

A person wearing a cap and a backpack is standing in a field of tall green grass and water, holding a net. The background shows trees and a clear sky. In the top right corner, there is a logo for a 10-year anniversary from 2012 to 2022.

A TRADITION OF EXCELLENCE

10
YEARS
2012-2022

UNIVERSITY OF WYOMING
BIODIVERSITY INSTITUTE
ANNUAL REPORT 2022

On the Cover:

Senior Project Coordinator Mason Lee participates in the Rocky Mountain Amphibian Project.

Donations:

Donations accepted year-round at www.wyomingbiodiversity.org

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 Twitter: @WyoBio

 Website: www.wyomingbiodiversity.org

OUR MISSION:

The mission of the *Biodiversity Institute* is to foster the understanding, appreciation and conservation of biological diversity through innovative research, education, and outreach, and by engaging a broad audience in the scientific process.

The Biodiversity Institute works with scientists, resource managers, educators, and the public to further the understanding and conservation of biodiversity. We seek to provide a unique service to Wyoming, our nation, and the world by facilitating collaborative research projects, synthesizing and disseminating research, distributing grants, and providing educational, outreach, and community science programs for students and the public.

Pictured: The 2022 cohort of Wyoming Naturalists complete their basic training at Sinks Canyon State Park. Since the start of the program in 2021, 40+ people have completed initial training and donated over 1,200+ hours of service to conservation projects around the state. Photo courtesy of Linley Mayer.



WHO WE ARE

Brent Ewers, Director

Brian Barber, Science Communication Specialist

Kathe Carlton, Accountant

Mason Lee, Senior Project Coordinator

Erendira Morales Eggener, Communications & Marketing Specialist

Bryce Tugwell, Digital Communications Director

Dorothy Tuthill, Associate Director & Education Coordinator



ONLINE GIFT SHOP

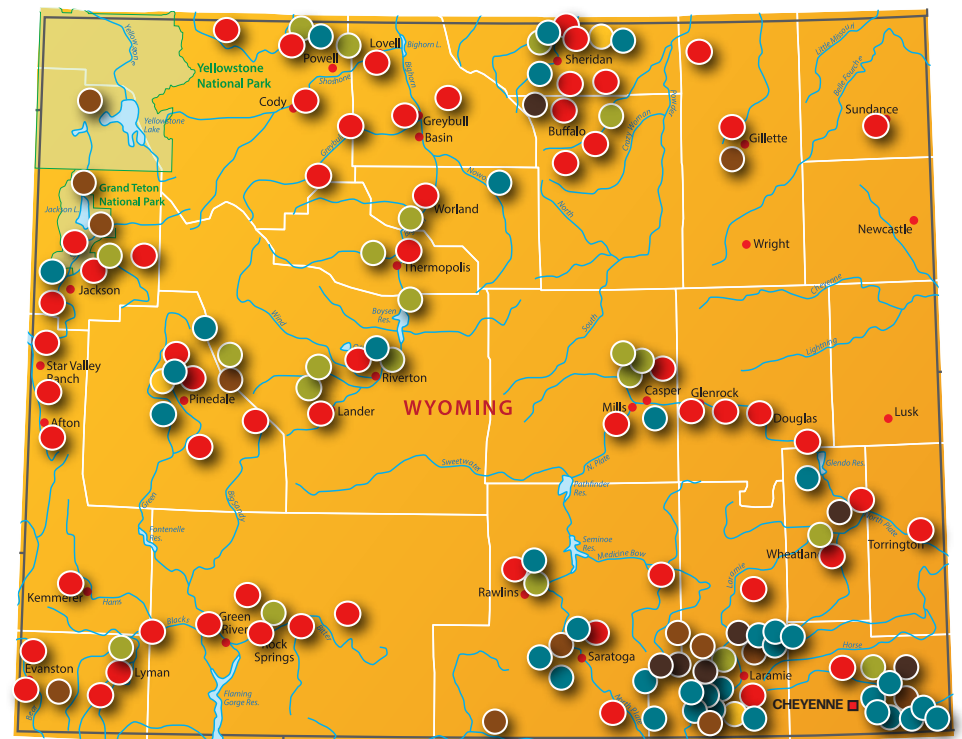
Visit our online store for books, field guides, stickers, children's books, and our newly launched plant flashcards. Each item explores the rich biodiversity of Wyoming.



www.wyobiodiversity.org

BIODIVERSITY INSTITUTE CONNECTS WITH WYOMING COMMUNITIES

In 2022, our programs continued to grow throughout Wyoming and beyond state lines to national and global efforts. BI-funded research, partnerships, and outreach programs take place around the world, including the Sierra Nevada range in California, Banff National Park in Canada, and Lake Laikipia and savanna in Kenya.



- Community Science
- K-12 Education
- Wyoming Naturalist Program
- Educational Outreach
- BI-Funded Research
- Biodiversity Institute Friends

THE LAST TEN YEARS BY THE NUMBERS: 2012-2022

4 Rocky Mountain Community Science Conferences hosted

4 Major books by UW faculty supported

7 Science and Math Teaching Center graduate students supported with GAs

11 Publications supported

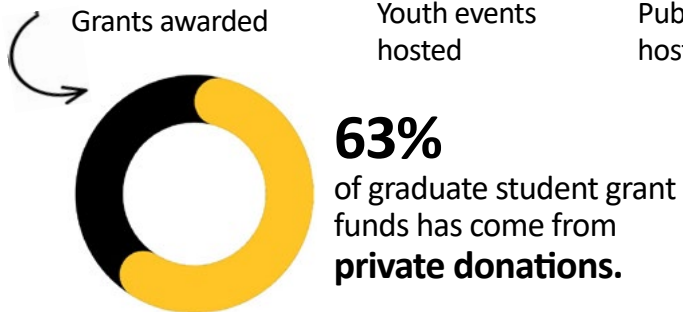
20 Novel Outreach and Education Grants awarded

31 Community science programs managed

54 Graduate Student Enhancement Grants awarded

100+ Youth events hosted

200+ Public events hosted



10 STATS FOR 10 YEARS

At the Biodiversity Institute, we track our impact and assess our programs to ensure we're fulfilling our mission. Thank you for your support these last ten years!

 www.wyobiodiversity.org



2022 YEAR IN REVIEW

10 Graduate student grants awarded

15 Wyoming communities visited

28 New Wyoming Naturalists trained

38 Public events hosted

200 Online store purchases

900 New social media followers

2,400+ People engaged at in-person events

30,000+ Website visits

BRINGING SCIENCE TO COMMUNITIES AROUND THE STATE



UW graduate student and BI grant recipient, Katie Davis, speaks at the first-ever Spanish Science Café in Powell.

SCIENCE CAFÉS

Instead of having a traditional 10-year anniversary celebration in Laramie, we decided to bring our students' cutting-edge science to our friends around the state.

Starting in October, we held Science Cafés in Pinedale, Riverton, and Powell, Wyoming. It was our first time hosting such an event in Riverton, and we brought three graduate students whose research was directly related to the Wind River Reservation. In Powell, we hosted our first-ever Science Café in Spanish. All events were a huge success, and we look forward to hosting another in Laramie at the start of 2023.

If you would like to help us bring a Science Café to your community, email us at biodiversity@uwyo.edu

Mormon Fritillary (*Speyeira mormonia*), observed during the 2022 Virtual BioBlitz by iNaturalist user kellypre50.

WYOMING BIOBLITZ

Nearly 140 taxon specialists and community members gathered in June at Guernsey State Park for the largest in-person Wyoming BioBlitz ever! Together, we inventoried 149 plant species, 69 species of birds, 64 groups of terrestrial arthropods, 21 taxa of aquatic macroinvertebrates, and a dozen reptiles and amphibians from five locations within the park. In addition, there were workshop opportunities for plant and insect identification and nature journaling, and evening talks on the history of park and the value of community science; a tree-planting service project completed the busy weekend. The Virtual BioBlitz also was larger than ever, with 271 observers documenting 833 species!

9 YEARS OF BIOBLITZ

We have been partnering with Audubon Rockies and other groups to provide BioBlitzes since 2014; the Virtual BioBlitz began in 2020.

2014: Red Canyon Ranch, Lander

2015: Heart Mountain Ranch Preserve, Cody

2016: Belvoir Ranch, Cheyenne

2017: Casper Mountain, Casper

2018: Tensleep Preserve, Ten Sleep

2019: Bear River State Park, Evanston

2020: First Virtual BioBlitz

2021: Brinton Museum, Big Horn

and Virtual BioBlitz

2022: Guernsey State Park, Guernsey

and Virtual BioBlitz

SAVE THE DATES:

June 9-11, 2023: Medicine Lodge State Archaeological Site in Hyattville, WY

July 21-24, 2023: Virtual BioBlitz, everywhere in Wyoming

Photo courtesy: Mindy Meade



LARAMIE SALAMANDER MIGRATION INITIATIVE

A new community science project, Laramie Salamander Migration Initiative, aims to increase the community's awareness of and encourage their involvement in protecting Laramie's population of barred tiger salamanders and their annual migration across city streets.

354 community members signed up to help salamanders safely cross Laramie streets on their migration nights. There was one big migration night this year and the steady drizzle and dropping temperatures didn't deter the 70+ amphibian champions who showed up to help shepherd salamanders across the street. 89 salamanders were helped that night, and data was collected to help researchers learn more about and protect this urban population.

This initiative was partially supported by the Laramie Audubon Society.



All our projects and events are funded by passionate donors like you. Scan to donate!



Photo courtesy: Mindy Meade

Hundreds more community members joined us at our first annual Salamander Saturday, an educational event to celebrate salamanders and amphibians. This year, the event featured educational stations about salamander and amphibian biology; an arts and crafts station where participants could make their own clay salamander; and salamander story time with the Albany County Public Library.

We hope you will join us again next spring as we celebrate salamanders and work together to protect this special urban population. Learn more about this new initiative at www.bit.ly/SalMigration



Photo courtesy: Mindy Meade



LETTER FROM THE DIRECTOR

December 16, 2022

Dear Friends of Biodiversity,

I am happy to report that The Biodiversity Institute (BI) continues to make great strides in accomplishing its vision of being a world class resource for biodiversity research, education, and outreach for Wyoming, the Rocky Mountain Region, and across the globe. We were happy to be back in the field this year, where we met over 2,400 people who were equally glad to be out in the world. These field events included the Wyoming Bioblitz, Science Cafés, outdoor walks and hikes, Wyoming Naturalist training, K-12 class visits, art shows, and community science programs. All of these, alongside our online programs like the Rocky Mountain Community Science Conference, enabled the BI to support our mission of communication UW-led biodiversity research in ways that foster the understanding, appreciation and conservation of biological diversity.

The BI is privileged to directly support biodiversity science through the funding of graduate student research, which is the foundation of knowledge and skills for our future leaders of biodiversity conservation. For the first time, the BI staff used their expertise to train these graduate students to better communicate their science to non-academic audiences. Their presentations were very well received in several WY communities.

The support of BI friends and donors makes all of this possible. Without you, the biodiversity of Wyoming and the Rocky Mountain Region would be less understood, and perhaps in greater peril. We have grown our BI friends to over 3,000 people. We especially thank our donors for supporting our work. On behalf of the BI team, I invite all of you to join the effort to build the BI into a premier resource for biodiversity science in Wyoming and the world.

A handwritten signature in black ink, appearing to read 'Brent Ewers'.

Brent Ewers
Director, Biodiversity Institute



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ERS OF BIODIVERSITY
CONSERVATION.**

”

2022 DONORS



THANK YOU!

Generous donors make it possible for us to maintain and grow our programs. We cannot say it enough - Thank you! Below are the donors from November 16, 2021 through December 14, 2022.

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Michael and Edith Allen
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Michael Erpino
Patrick and Nora Ivers
Donald and Judy Legerski
Izaak Walton League of America - Charles E Piersall Chapter

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Lori Padgett	Elizabeth & Joseph Waner
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and several anonymous donors



OPPORTUNITIES FOR PRIVATE SUPPORT

RECENT FUNDRAISING SUCCESS

In October, BI supporters from all over the country contributed over \$70,000 on UW’s Giving Day, including two major gifts toward our graduate student research grants. Our donors also helped us receive an additional \$4,600 in matches from UW Foundation and Institutional Support.

GIVING DAY 2022 RECORDS

2nd for most dollars raised out of individual academic programs

16th for number of donors in 24 hours out of 160 campaigns

	Giving Day ‘20	Giving Day ‘21	Giving Day ‘22
Dollars Raised	\$11,809	\$65,700	\$70,051
Donors	51	57	71
Challenges & Matches	1 Challenge	1 Challenge	2 Challenges; 1 Match

MAJOR GIVING

Major gifts secure a strategic role for excellence in the advancement of biodiversity research, along with naming rights. Donors receive exclusive invitations and contribute to our strategic vision.

ANNUAL GIVING

Your annual gifts support community science, K-12 education, graduate student research in biodiversity science, and novel outreach to communities like yours.

DONATIONS

Gifts, of any size, improve our ability to solve grand societal challenges of how biodiversity is generated, maintained, restored, and its impact on ecosystem services and human well-being.

To learn more about donor opportunities, please email beewers@uwyo.edu. To make a gift, please visit our website at www.wyobiodiversity.org



SOCIAL LEARNING IN MULE DEER

Albert Mason, a UW Masters student in Zoology and Physiology, is studying how mule deer fawns learn to migrate on the Wind River Reservation. Using GPS-collars on mother and fawn pairs, he is creating migration line maps to analyze how fawns learn their migration routes.

In 2022, we were able to award ten students a Graduate Student Enhancement Grant, as well as supplemental grants to two students. Since 2012, we have provided 54 grants to support the outstanding research of UW graduate students.

View this year's recipients and their biodiversity research at www.bit.ly/GradEnhancement2022

“I am honored to receive the 2022 Richard Baldes Native American Excellence Fund award from the Biodiversity Institute. I hope to inspire other Native American students to go to college and acquire critical training to help advance tribal sovereignty.”

Pictured: Albert Mason presents his research at the Riverton Science Café in October 2022.



CHILDREN'S STORIES of environmental and social justice: “Once Upon a Meadow” Podcast



A new podcast for 4- to 9-year-olds, supported by the Biodiversity Institute, is set to launch in February.

Once Upon a Meadow features fictional stories, interwoven with original music, about a community of creatures who must find ways to coexist, despite their differences.

The podcast weaves ecology and conservation into its narratives. In one episode, the animals, who have been peeing in the stream, learn that everyone can help protect shared resources.

The show is a production of the award-winning podcast Out There. The creative team consists of UW professor Jeff Lockwood, podcaster Willow Belden, composer Nadav Amir-Himmel, and consultants from QTBIPOC communities, along with a marketer, a focus group, illustrator, and outdoor educator.

Learn more at www.ouonceuponameadow.com and listen on Apple Podcasts or Spotify in February.

Novel Outreach & Education Grant

Since 2012, we've awarded 20 grants for innovative communication of biodiversity science to the public. Of the \$145,800 provided, \$56,800 came from generous donors.

Learn about our past Novel Grant recipient's at www.bit.ly/NOEGrants

Pictured: Artwork by Rosie Ratigan is part of a 2020 grant project that explored avian hybridization.





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