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Chicago Skyscrapers Go Dark for Migratory Birds

A Building Less Bright

by Carolyn Kousky

“Light is part of the building’s architecture,” says Roy Endsley, the building manager at 311 South Wacker in Chicago. “Part of the building’s appeal is its prominence in the nighttime skyline.” Yet 311 South Wacker turns off its lights—along with many other prominent Chicago buildings, including the John Hancock Building and the Sears Tower—when migratory birds make their way through the Chicago area.

Twice a year, around five million birds, representing about 250 species, fly through Chicago. These migratory birds can cover thousands of miles each season. Many birds, like the song sparrow that is a common casualty in Chicago, are nocturnal migrants, meaning they travel at night. When they are flying near buildings, the nighttime lights can confuse the birds. Sometimes they crash into the lit building; other times, decorative lights disorient the birds and cause them to circle around and around, finally settling exhausted in a street tree or bush at daybreak. From there, “birds can fly into glass windows as they fly toward a reflection or even a planter inside the building,” explains Rebekah Creshkoff of the [New York City Audubon Society](#). “The problem is easy to overlook because you don’t see it in the aggregate,” she continues. “A person will see one dead bird here, one bird there. But it is still a huge problem.”



Chicago's 311 South Whacker. Photo courtesy Walton St. Capital.

There are some Chicago residents who understand the hazards facing migratory birds first hand. “I’ve spoken with one building manager who said some nights birds were picked up by the shovel from the roof,” says Judy Pollock, the Bird Conservation Project Manager at the [Chicago Audubon Society](#). The City of Chicago’s [Department of the Environment](#) estimates that tens of thousands of birds are killed from nighttime lights each season.

Chicago, through its [“Lights Out” program](#), was one of the first U.S. cities to address nighttime bird deaths. The program encourages building managers to dim or turn off decorative lighting late at night and to minimize the use of bright interior lights during migration season. They also encourage high-rise residents to draw their shades or dim interior lights late in the evening. The program was started in the fall of 2000 and has won the support of almost all of the major skyscrapers in Chicago.

There is substantial anecdotal evidence that the program helps. One night “[t]here was a tragic mix up and the lights did not go out on schedule. We had a heavy night of

Title photo by Joe Nonneman.

Resources

[Audubon's Lights Out Chicago Program](#)

[Chicago Audubon Society](#)

[New York City Audubon Society](#)

[Bird Collision Monitor and Rescue Project](#)

[Chicago "Lights Out" Program](#)

[Fatal Light Awareness Program](#)

[Project Safe Flight](#)

migration and there were birds everywhere with few survivors. The next night, the lights were out and the drop in fatalities and injuries was amazing—we guess at an 80 percent drop. We could still hear the birds flying, but they made it safely over the buildings that night.” So wrote Robbic Hunsinger, of the [Bird Collision Monitor and Rescue Project](#).



Inventory of bird fatalities following early morning survey by New York City Audubon Society members in 2000. Photo by Leonard J. Friedland, courtesy New York City Audubon Society.

Scientists at the [Field Museum of Natural History](#) in Chicago have been able to count the number of avian lives saved by turning out the lights at one Chicago building. “This study actually came about as a happenstance,” remarks Doug Stotz, a conservation ecologist and ornithologist at the museum. Since 1978, Field Museum scientists have been collecting dead birds—“a source of new specimens that didn’t require that we kill the birds,” says Stotz—at the McCormick Place building, a large lake-front convention center. At one point, the McCormick Place building managers began to turn off lights when the exhibition hall was not being used. When Dave Williard, the

collection manger at the museum, noticed that more birds seemed to be dying when the lights were on, they started keeping track. They found that when the lights were off, bird deaths were reduced by over 80 percent, from 1,297 during the nights the windows were lit compared with only 192 when the lights were off or shades were drawn.

Toronto, Canada also has efforts underway to help nocturnal migrants. In fact, Chicago modeled its program on FLAP, Toronto’s aptly named [Fatal Light Awareness Program](#), which began back in 1993. In 1996, the Bird Friendly Building Program began to educate building managers on reducing nighttime lighting to save bird lives. Michael Mesure, from FLAP, pointed out that many building managers supported the effort because they get the additional benefit of reduced energy bills. FLAP analyzed sixteen major towers that participated in the program and found, like those in Chicago after them, that turning off the lights did indeed have a measurable influence on bird mortality. Yet Mesure is quick to note that nighttime collisions are not the only problem facing birds in urban areas. During the day, birds can fatally crash into windows when they see a reflection in a window or see through the glass and don’t realize it is there. “In fact, in terms of numbers, daytime collisions are starting to far outnumber nighttime collisions,” Mesure stresses.

The New York City Audubon has a program in place called [Project Safe Flight: Compassion in Action](#). Project Safe Flight addresses both daytime and nocturnal collisions. Volunteers monitor areas for dead or injured birds and their collisions data is collected on their website, [www.birdbash.org](#). Prior to 9-11, the program was having some success in lowering bird collisions at the World Trade Center. The Port Authority had put netting over certain windows so birds bounce off instead of fatally crashing into the glass; and some tenants, after being contacted by Project Safe Flight, have been happy to dim their lights.



The Fatal Light Awareness Program uses a 'strike zone map' of downtown Toronto to index bird mortality caused by collisions with buildings. Graphic courtesy Fatal Light Awareness Program.

“What is unique about the Chicago program is that it was taken up by the city,” comments Pollock. She notes that there is a real “civic cooperation” on the part of the buildings. A year ago, buildings were asked to keep their lights off even longer after data from Doug Stotz and others suggested that the original one-month period was not sufficient. Now lights in the city go off from March 17th until June 7th and from August 25th until October 25th. Despite the burden of a longer lights-out period, Judy Pollock found the building managers to be “very cooperative.”

In a similar sentiment, Roy Endsley feels that one of the best aspects of the program is the involvement of the city. He fondly mused that it had the feel of a small town

program in a big city and noted that it is now rare to find dead birds at 311 South Wacker. That's a statement bird lovers hope to hear from all building managers in the future.

"Two days ago," recounted Ms. Hunsinger, "most of the lights were out but one building had its antennas all lit up. There were two beautiful black-billed cuckoos at the base of this building, obviously traveling together and obviously killed by collision after being drawn to these display lights. These birds traveled all the way from South America to die in a Chicago street. It is an avoidable loss for a species in significant decline."

Lights Out after 11 pm During Migration

Tall buildings can save birds by extinguishing decorative lighting on the upper stories after 11 P.M. each evening and leaving lights off until daylight from August 20 to October 25. Birds migrate throughout these months. Tenants on the upper floors are encouraged to turn out lights or draw blinds after 11 P.M. These recommendations apply to all buildings of 40 or more stories, and to buildings of 20 or more stories that are isolated from other buildings.

Short buildings along the lakefront with extensive glass exteriors can save birds by extinguishing exterior lighting and extinguishing interior lighting or drawing blinds from August 20 to November 15 each evening after 1 A.M. and leaving the lights off until daylight.

Buildings with lighted atria can save birds' lives by reducing atrium lighting in the early morning hours.

Why are tall buildings a trap for migrant birds?

It is thought that the lights on tall buildings confuse the navigation systems of birds unlucky enough to have these buildings in their flight path. They circle the buildings repeatedly and die of exhaustion or by colliding with the building.

What kind of birds are they?

Over 250 species migrate through Chicago, about 5 million individuals in all. Many small songbirds such as warblers, thrushes, and tanagers migrate at night. Many birds killed at Loop buildings are small migrants from the tropics—some of which are declining steeply in numbers.

What other hazards do Loop buildings pose for birds?

Reflective windows and lighted atria are significant sources of bird mortality.

The cuckoos are just two among what Project Safe Flight's website states are millions of deaths each year: "A conservative estimate puts the number of birds killed annually in the U.S. by striking windows at 100 million—one bird for every building." Yet there are simple things that can be done to reduce this number such as dimming lights at night, placing netting over windows, pulling shades or placing stickers, branches, or hanging objects on or in front of large glass windows to break up reflections.

As bird-lovers try and call attention to the large number of bird deaths from collisions with buildings, this particular problem speaks to two somewhat larger issues.

As Michael Mesure noted, nocturnal collisions are but one of the problems of light pollution, which also hurts other wildlife, upsetting biological rhythms.

Additionally, light pollution prevents city dwellers from nighttime stargazing. The push towards turning off unnecessary lights late at night, while helping birds, is also a step towards lessening several other environmental problems.

The solutions to help reduce daytime bird collisions center on how buildings are designed. While large amounts of reflective glass may be aesthetically pleasing, it is more harmful to our feathered friends. Designing buildings with birds in mind could be one small part of the larger movement toward "greener" building design and construction.

With a little effort, the 100 million birds killed each year can decline. And perhaps a little competition would help drive it down faster. FLAP's Mesure offered a challenge to Chicagoans: "FLAP is eager to work with the city of Chicago to challenge our city of Toronto to a friendly competition to see which city can save the most birds through bird-friendly initiatives."

That's a challenge migratory birds could see taken up all across North America.