



B i r d S h a d e s

Glass is a „MUST HAVE“ in modern building industry



Customer Problem

Birds can't see glass

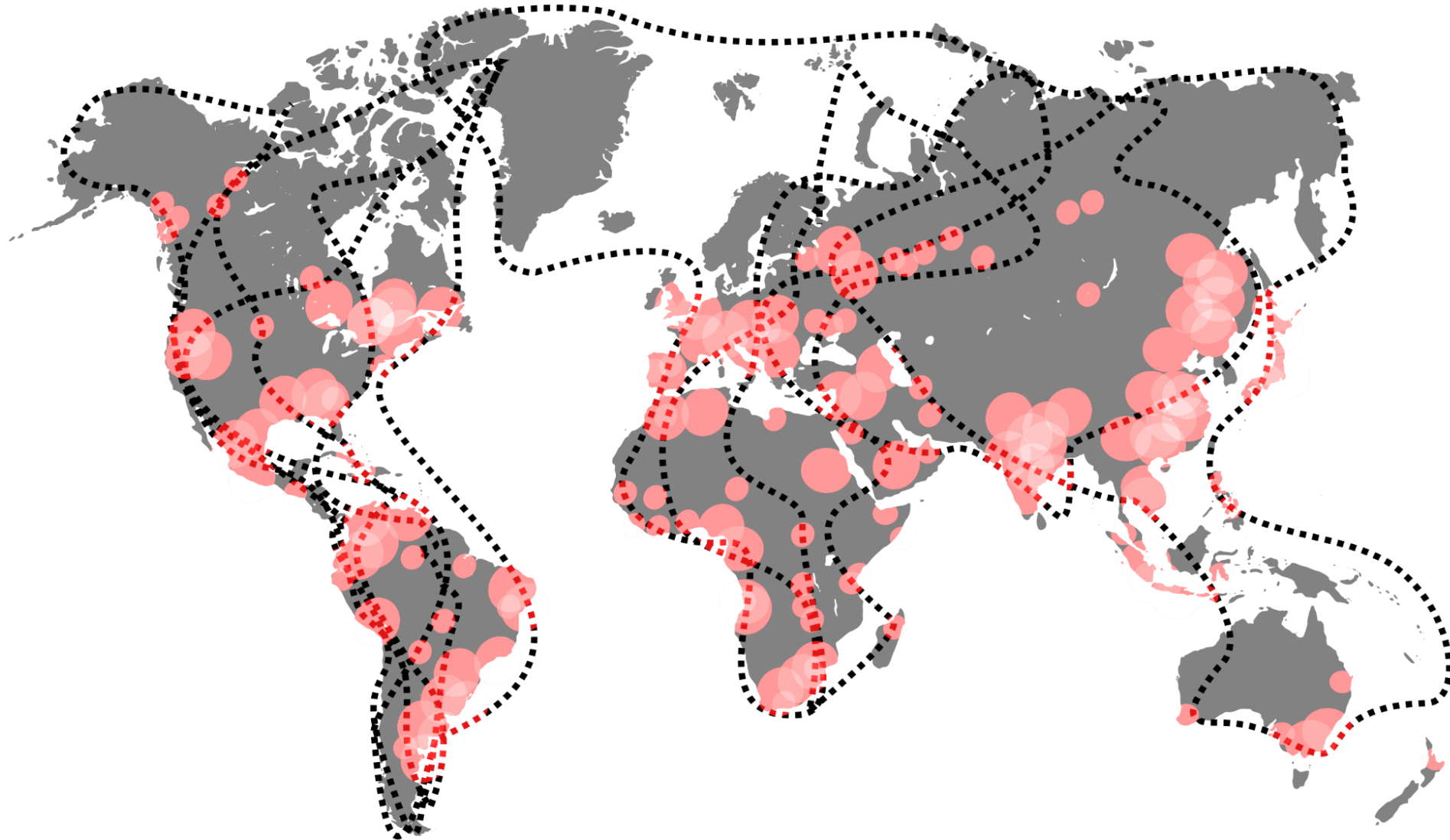


Up to **80 birdstrikes**
per hour
on one single building



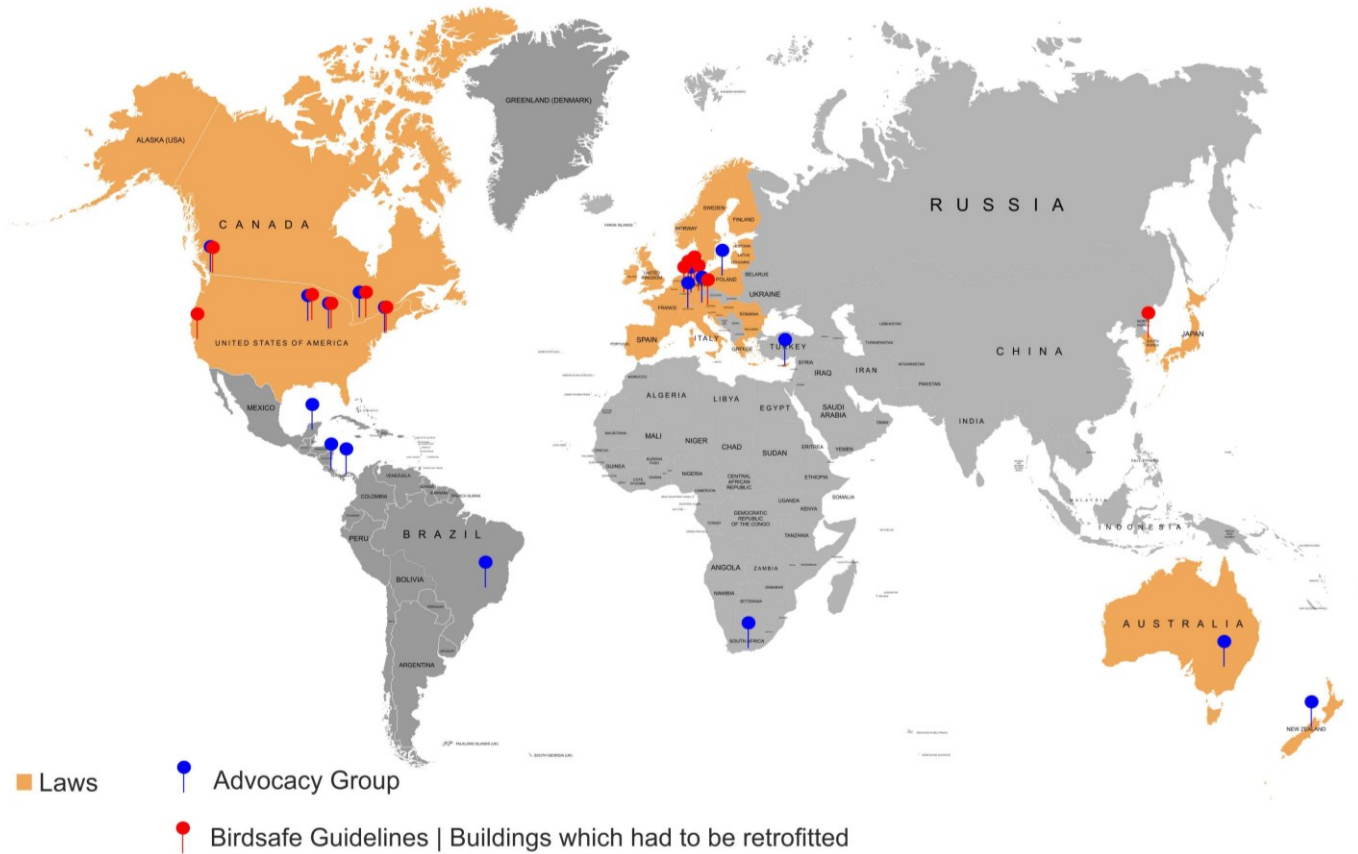
The Problem

Building glass cities into migration routes of birds



The Problem

Bird-Safe building laws & guidelines are enforced & rising



- USA | State of New York: Bird Safe Building Act
- USA | Guidelines in Chicago, San Francisco, Minnesota
- Canada | Standard for bird-safe buildings
- Europe | Bird directive
- Germany | Bundesnaturschutzgesetz

Ineffective solutions

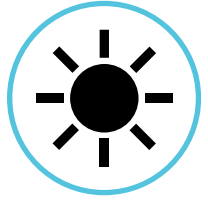




Effective Solutions

Technology & Product

Bird-protection window film



transparent



highly effective



easy handling



Technology & Product

Combining transparency with high effectiveness



UVA-Active Layer



Unique pattern and contrast for
bird species



Multi layer film



Technology & Product

Combining transparency with high effectiveness

- Wet application
- Pressure sensitive adhesive (waterbased)
- Vertical installation
(film width: 1,37m)



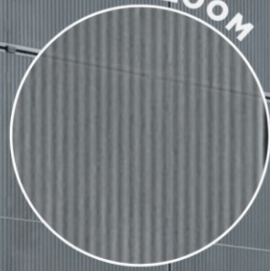
Technology & Product

Combining transparency with high effectiveness

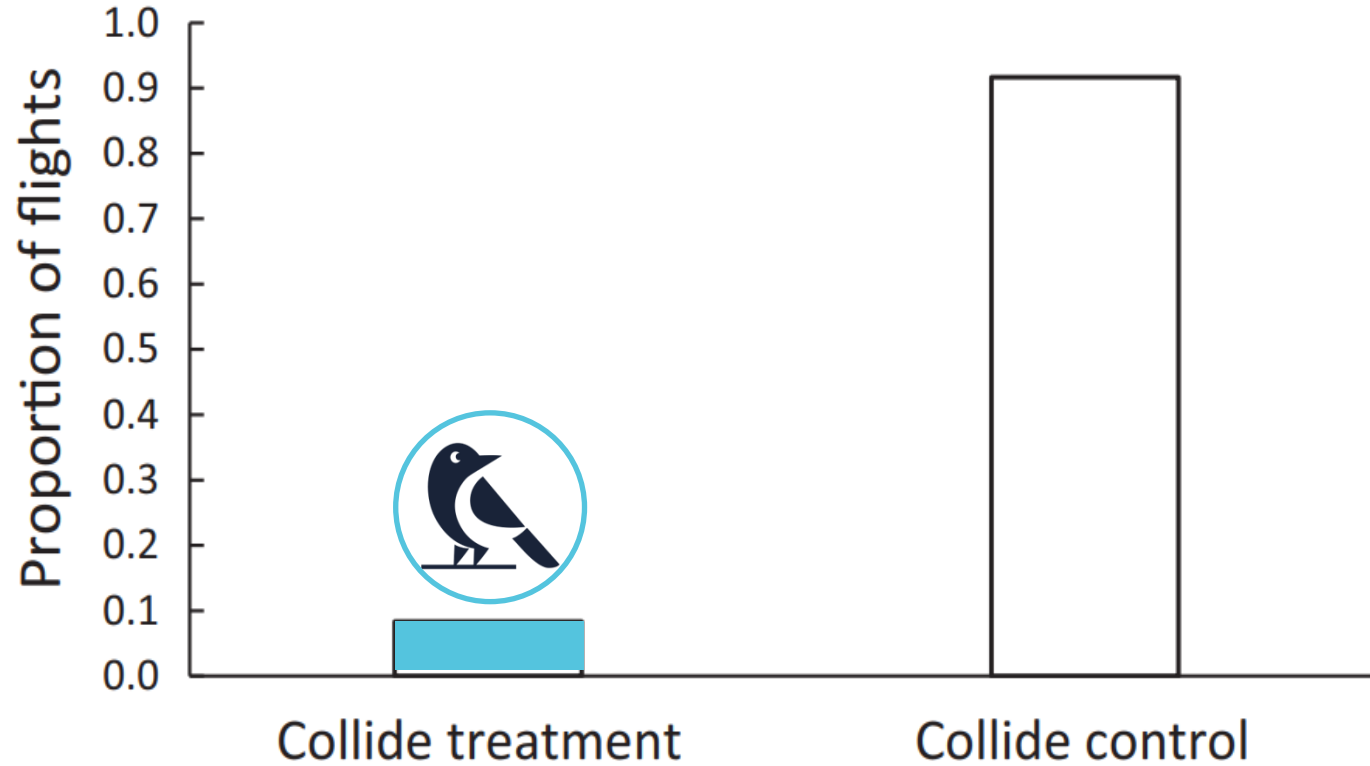
WHAT YOU DON'T SEE UVA-RANGE

WHAT YOU SEE VIS-RANGE

ZOOM



Flight tunnel test | USA



BirdShades Study: Swaddle et al (2020)
Ultraviolet-reflective film applied to windows reduces the likelihood of collisions for two species of songbird. PeerJ 8:e9926

Up to 90% reduction of bird-window collision
Decrease of flight velocity of 25% - reducing force of collisions



Field study | Poland

“Significant decrease in the number of collisions after UV-film application (reduced in the treatment group of shelters 5.71-times as compared to control shelters)”





Field study | USA

- 95% avoidance behavior on clear see-through windows
- 85% avoidance behavior on reflective windows



Flight tunnel test comparison | USA

Prof. Swaddle William & Mary

- BirdShades 90% reduction
- Orange-black pattern 70% reduction

The Team

Passionate about birds and material science



Dominique Waddoup

Founder & CEO
Animal cognition expert



Christoph Cerny

Co-Founder & CTO
Material science expert



Melanie Gröbl

Programme Management



Romario Goldberger, BA

Business development expert



Sandra Kastner

Marketing expert



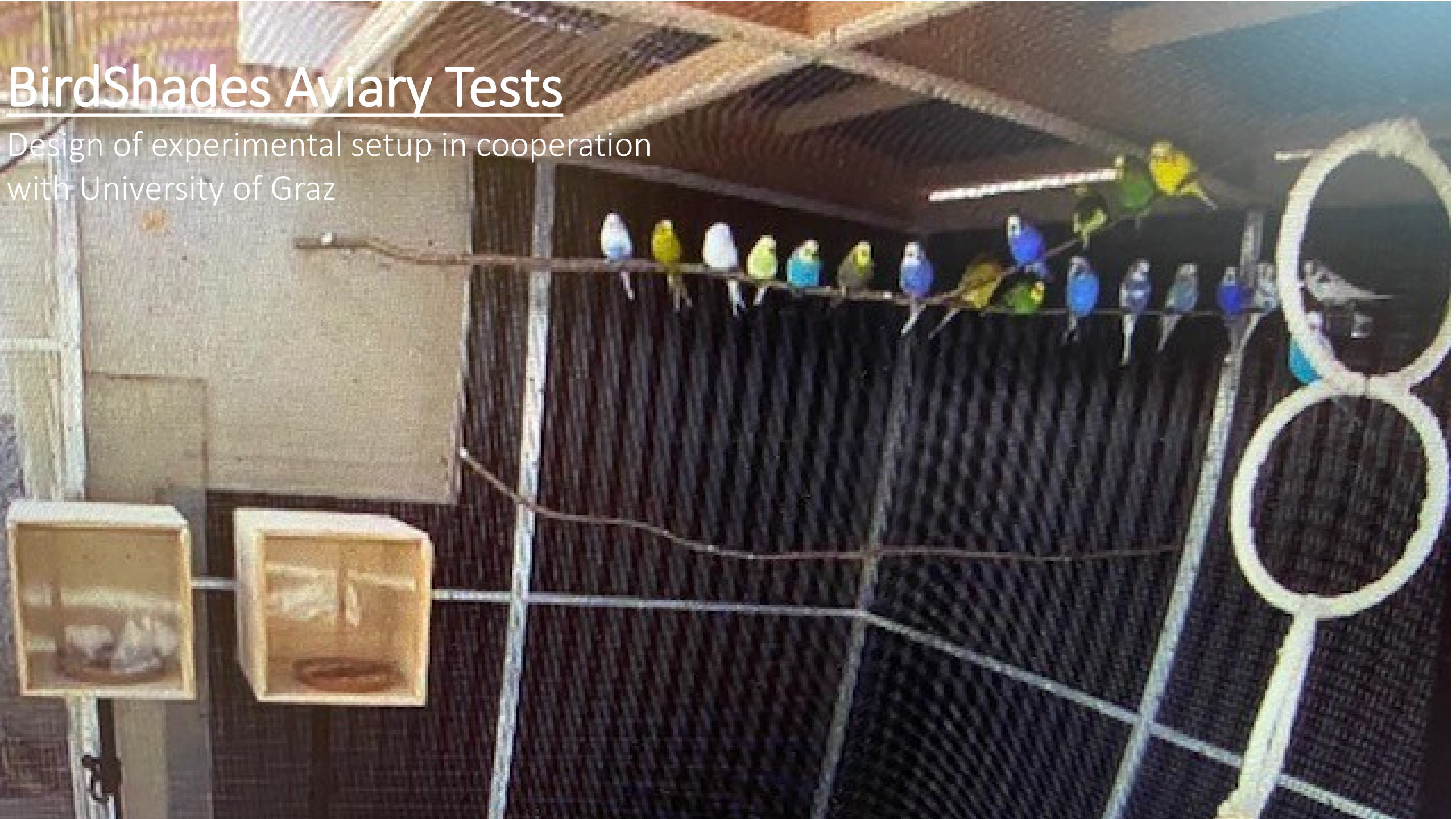
B i r d S h a d e s

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BirdShades Aviary Tests

Design of experimental setup in cooperation
with University of Graz



Avian UV-Vision

Passerines



Birds of prey



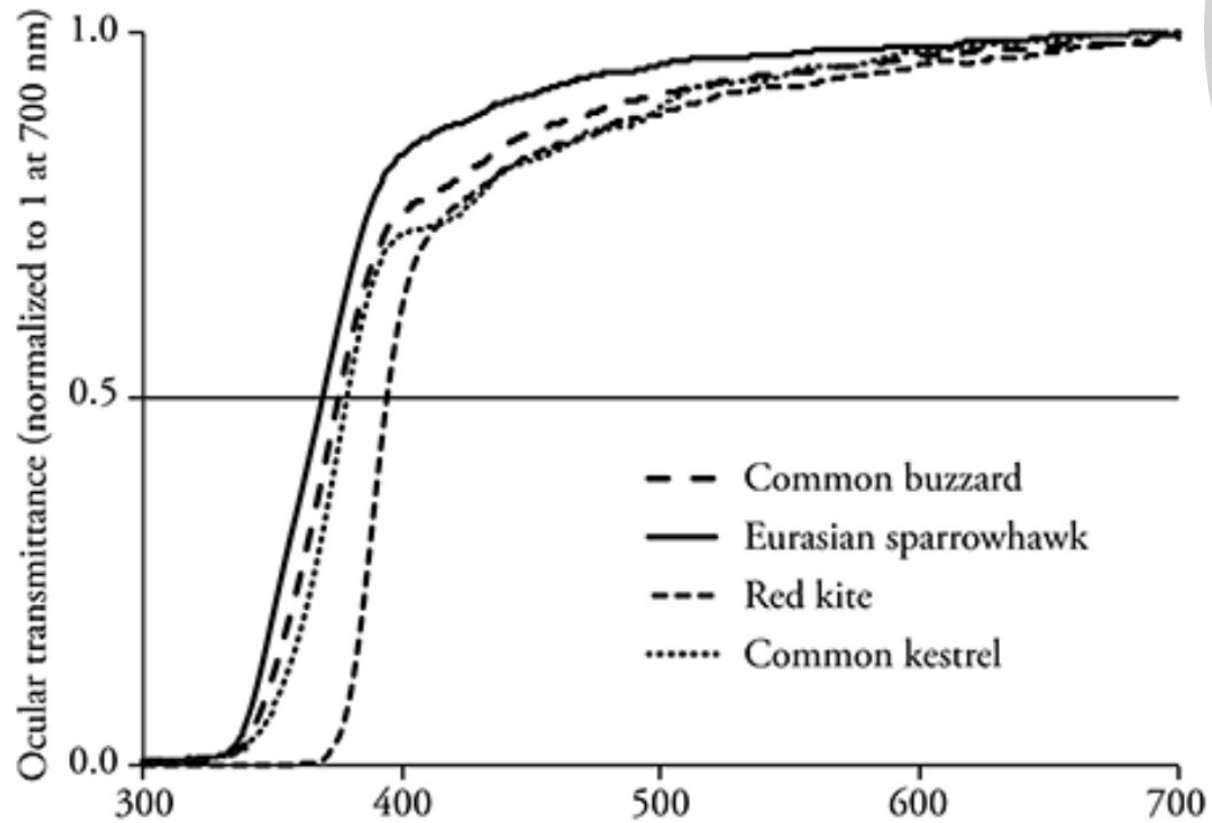
Most affected
by collisions
Supercollider
species

UVS Cones
Max. Sensitivity 355-380nm

VS Cones
Max. Sensitivity 402-426nm



UV-Vision birds of prey



Mitkus et al 2018

