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Migratory Bird
Day (IMBD),
held annually
on the second
Saturday in
May, is an
invitation to
celebrate and
support
migratory bird
conservation.

IMBD Information web - http://birds.fws.gov/imbd phone - 703 /358-2318

IMBD Materials web - http://www.BirdDay.org phone - 1-866/334-3330

March 2005

## **The Danger of Plate Glass**

# Understanding and Avoiding That Painful Thud

We all know that disheartening sound: a bird smacking into a window in our house or office building. The fact that birds strike our windows every day is not only sad, it's serious: more birds die because of collisions with glass than any other factor associated with human activity. Anywhere from 100 million to 1 billion birds are killed by window strikes each year. These strikes account for the death of up to 5% of the fall bird population. As the number of our homes and offices continues to grow, the number of bird deaths is likely to increase as well.

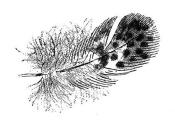
#### Why Do Birds Fly Into Glass?

Windows allow us an opening into the natural world outside. Unfortunately, the glass which is a portal for us is actually a barrier to birds. Both tinted and clear glass are invisible to birds, who see a plant or tree in the reflection of a window, misinterpret it as safe haven, and fly toward it. The placement of leafy green plants inside a window seems to increase the risk of collision. Another hazardous situation occurs when one pane of glass faces another, which creates an illusion of a passageway through a structure. The extra momentum gathered as the bird attempts to "pass through" is especially deadly.



Tall buildings pose a special threat at night because of their artificial lights, which attract birds as they migrate. Bird collisions are especially high during periods of bad weather, including fog, low clouds, and rain. Other factors which can increase the number of birds flying through urban areas (and crashing into the glass surfaces there) include strong winds and sudden changes in temperature.

Glass is dangerous in structures of all sizes, including homes, schools, storefronts, offices and apartment buildings. It is also lethal in every season. City skyscrapers result in the biggest kills at night during the spring and fall migrations, when the lights of tall structures confuse birds on their flight path. However, Klem reported that most birds are actually killed during the day in winter, when birds are attracted to the bird feeders set up by approximately 25% of the North American population.



#### What Happens When Birds Fly into Glass?

Although the sound of a bird hitting one of our windows may be a familiar one, the actual discovery of dead birds lying beneath our windows is somewhat less common. The fact that relatively few dead birds are discovered is misleading, however, and the resulting belief that most birds can survive a window strike is false. Klem estimates that one in two birds who collide with glass will die as a result. Typical injuries include broken beaks, feathers, and head trauma.

The deceptively low numbers of dead birds found underneath problem windows may largely be due to the ability of predators (cats, dogs, raccoons) to quickly seize a dead or injured bird before we have even seen it. The decorative shrubs and plants which surround our homes make their discovery even more difficult. Birds may survive the initial impact, fly off to a safe area, only to later die of injuries sustained in the collision.

#### What Can We Do to Keep Birds Safe?

Make glass visible. If birds realize that the glass barrier exists, they are able to avoid it. There are different ways to help birds see glass, ranging from the extreme (whitewashing, etching or sandblasting) to the moderate (hanging sun ornaments or other materials). The popular solution of hanging hawk silhouettes in windows is less effective than moving pictures or ribbons. Specialty products, such as Wing Chimes and CollideEscape (film which covers a window while preserving the interior view) are available at a web site devoted to glass safety (www.flap.org). Even the simple acts of closing blinds, drawing drapes, and turning off lights at night have been proven effective in reducing window strikes.

Create barriers. A barrier between the bird and the glass may prevent birds from colliding. External sun shades and soccergrade netting are both effective ways of keeping birds in flight away from a window.

Consider placement when attracting birds. People can also make a difference by putting their feeders and birdbaths in safe locations. Several studies show that feeders should be placed either very close to a window (less than 3 feet) or far away (more than 30 feet), so that the feeders are not directly in the birds' flight path when they fly from the feeder. Using window feeders prevents birds from gathering deadly momentum even if they do strike the glass during their flight.

Explore innovations in new construction. Windows that are adjusted in angle are safer in new buildings; studies show that even a 20 degree angle significantly lowers bird fatalities. New windows can also be modified in appearance, such as the glass in the new observation tower in Niagara Falls State Park, which has a striped pattern to help increase its visibility for birds. Another experiment in such technology is the Swarthmore project, where builders are installing panes which use tiny dots of opaque glass to achieve a semifrosted look.

Support Lights Out Programs. Turning off lights at night in buildings and homes prevents the birds from being attracted to, or confused by illuminated windows. An example of city-wide success is the "Lights Out" program voluntarily adopted by most of the major skyscrapers in Chicago. Since the buildings began dimming or turning off lights, bird deaths during migration season are estimated to have dropped by as much as 80 percent. Similar programs are being studied and at least partially implemented in areas of New York and Toronto.

### What Can I Do if a Bird Crashes into my Window?

Despite our best efforts, birds will continue to fly into glass in our offices and homes. If you find a bird that has been killed or injured by such a collision, you should use a towel to cover and catch the bird, and place it in a paper bag or cardboard box that can be closed or covered securely (be sure to provide airholes). Keep the contained bird in a warm, dark and quiet place away from noise and activity. Check on the bird every half-hour, but do not handle it. If it seems to recover, take the container outside and set the bird free. If it does not recover within a few hours, contact a wildlife rehabilitator.

There are several ways to find your nearest rehabilitator. Contact:

- Your local animal shelter or division of the Humane Society,
- Your local veterinarian,
- Your state Division of Natural Resources, or
- •The National Wildlife Rehabilitators Association at (320) 259-4086, or the International Wildlife Rehabilitation Council at (408) 271-2685.

