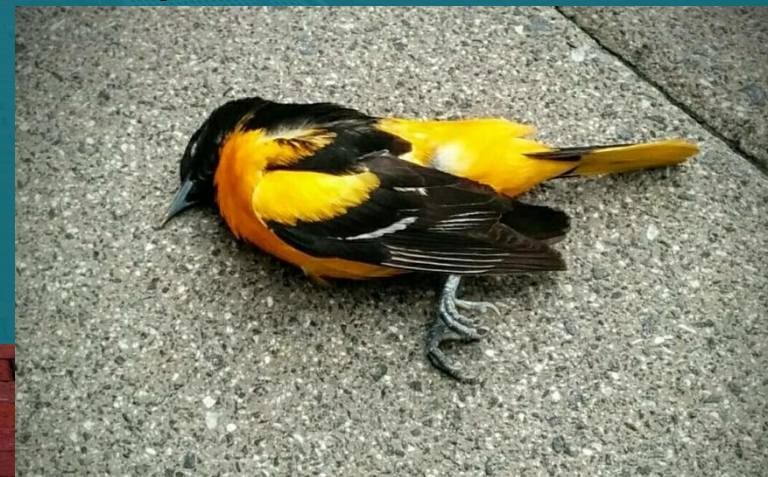




Lights Out Baltimore: Creating a community-based monitoring program

Presented by: Lindsay Jacks, Senior Aviculturist

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speaker notes in italics

Glass: The invisible threat

Up to 1 billion birds die per year

- **508,000-** High rise buildings
- **246 million-** Low-rise buildings
- **253 million-** Residential homes

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

Lights Out Baltimore data was used in this 2014 study.



Rescued Black and White warbler

How does light affect birds?

- Birds migrate by constellations and moon
- White light disrupts navigation
- Collisions occur during early morning hours



Night image by NASA

Who are we?



- Founded in 2008, a 501 c3 non-profit of Baltimore Bird Club
- Strive to make Baltimore safe for migratory birds
- Encourage businesses downtown to turn lights out
- Advocate for bird-friendly building design
- Help residents with home solutions
- Partner with local organizations

Lights Out Baltimore is one of 20 estimated lights out/safe passage programs in the U.S.

LOB is an all volunteer citizen science program.



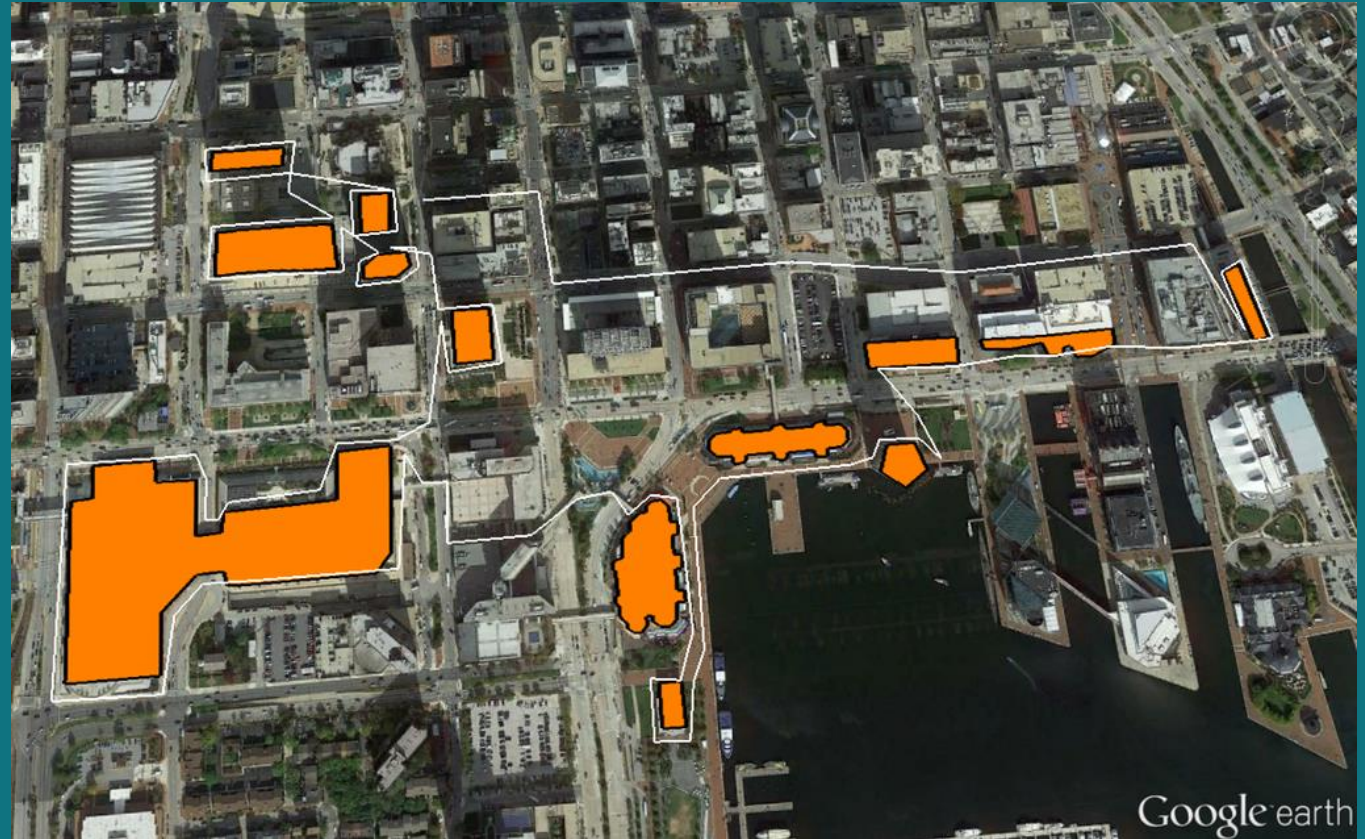
A portion of 2014 collected birds

What does LOB do?

- Monitor during migration season
- Walk 2.5 mile route downtown (20-25 buildings)
- Dead birds donated to Smithsonian's Natural History Museum
- Transport injured birds to local wildlife rehabilitators

We monitor 20-25 buildings in the downtown harbor section of the city for 4 months (April, May, Sept, Oct are core 4 months, sometimes we extend fall migration from mid August-mid Nov)

To begin the program it was vital to partner with 1 – 2 local wildlife rehabilitators that would rehab our injured birds.



Downtown route of 20 buildings

Data Collection

Dead and injured birds are collected and recorded with the following information:

- **Date**
- **Species**
- Address of collision
- **Direction of impaction/exact location of building**
- **Weather**
- Monitor's name
- **Time of day**

The items highlighted in yellow are crucial for zoo and aquarium collision monitoring.

Monitoring at the National Aquarium, we have found the weather is important, one glass surface is different in a sunny day versus an overcast day, which is why time of day can also help with determining glass surfaces to focus on.

If you have more strikes in the early morning hours, you can consider a tarp to cover a window until the public arrives versus mid day strikes that indicate that glass surface is a problem at any time of the day and will need a retrofit installation to prevent strikes.

How does the Aquarium monitor?

- Year around monitoring
- Staff checks the building in am
- Most strikes occur 7-8am
- LOB partnership, injured sent to wildlife rehab
- Data collection to prioritize mitigation efforts



Injured Birds

- Net, place in paper bag
- Vet check with meloxicam
- Transport to wildlife rehabilitator

At the aquarium, the strikes we have are secured in a paper bag.

Birds that present with bloody bills or eyes are treated by vets with meloxicam and then returned to the paper bag.

Through the partnership with LOB, birds are transported to the wildlife rehabber by the LOB volunteers



Rescued birds at rehab center

More than Monitoring: Partners

- National Aquarium
- Patterson Park Audubon
- Urban Bird Treaty
- City Organizations

Partnerships have boosted the LOB program, allowed the program to excel and increase awareness of collisions.

Recognizing Baltimore as an Urban Bird Treaty City has made us connections with Baltimore Office of Sustainability and the Baltimore Ravens.

One city organization, we worked with is annual event called Light City run by the Baltimore Office of Promotions and Arts, a light festival throughout the city. Bird-friendly guidelines were added to the sustainability plan since the pilot year and LOB previews the light installations and granted access to monitor throughout the festival for any possible trapped or circling birds, granting us access to turn lights if needed. But we have never needed to- the festival is bird-friendly.



More than Monitoring: Partners

- Waterfront Partnership



Another city organization partnership that we have recently announced is Waterfront Partnership- the staff supervisor team will be monitoring for any dead and injured birds daily throughout migration season. Tripling our coverage from 20-25 buildings to over 60 now.

More than Monitoring: Community Engagement

- Host bird-safe workshops
- School programs
- Lego League

Besides monitoring, we try to focus on the community and ways we can educate about bird conservation. LOB hosts several bird-safe workshops in schools and nature centers to allow kids a chance to create installations from their designs or mentoring Lego League on their bird collision project.



More than Monitoring: Outreach

- National Aquarium Bioblitz
- Festivals, Nature Centers,
- Retrofit installations

General outreach at nature centers, birding events, viewings of The Messenger create more awareness

Due to my position as Aviculturist at the National Aquarium, the conservation department educations about bird collisions and light pollution with LOB materials at events.

Designing and facilitating retrofit installations to local businesses, nature centers, etc.



LOB rehabber at event



Designed retrofit for Patuxent



Questions

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LightsoutBaltimore.org

[Facebook.com/savetheBaltimorebirds](https://www.facebook.com/savetheBaltimorebirds)



First documented Yellow Rail since 1893 , LOB rescue Fall 2016

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