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THE FATAL LIGHT AWARENESS PROGRAM CANADA

FREE RAFFLE

Join our email list and enter for a
chance to win Feather Friendly
DIY Residential Tape

Courtesy of Convenience Group:
featherfriendly.org

**Please visit our display table to
enter draw**





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Ruby-throated Hummingbird

Crash Course

A look into the
Fatal Light Awareness
Program
and the Bird Collision
Phenomenon





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Our Mission:

To safeguard migratory birds in the urban environment through...



**Guidelines,
Policy &
Standards
Development**



**Advocacy &
Education**



**Data
Collection &
Research**



**Rescue &
Rehabilitation**



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Cape May Warbler

The Program: Who We Are

The Fatal Light Awareness Program (FLAP) is a non-profit charity whose vision is to provide a 24-hour collision free built environment for migratory birds.



During the spring and fall migration seasons, FLAP volunteers rescue injured birds that have collided with buildings in the Toronto region.

They are quickly gathered so not become prey to gulls, crows and other predators.

If they require medical attention, they are treated on-site or transported to a local wildlife rehabilitation facility.

Rehabilitated and uninjured birds are released into natural areas outside the city.

Dead birds are donated to the Royal Ontario Museum (ROM) where they are used for various research and educational purposes.



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The Issue: Lights and Windows Kill Birds



Up to 10 million birds collide with buildings across Toronto annually
1993 – 2015 FLAP has recovered over 74,000 birds from 170 species,
20 of which are Species at Risk.



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Common Yellowthroat

The Issue: **Collision with Lighted Structures**



- **Office towers**
- **Emission stacks & oil platforms**
- **Cranes & lifts**
- **Wind turbines**
- **Bridges**
- **Telecommunication towers**
- **Light houses**
- **Cruise liners**

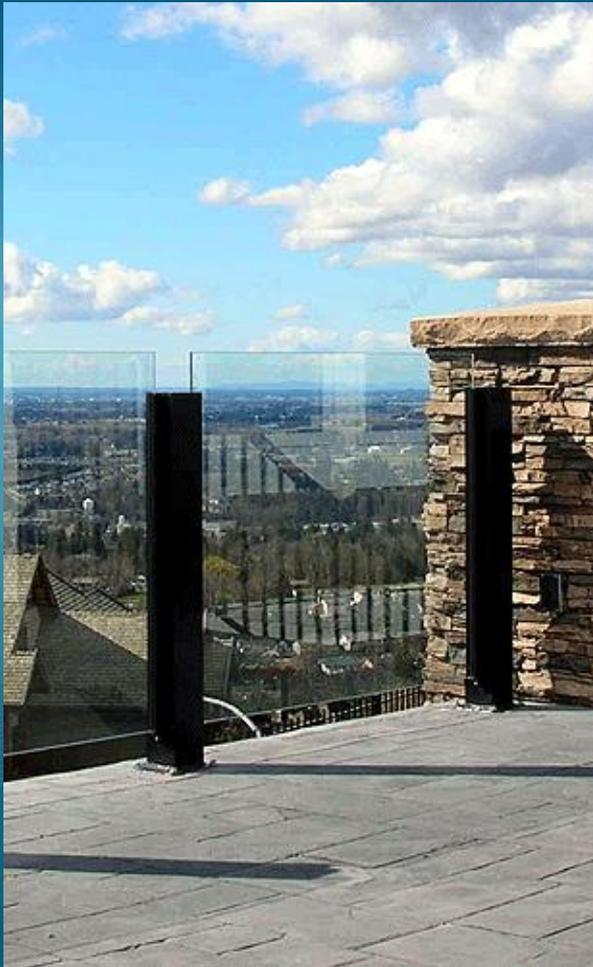


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Red-headed Woodpecker

The Issue: Building Characteristics Lethal to Birds



- **Urban Lights**
- **Decorative and Event Lighting**
- **Mirrored Windows**
- **Transparent Windows**
- **Transparent Railings**



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The Problem: Birds Cannot See Glass





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The Problem: Birds Cannot See Glass





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Yellow Warbler

The Issue: **Collisions with Windows**

Bird collisions with windows is now a leading cause of bird death across North America



- **Commercial Buildings**
- **Residential Buildings**



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**99%+ of bird/window collisions
occur at
existing construction.**



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Bird Migration: Why do they do it when they do?





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Bird Migration: When do they migrate?





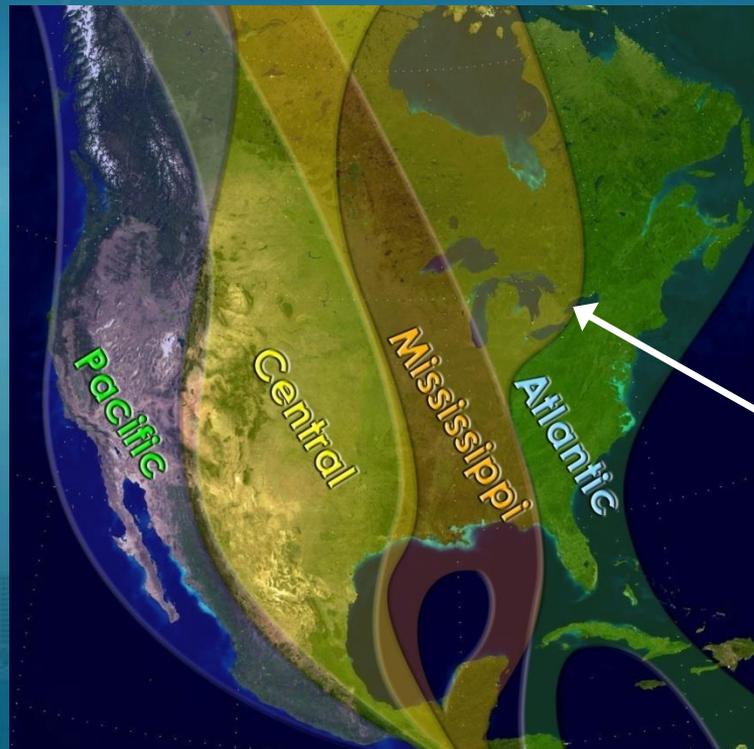
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Orchard Oriole

Bird Migration:

How do they do it?



Many urban areas across North America are situated along migratory bird routes.

Toronto sits beneath two major overlapping corridors making it one of the busiest migratory passages on the planet.



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Savannah Sparrow

**Bird
Migration:**

Visual Cues



- Setting sun
- Earth's geo-magnetic field
- Star patterns
- Topographical landmarks



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Black & White Warbler

The Solution:

FLAP works with various experts in the field of ornithology, architecture and engineering in an effort to develop window treatments that are safe for birds.

The Rule of Thumb

Birds are exceptionally agile and can navigate through remarkably narrow passages.





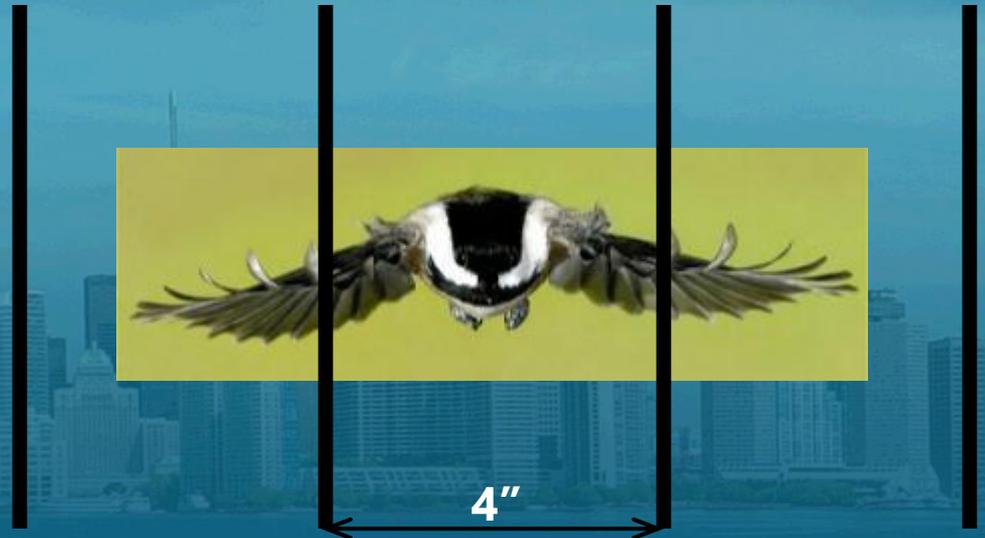
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FLAP works with various experts in the field of ornithology, architecture, engineering, development, government, manufacturing and property management in an effort to develop effective Bird Safe® window treatments that are safe for birds.

DAYTIME SOLUTIONS - 2" / 4" RULE



Horizontal lines with a maximum spacing of 2"



Vertical lines with a maximum spacing of 4"



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Black & White Warbler

The Solution: The Rule of Thumb



Case in Point:

FLAP works with various experts in the field of ornithology, architecture and engineering in an effort to develop window treatments that are safe for birds.

In Spring of 2009, FLAP and the Convenience Group worked closely with the Town of Markham to develop and implement a bird-safe window treatment for their 8100 Warden Avenue building.



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**LEGAL PRECEDENTS NOW IN PLACE TO HELP PROTECT
MIGRATING SONGBIRDS**

**Environmental Protection
Act - EPA**



Species at Risk Act - SARA





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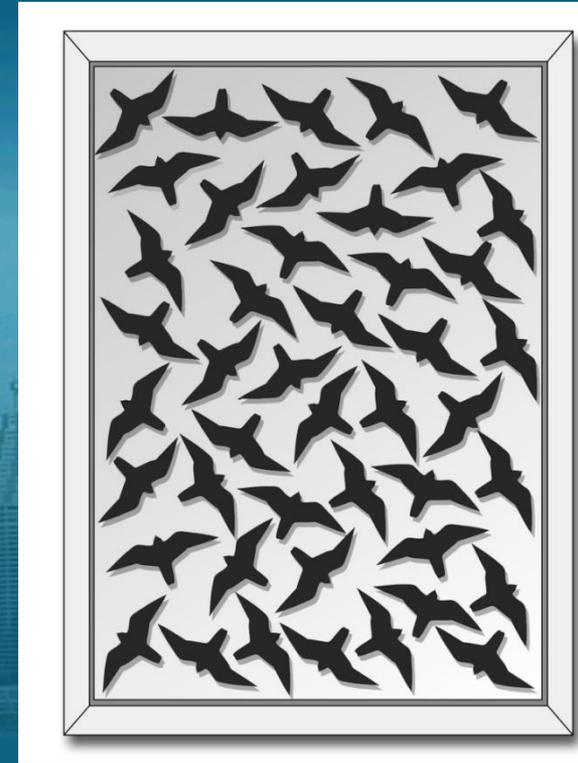
Legal Action: Two Landmark Court Cases

- **It is now an offense under Ontario law (EPA) to emit reflected light that kills or injures birds.**
- **It is now an offense under the Species at Risk Act to kill or injure birds, even though you are simply doing it by reflective windows on your buildings.**



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Dispelling Myths: Bird Deterrents that DON'T Work



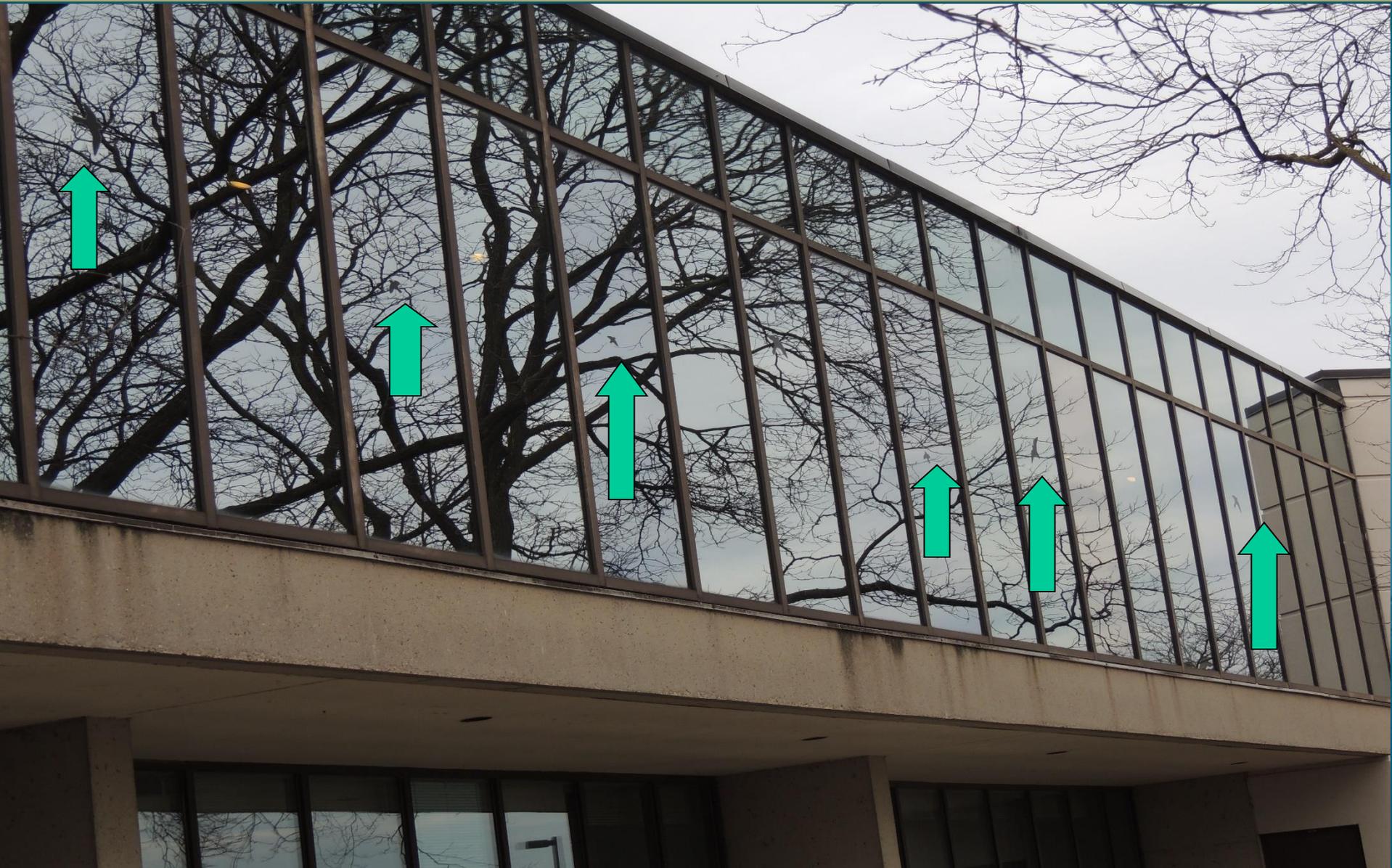


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Dispelling Myths Bird Deterrents that DON'T Work



Plastic owls



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Dispelling Myths

Bird Deterrents that DON'T Work



Plastic owls



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•Size does not matter



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**Transparent Glass Under
Varying Light Conditions**



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Ruby-throated Hummingbird

How You Can Help:

- 1. Make your glass visible to birds**
- 2. Placement of feeders**
- 3. Landscaping**
- 4. Keep cats indoors (or supervised when outside)**
- 5. Start a FLAP-like initiative in your city or town**



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Black & White Warbler

How You Can Help:
Effective Bird Collision Deterrents





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Effective Bird Collision Deterrents



with

without



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• Effective Bird Collision Deterrents



FEATHER FRIENDLY DIY TAPE

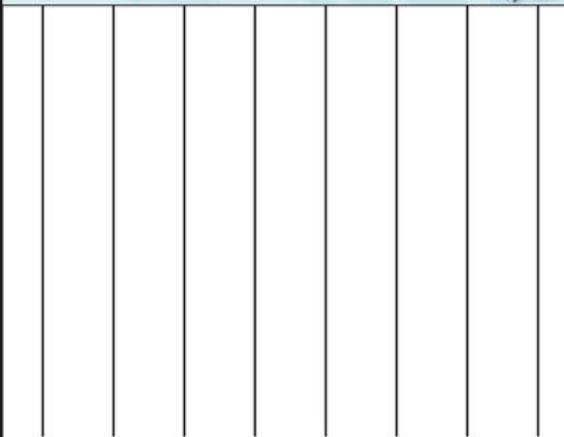


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Effective Bird Collision Deterrents

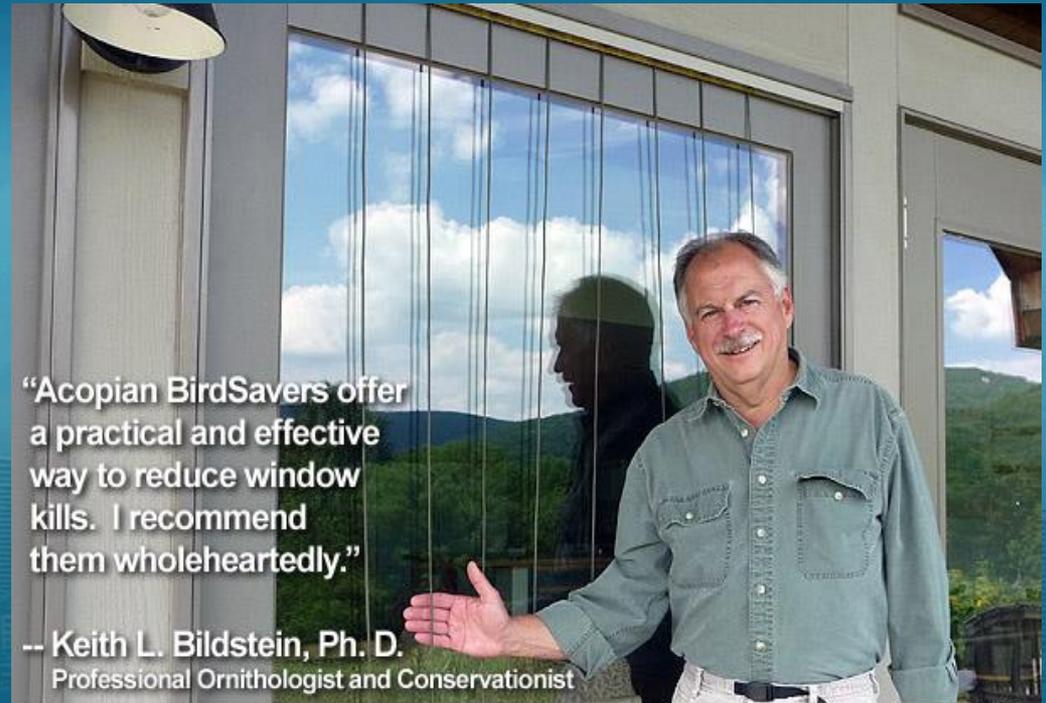
An untimely demise for many birds will be prevented by the Acopian BirdSavers you see on these windows.

Prevent birds from flying into windows:



"Forget about the fact that they save birds. They just look cool!"

Custom Made in Easton, PA or you can easily make your own!
 Go to www.BirdSavers.com for more information.



"Acopian BirdSavers offer a practical and effective way to reduce window kills. I recommend them wholeheartedly."

-- Keith L. Bildstein, Ph. D.
 Professional Ornithologist and Conservationist

One of the many BirdSavers in use at Hawk Mountain Sanctuary.



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**Place feeders 3 feet or less
from windows**



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Landscaping





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Keep cats indoors!



Cats kill an estimated 196 million birds in Canada each year, far more than all other human-linked bird kills combined, according to a national survey by Environment Canada.



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Meanwhile the threat that everyone hears about — birds colliding with tall office buildings — is a much smaller threat. An estimated 64,000 birds die that way each year.

Houses are far more lethal, killing 22.4 million birds a year.



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Bird Safe™ Building Standards, Auditing Tool and Specification

Building Assessment for Wildlife Sustainability
Site Review and Recommendations for Minimizing Bird Deaths
by the Fatal Light Awareness Program

Date: Tuesday October 19, 2010 Angus Glen Community Centre
Address: 3990 Major Mackenzie Dr E Building Being Assessed
Markham, ON
CANADA

The Corporation of the Town of Markham
Property Management Company

The Corporation of the Town of Markham
Building Owner

Surrounding Topography (see accompanying document)

Local Green Spaces

woodland(s) wetland(s) ravine(s)
 park/conservation area(s) meadow(s) shoreline

Concentration of Birds in Vicinity

No Unusual Concentrations
 Moderate Concentrations
 Strong Concentrations

Part A: Building Features (see accompanying document)

A1) Construction Material (see accompanying document)

Select boxes that best describe building material characteristics:

i. Exterior Glass

clear reflective transparent
 tinted reflective transparent
 mirrored reflective transparent
 patterned reflective transparent
 other glass features (i.e. stained, etc.)
describe _____ reflective transparent

Bird Collision Threat:
 Non-applicable Low Risk Moderate Unsafe Lethal
Recommendations (see *Bird-friendly Development Guidelines*, pages 8-9)

ii. Polished Material

stone reflective
 metal reflective
 concrete reflective
 other material (i.e. Plexiglas, waxed, etc.)
describe _____ reflective transparent

Bird Collision Threat:
 Non-applicable Low Risk Moderate Unsafe Lethal
Recommendations (see *Bird-friendly Development Guidelines*, pages 8-9)

Input from:

Dr. Daniel Klem Jr.
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Muhlenberg College

Peter G. Saenger
Acopian Center for Ornithology
Department of Biology
Muhlenberg College

Dr. Steve Hager
Professor of Zoologist, Conservation Biology
Augustana College

Erik Kremer
Senior Engineer
Nuclear Waste Management Association

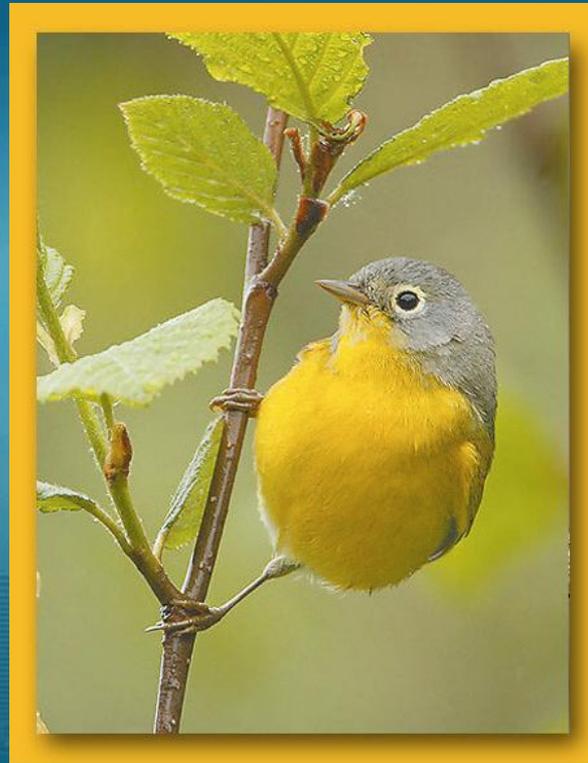
Chris Wedeles
Ecologist
ArborVitae Environmental Services

Practical for both new and existing construction





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Most Frequently Encountered Species



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www.flap.org

www.featherfriendly.org

www.birdscreen.com

www.abcbirdtape.org

www.birdsavers.com



Ruby-crowned kinglet



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Northern Saw-whet Owl

Found an injured bird?

Place the bird in a warm, dark and quiet place away from people, pets and other animals.

Do not handle the bird more than necessary, as it is very stressful.

DO NOT ATTEMPT TO GIVE IT FOOD OR WATER!!

Contact a licensed wildlife rehabilitator in your area for further assistance.



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THE MESSENGER

info@songbirdsos.com
<http://messengerfilm.com>
www.TheMessengerDoc.com



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Annual bird layout





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HOMES SAFE FOR BIRDS



Windows are everywhere – in our houses, cottages, condos, apartments, even balconies. Unfortunately, birds that make their homes in meadows, woods or wetlands have no concept of glass. This is especially true for birds migrating during spring and fall. For them, glass can be deadly.

Most people have experienced the heartbreaking thud of a bird hitting a window.



Environment Canada biologists have concluded that collisions with windows on small buildings are a leading cause of bird deaths, taking millions of lives every year.

Windows deceive birds: reflected trees or sky, a tempting potted plant seen through glass, or a view straight through the building or glass balcony railing can trick birds into thinking that they can sail through to the other side. Birds that do not die on impact can go into shock, becoming easy prey for predators such as cats.

Bird/Window Collisions

We can all take simple, effective steps to help prevent bird collisions

5 cm (2")



Make your windows safer for birds with these additional tips:

Install screens horizontally. To help keep smaller birds such as hummingbirds and warblers

Saving Birds

Protecting Birds

Keep your cat and dog away from windows



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- **Help make the Arboretum's windows "bird friendly"**
- **Glass kills between 100 million and a billion birds annually in North America.**
- **Nature Guelph has agreement by the Arboretum, University of Guelph to donate the cost of covering its 10 large plate glass windows with FeatherFriendly "dots".**
<http://www.conveniencegroup.com/featherfriendly/feather-friendly>
- **We have a quote for professional installation of the dots on the 10 large for \$6,100 plus HST. The Arboretum will act as a Guelph demonstration site of this technology.**
- **Please help us to fund this initiative. Cheques sent to Nature Guelph are eligible for receipts for income tax purposes; donations can also be made Canada Helps either directly (Nature Guelph) or through the "Donation" link on the Nature Guelph website.**
- **For more information or to offer help, talk to**
- **Gordon Aitken (gaitken@rogers.com) or John Prescott (jprescot@execulink.com).**



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Bobolink

For More Information:



**Paloma Plant
Program Coordinator
Fatal Light Awareness Program Canada (FLAP)
416-366-3527 (FLAP)
flap@flap.org
www.flap.org**

Support FLAP Canada today, and you will help save the lives of millions of migratory birds for future generations to come.

