Project Report to U.S. Fish & Wildlife Service

January 2023

Photo: Josh Wood

Overview

Two key desired outcomes of the Sharon Steel “Big Bend” remediation project on the Jordan River, UT are to improve wildlife habitat and increase community engagement. Sageland Collaborative and the Natural History Museum of Utah (NHMU) developed a collaborative and inclusive BioBlitz model to address these desired outcomes. The event aimed to invite members of the community to visit the site to 1) collect data on plant and animal diversity and 2) learn more about the site through presentations and talking with available partners, scientists and project managers involved in the restoration project.

The event took place on August 27, 2022 from 8:30 AM-12:00 PM. 95 volunteers, partners and community members attended to explore the site, interact with organizers and community partners. In addition to exploring and learning about the site, participants in the event logged 276 iNaturalist observations of 97 species on the property.

Stream & Riparian Restoration Program
Logo designed by Sarah Woodbury

Project Partners & Roles

Project manager for the Big Bend restoration site, advisor to Bioblitz planning, and principle BioBlitz funder

Event co-organizer, Pollinator walk, Riparian ecology presentation

Event co-organizer, iNaturalist training for volunteers, insect identification table

Bird walks & avian habitat surveys, bird presentation

Restoration project information table, welcomed guests, site access coordination

Water quality table and macroinvertebrate identification table

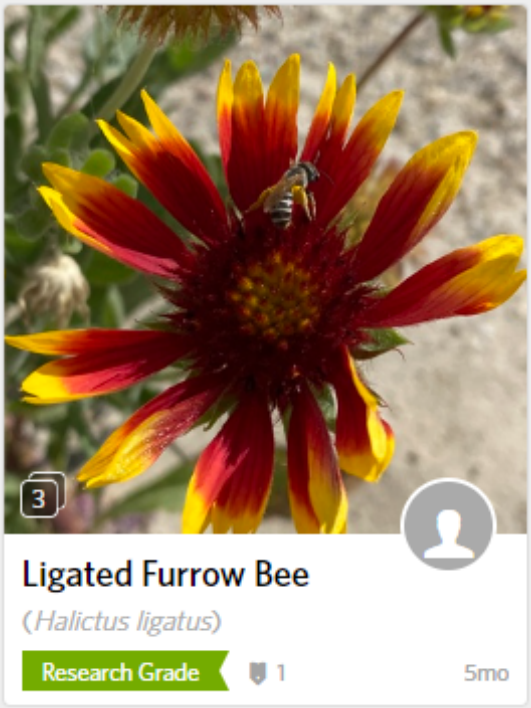
Objectives & Outcomes

Objective 1: In 2022, engage up to 50 community volunteers in plant monitoring, and recording overall biodiversity at the site using photography and the iNaturalist platform.

- The BioBlitz event engaged 95 community members, and recorded 276 observations of local biodiversity.

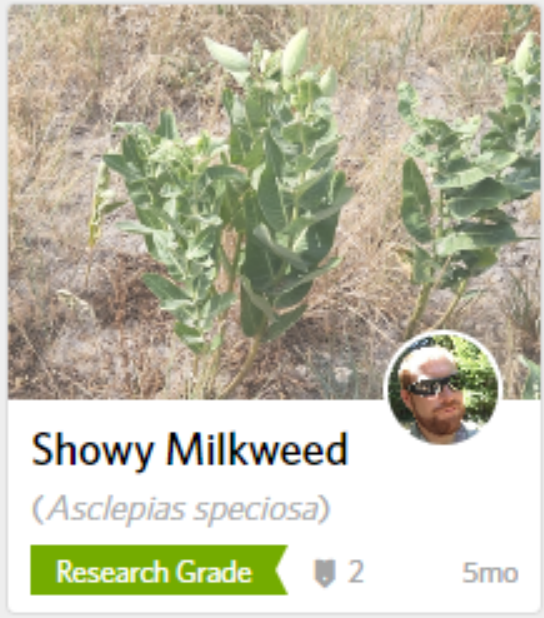
Objective 2: Engage up to 20 community volunteers in pollinator-specific monitoring for Monarch butterflies, bumblebees, and milkweed through the Utah Pollinator Pursuit project, which uses the Survey123 smartphone app.

- We introduced at least 30 participants to the Utah Pollinator Pursuit project on a 'pollinator walk' observing milkweed, monarch butterflies, and native bumblebees.



Objective 3: Within 1 year, use community science data to document increase in pollinator habitat and riparian habitat quality.

- Partners intend to return to the Big Bend Restoration project site to carry out follow-up pollinator surveys.



Objective 4: Within 1 year, provide US Fish & Wildlife Services with a report on baseline plant and insect diversity at the site.

- A full report of species observed on August 27, including research-grade observations of taxa, can be found in the Big Bend Bioblitz iNaturalist page: https://www.inaturalist.org/projects/big-bend-bioblitz

Promotion & Recruitment

Sageland Collaborative and NHMU developed a suite of promotional materials and connected to audiences in a variety of formats for event advertising:

- Physical and digital event fliers
- Event website
- Custom iNaturalist Project
- Media Advisory and Press Release
- Canvasing local community
- Social Media posts on Facebook, Instagram and Twitter
- Emails to NHMU members and volunteers
- Emails to Sageland Collaborative volunteers
- Recruitment of iNaturalist "super users" in Utah through iNaturalist Journal Posts
- Recruitment through community partners, including Hartland Community 4 Youth and Families, Salt Lake Community College, Tracy Aviary, Utah Water Watch

© Natural History Museum of Utah

Community Participation

95 community members attended the BioBlitz, participating in a range of activities, including: hourly presentations, hands-on activities, ecologist-led walks, iNaturalist training, and self-directed exploration of the site.

Attendees represented a wide-range of community groups, including families, college students, iNaturalist users, and neighbors to the site.

Throughout the event, participants were encouraged to photograph plants and wildlife using smartphones and digital cameras, and to then add these images to iNaturalist.

© Natural History Museum of Utah

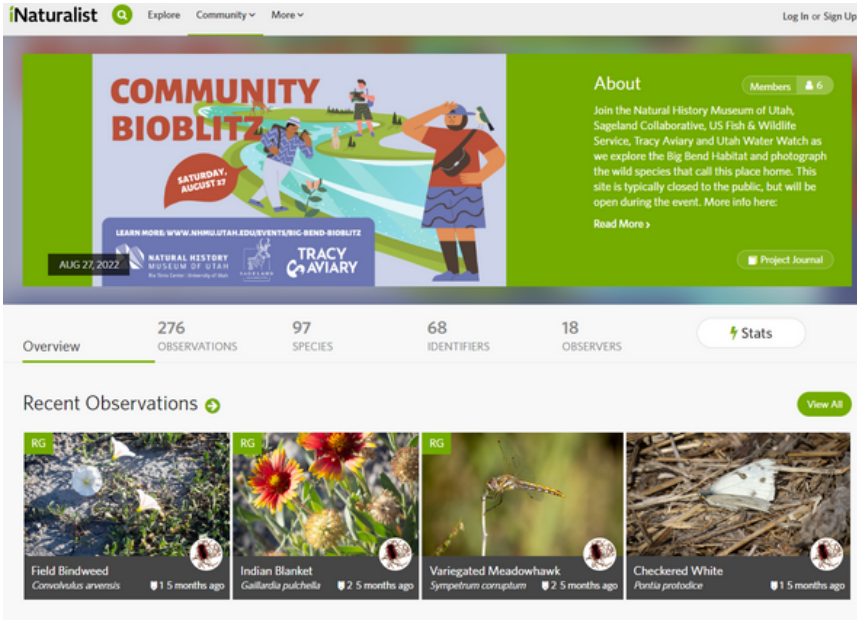
NHMU volunteers and staff talks about local insects and mammals with attendees. © Natural History Museum of Utah

Attendees look for and photograph local wildlife.
© Natural History Museum of Utah

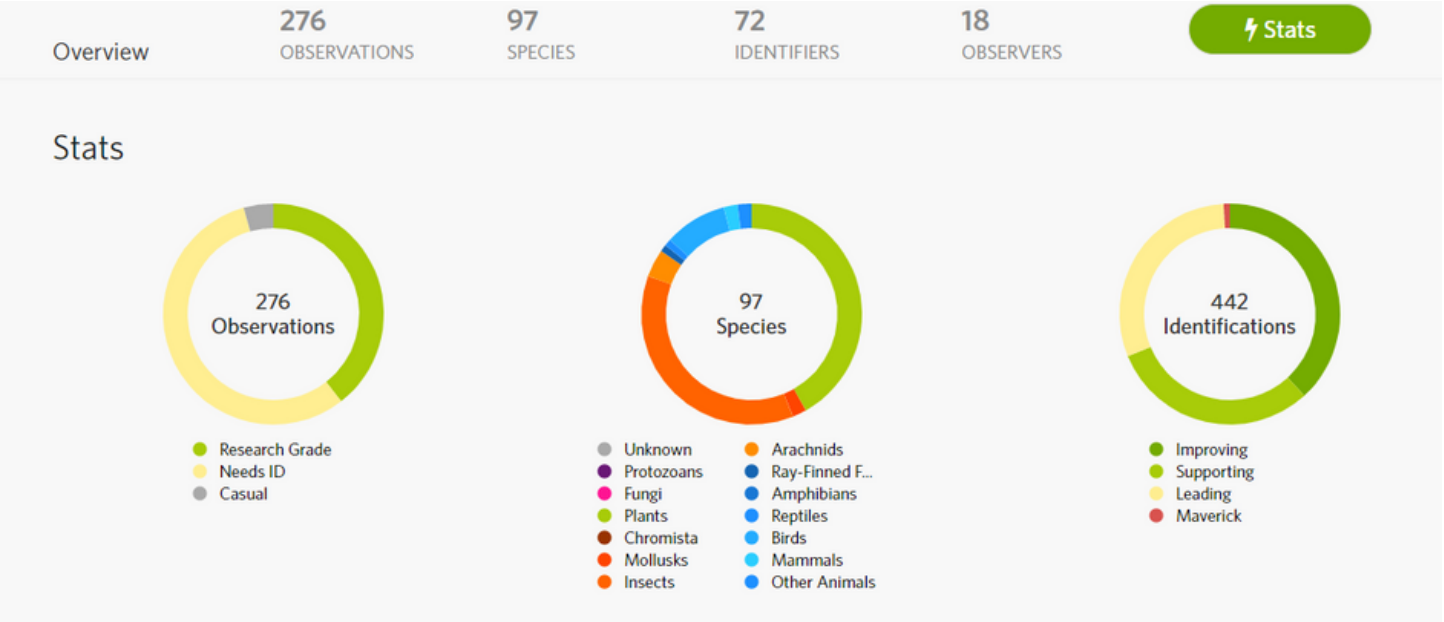
BioBlitz Results

18 iNaturalist user accounts logged observations in the Big Bend BioBlitz iNaturalist Project, resulting in 276 observations, with 39.5% rated 'research grade' by iNaturalist community standards.

Participants observed a wide range of taxa, covering over 97 species across lentic, lotic, riparian, upland, and urbanized/disturbed habitats.



https://www.inaturalist.org/projects/big-bend-bioblitz



Summary of the iNaturalist observations from August 27, 2022. Explore the full dataset at the Big Bend Bioblitz iNaturalist project page.

Community Feedback & Lessons Learned

PARTNER & VOLUNTEER FEEDBACK

Respondents to our volunteer survey provided overwhelmingly positive feedback. Attendees reported learning about the event from social media, the NHMU website, and Sageland Collaborative's Newsletter. Additionally, we received overwhelming positive feedback following the event from partners.

"It always warms my heart to hear about communities getting out and exploring the nature in their own backyards . It's clear that the Jordan River is very much loved and will benefit from the wonderful efforts of the community."
-Sarah Newman, Citsci.org

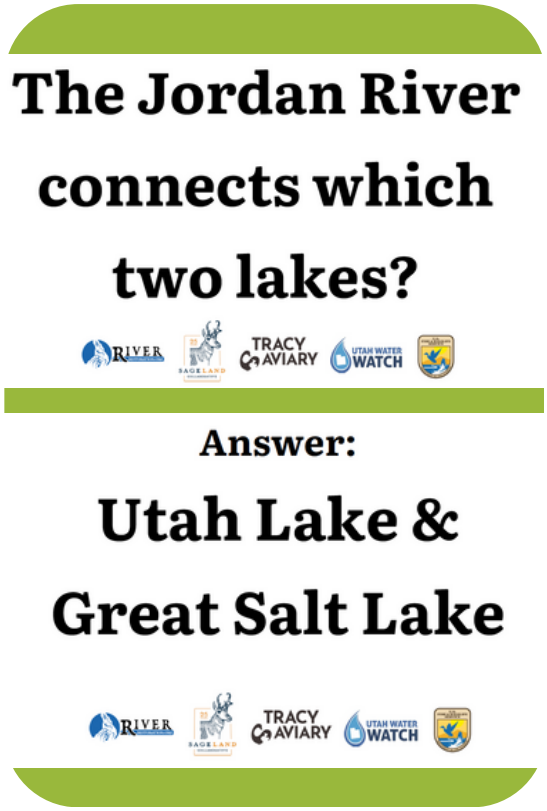
"Clearly, there is high demand for connection and participation [at the site]."
-Matthew Struckhoff, USGS

Community Feedback & Lessons Learned

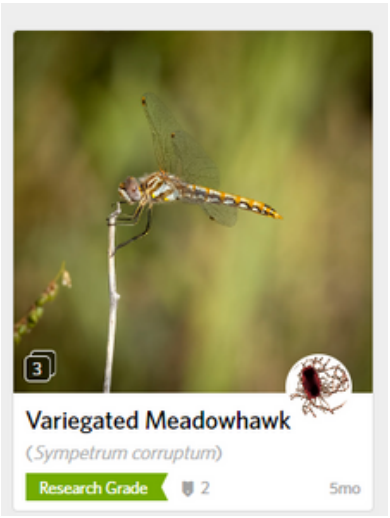
UNFORESEEN CHALLENGES

The project partners did a great job pulling off a complex event at a site that is not primed for public access, and navigating last-minute changes. One such change was related to site access, as partners learned 1 week ahead that on-site parking could not be accommodated. We identified a suitable parking spot nearby, put out signs, and developed a self-guided tour for participants to enjoy as they walked 0.8mi to the event. Another unexpected challenge was that iNaturalist website was down for maintenance on the day of the event. Fortunately participants were still able to log observations.

"I spoke to a wide range of attendees, from nearby homeowners and frequent JRT travelers who were curious to see the site, iNaturalist "super users" keen to document wild species, Aviary bird aficionados, NHMU volunteers, and families and local students excited to explore nature and connect with local experts. Minus the lack of bathroom access on-site, I was hearing largely positive comments from attendees."
-Ellen Eiriksson, NHMU



Example of a self-guided tour trail sign designed to educate attendees on the 0.8 mile walk to the event. Questions were displayed on on one side of the sign, and answers were displayed on the opposite side.



Budget Update

Funding from this grant allowed Sageland Collaborative and NHMU staff to organize this event. This required staff time including several meetings to decide on the scope and goals of the event, coordination meetings with partners, development of social media graphics & press release information, three site visits for planning and carrying out the event, procurement of supplies, volunteer recruitment & web resources for hosting iNaturalist data. Project partners procured supplies, beverages, and snacks for participants. The final cost below is an addition to at least $1,944 of in-kind support by Sageland Collaborative staff time. The project stayed close to the original budget of $2,242, however we did exceed this slightly due to unforeseen challenges related to site access, which required additional staff time & support from both NHMU and Sageland Collaborative.

Table 2. Where funding was spent including in-kind

Year	In-kind	Final Spent
Sageland Collaborative Staff time	$1,944	$913
NHMU staff time	$990	$1,320
Program supplies	--	$267
Total	$2,934	**$2,500**