

## Why it happens

Birds hit windows for two main reasons: reflections and “see-through” effects.



### Reflections

Birds see the things they know and need – habitat and open sky – reflected on our windows. Almost any kind of glass can create a perfect mirror in certain light. Birds fly to the reflected habitat or sky and hit the glass in their path.



### See-through effects

When birds see habitat or sky through one or more panes of glass they may attempt to fly through, not realizing there is a solid barrier in their path. A sun porch, gazebo, linkway or two windows on a corner of your home can create this dangerous effect.

## What we're doing

Audubon Minnesota is working to reduce hazards to birds by reducing window collisions.



Black and white warbler | Laura Erickson

**“Lights Out”** is an ongoing program working with building managers to reduce lighting that can draw night migrating birds off course.

**Monitoring** existing buildings helps us to learn more about the numbers and species of birds that are victims of window collisions locally.

**Research** helps us understand what design changes will help birds avoid collisions.

#### Bird-safe Design

While we can retrofit our homes and existing buildings we must look towards a future where building design takes bird-safety into account. We are working with the architecture and design communities to increase understanding of the problem and encourage solutions.

#### Project BirdSafe Partners:

DNR Nongame Wildlife Program  
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## BirdSafe Homes

Making Your Windows Safer for Birds



A Tennessee Warbler is stunned after colliding with a glass window.  
Stephanie Beard  
Background photo | Judd Brink

## The problem

Windows in our homes kill hundreds of millions of birds each year in the U.S.



### The solution

First, learn about what causes window collisions and then assess your own home. Identify your most problematic windows and find appropriate solutions for each.

## Did you know?

- For every collision victim you find outside your windows, three more typically go unseen (falling out of sight or being carried away by predators).
- Of those you see fly away after a collision, 50% die later as a result of their injuries or because they are easy prey for cats and other predators.
- There are simple, economical ways for you to protect birds from your windows.

A Mourning Dove left a dramatic image (above) after hitting a picture window. The feathers of most birds leave no trace. Joanna Eckles

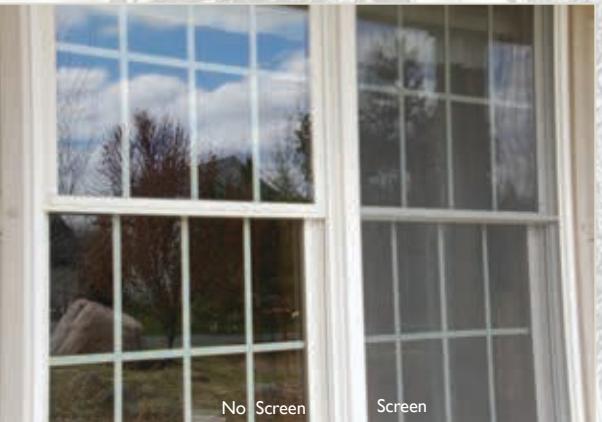
# What you can do

There are easy, economical ways to help birds see your windows.

Try a few of the suggestions provided below.



Pileated Woodpecker | Laura Erickson



No Screen

Screen

## Feeders

One of the simplest things you can do at a picture window is to place a feeder directly on the glass. This brings birds delightfully close – generally too close to cause harm if they are startled. As a rule, feeders very close or quite far from glass is best.



## Blinds

Light colored interior blinds can be helpful when you have a see-through effect like a sun porch or glass linkway. They can also help break up exterior reflections. If blinds aren't enough to stop collisions, consider an exterior treatment.



## Screens

When building a new home or replacing windows, the best thing you can do is to opt for exterior screens. Screens greatly reduce reflections. Also, if a bird does fly towards the glass, a screen creates a protective barrier, decreasing the likelihood of injury.

>> Find more information, product links and examples at [mn.audubon.org/birdsafe-homes](http://mn.audubon.org/birdsafe-homes)



ABC BirdTape (Squares/Stripes) | Dariusz Zdziobowski



Acopian BirdSavers | Peter Saenger

## Dangling Decor

Hanging cords, strings or ribbons in front of your windows can be effective and unobtrusive, even pleasant. Make them yourself or order a product like "Acopian BirdSavers" (above) which are custom-made based on the size of your window(s).



Stephanie Foster

## Surface Treatments

Many exterior surface applications can make glass more visible to birds. Treatment can be permanent (an etched pattern) or it can be temporary (markers, tape, decals). Spacing matters – about 4" apart is recommended.

## Bear in mind...

**Habitat plays a role.** Backyard habitat is a valuable gift to wildlife. Just remember the need to protect the birds you attract from the dangers your windows pose.

**Outside is best.** In general, modifications to your windows are best made to the outside surface where reflections are most prominent.

**Migration peaks.** Collisions can occur at any window, any time of day and year. Problems peak during spring and fall migration. Temporary solutions may be all you need.

**You need cues too.** Glass is invisible to us just as it is to birds. But people understand glass in context. We need far fewer "cues" to warn us of a glass barrier.

**Glass attack.** Some birds attack their own reflection repeatedly, usually from the sill. This is a different problem – territoriality – best subdued using screen, tape, or film.