

Protecting Birds From Window Collisions



Urban Conservation Starts With Design & Initiative

Implementing **bird-friendly designs** and **initiatives** can significantly reduce window collisions in cities.

<https://onestonebirdmap.xyz>

WHY DOES IT MATTER?

Biodiversity & Ecosystem Health

Birds are integral to ecosystems, providing essential services such as pollination, seed dispersal, and pest control. Their presence supports a diverse range of species and contributes to overall ecological balance. Birds also serve as indicators of environmental health; changes in their populations can signal broader ecological issues such as pollution and climate change. Protecting birds means preserving biodiversity and ensuring the health of our natural habitats.



Photo @ Susanne Schwarz (Unsplash).



Photo @ Karine Genovese (Unsplash).

Natural Pest Control

Birds play a crucial role in maintaining ecological balance by acting as natural pest controllers. They help manage insect populations, reducing the need for chemical pesticides.

Plant Reproduction and Habitat Growth

Many bird species are crucial pollinators and seed dispersers. They facilitate the reproduction of plants, contributing to the growth of forests, grasslands, and other habitats. For instance, in the DMV (D.C., Maryland, Virginia) region, species like the Ruby-throated Hummingbird, American Robin, Eastern Bluebird, and Northern Mockingbird play key roles in pollinating plants and dispersing seeds. Implementing bird-safe building practices helps protect these species and ensures the continued growth and regeneration of natural landscapes.



Photo @ Karthikeyan K (Unsplash).



Photo @ Oli Dale (Unsplash).

Economic and Aesthetic Benefits

Birdwatching and bird-related tourism generate significant economic benefits, supporting local economies and creating jobs. Healthy bird populations attract enthusiasts from around the world, boosting tourism and related industries. Additionally, birds enhance urban environments with their beauty and songs, making cities more vibrant and enjoyable for residents and visitors alike.

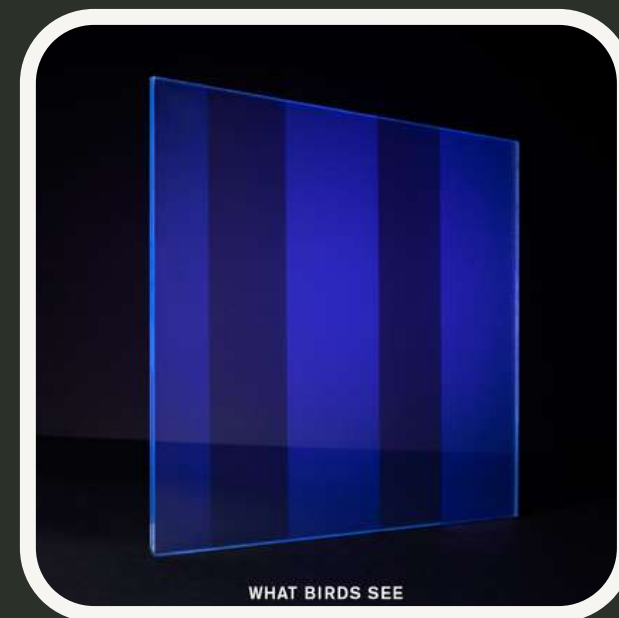
BIRD SAFE BUILDING DESIGN

Designing bird-safe buildings is crucial in mitigating the significant threat that urban structures pose to avian species. Bird-window collisions result in millions of bird deaths annually, disrupting ecosystems and reducing biodiversity. Implementing building guidelines specifically aimed at preventing these unnecessary fatalities not only protects our feathered friends but also contributes to the overall health of our environment. By adopting bird-friendly design practices, such as using patterned glass, reducing reflective surfaces, and managing outdoor lighting, architects and builders can create structures that harmonize with nature and support wildlife conservation efforts.

Glass Treatment & Window Decals

Birds often cannot see clear glass and perceive reflections as continuous habitat or sky. This leads to collisions as they attempt to fly through what they perceive as open space. Thankfully, there are several ways to mitigate this issue, many of which can be retrofitted.

Utilizing different types of glass treatments can significantly reduce bird collisions. Patterned glass, UV treated glass, and window films or decals are all effective solutions. These treatments make the glass visible to birds, helping them avoid collisions.



(Left) An example of GlasPro UV treated glass, in which the UV treatment leaves visible indicators of a barrier to birds while appearing clear to humans. Photo @ GlasPro

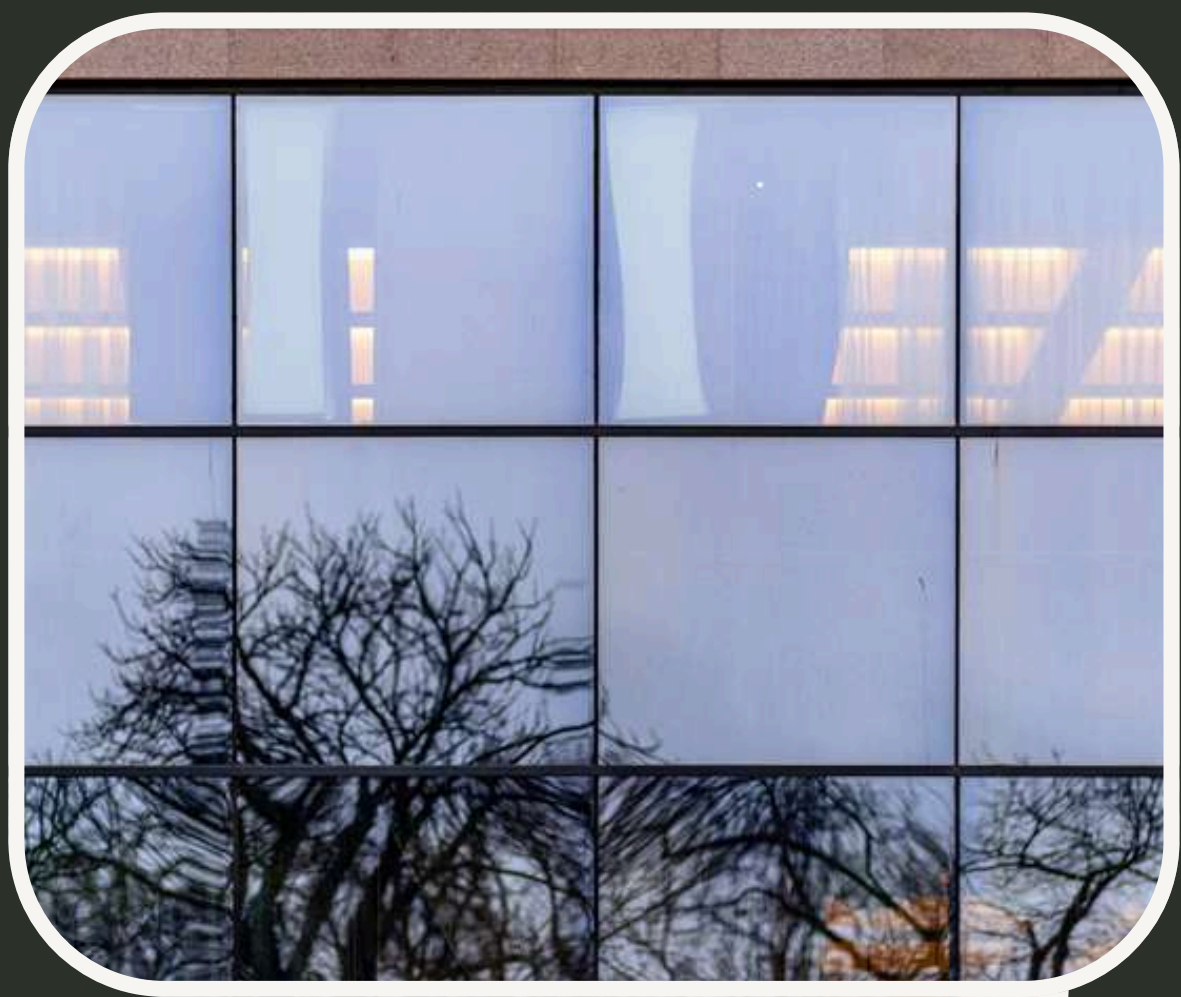
(Right) An example of a window decal that can be applied to dissuade birds from windows. These should be placed 2-4 inches apart. Photo @ Pixabay



Building Orientation & Siting

Birds are at risk because the orientation and placement of buildings can increase the likelihood of glass reflections and collision-prone areas. By thoughtfully designing and positioning buildings, you can minimize dangerous reflections and reduce collision hotspots.

By designing buildings with windows that face non-reflective surfaces and strategically placing them to avoid reflecting green spaces or sky, we can significantly mitigate these risks.

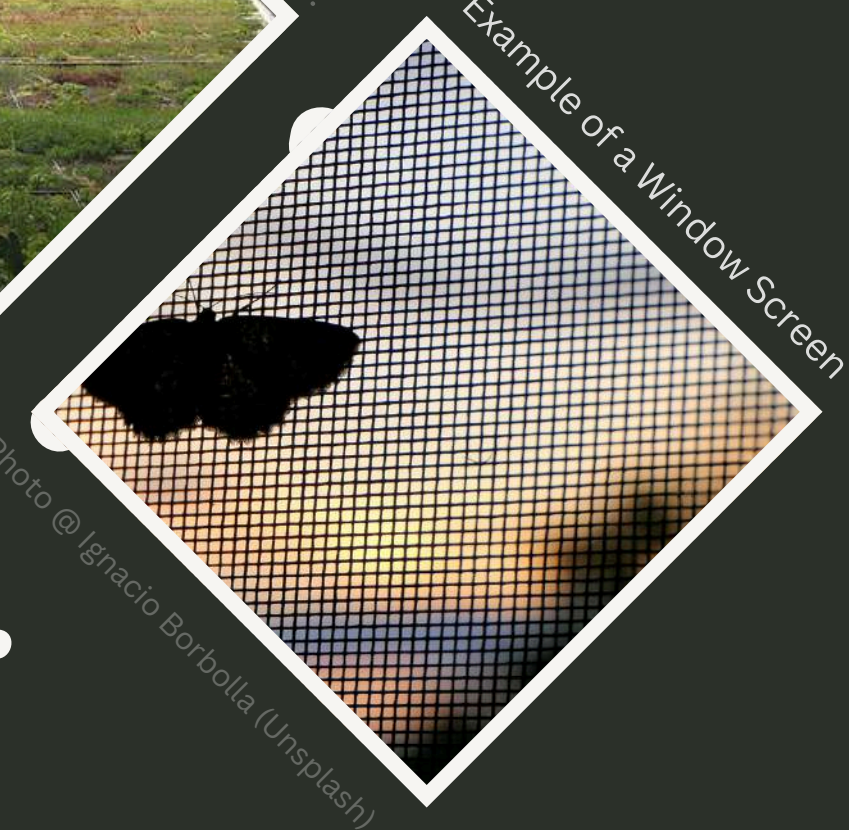


Example of a window with severe issues in reflecting both green spaces and sky. Photo @ Alejandro Luengo (Unsplash)

Vegetation & Exterior Features

Vegetation too close to windows, as well as certain exterior features, can create reflections or transparency issues that mislead birds into collisions. Additionally, buildings without green features contribute to bird habitat loss.

Strategic placement of vegetation and exterior features can reduce bird collisions. Placing trees and shrubs at a safe distance from windows prevents reflections that attract birds. Installing screens, louvers, or sunshades minimizes window reflections and transparency. Green roofs (rooftops covered with plants) and vertical gardens (walls covered with plants) provide bird habitats and reduce reflective surfaces.



Example of a "Green Roof"

Photo @ MoCoBio (Flickr) (CC)

Example of a Window Screen

Photo @ Ignacio Borbolla (Unsplash)

BIRDS & ARTIFICIAL LIGHT

Artificial lighting can have significant negative effects on bird populations, particularly during their migration periods. Bright lights from urban areas and buildings can disorient birds, leading them off their migratory paths and increasing the likelihood of collisions with structures. By understanding the impact of artificial light on birds and implementing strategies to minimize these effects, we can help protect our feathered friends during their critical journeys.

Lighting Strategies

Artificial light at night can disorient migrating birds, causing exhaustion or fatal collisions with buildings. Implementing bird-friendly lighting strategies can help prevent these incidents.

- **Turn Off Unnecessary Lights:** Reduce nighttime lighting by turning off exterior decorative lighting, pot and flood-lights, and atrium lighting where possible.
- **Use Motion Sensors:** Install motion-activated lights to minimize unnecessary lighting.
- **Down-Shield Exterior Lighting:** Direct lights downward to eliminate horizontal glare and upward light.
- **Substitute Lighting:** Replace bright lights with lower-intensity options, such as strobe lighting.
- **Turn Off Lights During Migration Periods:** Temporarily turn off lights during peak migration months (April-May and August-October) or on cloudy nights.



Lights Out Initiatives

Many cities participate in Lights Out programs to protect migrating birds by reducing nighttime lighting. The most prominent of these is the Audubon initiative, which is a national effort encouraging building owners to turn off excess lighting during migration periods. Participating cities include Chicago, Philadelphia, New York, and cities in the DMV area such as Washington, DC, and Baltimore. Local programs also exist in various cities, including Lights Out Akron/Canton, Lights Out Atlanta, and Lights Out Texas, all working towards the same goal of making urban environments safer for birds.

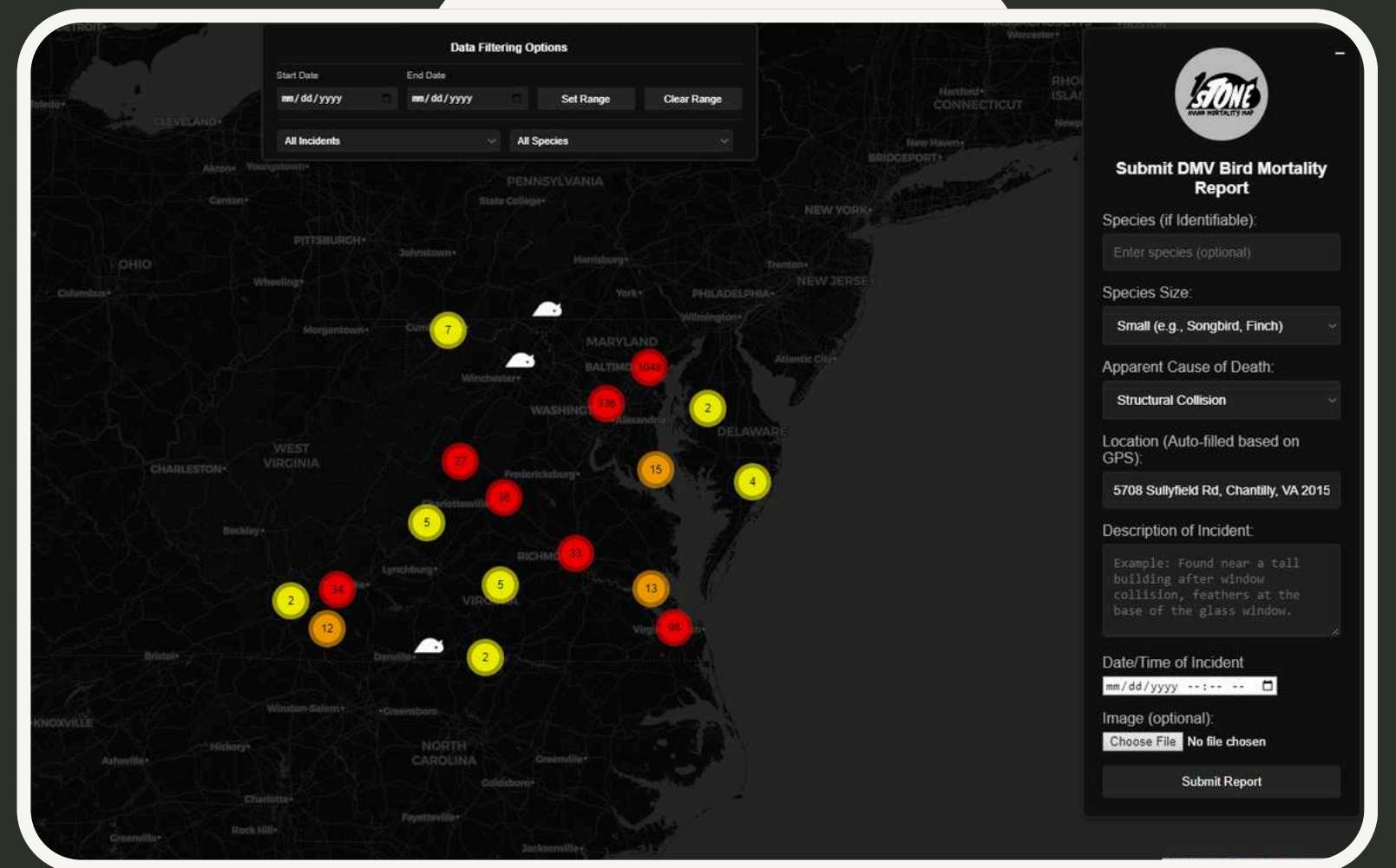


MONITORING AND COMMUNITY INITIATIVES

Tracking and reporting bird collisions with buildings is crucial for understanding the extent of the problem and identifying hotspots. Community involvement, such as participating in Lights Out initiatives mentioned previously, plays a vital role in these efforts. By combining monitoring activities with community action, we can create safer environments for our feathered friends. Here are some ways to get involved:

Collision Reporting

- **Participate in Citizen Science Programs:** Join initiatives such as the Global Bird Collision Mapper and FLAP Canada's BirdSafe Program to report bird collisions and contribute to data collection.
- **Use Bird Collision Reporting Apps:** Tools like the [One Stone DMV Bird Map](#) and the [Global Bird Collision Mapper](#) app can help you quickly and easily report avian collisions and fatalities.
 - **One Stone** is specifically tailored to monitor avian fatalities in the DMV area.
- **Report Collisions to Local Authorities:** Notify local wildlife organizations and conservation groups about collision incidents to help them track and analyze the data.



Screenshot of <https://onestonebirdmap.xyz> showing collision hotspots in the DMV area.



Other Initiatives

- **Join Local Conservation Groups:** Organizations such as the Audubon Society, local wildlife centers, and bird clubs often have volunteer opportunities and community events focused on preventing bird collisions.
- **Create Bird-Friendly Spaces:** Encourage your community to install bird-friendly window treatments, plant native vegetation, and use bird-safe building materials to create safer habitats for birds.
- **Educational Outreach:** Organize or attend workshops, lectures, and school programs to educate others about the importance of preventing bird collisions and how they can help.

FURTHER READING & CITATIONS

For those interested in learning more about bird-safe building practices, bird-friendly lighting strategies, and the role of birds in natural pest control, we have compiled a list of valuable resources. These sources provide extensive information, practical guidelines, and local initiatives aimed at protecting our avian friends.

General Resources

- **U.S. Fish & Wildlife Service:** [Threats to Birds: Collisions and Nighttime Lighting](#)
 - Offers extensive information on the causes of bird collisions and practical solutions to reduce these incidents, as well as guidelines for bird-friendly building design.
- **Audubon Society Lights Out Program:** [Lights Out Program](#)
 - Focuses on reducing bird collisions by encouraging the reduction of unnecessary nighttime lighting during migration periods. Provides resources on bird-safe building practices.
- **Bird Alliance of Oregon:** [Bird-Safe Buildings](#)
 - Provides a comprehensive guide on bird-safe building design, including practical tips and recommendations for reducing bird collisions.
- **American Bird Conservancy:** [Bird-Friendly Design](#)
 - Offers resources on bird-friendly design and conservation practices to create safer urban and suburban environments for birds.

DC, Maryland, and Virginia-Specific Resources

- **Lights Out DC:** [Lights Out DC](#)
 - Part of Audubon's Lights Out program, this initiative encourages residents and businesses in Washington, D.C., to turn off unnecessary lights during peak migration periods to protect birds.
- **Lights Out Baltimore:** [Lights Out Baltimore](#)
 - A local initiative in Baltimore that works to reduce bird collisions by promoting bird-friendly building practices and lighting strategies.
- **Virginia DWR:** [Virginia Department of Wildlife Resources](#)
 - Provides resources on bird conservation, safe bird feeding, and creating bird-friendly habitats in Virginia.
- **Maryland Birds:** [Maryland Bird Conservation Partnership](#)
 - Offers information on bird conservation efforts, habitat management, and bird-safe building practices in Maryland.

References

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