

Bird-safety measures little more than window dressing

Lu Feiran

Crystal clean windows with unobstructed views are enjoyed by people around the globe, yet they can be fatal to birds which inadvertently smash into them and fall, bloodied, to the earth.

As the problem has become increasingly apparent in recent times, Duke Kunshan University, in collaboration with two non-profit organizations, studied the issue and published a report.

"What inspired us to conduct research is that we witnessed several collisions on campus," said Li Binbin, assistant professor of environmental sciences with the university. "If bird collisions happen often on campus, then surely the situation must be severe through the whole country."

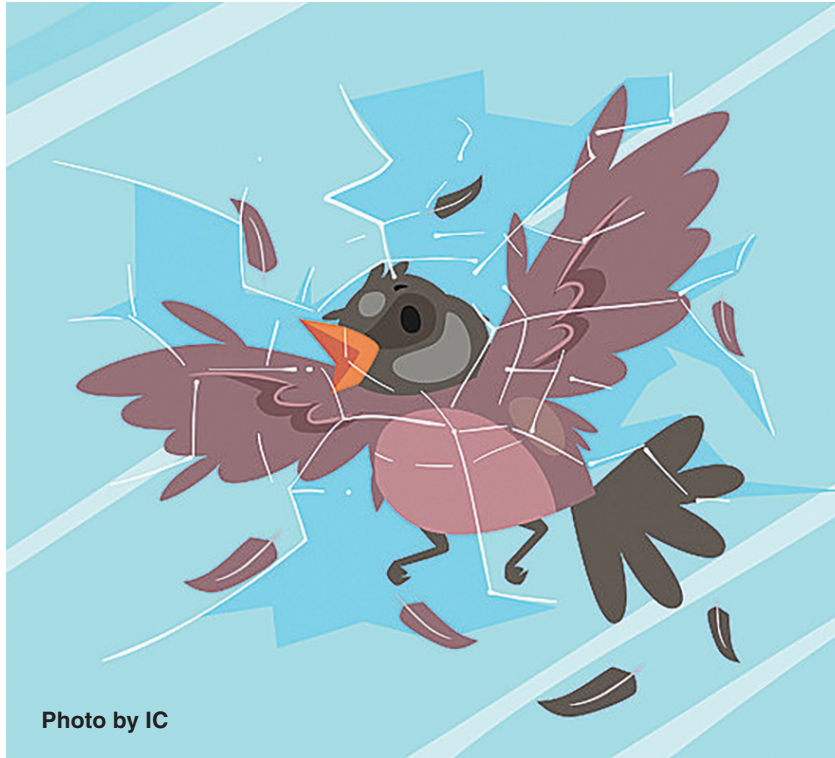
The Chengdu Bird Watching Association in Sichuan Province also became aware of the problem, so they collaborated. Later the China Youth Climate Action Network joined as well.

The research covered 25 provinces and autonomous regions. Starting in February, 128 individual volunteers and 33 teams were divided into three groups, who monitored bird collisions in different regions of China. Volunteers were required to pick a building — not necessarily a skyscraper — to observe for 77 days. They were to check its perimeter daily for bird carcasses.

According to previous research in North America, building collisions were the second main cause of bird death; the first was domestic cat attacks. In Canada, around 25 million birds die of collisions every year, while the number in the United States is 365 million to 1 billion. On September 14, there were over 200 dead birds on the pavement around the World Trade Center in New York, according to a volunteer.

During the 77-day observation period, volunteers recorded 39 bird collisions around the country, 64 percent of which were fatal. Volunteers reported six collisions in Shanghai, the most in a single city. The birds suffered brain hemorrhages before death; those that survived were severely injured, often with damaged brain and broken beak.

"I saw how it died," a volunteer named Zhang Shan from Shenzhen wrote on her blog. "It was hurtful watching it fly from a tree and then hit full speed into glass just 10 meters away."



The report found that bird collisions happen the most during migratory seasons, when big flocks unfamiliar with local environments cruise through cities. Migratory seasons are also mating time. Fledglings are likely to fall victim to building collisions because of their rusty flying skills.

Migratory birds use eight major flyways, of which three pass through China. Every year more than a quarter of all migratory birds in the world fly past Chinese cities and through the countryside.

Local birds, however, also have frequent accidents. Research found that of the 26 breeds of birds that hit buildings, blackbirds were the most likely to be killed. That breed is prevalent in eastern China, both in cities and countryside, including Shanghai. They are similar in size to pigeons but a little longer, with dark brown to black feathers and a yellow beak.

"Blackbirds are passerine (the largest order of birds in the world, including sparrows, crows and songbirds), which often fall to victim to collisions because of their flying habits," Li said. "Before coming to cities, many used to live in forests, where they shuttled from branch to branch. In cities they still shuttle."

Most of the carcasses the volunteers spotted were near buildings of less than six stories high, not skyscrapers.

"The result was surprising," Li said. "We found out that it's not the height of the building, but other factors that caused the collisions."

The factors included the size of glass panes, and whether plants were reflected in glass.

"For example, if there is a glass hut in a park full of trees, birds are very likely to hit it anyway," Li explained. "Therefore we should use less glass on houses of similar height to trees."

Bird collisions can be reduced to some extent, however. The application of decals on windows make birds think that there is a solid surface and not something to fly through.

"On campus, we found frequent collisions happening to a balcony on the third floor of a building, as well as a hallway of a dormitory building, and after we pasted some decals on the glasses, the incidents just stopped," Li said.

Li said her group conducted research to help publicize the problem and inspire people to think of ways to reduce needless deaths.

"People can take action," she said. "For example, pasting decals on large window panes, turning off unnecessary lights at night, drawing the curtains, and setting plants away from windows would be a step in the right direction. If everyone did that, it would save millions of beautiful birds."

39 collisions were recorded during the 77-day research project.

64%

of bird collisions observed in the research ended up fatal.



82.1%

of the collisions happened at low-rise buildings.



74.4%

of the collisions happened at buildings near trees rather than bushes or lawns.

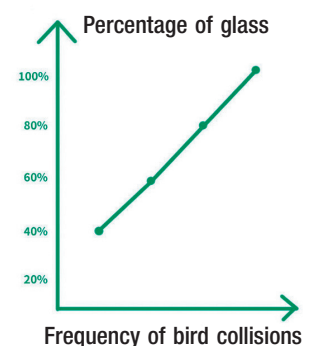


56%

of collisions occurred on the east side of a building.

40%

Collisions increase exponentially as the glass component increases beyond 40 percent.



Source: Duke Kunshan University