Double Take Glassworks

Look again.

Evidence & Commitments Brief

What the peer-reviewed science says about birds and glass, and the five commitments we make in response.

NOVEMBER 2026

DOUBLETAKE.STUDY

To a bird, a window is just more sky. Every year, hundreds of millions of them fly into glass they never saw. We make glass that says wall to them, and view to you.

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ABOUT THIS BRIEF

This brief collects what peer-reviewed research says about how and why birds collide with glass, what reduces collisions, and what light and building type have to do with it.

It then sets out five commitments we make as a bird-safe glass maker. Each one is tied to a finding and comes with a way to measure it. Every figure is sourced on the final page.



Invisible to them. Obvious to us.



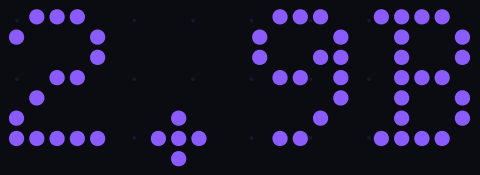
birds killed per year by building collisions in the US. Median estimate; the range is 365 to 988 million.

SOURCE 1



of that mortality happens at low-rise buildings of 4 to 11 stories. Homes cause 44%. High-rises account for under 1%.

SOURCE 1



fewer breeding birds in North America than in 1970. A net loss of 29%, with 57% of 529 species declining.

SOURCE 2



birds affected by a single city light installation over seven nights across seven years.

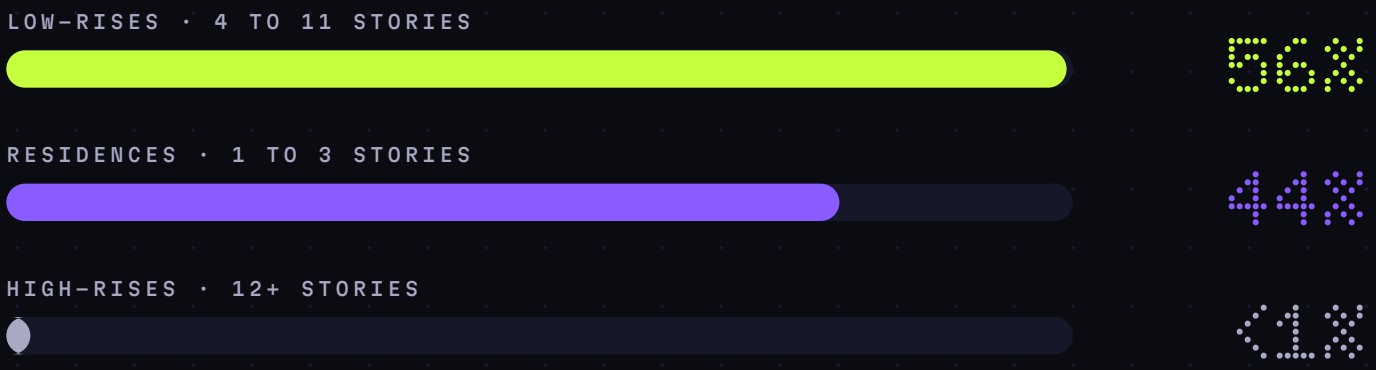
SOURCE 3

> **Building collisions rank second only to free-ranging cats as the largest direct human-caused source of bird mortality in the US, and cats kill roughly four times as many. In Canada, estimates run from 16 to 42 million birds a year.**

SOURCES 1, 6

02 · WHERE IT HAPPENS

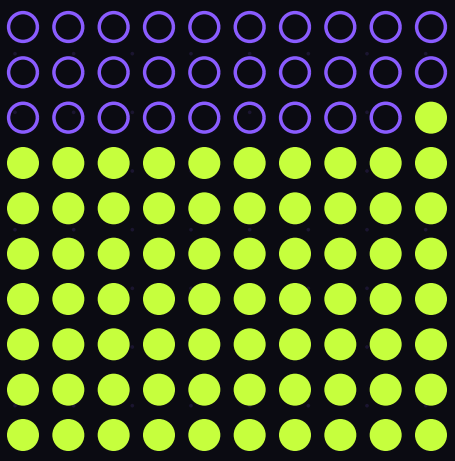
Homes and low-rises. Not skyscrapers.



Per building, taller structures are deadlier. In total, the sheer number of homes and low-rises dominates the toll. That is where our second commitment starts. Source 1.

03 · THE BIGGER PICTURE

One in four, gone.





Each dot is 1% of North America's 1970 bird abundance. Long-term survey data show a net loss of 2.9 billion breeding birds (95% CI 2.7 to 3.1 billion). The study did not attribute the decline to specific causes; collisions are one pressure among many. Source 2.



At New York's Tribute in Light, bird densities near the beams were about 20 times the baseline, and the disruption disappeared when the lights went off. Source 3.

Our commitments.

01 Make glass visible

WE COMMIT TO Every Double Take product is tunnel-tested on wild songbirds, and the results ship with the spec sheet.
WHY Patterns need narrow spacing tied to bird body size, and tunnel tests measure relative effectiveness. In one study, 11 of 12 marking patterns reduced collisions, but performance varied widely. [4, 5]
HOW WE MEASURE Share of our catalogue with published tunnel-test results. Target: 100%.

02 Turn the lights off

WE COMMIT TO We pair daytime glass retrofits with migration-season lights-out schedules for our partner buildings.
WHY A powerful urban light installation pulled birds in at about 20 times background density, and the effect disappeared when the lights went off. [3]
HOW WE MEASURE Partner buildings on a published lights-out schedule each migration season.

03 Homes and low-rises first

WE COMMIT TO Our retrofit pricing and programs prioritize houses, schools and low-rise buildings.
WHY Roughly 56% of US building-collision mortality is at low-rises and 44% at residences. High-rises account for under 1%. [1]
HOW WE MEASURE Share of installs on homes, schools and low-rise buildings.

04 Share the data

WE COMMIT TO We publish anonymized collision-monitoring data from our projects and fund independent analysis.
WHY Most existing sampling happens during migration and in the eastern US, leaving seasonal and regional gaps. [1]
HOW WE MEASURE An open dataset, updated every year, with an independent method review.

05 Lighter on the planet

WE COMMIT TO We report furnace energy, recycled-glass content and shipping emissions annually, and set a new reduction target each cycle.
WHY North American bird abundance is down about 29% since 1970. Protecting birds from windows only counts if making the glass is not part of the problem. [2]
HOW WE MEASURE An annual public footprint report with year-on-year targets.

Read the papers.

[1] Loss, S. R., Will, T., Loss, S. S., & Marra, P. P. (2014). Bird–building collisions in the United States: Estimates of annual mortality and species vulnerability. The Condor, 116(1), 8–23.
DOI:10.1650/CONDOR-13-090.1

[2] Rosenberg, K. V., Dokter, A. M., Blancher, P. J., Sauer, J. R., Smith, A. C., et al. (2019). Decline of the North American avifauna. Science, 366, 120–124.
DOI:10.1126/SCIENCE.AAW1313

[3] Van Doren, B. M., Horton, K. G., Dokter, A. M., Klinck, H., Elbin, S. B., & Farnsworth, A. (2017). High-intensity urban light installation dramatically alters nocturnal bird migration. Proceedings of the National Academy of Sciences, 114(42), 11175–11180.
DOI:10.1073/PNAS.1708574114

[4] Sheppard, C. D. (2019). Evaluating the relative effectiveness of patterns on glass as deterrents of bird collisions with glass. Global Ecology and Conservation, 20, e00795.
DOI:10.1016/J.GECCO.2019.E00795

[5] Rössler, M., Nemeth, E., & Bruckner, A. (2015). Glass pane markings to prevent bird-window collisions: less can be more. Biologia, 70(4), 535–541.

[6] Machtans, C. S., Wedeles, C. H. R., & Bayne, E. M. (2013). A first estimate for Canada of the number of birds killed by colliding with building windows. Avian Conservation and Ecology, 8(2), 6.

WHAT WORKS

In 1,428 flight-tunnel choice trials with wild birds, 11 of 12 tested markings reduced collisions, though effectiveness varied widely (5). Because small songbirds are frequent victims, patterns need narrow spacing related to body size (4). Disproportionately vulnerable species include Golden-winged Warbler, Canada Warbler, Painted Bunting, Wood Thrush, Kentucky Warbler and Worm-eating Warbler (1).

Look again.

READ THE EVIDENCE ONLINE

doubletake.study/research

Commitments are forward-looking targets, not reported results.