated that window area was positively correlated with the amount of window strikes.^{1,2}

Objective:

- Investigate the number of fatal bird window collisions that occur on the C&SS building. Then determine if it is larger than the expected number of fatal window collisions per month for a low-rise non-residential building. The expected number is between 0 – 6 collisions per month.³

Methods

Surveys of the C&SS were conducted 5 days a week in August – November 2020, and 7 day a week surveys in November 2020 – April 2022. Surveyors are looking for fatal collision evidence such as body imprints on a window, or the carcass of a bird found near a window.

- Data obtained from these surveys was then collated with data obtained from surveys in the years 2017-2019.

Results

Year	Month	# of Fatal Collisions	Yearly Total
2017	August	2	12
	September	2	
	October	4	
	November	4	
2018	April	1	15
	May	0	
	June	0	
	July	1	
	August	2	
	September	4	
	October	5	
	November	2	
2019	August	0	5
	September	2	
	October	1	
	November	2	
2020	Aug-Sep	0	3
	October	2	
	November	1	
	December	0	
2021	Jan - May	0	3
	June	2	
	August	1	
2022	Jan-Present	0	0

Conclusions

In the years of 2017-2022, the amount of fatal bird-window collisions on the C&SS building fell within the expected range of 0-6 bird collisions per month for a low rise non-residential building.

Future Directions

- 75% of recorded collisions occurred on the east side of the building. Future studies could investigate the factors that influenced this majority of collisions.
- As more and more data is collected we would like to investigate possible mitigation efforts to help conserve the local bird population in Brigham City, Utah. This could include procuring funding and combining our research with other local and national projects
- The buildings built as part of Utah State University campuses in recent years have had increasingly more glass in them. We would like to extend this study to reach the main campus in Logan and investigate buildings such as the Huntsman School of Business, the Life Sciences Building, and the Performance Hall to determine if this is a more prominent issue throughout the buildings at USU and not just at the Brigham City regional campus

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Carcass of a Red Breasted Nuthatch collected outside the C&SS building