

THE WORLD NEEDS MORE WONDER
UNIVERSITY OF WYOMING'S
BIODIVERSITY INSTITUTE

2020



UNIVERSITY
of WYOMING

Biodiversity Institute







2018 Rocky Mountain Amphibian Project volunteers work with Dr. Dorothy Tuthill and former BI Director Dr. Carlos Martinez del Rio

MISSION:

The Biodiversity Institute fosters 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 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.

FOLLOW US:

-  Facebook: @TheBiodiversityInstitute
 -  Instagram: @BiodiversityInstitute
 -  Twitter: @WyoBio
 -  Website: www.wyomingbiodiversity.org
-

DONATIONS:

Donations accepted year-round at
www.wyomingbiodiversity.org

DIRECTOR'S LETTER

WORKING TODAY FOR OUR FUTURE

The past year has been an incredible experience – we have built on the past success of the Biodiversity Institute (BI) to move it into the future. We are committed to our mission and vision of supporting innovative research and outreach. We have provided grants to faculty and students using novel art and outreach approaches, funded graduate students' biodiversity research, and supported numerous external research and outreach grant applications led by internationally respected UW faculty.



Our audience has substantially broadened since our place-based outreach and education began operating virtually across Wyoming and beyond. We have also implemented impact assessment efforts with preliminary results demonstrating the BI is a capacity-building resource for UW and Wyoming.

As we move into 2021, the BI has never been in a stronger position because of the support from UW and the friends of biodiversity. On behalf of our team and Taskforce, please join us in building the BI into a preeminent resource for biodiversity research, outreach, and connecting science to society.

Together,

A handwritten signature in black ink, which appears to read "Brent Ewers". The signature is stylized and fluid.

Brent Ewers
Biodiversity Institute Director

DIRECTOR'S REPORT

BI TASKFORCE: UW has assembled a Biodiversity Taskforce to develop a strategic plan and vision to enhance campus-wide biodiversity research, outreach and education.

OPERATIONAL SUPPORT: The UW Board of Trustees approved a five-year operations plan for the Biodiversity Institute with a budget administered through the Office of Research and Economic Development. Our operations are secure.

UW FOUNDATION: The Foundation is elevating the BI with the full support of marketing, annual giving, foundations/corporations, planned giving, and the appointment of a new position, Director of Development for Biodiversity and Environment, Amiee Reese.

BOARD OF TRUSTEES: UW Trustee Brad Bonner (Cody, WY) is the liaison to the BI. His role on the BI Taskforce has ensured continuity of communication with leadership.

BIODIVERSITY INSTITUTE ADVISORY BOARD: An Advisory Board of Directors will engage stakeholders and supporters, as well as UW, state, and regional decision makers.

BIODIVERSITY INSTITUTE STEERING COMMITTEE: An Internal Steering Committee, composed of students, faculty, and administrators, will soon guide our budget, mission and vision and communicate with campus partners.

ASSESSMENT EFFORTS

With Bethann Garramon Merkle joining the BI team as our Impact Assessments Director, we're measuring and improving our outreach effectiveness. Some of our successes include:

- Establishing assessment protocols for tracking what volunteers learn in our community science programs.
- Gaining a better understanding of how program participants define biodiversity.
- Coaching grant recipients in assessment strategies for gathering evidence of the impacts of their work.



THE WORLD NEEDS MORE OUTSIDE THINKERS

Brent Ewers, Director

Brian Barber, Broader Impacts Officer

Kathe Carlton, Accountant

Mason Lee, Senior Project Coordinator

Bethann Garramon Merkle, Impacts Assessment Director

Erendira Abbey Morales, Social Media Manager

Amiee Reese, Development Director

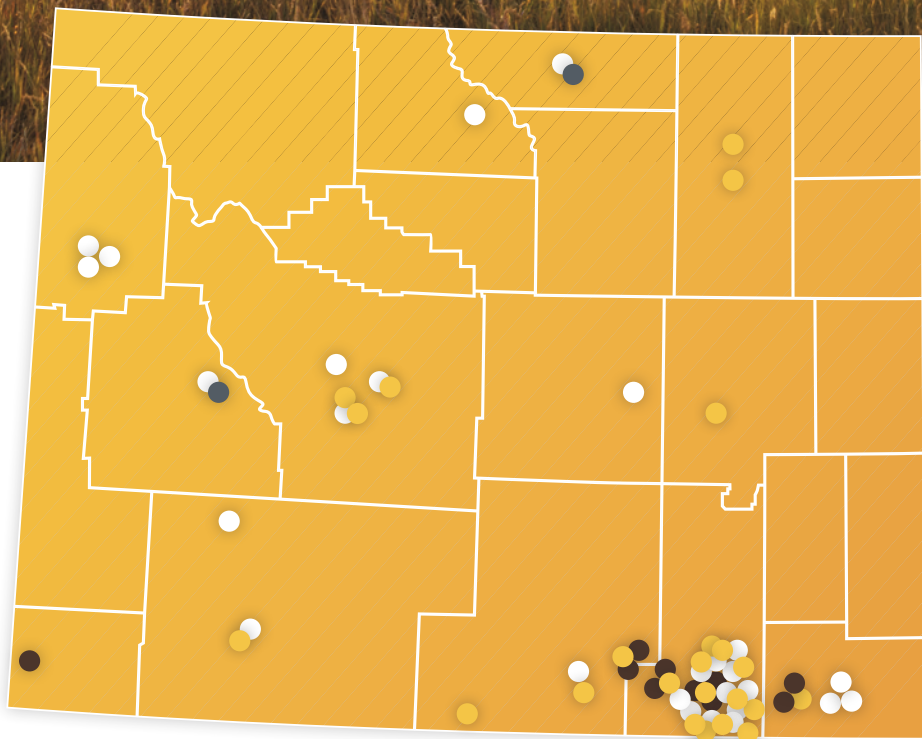
Bryce Tugwell, Digital Communications Director

Dorothy Tuthill, Associate Director and Education Coordinator

THE WORLD NEEDS MORE DEEP CONNECTIONS

Our programs are rooted in Wyoming but extend beyond state lines to national and global efforts. BI-funded research, partnerships, and educational and outreach programs occur in Wyoming and around the world including the Laikipia Plateau in Kenya, the world's longest freshwater lake, Lake Tanganyika, and the world's birding hotspot in Soberanía National Park, Panama.

BI CONNECTIONS TO WYOMING COMMUNITIES:



Community Science



K-12 Education



Educational Outreach



BI-Funded research



THE WORLD NEEDS MORE RESEARCH IMPACTS

A generous donation from Robert and Carol Berry, matched by the state legislature, led to the creation of the Berry Biodiversity Conservation Center, which opened in January 2011. In 2012, the Biodiversity Institute was established to provide leadership in the interdisciplinary teaching, research and scholarship, and outreach needed to address the central challenges in biodiversity conservation. Because of the Berry's singular generosity, we are now a resource for conducting, enhancing, and sharing biodiversity research.

THE BERRY WYOMING CONSERVATION EFFORT

Since his initial visit to Belize in 1992, Robert Berry—lifelong naturalist and expert falconer—has housed climate-controlled aviaries on his ranch near Sheridan, Wyoming. This effort supports introduction of unrelated, captive-bred Orange-breasted Falcons to Belize. Doing so enhances the species' genetics and supplements the population, which is currently listed as Near Threatened.

THE WORLD NEEDS MORE CREATIVE VISION

Dr. Carlos Martinez del Rio has an unwavering passion for the Wyoming landscape and its biodiversity. He directed the UW Biodiversity Institute during its founding years (2012-2017). Currently an esteemed ecologist and professor in Zoology and Physiology at UW, he investigates biodiversity with a focus on organisms and how they affect broader ecological and evolutionary processes.

Under his leadership, the BI became UW's center for biodiversity science-based education, outreach, and research.



OPPORTUNITIES FOR PRIVATE SUPPORT

RECENT PRIVATE FUNDRAISING SUCCESSES

The Biodiversity Institute has raised over \$100,000 in both small and major gifts and corporate sponsorships since October 2019. These donations have supported graduate student biodiversity research, K-12 education, and novel outreach and community science.

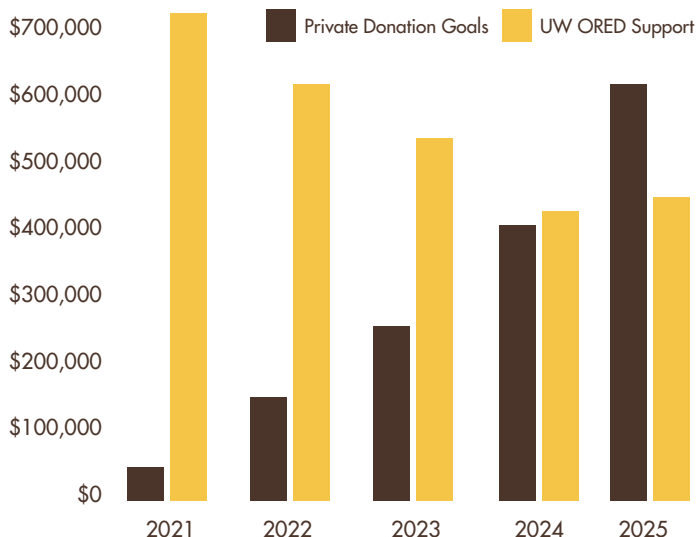
To learn more about the future and opportunities, email beewers@uwyo.edu or areese@uwyo.edu. To make a gift visit www.wyomingbiodiversity.org.

FRIENDS OF BIODIVERSITY

Contributors, at any level, receive invitations to biodiversity events, exhibits, and our new Field Days with Friends (coming soon to a community near you).

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

UW SUPPORT FOR THE BI



UW Office of Research and Economic Development (ORED) is committed to supporting the Biodiversity Institute as we leverage a stable funding base to grow with future private funds.

ANNUAL GIVING

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

MAJOR GIVING

Gifts of \$25,000 and above 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. Interested? Contact us at areese@uwyo.edu.

PLEASE HELP US BUILD CAPACITY FOR EXCELLENCE
BY SUPPORTING OUR CORE PRIORITY AREAS:

**COMMUNITY
SCIENCE,
EDUCATION
& OUTREACH:**
\$5,000 ANNUALLY
PER PROGRAM

- Wyoming BioBlitz
- K-12 Programs and Tours
- Bi-annual Moose Day
- Rocky Mountain Amphibian Project
- Art + Biodiversity Exhibitions
- Monarchs & Milkweeds
- Wind River Reservation Outreach
- Stewarding Wyoming’s Landscape through Hunting and Fishing
- Field Guides with Friends

**UW TETON
SCHOLARS:**
\$5,000 PER
STUDENT

Support UW graduate students associated with the research mission of the Biodiversity Institute at the AMK Ranch in Grand Teton National Park.

PUBLICATIONS:
\$5,000-\$25,000


Publication grants provide funds to translate research into books, field guides, and other printed material that communicate the value of biodiversity and its positive societal impacts.





Don and Judy Legerski, long-time UW supporters, have established a new endowment at the Biodiversity Institute. **The Don and Judy Legerski: UW Teton Graduate Scholars in Biodiversity** will fund graduate students conducting biodiversity research associated with the mission of the UW Grand Teton Campus at the University of Wyoming AMK Ranch. The UW Grand Teton Campus will promote understanding of Wyoming's wonders and their connections to the world by inspiring discoveries and learning opportunities that cross boundaries and foster cooperation, understanding, and discourse.

Don and Judy Legerski agree that "We love the University of Wyoming, our National Parks, and the amazing Wyoming landscapes. This gift was a perfect fit. We were able to combine these passions with this grant: to expand the University's involvement and commitment to the AMK Ranch in Grant Teton National Park and to support students through the advancement of scholarly research in biodiversity."



"The Art of Hybridization" is one of four 2020 Novel Outreach Grant recipients. The project aims to use an art and science collaboration to examine and teach about the evolutionary forces of hybridization and speciation.

**EARLY CAREER
RESEARCH:
\$100,000 PER
SCHOLAR**

This post-doctoral scholar and early career researcher program stimulates cutting-edge biodiversity research, education, and outreach. These exceptional individuals will accelerate biodiversity discoveries, elevate the national and international reputation of UW, and contribute critical insights to solving grand challenges in Wyoming and beyond.

**NOVEL
OUTREACH
GRANTS: \$20,000
PER AWARD**

Competitive grants are awarded to UW student and faculty groups that use creative, novel, evidence-based, and high impact approaches to communicate the value of biodiversity research to the public.



KATHERINE GURA, ONE OF SEVEN 2020 GSRE GRANT RECIPIENTS

“The Biodiversity Institute’s (BI’s) Research Enhancement Grant is an incredible honor and a crucial source of support for my research on the Great Gray Owl (*Strix nebulosa*) demography and seasonal movements. Additionally, because of BI’s emphasis on scientific communication and outreach, this grant will allow me to share my research and findings with a broader audience. This value of connecting the public to scientific research is one I will carry with me throughout my career.”

**GRADUATE
STUDENT
RESEARCH
ENHANCEMENT
GRANTS: \$10,000
PER AWARD**

Competitive grants awarded to multiple UW graduate students annually who demonstrate excellence in student-driven biodiversity research and communicate their research to diverse audiences.

EXPANDING AUDIENCES THROUGH VIRTUAL ENGAGEMENT

WYOMING BIOBLITZ 2020 VIRTUAL SUCCESS

Changing this in-person, weekend event to a virtual format allowed us to reach the entire state of Wyoming and garner ~300% more participants than in 2019, many of whom were first-time participants. Over 48 hours, we submitted 5,695 observations - a 10x increase from 2019. Of the 1,000+ different species observed, the most observed was the Common Yarrow (*Achillea millefolium*).



ROCKY MOUNTAIN COMMUNITY SCIENCE CONFERENCE

This year's topics related to the adapting community science programs in the age of social distancing, promoting inclusivity while going online, and incorporating community science into online education. Meeting virtually allowed us to reach a diverse audience of 70 registrants from around the country and Canada, while hearing from 20 speakers. Our keynote speaker, PhD candidate Ellen Candler, spoke about how her project, "Offal Wildlife Watching," and how she has garnered thousands of volunteers. The conference ended with Jason Baldes, who spoke about tribal bison restoration.

SOCIAL MEDIA SUCCESS

In Fall 2019 we implemented a more focused social media strategy led by a graduate student intern. This internship became a permanent position which has significantly expanded our social media reach to over 5,000 online followers from 13 U.S. states and 10 countries. Social media has been crucial in allowing us to continue our events, education, and outreach in a virtual format, while also expanding our audience and partnerships. Follow us on Instagram, Facebook, and Twitter for weekly content.

STEWARDED WYOMING'S LANDSCAPES THROUGH HUNTING AND FISHING: FEBRUARY-MARCH 2021

This in-person event was to have been an exciting and immersive two-day event at the Berry Center last March. This now virtual event will feature, Keith McCafferty, author of Sean Stranahan mystery series. The event has been reformed as a series of webinars covering habitat conservation, cultural connection to hunting and fishing and more. Visit our website for details and schedule.

- February 10, 2021: Hunting & Fishing Biodiversity
- February 17, 2021: Underrepresented Groups
- February 24, 2021: Hunting and Fishing Access
- March 3, 2021: Stories and Art to Honor Hunting & Fishing
- March 10, 2021: A Conversation with Author Keith McCafferty



LAUNCHING THE GLOBAL VEGETATION PROJECT

Regenerating montane meadow in the blast zone of Mount St. Helens eruptions, Central-Southern Cascades Forests ecoregion, Washington, USA. Submission by Michael Remke.

The mission of the Global Vegetation Project is to bring the field into the classroom in a way that was previously impossible. Contributors submit photos and location information to an online database and interactive map where “travelers” and students can virtually navigate to points and explore vegetation types. UW Plant Ecologist, Dr. Daniel Laughlin, who leads the National Science Foundation-funded project, hopes to have all 846 ecoregions around the world represented.

This BI-supported project demonstrates how BI expertise in outreach enhances and facilitates external funding to UW faculty and their students. Submit your photos and learn more at Bit.ly/GlobalVegProj



ONLINE GIFT SHOP

Visit our online store for books, field guides, and children's book exploring the rich biodiversity of Wyoming at WyoBiodiversity.net