Abstract Title: Evaluation of Bird-Window Collisions on the UPEI Campus

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Abstract Content:

Bird-window collisions represent a significant cause of avian morbidity and mortality, with an estimated 25 million birds killed annually in Canada. Prince Edward Island's location along the Atlantic Flyway makes it particularly important for resident and migratory bird species, yet no collision data exists for the region. This study assessed bird-window collision risk at the University of Prince Edward Island (UPEI) campus, which features a mix of modern structures with large glass facades and older buildings with smaller windows, surrounded by natural habitats.

We evaluated all 39 campus buildings using risk factors derived from a literature search, including window size, cleanliness, mirror coatings, and nearby vegetation. Eight high-risk buildings were identified and monitored through daily patrols (from July 14 to August 7, 2025). Citizen science engagement via newly created social media accounts (Bird Safe UPEI) supplemented monitoring efforts and raised community awareness.

Fifteen patrols documented one bird fatality: a juvenile European Starling found near the Bell Aliant Centre's large north-facing facade. Community reports yielded two additional collision incidents, including ongoing observations of 15-20 annual fatalities at the Regis and Joan Duffy Research Centre. Notably, all detailed reports involved juvenile European Starlings, supporting previous research showing higher collision vulnerability in young birds unfamiliar with artificial structures.

Despite less than one month of data collection, results confirm that UPEI campus buildings cause bird mortality and injury. The citizen science approach proved effective, reaching 81 social media followers and generating substantial community interest, including media coverage and mitigation inquiries. Continued monitoring through fall migration will provide crucial data for this region. This study demonstrates the value of combining systematic surveys with community engagement for documenting and addressing bird-window collisions in a given area.

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