

Dark dangers of migration

Hundreds of millions of birds die each year flying to or from their summer homes

Almost without our knowing it, countless millions of birds are presently winging their way southward in their twice-yearly migration between breeding and wintering grounds. Most will fly by cover of darkness, commencing their flight about a half-hour after sunset. In fact, if you step outside after dark and listen carefully, it is often possible to hear the soft contact calls the birds make as they pass overhead. Yet, we rarely think of the extraordinary effort – and, in some cases, simple good luck – required to successfully complete these epic voyages. The dangers and obstacles are many. It is estimated that fully half of all migrants heading south for the winter will not return to breed in the spring.



Drew Monkman
OUR CHANGING SEASONS

Nearly all bird species are dependent on stopover sites along their migration route. Strategically located patches of woods, wetlands, mudflats, and beaches with adequate food and shelter are essential if migrants are to replenish fat reserves and rest in a relatively safe environment. Beaches along the southern shores of Delaware Bay are some of the most famous migratory stopovers. Almost the entire eastern population of red knots, a type of sandpiper, stops to feed on these beaches on their journey to their breeding grounds in the Arctic. The birds are dependent on the abundance of horseshoe crab eggs found on what amounts to only a few miles of beach. The loss or degradation of these stopover sites, along with the destruction of crucial habitat on the wintering grounds in the south and breeding grounds in the north, is considered to be the biggest cause of bird mortality.

COLLISIONS WITH BUILDINGS

However, according to David Bird in *The Bird Almanac: A Guide to Essential Facts and Figures of with World's Birds* (2004) collisions with buildings is a close second to habitat destruction as the main cause of bird deaths. Part of the reason for this has to do with the routes migrating birds take. North American birds tend to follow four natural migration corridors north and south each year: the Pacific, Central, Mississippi and Atlantic Flyways. Many of the birds that nest in the Kewarthis use the Central Flyway which takes them across or around the Great Lakes. Tragically, shorelines such as those of the Great Lakes and the coastlines of our two oceans are now obstructed by the tall, lighted office towers and reflective buildings of our urban areas, not to mention the millions of smaller buildings and private homes.

So, why do birds collide with the windows or other reflections coming from buildings? During the day, windows confuse birds. They cannot see the pane of glass and are not able to tell the difference between a real tree or sky and a reflection of the same in a window. The birds end up focusing on the reflection, or even on a potted plant inside the building, and often fly full-speed into the glass – usually with fatal results. Migrants that are feeding and resting in your yard may be at greater risk for window collisions than your resident birds (e.g., northern cardinal, black-



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capped chickadee) that are familiar with the buildings and general geography of the area. Nearly all of the birds that end up hitting my own windows, maybe half a dozen per year, are migrants. Migrating birds are aggressively seeking food in the form of insects and the reflected image of trees in the glass represents an attractive food source. Although the death of any bird is unfortunate, the death of migrant species is doubly tragic since many of these are species at risk and can ill-afford further depletion of their numbers. Head trauma, broken beaks and shock are the leading causes of death due to bird/building collisions.

NIGHT DANGERS

If the birds avoid a daytime collision, they may not be so lucky at night when they find themselves flying over a big city like Toronto. Because many species depend on the light coming from the stars as navigation aids during migration, they also tend to be attracted to the bright lights left on overnight in tall buildings. Unaware that unyielding glass lies directly in their path, this often results in fatal collisions. Foggy or rainy weather can be especially deadly. The birds are not only confused by the light but are blinded by the rain.

In Toronto, a charitable organization called the Fatal Light Awareness Program (FLAP) is working hard to address the issue of bird collisions with buildings. According to FLAP, an estimated one to 10 birds die, on average, per building, per year. The City of Toronto has over 950,000 registered buildings that could potentially kill over nine million birds each year. Across North America, the estimated number of migrating birds killed annually in collisions with buildings ranges from 100 million to one billion birds. Windows are everywhere and all of these windows are potentially killers.

Each morning throughout the spring and fall migration periods, a small group of FLAP volunteers patrol a handful of buildings in the Toronto region in search of dead or injured birds that have collided with windows. Since 1993, volunteers have picked up over 50,000 dead or injured birds from 164 species. About 40% of the injured birds rescued by FLAP survive to be released back into the wild. However, after-the-fact emergency bird rescue response is only one aspect of FLAP's work. Over the years the organization has developed working partnerships across all sectors of corporate and residential society, and instituted leading-edge programs and poli-

cies that begin to address the issue at the source: the buildings themselves. FLAP's research and initiative has resulted in the publication of collision prevention guidelines for use on both corporate and residential structures. FLAP has also launched Lights Out Toronto! (LOT!) – an ongoing awareness campaign aimed at promoting bird conservation and energy conservation, especially during each migration season. The goal of LOT! is to get lights turned out at night, in both city-owned and privately-owned buildings, and reduce migratory bird deaths. FLAP has an excellent website (www.flap.org) which provides advice and answers to all kinds of bird and window-related questions.

OTHER DANGERS

Unfortunately, collisions with buildings are not the whole story. Birds also collide with power lines, communication towers and motor vehicles. Taken together, they may be responsible for up to 300 million additional bird fatalities. Collisions with wind turbines result in some mortality, as well, although it may not be as bad as initially feared. A 2007 article in the journal *Nature* stated that each wind turbine kills an average of about four birds per year.

In the hierarchy of threats to birds, cats constitute the third greatest threat. A British study showed that in a single year the 70 free-roaming pet cats in one small village killed and brought home over a thousand wild birds and mammals, representing 37 species. Since other studies have shown that cats only bring home about half of what they kill, the total number of kills was likely 2,000 or more. When you multiply this by the number of cats in Canada and the US, this translates into well over 100 million bird deaths a year, according to David Bird. Migrants can be especially easy pickings for cats, since many are tired, hungry and therefore more likely to fall prey to such skillful predators. However, like so many environmental threats, the cat menace tends to go unnoticed and many cat owners still harbour the misconception that it is normal for cats to go outside.

NATURAL THREATS

Storms, too, represent a serious danger to migrating birds, especially those species that have to cross broad expanses of water. If they should encounter strong headwinds, they may eventually become exhausted and fall into the waves and drown. Workers on oil rigs in the Gulf of Mexico often report migrants resting on these structures. Storms often blow birds far off their intended course and, should they be over water, many end up dropping into the water from exhaustion.

People can make a difference when it comes to reducing window collisions. Collisions can be minimized by breaking up the reflection on the outside of the window. Some common ways to do this include placing rows of stickers – of any shape – on the outside of the window and about four inches apart. Unfortunately, single window decals such as a hawk silhouette are not effective as deterrents. One highly-recommended product is called CollidEscape. This is a “screen” that you stick onto the window and is similar to a decal. But it is one-way, which means you can still see through your window. From the outside, however, it appears solid and opaque. Go to www.collidescape.org or call 608-352-7574 for more information. FeatherFriendly Technologies also provide an attractive window film designed to reduce bird collisions with exterior glass. A do-it-yourself residential kit is now available. Go to www.featherfriendly.org or call 1-888-835-5885.

HELP THE RECOVERY

From a conservation perspective, it is especially important to avoid window collisions during the spring (mid-April to late May) and fall (mid-August to mid-October) migration period. Collisions during the rest of the year are not as worrisome since they mostly involve common resident species.

Should you find a bird that has hit a window, it will need a quiet, dark, safe place to rest and recuperate. Place it in a small cardboard box, being careful to handle it as little as possible and use Kleenex or paper towels, rolled into a donut shape, as a perch for the bird to sit upright. Never feed the bird or give it water. If the bird recovers after one hour, you will hear it fluttering inside the bag or box. It can then be released.

Drew Monkman is a retired Peterborough teacher and author of Nature's Year: Changing Seasons in Central and Eastern Ontario. He can be reached at dmonkman1@cogeco.ca. Visit his website and see past columns at www.drew-monkman.com

Toronto's officer towers look attractive lit up at night but are dangerous for migrating birds like this yellow warbler, killed after flying into a window. Large windows in school buses and homes can be made safer by applying decals birds can see.

DON CROPP Special to The Examiner