

## BIRDS AGAINST BUILDINGS

**THUNK!.....** Oh no! Not another bird? But yes, there's a little corpse on the deck. It's still warm when I pick it up. *What can I do to prevent these casualties???*



Every year in Canada about 25 million birds die when they collide with glass, primarily windows. *Birds are completely unfamiliar with glass.* Lethal collisions occur because windows have two deadly properties: they are *transparent* (invisible) and *reflective*. A bird will fly headlong into a glass barrier that it does not see, and it will fly into glass that is reflecting familiar habitat, such as trees, a garden, or sky. Birds also collide with other structures that consist of clear glass: greenhouses, solariums, transit stations, bus shelters and glassed-in walkways. Flying birds hit glass head-first. Many die on impact, while those that flutter away or appear to recover are likely to die later due to brain injuries.



House windows account for most bird deaths because houses are by far the most numerous type of building. But birds are also killed by multi-unit residences, including high-rise towers, and any building that has windows.

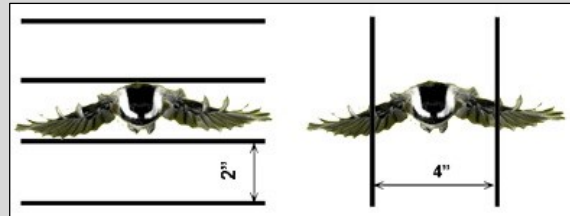
Local habitat also affects the risk of bird/window collisions. If your building is close to attractive habitat, there will be more birds nearby and a higher risk of collisions. Shrubs, trees, plants with berries or seed-heads, long grass and weeds, gardens and water (especially moving water) all attract birds. If you live in a high-rise, you will find that birds are active, (e.g., hunting for flying insects) up to slightly more than the height of nearby vegetation. So window and balcony-glass collisions are possible up to one or even two floors higher than the local tree-tops.

Fortunately, there are many options available to us that can drastically reduce the number of bird deaths. For example, simple dots on window-glass (see below) can reduce collisions by as much as 80%! New technology is currently enabling the production of non-reflective glass and glass that is visible to birds, but these products are not yet widely used by the construction industry.

To deal with clear glass, first check your home from a bird's-eye view. From any outside window, can you see right through the building and out of another window? Birds commonly fly through "tunnels" in their natural habitat, so they may try to take a short-cut through your home. Be sure to check corner

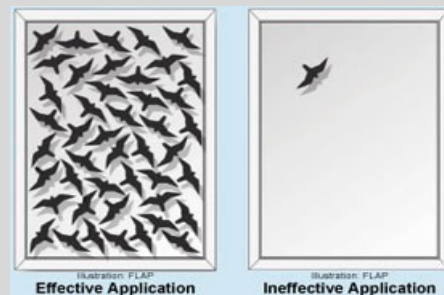
windows (two windows at right angles) where a bird cutting the corner would collide with glass. Block such potential flight paths with curtains or screens. Also check for indoor plants behind windows, and especially *plants on balconies or decks that are behind clear glass.* Any such plants are likely to attract birds that will hit the glass. There are many ways in which we can make clear glass visible to the birds. For starters, an easy option is to never wash it -- just let dust, splotches and stains accumulate!

A very effective way to address both the visibility and reflectivity problems is to subdivide the glass into clearly defined (to a bird) small areas that are each too small for a bird to attempt to fly through. These small spaces must be no more than 5 cm high and 10 cm wide (or 2" x 4").



From Fatal Light Awareness program, Toronto (F.L.A.P.)

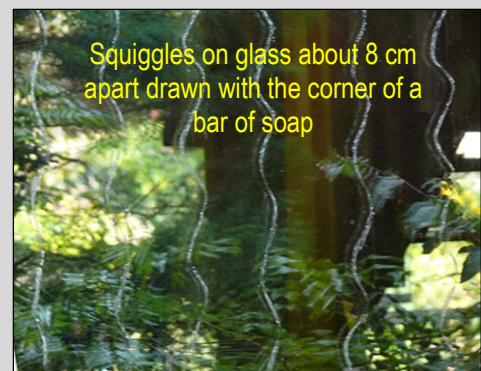
You can do this in a number of ways. Lines can be drawn on the glass with various kinds of markers (e.g., dry-erase, highlighters -- yellow is particularly effective; black may be best for pale reflections and white for dark. Tempera paint can be used or even the corner of a bar of soap (both wash off easily). Tape can also be used to make lines and patterns. Lines can trend in any direction, but *uniform patterns are usually best.* Stick-on window film with small dots or other patterns appropriately spaced is very effective and available commercially. Decals can be used but are hard to arrange around small spaces (see below). **BUT do make sure that whatever method you choose, the paint or material is applied to the outside surface of the glass.** (Anything on the inside will not eliminate reflections).



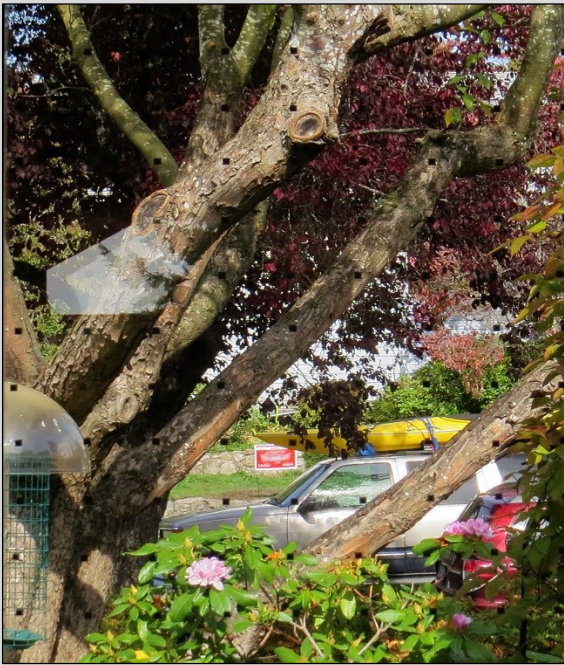
Application of decals

From F.L.A.P.

There are also some well-proven ways to eliminate bird collisions without actually modifying the glass. Lengths of cord (e.g. avalanche cord) hanging in front of a window and spaced 9–10 cm apart (commercially known as 'Acopian BirdsaVERS') are effective – and barely noticeable from inside when you get used to them. Although it requires a little more effort to construct, a 'window screen' is a very reliable way to stop birds from crashing into your large picture window while maintaining your view. This consists of a frame around the window that supports taut, dark netting with a fine mesh (e.g., 3/4") 10-15 cm in front of the window. The netting is barely visible. Birds will fly into it but will bounce off unhurt, as if it were a trampoline.







Window film with small dark squares has been attached to the outside of this window

If you have bird feeders, you can reduce the likelihood of collisions by placing them either very close (less than 1 m) to a window (try using suction cups on the glass) or more than 10 m away *and* use dangling cords in front of the nearest window. This will allow birds fleeing from the sudden appearance of a hawk (for example) to either hit the glass before they gain any momentum, or to have time to avoid the window.

In addition to window collisions, many birds are killed by flying into buildings (particularly high-rises) when they are attracted by bright lights but then become confused and disoriented. Cities such as Toronto and Chicago have held "lights out campaigns" to reduce bird deaths, which are especially numerous during spring and fall migration periods. We do not yet know the extent of this problem in Vancouver (research is underway), but it would probably benefit the birds (bats too) to turn off outside lights and close drapes after dark if you live in a high-rise.

Censuses, such as the annual Christmas Bird Counts, show that the Pacific Coast populations of many of our forest and garden birds are declining. For example, Varied Thrush (below right) has declined by 54% and Golden-crowned Kinglet by 69% since 1970. This is attributed to a variety of causes, including loss of habitat (shrinking green spaces, removal of trees), inadvertent human impacts (e.g., collisions with motor vehicles) competition for nest sites with introduced species (e.g., cavity-nesting grey squirrels and starlings), and predation by cats, as well as window/glass collisions. Yet birds are an invaluable part of our human environment. They bring a garden or a forest pathway to life with their songs and chatter and endless 'here, there and everywhere' flights searching for food. They also provide essential ecosystem services such as insect control, pollination, and seed distribution. We should all do what we can to minimize unnecessary loss of our feathered friends.

**FINAL NOTE** If the remedies suggested here seem too onerous or awkward, be aware that doing just a little is much better than nothing at all. Perhaps deal with just one window – the one that is closest to your feeders. Even just closing the drapes *may* help. Or make the window more visible by drawing just a few lines with a marker or a bar of soap, or stick on just a few decals). These actions, although less than ideal, could still save a bird!

**SOURCES OF INFORMATION:** Many internet sources provide advice about how to minimize bird/window collisions. Some advice is good and appropriate, much is commercially oriented, and some is out of date. *So be cautious!* If you choose any commercial window-film product (and some are excellent), make sure that it eliminates reflections as well having a pattern with spaces that are sufficiently small to block potential flight paths.

Recommended Websites:

- Vancouver City's "Vancouver Bird Strategy" [www.vancouver.ca](http://www.vancouver.ca) Follow links to "Bird Friendly Design Guidelines Expanded Note, part 10: Building Design Guidelines".
- Toronto's "Fatal Light Awareness Program", [www.flap.org](http://www.flap.org) was set up to deal with the problem of bright lights, but also includes useful "Bird-Window Collision Reduction" information.
- Cornell Lab of Ornithology, <http://www.birds.cornell.edu> : go to "All About Birds", and search for "Window Collisions" (2 articles)

For local advice, call Bird Studies Canada at 604-350-1998, or Canadian Wildlife Service at 604-350-1984, or email [krista.degroot@canada.ca](mailto:krista.degroot@canada.ca) .

**INEFFECTIVE AND UNCERTAIN REMEDIES** for prevention of collisions:

- pasting silhouettes of hawks on windows (birds don't recognize these as a danger and will avoid the shape but fly into the adjacent clear glass;
- dangling strings of CDs, coloured tapes, streamers: *ineffective if widely spaced -- narrow spacing is key* –see FLAP figure on p.1.
- drawing on the *inside* of the glass;
- closing drapes or blinds may help depending on local conditions, but *does not eliminate all reflections*;
- owl decoys;
- a few decals or other objects stuck on a window will likely be ineffective but may help slightly; ultra-violet-reflecting tape or decals *may* be effective.

**FIRST-AID** If you find a stunned bird on the ground with no obvious injuries, do not leave it there to recover because it could well be taken by a predator. Pick it up gently and place it in a clean paper bag or small cardboard box. Make a few *small* air-holes if necessary; do not add food or water. Put the container in a quiet place away from people and pets. After about 30 min, or when you hear or see signs of movement, *take the container outside* and open it a crack. A recovered bird will immediately take to wing and head for freedom. If the bird appears to be injured, contact a local wildlife rehabilitation organization (e.g., Wildlife Rescue in Burnaby at 604-526-7275) for advice.



Varied Thrush: left - Jared Hobbs, above - David Bradley