

International 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** 

# **Clear the Way for Birds!** *IMBD Explores Bird Collisions*

## **Collision Course**

Flight is a magnificent means of transportation, allowing bats, insects, birds and even humans to travel great distances. For many birds, however, a journey across the skies may be a veritable obstacle course of humanrelated hazards. International Migratory Bird Day (IMBD) is an opportunity to examine the obstacles birds may encounter in flight and explore the many ways we may minimize their impacts.

The towers erected for our cell phones and pagers, the lines that bring us power. our vehicles, the windows on homes and office buildings, and even sources of renewable energy, such as wind turbines, create obstacles for birds in flight. Collisions with these obstacles may cause the death of one bird or tens of thousands of birds in a single incident. Biologists estimate the combined death toll from aerial collisions may exceed 700 million birds each year and affects all types, from ducks, gulls, plovers, owls, and hawks, to woodpeckers, hummingbirds, warblers, sparrows, and finches.

The problem is urgent, and biologists, conservation organizations, communities and individuals are joining forces with industry representatives to unravel the causes of bird collisions and to explore ways of making a bird's journey safer. Individual participation in these efforts can have significant results. Small changes at home, involvement at work, and active contribution to your community can make a world of difference to bird conservation.

## **Power Lines**

Birds with large wingspans, such as raptors, cranes, and swans, are less maneuverable and thus most vulnerable to collisions with power lines. The impacts may be especially high when power lines are located near marshes, lakes, and other habitats where birds congregate in winter, when breeding, or on migration. Wind and stormy weather also make avoiding lines a challenge. New guidelines that are used by utility companies are helping to lower the impact of power lines on birds.

Solutions ~ Burying power lines eliminates bird collisions. Flags or marker balls on lines located above ground help to increase their visibility, helping birds to see and avoid them. When lines are parallel, the likelihood that birds will see one line and avoid it only to hit another are decreased.



In the IMBD 2005 artwork, David Sibley portrays collision hazards using an illusion of depth and layers: a selection of birds risks striking a plate glass window, in which is mirrored an array of other birds against a crowded skyline of aerial obstacles.

#### **Communication Towers**

Communication towers provide coverage for cell phones, pagers, television and radio technologies that are central to our lives. Over 140,000 towers are located in the United States, and as many as 5,000 new towers are erected each year. Bird collisions at towers have been reported for over 50 years, and studies are ongoing to determine the causes and solutions. The towers that are the most hazardous to birds are those that are over 200 feet, are illuminated at night with red lights, are supported by guy wires, and are located in migration corridors, near wetlands and in areas prone to fog, low clouds, and precipitation. Birds that migrate at night are drawn to tower lights. especially in poor weather. Disoriented, they circle the area, eventually striking the guy wires, the tower, or even one another.

Solutions ~ Birds are less likely to be harmed by shorter structures that do not require lighting or guy wires, lights that are white or green, and towers that are located away

from migration corridors and cloudy areas. Creative placement of new towers includes using existing buildings.

## Wind Turbines

Harnessing the wind's energy is an economical means of producing electricity. As early as 200 B.C., windmills were used to pump water and grind grain. Today, wind farms may include hundreds of turbines, tall structures which support fan-like rotors connected to generators. The electricity produced by the spinning rotors supplies power to towns and cities. Like communication towers, turbines are most harmful to migrating birds on cloudy nights and when turbine height requires the use of lights. Because turbines are not supported by guy wires and rarely involve lights, their impact on birds in flight compared to other structures is relatively low.

Solutions ~ Proposals for new wind farms that consider bird migration routes, bird abundance, and turbine height will help to minimize fatalities.

#### **Plate Glass**

One of the greatest hazards to birds is plate glass, with windows in homes and offices killing as many as one billion birds each year. Glass is invisible to birds, and if it reflects the images of trees, bushes, the sky or other natural habitat, a bird may fly directly into it. The presence of houseplants behind windows, the distance of vegetation or bird feeders from windows, and the angle of reflection may all influence the likelihood of a bird flying into glass. Studies indicate that one of every two strikes is fatal. If not killed outright, birds stunned after striking glass often fall prey to hawks, dogs, cats, raccoon, and even squirrels. In addition, tall buildings and vanity signs that remain lit throughout the night are as hazardous as lighted towers. Birds may be attracted to these structures, confused by the lights, and circle repeatedly, dying of exhaustion or by colliding with the building.

 $Solutions \sim$  There are many ways to reduce bird strikes at windows.

- Hang ribbons, wind chimes, or hawk silhouettes the full length of the glass outside windows, using a suction cup. Movement is more effective in deterring birds than static images on the glass.
- Move house plants away from windows.
- Place bird feeders, birdbaths, and plants less than half a meter from windows, so that birds are less likely to build up enough momentum to harm themselves.
- Close curtains and blinds whenever possible.
- Use window films that lessen the glare and transparency of glass.
- Extinguish building lights or draw blinds from dusk until dawn.

#### Transportation

Travel by air and car is a convenience that is relatively safe for humans, but results in death for as many as 2 million birds each year. The over 8 million miles of roads in the U.S. and hundreds of airports are often bordered by fences and vegetation, which are used by birds for perching, foraging, and nesting. The heat emitted by road and runway surfaces, puddles that form beside roads, and the salt used for de-icing are just a few of the other factors that attract birds. Collisions with cars are also influenced by location of the road, proximity of vegetation, and vehicle speed.

Solutions ~ Erect road signs or speed bumps to lower vehicle speeds where bird activity is frequent and remove plants from roadsides and medians that attract birds. Landscaping with taller trees and bushes will cause birds to fly higher. Better planning of new roads and highways will benefit birds by avoiding valuable habitats.



### For More Information on Bird Collision Issues:

American Bird Conservancy Wind Energy Policy - www.abcbirds.org Avian Power Line Interaction Committee - www.aplic.org Birds & Buildings - www.birdsandbuildings.org/index1024.html Fatal Light Awareness Program - www.flap.org National Wind Coordinating Committee - www.nationalwind.org U.S. Fish & Wildlife Service - http://migratorybirds.fws.gov/issues