

Bird-Friendly Building Design: Identifying Problems, Providing Solutions
ABCbirds11 New construction
One hour, one LU/HSW credit
American Bird Conservancy CES provider number: 50111108

Abstract: Birds are potent cultural symbols. They play fundamental roles in ecosystems and habitat regeneration and are important natural controls for insects. Hundreds of millions are killed yearly by colliding with glass in the US alone. Birds cannot see glass, striking it as they fly towards reflections of clouds, sky and vegetation or as they approach real habitat seen through glass. Birds collide with glass on structures of every size, from shacks to skyscrapers, in urban, suburban and rural area. Advances in technology are increasing use of glass curtain walls and other large glass features, increasing the rate of mortality.

Until recently, this problem has been almost unrecognized as an issue of sustainability. However, the Green Building Council has responded by adding a Pilot Credit, Reducing Bird Mortality, to the LEED rating system. Toronto, San Francisco, Oakland and the state of Minnesota now mandate bird-friendly construction in some cases and more legislation and voluntary guidelines are pending. Moving into the future it will be increasingly necessary to design structures with impact on birds in mind.

This class explains how to recognize hazards to birds in the built environment. Case studies and a slide show illustrate many currently available strategies for reducing bird mortality and how bird-friendly design can add value to strategies often deployed to control heat and light or promote security. We review use of the LEED credit and important features of legislation. Techniques now in use for evaluating the relative threat level to birds of different materials are described, along with typical results.

Outline

- 1. Introduction**
 - Why birds matter**
 - Why birds can't see glass**
- 2. Bird/Glass Collisions**
 - The magnitude of the problem: how do we know?**
 - Causes of Bird Collisions**
 - Glass reflectivity**
 - Glass transparency (fly-through effect)**
 - Passage effect**
 - Light pollution**
- 3. Can 'bird-friendly' be defined objectively?**
 - Research**
 - Tunnel testing and rating glass**
 - How much does this cost?**
- 4. Mandates and guidelines promoting bird-friendly design – what you need to know**
 - Legislation: San Francisco, Oakland, Minnesota, Toronto, Ontario and more**
 - LEED Pilot credit #55: Reducing Bird Collisions**
 - New Construction**
 - Case studies**

**New York Times building
Center for Global Conservation
Aqua Tower**

5. Beautiful bird-friendly buildings around the world

6. Conclusion

There is an increasing mandate for bird-friendly design

Bird-friendly construction is compatible with other goals of green design

New materials and information make bird-friendly design an achievable goal

Resources are readily available