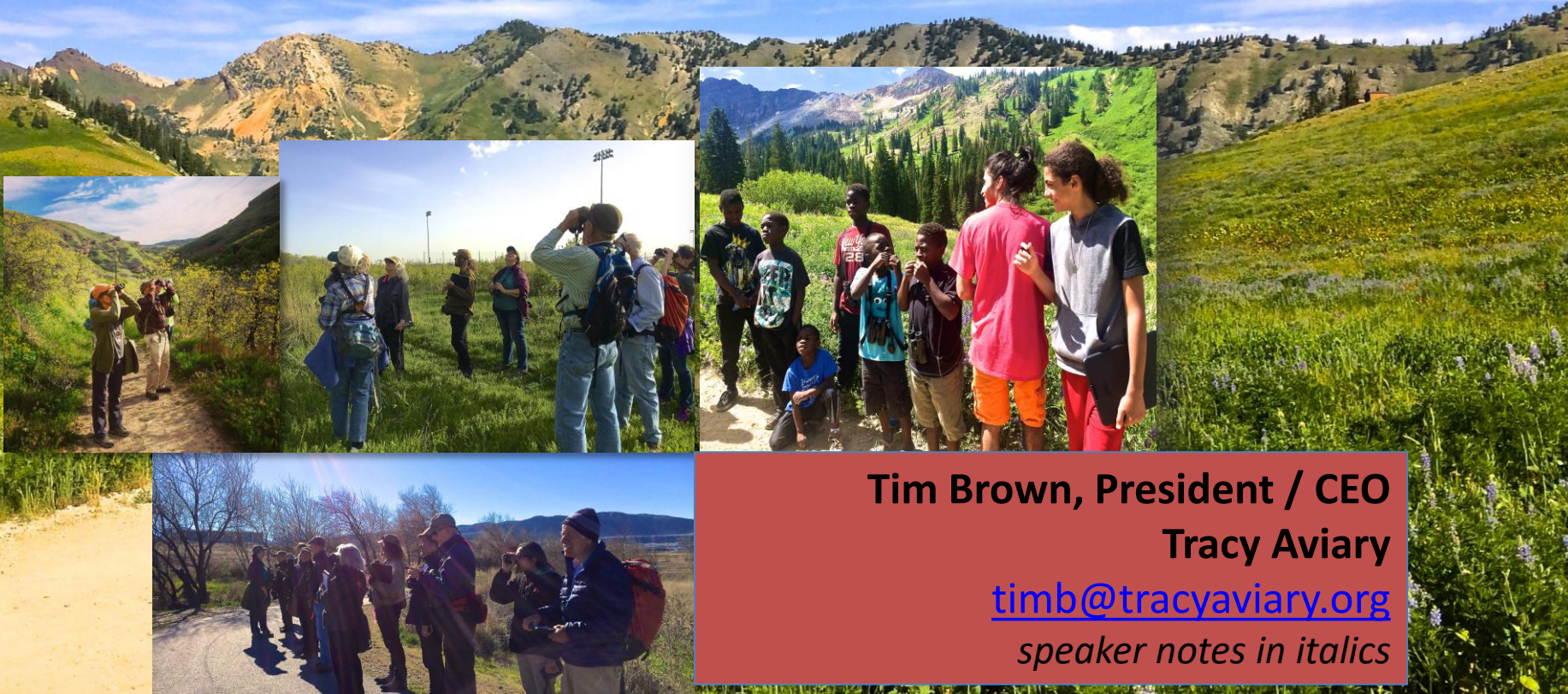




Harnessing the power of citizen science for local songbird conservation



Tim Brown, President / CEO

Tracy Aviary

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speaker notes in italics



Tracy Aviary *inspires curiosity and caring for birds and nature through education and conservation*

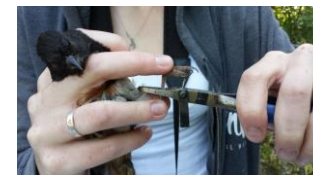
- Founded in 1938
- One of only two AZA accredited free-standing aviaries
- Located on 9 acres in the heart of Salt Lake City, UT
- Citizen science program began in 2011 with 1 project and 8 volunteers
- Expanded to 6 projects, 13 study areas and over 100 volunteers

Citizen Science is many things

eBird



“Scientific work undertaken by members of the general public, often in collaboration with or under the direction of professional scientists and scientific institutions”



CHRISTMAS BIRD COUNT

Citizen science can mean a range of projects and activities.

Community engagement: the pyramid approach

Audience

Projects

- Birders with high visual and auditory ID skills
- Intensive training
- High time-commitment

- Beginners willing to spend time training, or those more familiar with bird ID/ scientific research
- Moderate time-commitment

- Beginners in bird ID and scientific research
- K-12 as well as adults
- Low time-commitment

Breeding season point count surveys

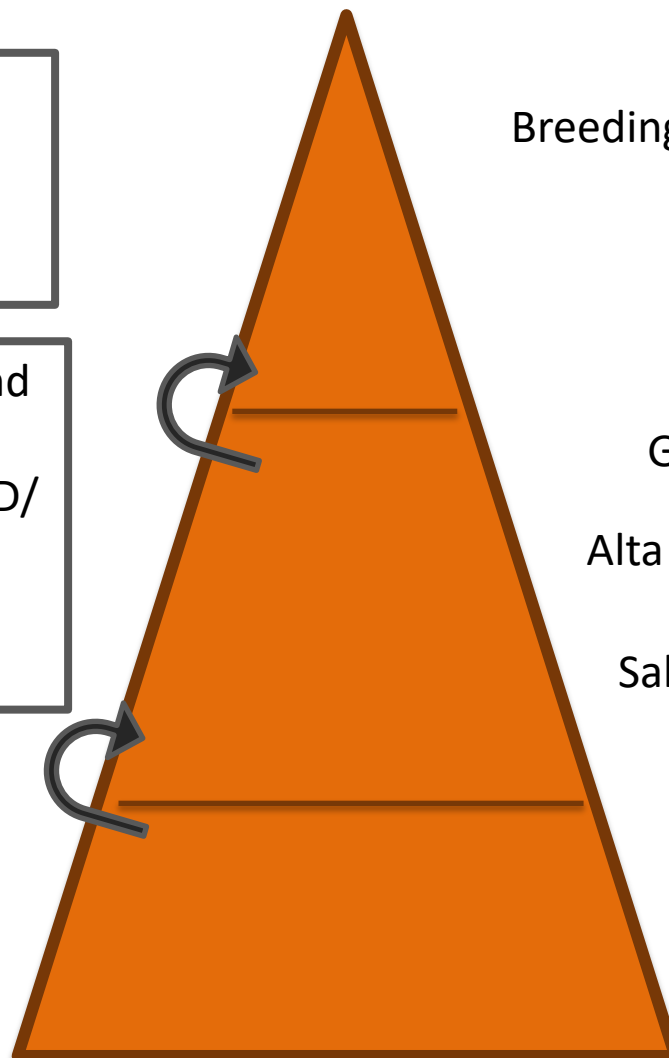
Golden Eagle nest monitoring

Alta Nest Box Monitoring Project

Salt Lake Avian Collision Survey

Non-breeding surveys

Project Broadtail



Overview of the pyramid with different levels, and how it is designed so people can move their way up the projects.

Defining goals and outcomes:

Tracy Aviary's Citizen Science Projects:

Engage a broad and diverse community of people



Increase knowledge about birds and their habitats



Directly inform conservation/stewardship activities



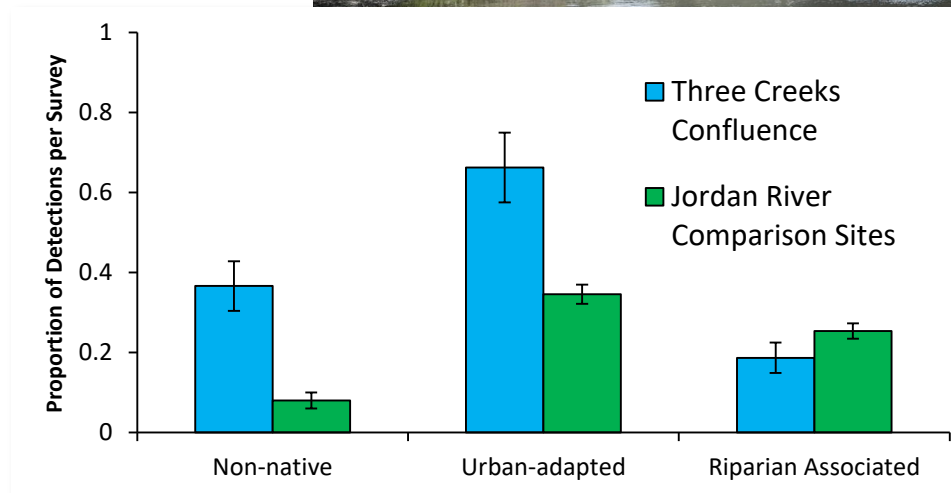
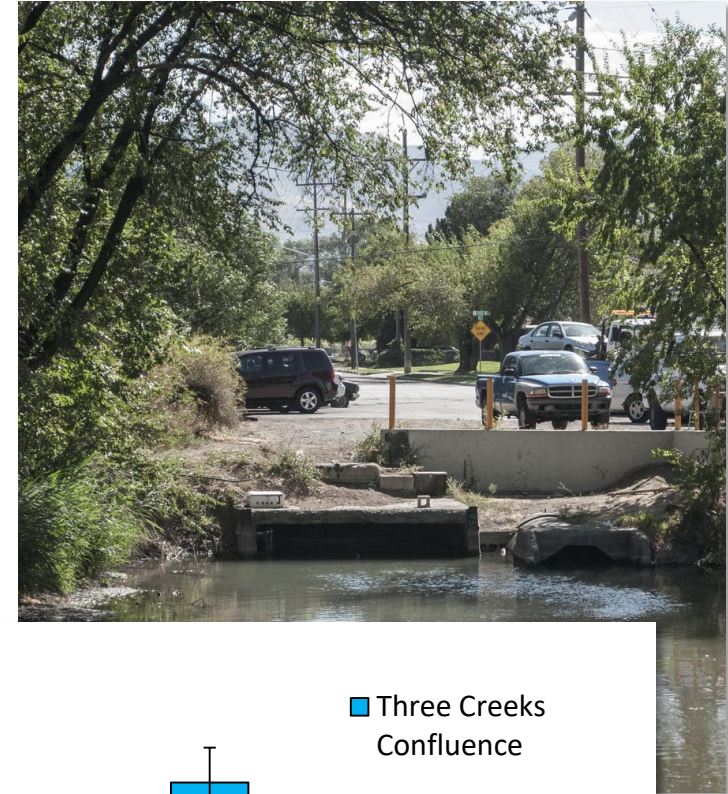
It is essential to create goals and expected outcomes for citizen science, to ensure that it is meaningful and useful.

3 Case Studies: Knowledge and Conservation Outcomes



1. Daylighting and restoration of Three Creeks Confluence

- Most creeks from our 7 canyons are **diverted underground** in Salt Lake City
- Seven Canyons Trust will **expose 200 feet of water and restore riparian plants** at the Three Creeks Confluence
- We are conducting point count surveys to **document pre-restoration conditions**, and to **measure the ecological impact** of daylighting and restoration



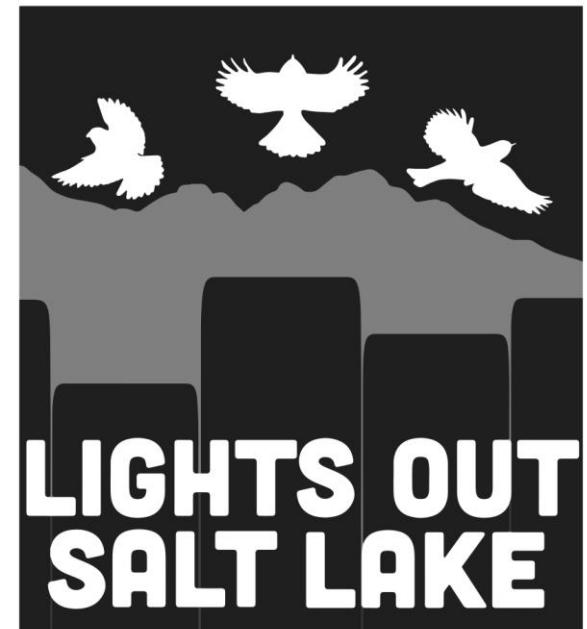
2. Alta Ski Area ecological assessment

- Alta Ski Area provides important **ecosystem services, recreation opportunities**, and provides essential **high-elevation avian habitat**.
- In 2014 Tracy Aviary partnered with Friends of Alta and Alta Ski Area to implement the first **formal baseline bird inventory** as part of a larger ecological assessment.
- We have documented **105 bird species**, engaged **132 citizen scientists** in surveys, and conducted **occupancy analyses** to examine habitat relationships for key species.



3. Salt Lake Avian Collision Survey

- Most songbirds **migrate at night**, and light pollution can cause birds to become disoriented and **collide with buildings**.
- No one had previously examined this issue in Salt Lake City
- Our team of citizen scientists conducted collision surveys in **20 blocks** of downtown Salt Lake during spring and fall migration
- In our pilot year, we found **44 birds** (mostly in fall) representing **19 species**
- This year we launched **Lights Out Salt Lake**, an initiative to decrease light pollution and make the valley safer for migrating birds



MAR-MAY 11PM-6AM AUG-OCT

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Acknowledgements



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