

Steiof K., Alternkamp R., Baganz K. (2017): Surveys of bird collisions on glass at zoo exhibits in Berlin. 16 pages article in German: Vogelschlag an Glasflächen von Tiergehegen. Tiergarten 4/2017: 36–51. Schöling Buchkurier. Münster.

Birds are killed at clear and reflective glass and plastic panes because they are misled by transparency or reflection. The proximity of the panes to vegetation is a primary factor in such collisions, but also illumination in conjunction with glass can seal the fate for nocturnal migrants. Bird collision is a significant problem in species conservation. It is estimated that more than 100 millions of birds are killed by colliding with glass every year, in Germany alone. There is an urgent need for action. Fortunately, there are many collision-prevention methods known—they are just not implemented sufficiently yet.

Triggered by bird casualties at the new enclosure for tropical bears at Zoological Garden Berlin, the nature conservation authority of the federal state of Berlin conducted four risk assessment studies between 2013 and 2015, in order to determine the extent of bird collision. Nine buildings in both institutions, Zoological Garden Berlin and Tierpark Berlin, were combed and searched for collision traces and casualties, in four studies with two inspections per week, for 6 to 15 weeks.

In total, 270 glass collisions were recorded on 98 visits. 60 individual birds were identified on species-level, comprising 16 species. A total of 28 European Robins collided with the surveyed buildings (46.7 % of all collisions); but less common species like Icterine Warbler, Middle Spotted Woodpecker, Eurasian Reed Warbler and Northern Goshawk were also among the victims. One species occurring during migration only— Eurasian Woodcock (3 records) — was also affected. For 173 collision victims the size class was determined, with small birds predominating: 53 % „tit-size“, 16 % “thrush-size” and 31 % “pigeon-size”.

40 (14.8 %) of the 270 findings were “direct records”, including stunned or injured individuals (1.9 %), dead birds (9.2 %), or plucking remains (3.7 %). 230 cases (85.2 %) of “indirect records” related to imprints or feathers visible on the panes. Due to the fact that only 9 out of 50 findings of dead birds and plucking remains (these figures include two more surveys) could be attributed to collision traces, a corrective factor should be considered. Since over 80 % of verifiable deadly collisions left no recognizable traces, generally a corrective factor of 5 should be applied in order to get a realistic number of bird collisions. Instead of 270 collision casualties, the real number could be about 1,350 birds killed in the survey period.

Due to the wide presence of wild birds in zoological gardens, every free-standing glass pane has the potential to cause bird strikes. In Zoo Berlin, coated films with markings were stuck on the panes of one aviary, which proved highly effective.

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