



SAGELAND COLLABORATIVE

IMPACT REPORT 2023

Science-based strategies to heal Western landscapes



SAGELAND
COLLABORATIVE

A group of about ten people is walking away from the camera through a field of tall, dry grass. In the background, there are rolling hills and mountains under a cloudy sky. The overall scene is a natural, outdoor setting.

Healing In the West

Western landscapes and communities have seen our fair share of difficulties. From historical environmental degradation to failing ecosystems to drought-caused crises, the list of human-ecological problems can feel daunting. It would be easy to turn away from these issues, dive into our own human lives, and get lost behind an infinity mirror of our own distractions. But if you're reading this, chances are you do not turn away. Chances are, you choose to tackle the challenges our wildlife and lands face, even when it feels impossible.

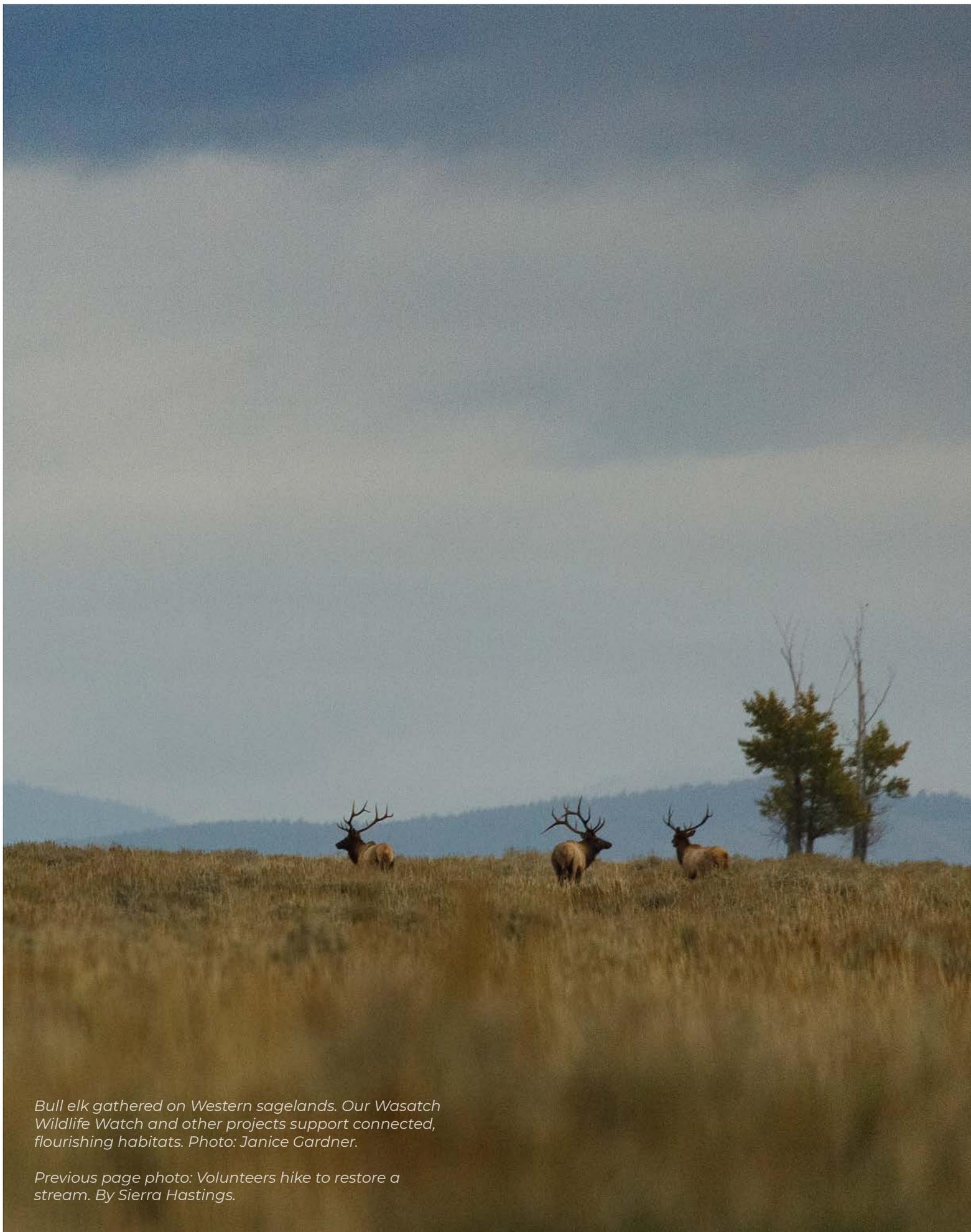
Luckily, despite these difficulties, there are many reasons to celebrate progress in conservation. Urban dwellers are spreading native plants to invite pollinators back into their cities. Ranchers are restoring beaver activity in streams and bringing trout, insects, and wildflowers to previously razed landscapes. Diverse collectives of people and places are forming to create a future where rich waters, crystalline skies, and abundant life are accessible to all, regardless of species, identity, or class.

A photograph of a grassy hillside under a cloudy sky. In the center, there is a large, dark green tree. The foreground is filled with tall, light-colored grasses. The overall scene is a natural, outdoor setting.

At Sageland Collaborative, we've seen—and contributed to—all of these successes and more. As our community scientists come together to answer large-scale questions about wildlife and lands, they form the bedrock of conservation in the West. Community-gathered data provides the necessary groundwork for our team of experts, land management agencies, and other organizations to direct conservation efforts where they are needed most.

To our donors, volunteers, and partners, we say thank you for healing Western landscapes and communities. Together, we can create western landscapes that are teeming with life and strong community.

- *The Sageland Collaborative Team*



Bull elk gathered on Western sagelands. Our Wasatch Wildlife Watch and other projects support connected, flourishing habitats. Photo: Janice Gardner.

Previous page photo: Volunteers hike to restore a stream. By Sierra Hastings.

Reflections from our director

Dear Sageland Community,

In 2023, it was with deep gratitude that I stepped into a leadership role at Sageland Collaborative. I have been privileged to be a natural resource professional for 20 years, and it's my life's purpose to be a champion for nature. Nature not only refreshes our hearts, but we also desperately need healthy ecological systems to sustain our lives.

At Sageland Collaborative, we have a vision of resilient landscapes for wildlife and humans alike. Nearly 30 years ago when this organization was founded, we realized that a lack of information was a major hurdle to realizing this vision. It was then that we established our mission to provide science in service of wildlife and lands. Since then, as drought, development, and severe storms have increased the pressure on all our systems—both natural and built—the need for sound science has only intensified.

Reflecting on this past year fills me with hope. The Sageland community—including our passionate staff, tireless volunteers, dedicated partners, and generous donors—has made a strong impact on our wildlife and lands. I am incredibly proud that we continue to exceed our project goals by installing “beaver dam analogs” to restore riverscapes, establishing a massive shorebird census that is urgently needed as Great Salt Lake faces an uncertain future, and collecting hundreds of records of increasingly rare Monarch butterflies across all of Utah's communities.

In light of all these successes and more, what really inspires me is the unexpected magic that happens: working with an entire watershed of private landowners to heal riverscapes and reintroduce beaver, building relationships with peers from Argentina based on our passion for saving shorebirds, and working with project partners that will respond at a moment's notice to help us reach our shared goals.



We have been successful in our work because of our community. And as we expand into the future, we remain dedicated to ensuring that everyone has access to nature and can contribute to supporting thriving wildlife and lands. Thank you!

A handwritten signature in black ink that reads "Janice Gardner".

Janice Gardner
Executive Director

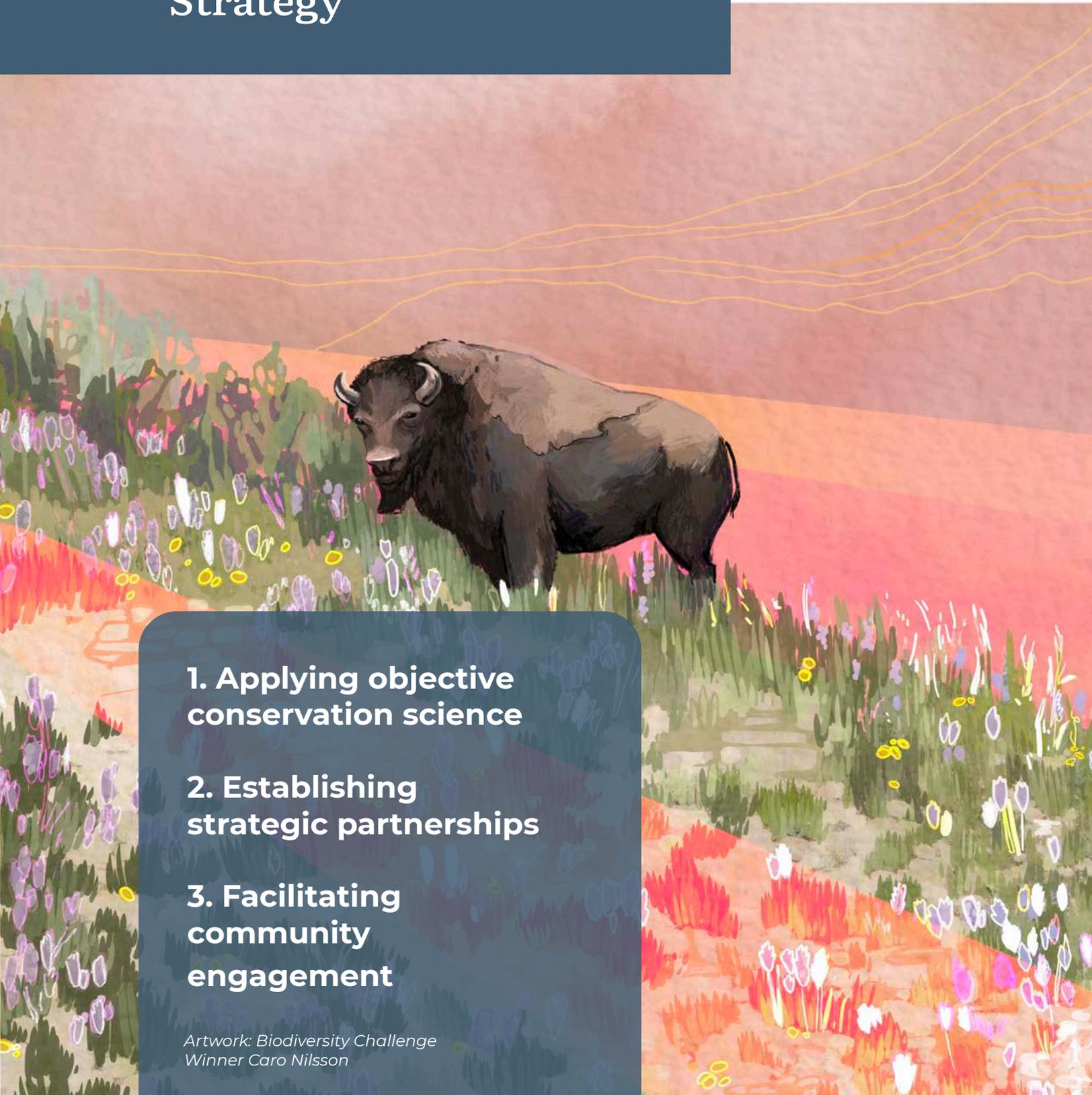
Strategy

**1. Applying objective
conservation science**

**2. Establishing
strategic partnerships**

**3. Facilitating
community
engagement**

*Artwork: Biodiversity Challenge
Winner Caro Nilsson*





2023 AT A GLANCE

If you donated, volunteered, partnered, or participated in our projects in any way in 2023, you contributed to the healing of landscapes and communities in the West.

With your support, we...

Restored five miles of degraded riverscapes, creating habitat for fish, pollinators, and more

Led the Intermountain West Shorebird Survey across Utah's most critical wetlands

Centered Latinx, LGBTQ+, and Indigenous partnerships and voices in conservation

Prepared two new projects to launch in 2024, connecting habitats for migration and documenting herpetofauna

Crafted inspiring conservation stories that sparked new projects across the region

Documented boreal toads, monarchs, and bumble bees across Utah, informing statewide conservation agreements and policies

Engaged 800 volunteers across the West in conservation for many species of wildlife and plants



Board Member Emmanuel Santa-Martínez shows Communications Director Sarah Woodbury bumble bees as part of our Utah Pollinator Pursuit project. Photo: Sierra Hastings



OUR PROJECTS

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Great Salt Lake and the Intermountain West



Phalaropes at Great Salt Lake.
Photo: Sierra Hastings.

From the Project Lead

“At the end of 2022, the Great Salt Lake was so salty, the trillions of tiny creatures that sustain bird life nearly all died. Entering 2023, I was desperate at the thought of leading this project through a time of ecosystem collapse with no shorebirds to count. But the record-setting winter gave us a respite and the hope that we can find solutions to protect our Great Salt Lake.

With shorebird numbers in hand thanks to our community scientists, we now know which areas to prioritize.”

– Janice Gardner, M.S.

Summary

Shorebirds need wetlands in the Intermountain West to sustain their migrations. However, we haven't counted shorebirds here in over 30 years, despite knowing that our wetlands have been severely degraded by drought and habitat loss. The Intermountain West Shorebird Survey meets this challenge by enlisting over 300 volunteers and professional biologists at sites across the West to count shorebirds. Sageland Collaborative leads the Utah portion of this project, counting shorebirds on 800,000 acres of wetlands—including the entirety of the Great Salt Lake ecosystem. It is our goal to understand shorebird habitat use and numbers so we can best conserve and manage these resources, especially at Great Salt Lake.

Impact

Great Salt Lake is extremely valuable for migrating shorebirds. During the peak spring and fall migration windows, 100+ community scientists and professional biologists counted shorebirds across Utah's most valuable wetlands. Using airplanes, boats, vehicles, and our own two feet, we canvassed out on 800,000 acres in Utah alone to count shorebirds. At the same time, several hundred other participants with our partner organizations counted shorebirds at over 200 other sites in the West. This is a truly regional effort.

Great Salt Lake is the premier migration hotspot in our region. Thanks to these counts from volunteers like yourself, we now know that this hotspot hosts half of all the shorebirds that cross over the Intermountain West. For the first time in 30 years, our region has information that describes where shorebirds are and how many there are relative to other sites in the Intermountain West.

Shorebird Survey

2023 Project Highlights

We learned that the Great Salt Lake ecosystem hosts **50% of the shorebirds** that migrate through the Intermountain West.

100+ community scientists and partner biologists helped count shorebirds each migration season.

Shorebirds were counted across **800,000** acres (the size of Rhode Island).

On Great Salt Lake ecosystem alone, **376,838** shorebirds were counted, representing **24** species.



Volunteer & Donor of the Year

Connie Misket has been a volunteer shorebird surveyor since the project kicked off in 2022. She leads with drive and passion, showing clearly just how important these species are to her. She enriches the survey experience by photographing the beauty of the natural world.

Lauri Taylor and her partner David Wheeler are dedicated donors and volunteers. Lauri's donations allow us to continue this important work. David and Lauri also use their excellent birding skills to census a remote and difficult shorebird site at Great Salt Lake.



Partners & Participants

- Utah Division of Wildlife Resources Great Salt Lake Ecosystems Program
- National Audubon Society
- Point Blue Conservation Science
- Tracy Aviary
- US Fish and Wildlife Service
- Utah Division of Forestry, Fire & State Lands

Riverscape Restoration



From the Project Lead

“Years of record-breaking drought followed by record snowfall and flooding had many of us feeling mental whiplash in 2023. Concern over water scarcity shifted abruptly to flood mitigation across our region. While scarcity and overabundance have different impacts, both are sides of the same climate change coin.

Our team builds beaver dam analogs, plants trees, and entices beaver into our region’s riverscapes because we know that adding muddy, leafy, woody complexity can jump-start restoration. **Healthy ecosystems are resilient to the highs and lows that we will continue to see.”**

– Dr. Rose Smith

Summary

Riverscapes are landscapes of streams and rivers. These blue-green ribbons and their associated watery habitats are critical for humans and wildlife throughout the arid West. Due to overgrazing and removal of beaver—a keystone species—many streams are degraded. Our team and hundreds of volunteers strategically restore and monitor riverscapes for wildlife habitat and ecosystem services. Our human-made beaver dams catalyze beaver activity, natural wood accumulation, and floodplain connection.

Impact

This year, we passed two major cumulative restoration milestones. Since our restoration program began in 2019, we’ve implemented restoration projects on over 10 river miles and built over 1,000 beaver dam analogs (BDAs) and other low-tech structures in Utah streams. To date, we have monitored 37 sites before and up to 4 years after implementation. Each of the eight projects we completed in 2023 not only have benefits for wildlife habitat, but they benefit humans too. Each restoration site is a tributary to major drinking water reservoir.

Of the sites with both pre- and post-restoration data, 80% have improved riparian vegetation and 68% have improved in overall riparian habitat quality. We also expanded our monitoring efforts to collect drone imagery before and after restoration annually at several sites, tracking floodplain reconnection over time. In the face of record-breaking snowpack and spring runoff, BDAs across our region held up well, capturing sediment that would have otherwise ended up in reservoirs, irrigation systems, and downstream habitats.

2023 Project Highlights

Volunteers donated **1,244** hours to restore riverscapes.

Performed **20** stream assessment surveys to monitor long-term riverscape health.

Completed **8** restoration projects on degraded streams.

Built **284** low-tech restoration structures over **4.7** river-miles.



Volunteers of the Year

Will Riedlinger and Carrie Schultz restored multiple streams this year, bringing great enthusiasm to each event. By their second weekend with us, Will and Carrie were BDA experts, even helping new volunteers learn the ropes. In addition to volunteering on multiple restoration days, they've also joined us on two Boreal Toad surveys with the same enthusiasm.



Partners build BDAs at Millcreek in Utah.
Photo: Sierra Hastings.

Partners

Northwestern Band of the Shoshone Nation, US Forest Service, Swaner Preserve & EcoCenter, Utah Division of Wildlife Resources, Trout Unlimited, Utah Division of Water Resources, Salt Lake City Public Utilities, Snyderville Basin Special Recreation District, Utah Army National Guard, Utah Department of Agriculture and Food, private landowners, Salt Lake County Parks & Open Space, US Fish & Wildlife Service . . . and of course, beavers!

In the West, Water Is Life

by Sarah Woodbury

Ask any ecologist, and they'll agree on at least one thing: in nature, everything is connected. Pulling on one thread in the landscape brings a jumble of connected species, relationships, and habitats with it. In the middle of these intricate knottings, one vibrant thread is perhaps easier to pick out than others as a connector: water.

Water is crucial everywhere, but in the western US where we work, it shines even brighter against a thirsty landscape. Here, the phrase "water is life" connects diverse groups of people. Birders flock to wetlands and rivers to spot their favorite species, farmers depend on water to grow food, and all of us are faced with the constant reality of climate change, wildfire, and prolonged drought.

"Water is more than just something we drink," says Stream Ecologist Rose Smith, who leads our Riverscape Restoration work. "It is home for many creatures."

After our volunteers built simple restoration structures on one degraded stream, the land around it began to breathe. According to Conservation Ecologist Janice Gardner, monarchs even returned, like orange sparks in celebration of the riverscape's recovery.

But water's long threads are tied to much more than our riverscape work. Biologist and herpetofauna expert Mary Pendergast says, "I think a lot about how without water, alpine amphibians like boreal toads can't even breed. Their entire lives depend on water."



Pendergast says that although many wildlife migrate in response to climate change, high alpine species like boreal toads are “evaporating off the peaks.” Already living at the highest elevations, these wildlife have nowhere else to go. “It breaks my heart,” she says.

To face threats like these, our Boreal Toad and Rosy-Finch Project volunteers hike across mountains looking for elusive species. They’re on a mission to help scientists map where certain species are currently thriving, where they’ve disappeared, and which habitats might support population re-introductions in the future. And on our Shorebird Surveys, volunteers trek Great Salt Lake’s shimmering wetlands in search of shorebirds that depend on these habitats for survival.

As much as any other animal, humans rely on healthy waters to live—and to live well. At Sageland Collaborative, some of our first dedicated socio-ecological research focuses on a small stream that feeds into the Bear River at Wuda Ogwa, the site of the Bear River Massacre. “Our goal,” says Communications & Outreach Director Sarah Woodbury, who is working on the project as part of her Master’s degree, “is to learn how best to work with landowners to heal waterways and improve water quality at the site.” This will immediately support work by the Northwestern Band of the Shoshone to restore water quality and species at Wuda Ogwa, as well as statewide efforts focused on healing the ecosystems of private lands.

This and our other work with water across the West gathers around one important belief: the interbeing of all life, from spiders to humans. Water in particular has a way of teaching us this truth of interconnection. Here’s to healthier rivers, lakes, and streams in coming years.



Photos: Avocets feed in Great Salt Lake wetlands (previous page); landowners; partners release beavers on private lands (above); shorebird surveyors watch a storm roll across Utah wetlands (background). Photos: Sarah Woodbury.

Landowners in Utah and across the West are restoring streams to heal razed landscapes and improve wildlife habitat.

Scan the QR code below to watch “The Land Loves Us Back,” our 2023 video following landowners in Chalk Creek as they restore streams, fall in love with beavers, and preserve the land for generations to come.

scan for video highlight:



Boreal Toad Project



Volunteer Katie Figueroa pauses for a photo before recording data on this boreal toad. Photo: Sierra Hastings

From the Project Leads

“After ten years, **I still get a rush of excitement every time I see a boreal toad in the wild.** It is such a privilege to work with dedicated partners and community scientists, some of whom have returned to the volunteer surveys year after year”.

– Dr. Mary Pendergast

“Every year we have people come on surveys who are new to the field of conservation, or Utah, or amphibians, and they get to experience something new. **I love seeing people experience nature and fall in love with it.**”

– Kayleigh Mullen, M.S.

Summary

The Boreal Toad Project gathers critical information on this Species of Greatest Conservation Need. Our community scientists document these species and their habitats across Utah. As they survey remote and beautiful wetlands, community scientists are linked with local landscapes and conservation. Each year we contribute thousands of field hours' worth of data to both state and federal partners, providing them critical information for good management of these toads and their habitats.

Impact

Thanks to work with Utah's Hogle Zoo, volunteer field trips, and independent community science surveyors, the majority of the known boreal toad breeding sites were monitored across Utah in 2023. This was despite a long winter this year, meaning challenging site access days due to snow drifts on the approach. In fact, the wet year made for more breeding sites than we have seen in the last few years!

In addition to amphibian survey and habitat assessment trainings and field trips, this year, Sageland Collaborative and Hogle Zoo biologists worked with our Riverscape Restoration team to survey for toads and assess habitat conditions before and after restoration work is completed. This allows future work to prioritize improving habitat conditions for these high alpine amphibians where low-tech restoration activities are already taking place.

2023 Project Highlights

60

volunteers surveyed across Utah for boreal toads

1,600+

survey hours completed on the project

120+

survey sites monitored and reported

100+

toads detected in community scientist surveys



Volunteer of the Year

Gabe Brown joined us on several guided Boreal Toad surveys this summer, bringing enthusiasm and passion to this work. Despite not having met any boreal toads yet, he holds out hope that he may meet them on future surveys.

He says, “My hope for the west and for the rest of the world is for people to recognize the deep interconnectedness of all living things and the responsibility we have to care for and share the planet with them.” Thank you, Gabe!



Photo: Sierra Hastings

Partners

- Utah’s Hogle Zoo
- Utah Division of Wildlife Resources
- Utah Geological Survey
- US Forest Service
- US Fish and Wildlife Service

Rosy-Finch Project



From the Project Lead

“As rosy-finch data poured into our online portal from our community scientists, we loved it when our volunteers also shared **photos and stories about their experience**. It enlivens the data and brings a great sense of community to our team!”

– Janice Gardner, M.S.

Summary The Rosy-Finch Project has been one of our most wide-reaching collaborative projects. In the past four years, we’ve built up a community of dozens of researchers and experts across the West that are aligned in their goal to ensure rosy-finch populations persist into the future. This project took a multi-pronged approach to answer questions

about these hard-to-access birds. From prioritizing research actions using Structured Decision Making to enlisting community scientists to literally put rosy-finches on the map, we’ve learned so much more about one of North America’s most mysterious species.

Impact The Intermountain West is home to three species of rosy-finches, which are notoriously challenging to find because they spend much of their time atop high altitude mountains. Even still, as climate change negatively impacts the alpine, understanding these species is critical to ensuring their continued resilience. That’s why our volunteers conducted “feeder count” surveys of these rare birds during their occasional winter visits to bird feeders.

Over our three project seasons, community scientists have put numerous new locations on these species’ range maps, helped define rosy-finch movement by re-sighting birds with colored leg bands, established migratory seasons and behaviors, and even documented disease. In addition to this community-led science, Sageland Collaborative has also continued estimating survivorship of rosy-finches based on visits that specially-tagged birds made to research bird feeders in Utah. We made major progress on a region-wide plan so all states can monitor and study rosy-finches as a team. There are also new investments in furthering the action-minded research priorities identified by the Rosy-Finch Working Group. We’re confident in our colleagues that are carrying the torch for rosy-finch conservation into the future as we develop other projects.

2023 Project Highlights

170 volunteers, known as “rosy-finchers,” participated in Feeder Count surveys at bird feeders across **10 states**.

230 color-banded rosy-finches were observed

Led the **80-person** Rosy-Finch Working Group to better management and science

Through intensive work completed over a year, **10** priority research topics were identified to support rosy-finches



Volunteer of the Year

Kathy Lichtendahl has been one of our most active participants on the Rosy-Finch Project, sharing feeder counts from her home in Wyoming. Kathy is also an incredible photographer and conservation storyteller, weaving her passions together to create lasting impacts for these species.

She says, “It is hard to describe the joy of walking outside to count rosy-finches, only to have a flock of several hundred birds circle overhead and land at my feet. It’s as if they’re on cue!”



A banded gray-crowned rosy-finch (left page, Janice Gardner); rosy-finches gather at a home feeder (above, by Therese Rocamora).

Saying Goodbye to the Project

Though our part in this project is done, we are excited that the strong partnerships we built can move this work into the future. We have provided a collaborative forum for our state and federal wildlife managers to elevate the importance of rosy-finch conservation, created a community of rosy-finch advocates to spread love for these birds throughout the West, and sparked lasting research efforts among partners. All of this means the mysterious rosy-finch is a lot less mysterious to the people ready to conserve these rare birds. Thank you to Tracy Aviary, Utah Division of Wildlife Resources, and US Forest Service.



Photos: A rosy-finch rests in a soft glow (top, Kathy Lichtendal); Janice Gardner releases a black rosy-finch after documenting it (bottom, video still by Sarah Woodbury).

Chasing Rosies: For the Love of a Bird

by Sarah Woodbury and Janice Gardner

Though we're sad to say goodbye to the Rosy-Finch Project, our team celebrates the success of this work. We answered the questions we set out to understand, and we are making room for new projects to support other struggling wildlife species.

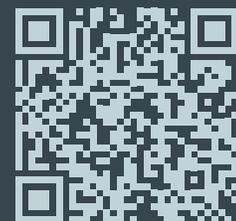
We're proud that over these three seasons, 300 community scientists logged 50,000 rosy-finches over 10 states. We provided leadership to a community of 80 biologists and rosy-finch advocates to further collaborative research into the future.

Thank you to all of our donors, volunteers, and partners for making this work possible. Because of your support, diverse groups across the West are joining in the search for North America's most mysterious bird, the black rosy-finch. To combat the threats of climate change on the species, efforts to document and answer questions about these high-elevation birds race the clock.

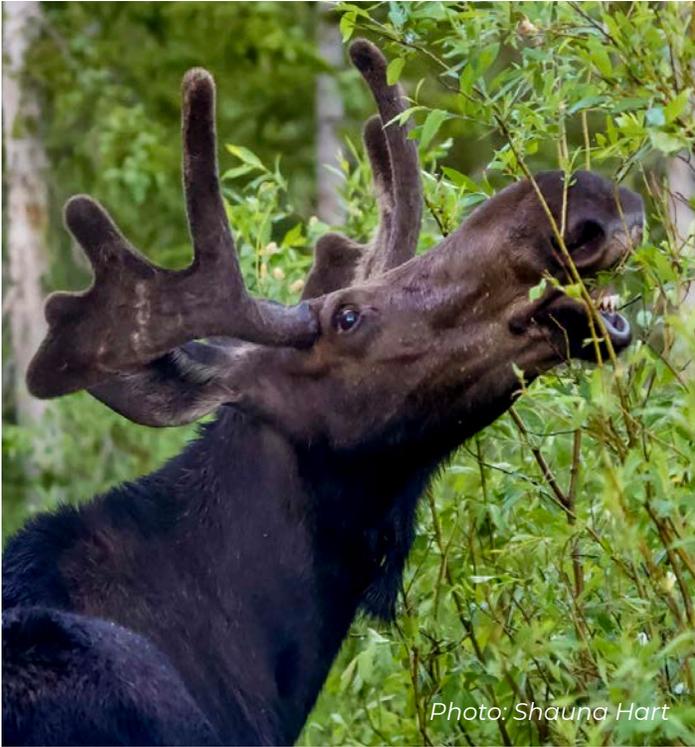
Reflect on a wonderful three years on this project by viewing our latest video, Chasing Rosies: For the Love of a Bird. Follow the seasonal chase of these elusive birds from porches to the most rugged alpine slopes, all in service of conservation. Hike with biologists surveying glacial pools in Idaho, join a bird banding station in a ski condominium in Utah, and journey between worlds inhabited by this beloved bird and its devotees.

Watch the video by scanning the QR code with your phone's camera.

scan for video highlight:



Wasatch Wildlife Watch



From the Project Leads

“2023 marks this project’s sixth field season and as many years of building a team of dedicated volunteers and research partners. This community is committed to supporting positive adaptive management strategies, like wildlife overpasses, that **improve habitat connectivity and resilience in the face of shifting climate conditions** and increasing human development.”

– Dr. Mary Pendergast

“**This project is a gift that keeps on giving.** I’m continuously inspired by the people I get to work with. It makes me hopeful for the future, and I couldn’t be more grateful for the opportunity to continue this work.”

– Dr. Austin Green

Summary

Wasatch Wildlife Watch is a community science camera trapping project led by a group of people interested in providing evidence-based solutions to wildlife conservation and management problems. We do this by investigating the ways human influence alters wildlife behavior and distribution, cooperating with multiple land management agencies, and engaging and educating the broader community.

Impact

This year, Wasatch Wildlife Watch became the major component of the Human-Wildlife Coexistence Research Stream within the Science Research Initiative at the University of Utah. This allowed 35 undergraduate students to participate in crucial research. Students in this stream were extremely successful, going beyond their impressive publications and presentations to help coordinate a collaboration with youth-in-custody facilities around the state.

In addition, in 2023, Wasatch Wildlife Watch was part of four peer-reviewed scientific manuscripts and part of another seven manuscripts in review. These manuscripts garnered local and national attention—including an article in the New York Times—and contributed to large datasets supporting wildlife conservation and migration on national scales.

Project Highlights To-Date

275

camera sites managed across the Wasatch Mountains.

10,000 hours of volunteer work have been donated by wildlife lovers across the region.

400+

volunteer community scientists participated in the project.

233,000

wildlife detections across 28 species.

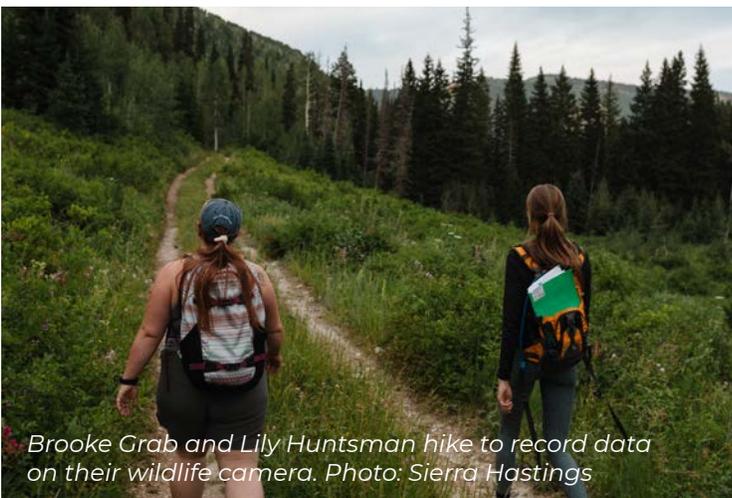


Volunteer & Partner of the Year

Angela Rowland has been a volunteer on the project for five years, managing multiple cameras, sorting through all her photos, and uploading photos online. She has been a beacon of consistency for half a decade, returning year after year to continue this important work.



Austin Green is extremely dedicated to the volunteer community and undergraduate team that support this project. He also works tirelessly to include partners and students in data analysis and publications. This means community-gathered data can be integrated into publications and adaptive management strategies for wildlife conservation planning as soon as possible.



Brooke Grab and Lily Huntsman hike to record data on their wildlife camera. Photo: Sierra Hastings

Partners

- Biodiversity and Conservation Ecology Lab, University of Utah
- Utah's Hogle Zoo
- US Forest Service
- Salt Lake City Open Space and Public Lands
- Natural History Museum of Utah
- Utah Division of Wildlife Resources

Utah Pollinator Pursuit



Photo: Monarch butterfly by Janice Gardner.

From the Project Leads

“Urban landscapes are often written off as unimportant or lost to pollinators, but they are critical connectors between rural and ‘natural’ landscapes. Utah Pollinator Pursuit volunteers help managers understand what is happening in these crucial connective spaces and increases public awareness of urban habitat importance.”

– Dr. Mary Pendergast, Amanda Barth, M.S., and Mindy Wheeler, M.S.

Summary Utah Pollinator Pursuit puts declining pollinator species on the map. Community scientists gather and share new location and habitat condition information for species—like monarch butterflies and western bumble bees—that need the most support. This information is used to create species maps and locate areas of conservation interest in the state. This work supports prioritizing the right areas for pollinator habitat restoration.

Impact

Utah Pollinator Pursuit has been instrumental in building awareness of and buy-in on the conservation needs for Utah’s native at-risk pollinators. Over the course of four project years, volunteer engagement has increased to represent the entire state of Utah, including rural areas and remote public lands. The project has brought an invaluable amount of reliable community science data for bumble bee species, monarchs, and several other rare butterfly species, as well as their habitats. This work has been recognized by other insect conservationists—including the Xerces Society for Invertebrate Conservation and other western states—for the quality of data collected by volunteers.

Before this project started five years ago, we were only beginning to understand how important Utah was for summer breeding monarchs. Thanks to volunteer contributions of monarch observations, we are actively informing suitable habitat modeling work, restoration efforts by state and federal land managers, and the development of methods to protect monarch migratory corridors.

2023 Project Highlights

150 monarchs sighted, confirmed, and logged

500+ hours contributed by project volunteers

700+ bumble bee submissions to Utah Pollinator Pursuit

27 of Utah's 29 counties recorded pollinator observations

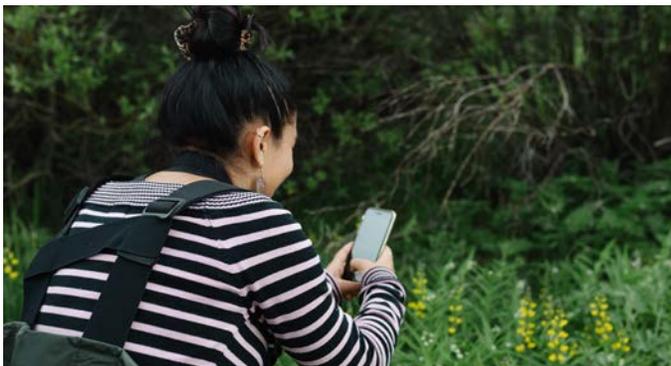


Volunteers of the Year

Alhondra Lopez began as a communications intern, where she led conservation campaigns, used art to further support for pollinators, and expanded the reach of our work throughout communities in the West. Over the last two years, she has joined us at many events and supported with project transcreation to further the reach of Utah Pollinator Pursuit.



Anna Jackson logged an astonishing 72 bumble bee and monarch observations this season! Anna also started off as a Sageland intern, assisting on beaver dam analogs, boreal toad surveys, and more. In addition to loving pollinators, she believes in prioritizing riparian landscape restoration.



*A volunteer records pollinator species.
Photo: Sierra Hastings.*

Partners

- USU College of Natural Resources
- Utah Division of Wildlife Resources
- University of Utah
- Utah Monarch Enthusiasts Group
- US Forest Service
- US Fish and Wildlife Service
- Natural Resources Conservation Service

The Sound of a Rare Buzz

by Sierra Hastings



Off the rocky shores of **Smith & Morehouse Reservoir**, just downstream from the Red Pine Creek Riverscape Restoration site, sits a hardy patch of showy milkweed. While waiting for volunteers and partners to join us, the Sageland team picked our way along the shoreline to admire the beautiful display.

To our delight, we found that these milkweed plants were abuzz with many pollinators. But we were in for an even bigger surprise: one by one, we exclaimed as we found **four western bumble bees!** (The scientific name is *Bombus*

occidentalis, shown on next page.) The species' population has faced steep declines across the West in recent years. In 2022, only seven individuals of these species were logged in Utah Pollinator Pursuit—so you can imagine our shock when we found four in one spot.

While urbanization, habitat loss, and use of pesticides have impacted the western bumble bee, it is heartening to see even one habitat where the species is thriving. Our stream restoration site breathes the essence of natural life, from the beaver prints in the mud of the upstream riparian zone to the spongy, wet meadow singing with amphibians.

These ribbons intertwine and remind us that each of these species is connected. It's through the cascade of our actions that we can hope to effect positive change for the future of the wildlife and lands we love, like a single bumble bee on a milkweed plant.



scan for video highlight:

Board member and pollinator biologist Emmanuel Santa-Martínez discusses diversity in pollinator biology. Video by Sarah Woodbury.

Photos: Sierra Hastings



Projects In Development



*A moose walks along a fence line in Wyoming.
Photo: volunteer and donor Rob Tolley.*

Wildlife Migration Mapping

Western landscapes include many structures and fences that break habitats into fragmented pieces. This impacts wildlife, whether by impeding critical migration or through the structures themselves causing mortalities. We are working with Bureau of Land Management, Utah Migration Initiative, and other partner agencies to develop a project mapping the condition of structures that are harmful to wildlife.

These community-gathered data will allow government agencies to work with stakeholders to prioritize wildlife-friendly structures across the landscape and remove structures where they are no longer needed. As we remove or update barriers, we will quilt the landscape back together to allow the free movement of wildlife across the West.

Utah Herp Search

Herpetofauna—or reptiles and amphibians—are sometimes overlooked in conservation strategies. That's why we are working with the Utah Division of Wildlife Resources to develop community science protocols and answer questions about where these species are and how they are doing. Volunteers will gather georeferenced images of “herps” that are considered Species of Conservation Need under Utah's Wildlife Action plan. Expert and amateur “herpers” will be able to access a project map indicating potentially suitable habitats for some of Utah's cryptic herpetofauna species in conservation need.

These community scientist-gathered data will show where species are distributed and the condition of their habitats. This will allow government agencies to better plan and prioritize habitat restoration and species conservation efforts on the landscape, looking through the lens of these sometimes-forgotten creatures.



*A columbia spotted frog
peeks above the water.
Photo: Janice Gardner.*

Overall Volunteer of the Year: Julia Dalesandro

This year, Julia spent her free time counting rosy-finches, documenting pollinators (58!) and boreal toads (across five independent and group survey sites) and getting muddy building beaver dam analogs. Julia has truly dedicated herself to the conservation of wild species and places.



Julia shares this about her experience volunteering with us:

“For as long as I remember, I have felt a connection with nature. I was lucky as a child to have fields and streams nearby that allowed me to spend time with a variety of creatures such as salamanders and frogs. Each year we watched as the monarch butterflies began their life cycle in the fields. So it was a special day this summer in my backyard when I discovered for the first time a monarch butterfly soaring and dipping over my five year old milkweed patch. I was in awe.



Sageland’s projects have given me a sense of greater purpose when I spend time in nature. The group projects put me in touch

with like-minded people and make me feel positive and hopeful that our efforts will make a difference. I have learned so much while out in the field on these projects. Every trip has been an inspiration.

Looking forward, I am hopeful that our community of conservationists will grow and that we gain the support of decision makers so that intelligent decisions can be made for our natural resources. Based on my own early experiences, I also think it is important to connect children with nature early and often so as to develop a lifelong bond.

Sageland’s work is important because of the network of people, organizations and government that come together for conservation priorities. I am thankful for the opportunity to be a part of it.”



Juvenile Mountain Goat in Utah. Photo by Sageland Collaborative 2024 Calendar submission winner Jake Paszko (cropped).

ECOLOGICAL SERVICES

Supporting our work with professional projects

Sageland Collaborative provides fee-based professional services to further support our mission. Our staff are experts in their respective fields and apply this expertise toward projects. This work remains rooted in conservation and science to benefit wildlife, lands, and the community. Some of the services we provide include:



Ecological studies and monitoring



Conservation storytelling & documentary video



Landscape-level planning



Project management

2023 Ecological Service Projects

Park City Wildfire Risk Assessment

Bird Monitoring at Great Salt Lake's Shorelands Preserve

Central Wasatch Environmental Dashboard

Salt Lake City Foothills Trail System Plan

Executive Director Janice Gardner searches for birds at Great Salt Lake's wetlands. Photo by Sarah Woodbury.

(Left: Rosy-finch banding photo by Sarah Woodbury. Garter snake, wildlife camera trap, and boreal toad survey team photos by Sierra Hastings.)

Professional groups and initiatives



We are proud to work with agencies, landowners, nonprofits, and many other groups in the pursuit of science to heal the lands and wildlife populations we love. The working groups and initiatives we participate in allow us to both contribute our knowledge to conservation planning and learn from our colleagues.

WORKING GROUPS WE PARTICIPATE IN

State Wildlife Action Plan Team

Utah's Wildlife Action Plan aims to maintain Utah's wildlife and improve habitat health. Sageland Collaborative plays a key role in the process, working with Division of Wildlife Resources, decision makers, and other stakeholders to develop a plan for the next 10 years that will take significant steps to conserve Utah's wildlife and habitat. We ensure the best available science and information is used to conserve our wildlife, including many species we work with like boreal toads, pollinators, rosy-finches, and others.

Wildlife Connectivity Working Group

Wildlife in the West need healthy, connected habitats so they can safely migrate and complete their life cycles. We work with a diverse group of organizations, agencies, and planners to increase wildlife connectivity throughout the region. Our participation also ensures that projects like Wasatch Wildlife Watch meet the needs of planners and the results maximize their impact.

Rosy-Finch Working Group

We lead this dynamic group of scientists, managers, and officials to facilitate the conservation of rosy-finches. Through this group of nearly 40 different entities, we use a Structured Decision-Making process to prioritize research and conservation needs. This allows us to work quickly as climate change continues to threaten rosy-finch populations and other alpine species. The Working Group not only allows us to share findings from our Rosy-Finch Project, but efficiently expand our research capacity.

Utah Bat Conservation Cooperative

Our team is committed to the conservation of bats in the West. The goal of this cooperative is to conserve bat populations, communities, and habitats in Utah. We integrate bat conservation into our existing projects by gathering acoustic monitoring data and improving habitat.

Utah's Watershed Restoration Initiative

We work closely with Utah's Watershed Restoration Initiative, the state's major funding program to improve watersheds. Not only are we participants in multiple restoration projects each year, but we also serve on and chair regional project ranking committees and provide peer review of proposals. Participating in the Watershed Restoration Initiative allows us to create greater impact on the landscape by aligning our program objectives within the watershed, combining efforts with partners, and strategically matching funding dollars.

Great Salt Lake Advisory Council and Technical Advisory Group

We are committed to conserving Great Salt Lake and its vital wetland habitats. We attend and participate in these meetings, where the sustainable use, protection, and development of Great Salt Lake are addressed. With rapidly changing conditions on Great Salt Lake, it is vital we understand current threats and how to connect our work, like the Intermountain West Shorebird Survey.



Photos: Wasatch Wildlife Watch project leads prepare to install a camera (previous page, Sarah Woodbury); Great Salt Lake (above, Sierra Hastings).

Weber River Partnership

We work with a diverse group of partners in the conservation and restoration of the Weber River watershed. Partners include nonprofits, community groups, local businesses, landowners, and state agencies throughout the Weber River basin. Understanding the threats to our watersheds allows us to strategically plan riverscape restoration projects.

Utah Wetland Working Group

Nearly 80% of our region's wildlife relies on wetlands during some portion of their life cycle. We're dedicated to ensuring wetlands and the wildlife they support are protected and in good health. This state-wide group is an excellent network for sharing research, updates on wetland programs, and connecting with peers to make our programs stronger.

East Canyon Watershed Committee

Our Riverscape Restoration work on the East Canyon watershed is an important part of our program, and our collaborations are rooted in this committee. We identify and implement solutions to problems like fish kills and noxious weeds. The Committee brings together groups from regulators to policy makers to recreation managers.

Riverscape Restoration Network

Our experts are leaders in riverscape restoration in the West. This network connects restoration practitioners across the West and is a venue for sharing research and project outcomes and creating collaborations. We regularly present and share resources and lessons learned, allowing like-minded groups to improve their restoration work.

Jordan River Technical Advisory Committee

The Jordan River is an important corridor for water, wildlife, and people in Salt Lake Valley. This technical advisory committee helps to develop tools, resources, and standards for communities working along the Jordan. We are committed to improving the habitat and community value of the Jordan River through restoration and projects along the river and throughout the watershed.





Partners at the US Forest Service and Utah's Hogle Zoo lead toad surveys in Fish Lake National Forest. Photo: Sierra Hastings

Our conservation team

2023 BOARD OF DIRECTORS

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Conservation Ecologist

Sarah Woodbury
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Rose Smith, Ph.D.
Stream Ecologist

Sierra Hastings
Communications & Development Specialist

Jens Ammon, M.S.
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Joshua Wood, M.A.
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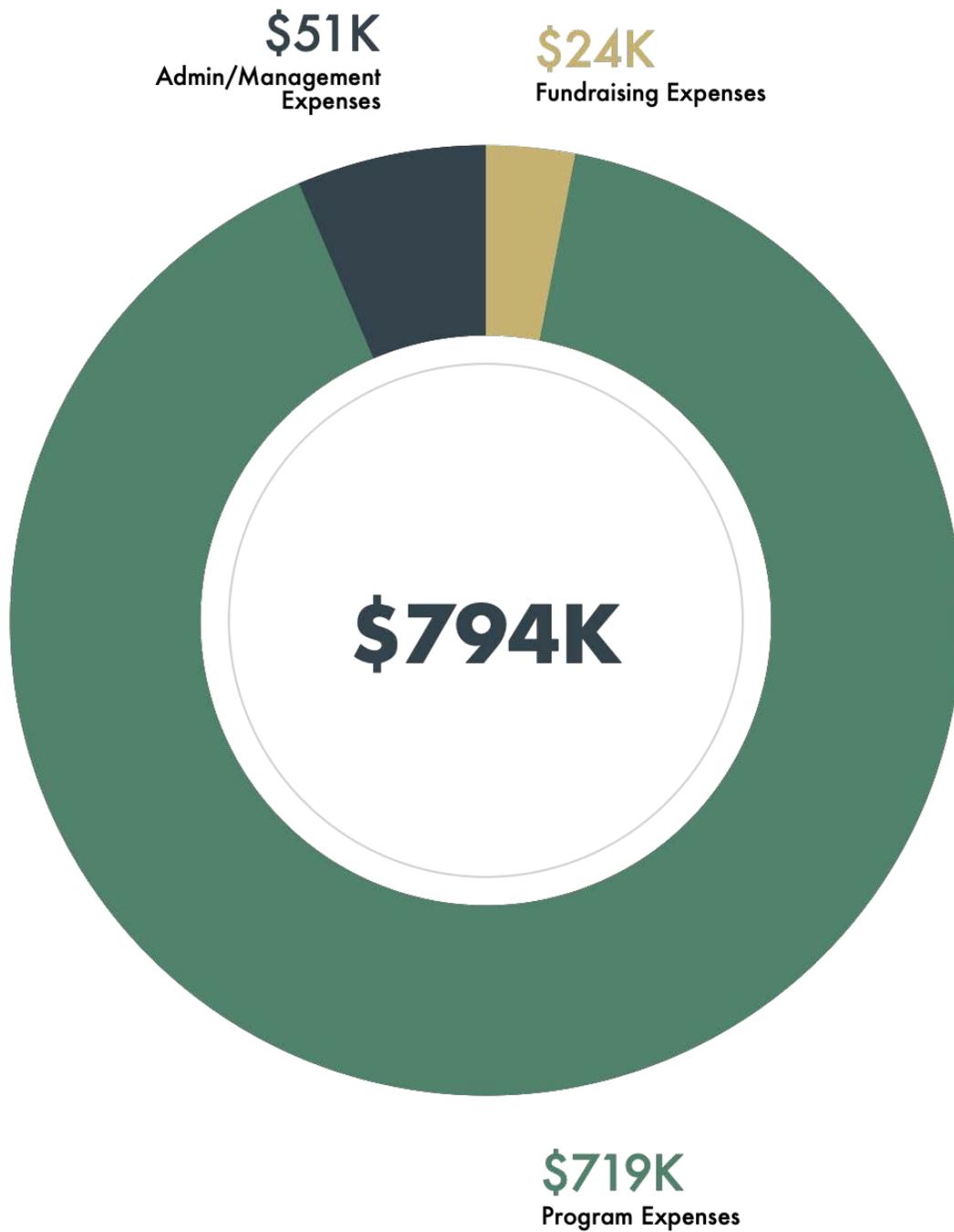
INTERNS & TECHS

Rachel Winder
Marlen Vazquez Garcia
Aleya Stotesbery
Marianna Buckel
Brett Kruger
Nicolina Baldassari



Sageland Collaborative board and staff (above), and staff in Autumn 2023 (below). Photos: Sierra Hastings

2023 Expenses



*For our detailed financial report, please visit sagelandcollaborative.org/accountability

Thank you to our funding partners:

- Biophilia Foundation
- The Byrne Family
- Community Foundation of Utah
- Dee Foundation
- David Kelby Johnson Memorial Foundation
- George S. and Dolores Doré Eccles Foundation
- Fanwood Foundation
- Emigration Oaks Property Association
- Great Salt Lake Audubon
- Hemingway, Richard and Shirley
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- Steiner Foundation
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If you are able to give, **please consider donating** to ensure that this work continues.

Visit www.sagelandcollaborative.org/donate to make a tax-deductible donation today.

Sageland Collaborative EIN:
83-0468561

Photo on this page: Sarah Woodbury
Cover photo: Sierra Hastings
Back photo: Biodiversity Challenge
Winner Hayley Haws

Report created by Sarah Woodbury





Our Intermountain West Shorebird Survey brings together volunteer birders, biologists, and many others to support shorebirds at Great Salt Lake and beyond. Photo: Sarah Woodbury



As we work to heal Western
landscapes, we recognize we
could not do it without the work
of our incredible community.

***Thank you for supporting the
healing of wildlife, lands, and
communities in the West.***



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