



U.S. FISH & WILDLIFE SERVICE
YOUTH FISH AND WILDLIFE CLUB



January 29, 2025: BACKYARD BIRDS
BIRD-WINDOW COLLISIONS

Background about window collisions

- The increased use of glass in modern buildings and homes, along with the already-existing glass on the landscape, present a serious collision hazard to birds.
- Over 1 billion birds are killed annually in the U.S. from collisions with glass ([Loss et al. 2014](#), [Kornreich et al. 2024](#)).
- Window collisions are the second leading direct, human-caused bird mortality; feral and free-roaming cats are first ([Loss et al. 2013](#)).
- 99% of bird-window collisions occur at urban and rural low-rise buildings (1-4 stories) and private residences, while less than 1% of window collisions occur at high-rise buildings.
- Migratory, insectivorous, and woodland-inhabiting species are most at risk of window collisions.
- Birds easily fall victim to window collisions as they do not perceive glass as an obstacle and often will fly towards reflections of what may appear to be natural habitat like trees, plants, or the sky.
- Homes with bird feeders have almost twice the number of window collisions as homes without bird feeders ([Kummer and Bayne 2015](#)).
- Light pollution and lit infrastructure can disorient birds during their nocturnal migration, exhausting them as they circle lit structures and ultimately leading them closer to the threat of colliding with glass and buildings.
- Collisions also happen with aircrafts, electric utility lines, vehicles and vessels, towers, offshore structures & wind turbines.
- Most tower collisions occur at those lit with non-flashing lights.

Solutions to window collisions

- **Identify which windows have had bird strikes in the past.** *Have you heard thud on a particular window before, or seen a feather imprint on glass?*
- **Identify [problem windows](#) at home or work**, such as those that reflect trees, plants, or sky and those that are near bird attractants (*e.g., fruiting trees, bird feeders, baths, or houses*).
- **Make problem windows more visible** to birds so they are perceived as obstacles not passageways.
- **Place deterrents (at least ¼ inch in diameter) on the outside of windows spaced 2 inches apart vertically and horizontally.** Examples include:
 - Apply UV or high contrast window decals to the outside of the glass.
 - Paint decorations on windows, draw temporary lines with a bar of soap, tempera paint, or liquid markers.
 - Hang heavy strings like parachute chord vertically across glass.

- **Leave windows unwashed (on the outside) or install screens** to make windows more visible.
- **Retrofit any windows near bird feeders, baths, or houses.** If you can't treat your windows, make sure your feeders, baths, or houses are 3 feet or less from a window, as being this close won't *generally* give a bird enough space to gain the momentum for a collision to be fatal. *Homes with bird feeders are at double the risk for bird-window collisions compared to those without* ([Kummer and Bayne 2015](#))
- **Consider installing bird-safe glass, if constructing a new home or building.** There are several companies that make bird-safe glass, which typically cost 5% more than standard glass. *Some examples include acid-etched patterns, silk-screened ceramic frit patterns, opaque glass, and frosted glass.*
- **Turn off unnecessary lights at night,** especially during spring and fall migration. Down shield necessary outdoor lights, and mask indoor lights with curtains or blinds so to not confuse migrating birds. *Not only can this save birds but can also save you energy and money!*

Remember, window blinds or decals installed on the inside of the house do not deter birds during the day, they must be installed on the outside of the window, breaking up the reflection, to be seen. Additionally, most decals brands (like Feather Friendly or Window Alert) have installation criteria including ideal outdoor temperatures for installation (i.e., greater than 50F) to ensure they last. Some decals are more successfully applied soon after manufacture, so temperature range may be important information to note before placing your order. Make sure you follow the product instructions for the best results.

What to do if a bird hits your window

This guidance is meant to apply to birds for which you suspect there has been a window strike. Please refer to [Bird TLC's Found a Baby Bird schematic](#) for guidance on what to do if you find a nestling or fledging bird on the ground.

Handle birds at your own risk. Birds that appear sick or dead, and even healthy birds, can carry harmful viruses or bacteria. If birds must be handled, **always use nitrile or latex gloves.**

- **If a bird appears uninjured and is sitting still, give it a chance to recover on its own.**
- **If the bird is at risk due to predators, poor weather, or traffic,** place the bird in a protected location, where it is free to fly away when able. If this cannot be done safely, call a local licensed wildlife rehabilitation facility.
- Be extremely cautious handling owls and raptors, as their sharp beaks and talons are designed for tearing through skin and could cause injury. **We recommend contacting professionals for these birds.**
- **If the bird has any blood, swelling around the eyes, or other apparent injuries, has trouble keeping its eyes open, head up, or has labored breathing,** call or take it to a licensed wildlife rehabilitation center as soon as possible.