

## HOW TO MAKE YOUR WINDOWS SAFER FOR BIRDS

### *The Issue*

In Canada, it's estimated that 16 to 42 million birds are killed each year by colliding with windows (Bird Studies Canada, 2020). Window collisions are thought to be the second highest human-cause of bird mortality, after cats (Erickson et al. 2005). About 90% of window fatalities occur during spring and fall migration, with migratory birds – mainly Neotropical-Nearctic birds – being nine times more likely to collide with windows than resident breeding birds (Borden and Lockhart, 2010).

### *Reflective Glass and Breezeways*

The highest risk of fatality for birds is flying into buildings with a high percentage of reflective glass because the glass mirrors the outdoor environment. Also, there may be a gap between buildings where the birds can see the real environment on either side of the gap but do not see the glass or clear plastic screen between the natural locations; often referred to as breezeways (Machtans et al. 2013).

Such buildings are particularly deadly if there are trees or shrubs within five metres of the glass (Borden & Lockhart, 2010; Machtans et al. 2013). The presence of trees and shrubs is only one of numerous environmental reasons that birds stop at a location to rest and feed. Other factors include proximity to water and food sources which, when they're in a city greenspace, can increase the risk of window collisions (Bonter et al. 2009). Fruit-bearing plants – which many birds rely on during migration to provide the nutrients necessary to fuel their travel – form a particularly bad trap for migratory birds when they're close to windows, usually resulting in fatalities.

### *The Main Objectives*

Bird-window collision experts such as Bird Studies Canada and the Fatal Light Awareness Program (FLAP) offer suggestions on how to prevent birds colliding with residential and commercial buildings. After removing attractants such as fruit trees and shrubs that are close to windows the main aim is to break up the reflection of the natural environment in the glass (Bird Studies Canada, 2020; FLAP Canada, 2017a).

According to experts, hawk silhouettes covering less than 80% of a window, single window decals, noise deterrents and plastic owls are not effective at preventing collisions as birds either don't notice them or quickly adapt and learn that they're not a real threat (FLAP Canada, 2017b).

### **Specific Suggestions**

1. Start by going outside and looking at your windows. If you see sky or vegetation reflected in the glass then this is what a bird will also see and you may have to act to prevent, or at least, reduce collisions.

2. Remove or minimize vegetation within five metres of windows or reflective glass. Prune trees and shrubs and harvest fruits from trees before they become bird attractants.
3. Place bird feeders near shrubs or trees well away from windows to provide birds an environment that is more attractive than the one near a window.
4. Fill your feeders during the late fall and winter when most migratory birds have already left the Yukon.
5. Place flagging tape, paracord, mesh netting, window screens or other similar objects over the exterior of your problem windows to help break up reflections. Ensure that they're placed no further than two inches away from the exterior of your window for the most effective results.
  - a. PROS: Cost-effective and easy to implement, and very effective if installed correctly. One Yukon Bird Club member reported having very good success with using netting over windows.
  - b. CONS: Not always considered to be aesthetically-appealing and may degrade quickly in outdoor conditions depending on the quality of the product used.
6. Window stickers or dots are a popular choice to reduce window collisions. The markers should be placed on the exterior of the window and should be no less than 0.32 cm or one-eighth of an inch in dimension and no more than two inches apart (FLAP Canada, 2017a).
  - a. PROS: Easy to implement, can be attractive and are effective if done correctly.
  - b. CONS: Lots of sticker material on your windows – low visibility from the inside.
7. Artistically-inclined? During bird-feeding season and as a fun arts project, try painting the exterior of your problem windows with cool murals!
  - a. PROS: Cost-effective, easy to implement, fun, very effective.
  - b. CONS: Has to be maintained annually; low to no visibility from inside the building.
8. You can special order an exterior window film. The film (clear or coloured) reduces reflections on the exterior of the window, and allows visibility from the inside of the building out. The film has a life-span of 10+ years, and can be ordered from Convenience Group Inc. in Wisconsin, U.S.A. Yukon University has successfully implemented this solution on their glass breezeway between the Singles Residence and the Cafeteria.
  - a. PROS: Aesthetically-pleasing and long-lasting and very effective if installed properly.
  - b. CONS: Have to special order, not the cheapest solution.

If you have other ideas that could work well to keep our wild birds safe and the threat of windows low, please reach out to the Yukon Bird Club at [yukonbirdclub@yukonbirds.ca](mailto:yukonbirdclub@yukonbirds.ca).

### *Information Sources*

Bird Studies Canada (2020). Bird Studies Canada's Top 6 Ways You Can Help Birds. Retrieved online from <http://www.birdscanada.org/education/tophelp.jsp>

Bonter DN, Gauthreaux SA Jr, Donovan TM. 2009. Characteristics of important stopover locations for migrating birds: remote sensing with radar in the Great Lakes basin. *Conservation Biology* 23:440-448.

Borden WC & Lockhart OM. 2010. Seasonal, taxonomic, and local habitat components of bird-window collisions on an urban university campus in Cleveland, OH. *OHIO J SCI* 110 (3): 44-52

Calvert AM, Bishop CA, Elliot RD, Krebs EA, Kydd TM, Machtans CS, Robertson GJ. 2013. A synthesis of human-related avian mortality in Canada. *Avian Conservation and Ecology*. 8(2): 11. <http://dx.doi.org/10.5751/ACE-00581-080211>

Erickson WP, Johnson GD, Young DP Jr. 2005. A summary and comparison of bird mortality from anthropogenic causes with an emphasis on collisions. USDA Forest Service General Technical Report, PSW-GTR-191:1029-1042

FLAP Canada (2017a). Bird-building Collision Reduction Strategies. Retrieved online from <http://www.flap.org/bird-safe-buildings.php>

FLAP Canada (2017b). Dispelling Myths About Bird Strikes. Retrieved Online from <http://www.flap.org/myths.php>

Machtans CS, Wedeles CHR, Bayne EM. 2013. A first estimate for Canada of the number of birds killed by colliding with building windows. *Avian Conservation and Ecology*. 8(2): 6. <http://dx.doi.org/10.5751/ACE-00568-080206>

Longcore T, Rich C, Mineau P, MacDonald B, Bert DG, Sullivan LM, Mutrie E, Gauthreaux SA Jr, Avery ML, Crawford RL, Manville AM II, Travis ER, Drake D. 2013. Avian mortality at communication towers in the United States and Canada: which species, how many, and where? *Biological Conservation*. 158: 410-419.