NORTHERN ROCKIES
CONSERVATION
COOPERATIVE

Conservation for the Common Good

– Since 1987 –

2025 YEAR IN REVIEW

Dear Friends,

This is the Northern Rockies Conservation Cooperative's annual print publication, our 2025 Year in Review. We are excited to share this issue, as it highlights some of our work over the past year, and offers longer form reflections on how we are making sense of the world.

The stories in this issue reveal the dedicated work of members within our network, and our distinctive approach to conservation — one that bridges science, policy, and human understanding to create lasting solutions to the most complex challenges of our time. NRCC offers a grounded, integrative way forward. We stand as a stable force for hope and renewal.

We open this issue with a look at our people: new faces, recognitions, and achievements. On page 3 we hear from Rich Reading, NRCC Research Associate and internationally acclaimed conservationist, reflecting on his career upon receiving a recent lifetime achievement award. He conveys NRCC's critical role in our current predicament, as democracy and the environment face interrelated crises. Our efforts for Conservation for the Common Good are more crucial now than ever.

We elaborate on our approach and the distinctive problem-solving framework we employ on pages 4-5. Our method draws on the vast experience and intellectual tradition of the Policy Sciences, derived from centuries of the very best of human thinking on the common good, human dignity, and integration in complex problem solving. NRCC emphasizes inquiry, empathy, and collaboration, essential qualities for sustaining both healthy ecosystems and enduring democratic life. On pages 8-9, we convey why all this matters while reviewing how we are doing caring for our home region — the world-renowned Greater Yellowstone Ecosystem — through the work of NRCC's Network.

We hear on pages 6-7 from our Research Associate, Matt Barnes, who is on the front lines of Colorado's wolf recovery efforts. Matt began his human-wildlife coexistence work in the Greater Yellowstone, NRCC's home ecosystem and the precedent-setting region that serves as a prototype for human-nature coexistence. Matt's work, as with NRCC's, expands the influence of this region's conservation legacy across the Rockies and around the world.

Susan's essay about her new book on the life and legacy of Grizzly Bear 399 on pages 10-11 continues to reveal the story of living with large carnivores in Greater Yellowstone. She reflects on the interrelated challenges facing grizzly bear conservation, as revealed through the high-profile saga of 399, and calls for the use of an integrative framework capable of supporting true coexistence.

Finally, on page 12 an essay and artwork from inside an NRCC Network collaboration gives an example of our network's interdisciplinary work in action. Their partnership speaks to some of what's possible within an open culture of thoughtful, evidence-based problem solving that extends across disciplines and silos — a culture NRCC has fostered and embodied since 1987.

Thank you for your vital partnership over this past year. We hope you enjoy this issue.

Katie Shepherd Christiansen
Executive Director

Peyton Curlee Griffin
Board President

Susan Gail Clark
Co-Founder

NRCC People

BOARD OF DIRECTORS
Avana Andrade
Lance Craighead
Peyton Curlee Griffin
Paul Walberg
Richard L. Wallace

EMERITUS BOARD
Denise Casey
Susan G. Clark
Catherine Patrick

STAFF
Katie Shepherd Christiansen

RESIDENT EXPERTS
Ana Lambert
R.J. Turner
Richard L. Wallace
Todd Wilkinson

PROJECT PARTNERS
Charlotte Cadow
Ben LaFrance
Andrew Ray
Anna Reside

BOARD OF ADVISORS
Dick Baldes
Franz J. Camenzind
Len Carlman
Broughton Coburn
Chris Gertschen
Barrie K. Gilbert
Jim Halfpenny
Matthew Hall
Gary Kofinas
Beedee Ladd
Lindsey Larson
Sue Lurie
Thomas Mangelsen
Bernard J. McHugh
Karla Pendexter
Jonathan Schechter
Sandy Shuptrine
Donald P. Streubel
Bruce S. Thompson
Stephen M. Unfried
John Wargo
Ron M. Westrum

RESEARCH ASSOCIATES
Eric Atkinson
Michele Banowetz
Matt Barnes
Trevor Bloom
Nancy Bockino
Aaron Bott
Christina Cromley Bruner
Jesse Callahan Bryant
Kimberly Byrd
Leonard Carlman
Benjamin Chemel
Doug Clark
Elizabeth Deliso
Aida Farag
Hilary Byerly Flint
Gloria Flora
Michael Gibeau
Ann Harvey
Blake Hossack
Tani Hubbard
Hannah Jaicks
Timmothy Kaminski
Mimi Kessler
Lydia Lawhon
Carlos Lopez Gonzalez
Kyran Kunkel
Teresa Lorenz
Susan Marsh
Allyson Mathis
Nicole Mazur
Erin Muths
Clay Nielsen
Christine Paige
Debra Patla
Susan Patla
Charles Peterson
Steve Primm
AM Rasmussen
Pamela Reading
Richard Reading
Drew Reed
Corinna Riginos
Joe Riis
Murray Rutherford
Taza Schaming
Jennifer Strona
Mike Tercek
Timothy Terway
Molly Loomis Tyson
Patricia Valentine-Darby
Rebecca Watters
Jason Wilmot
Michael Whitfield
Seth Wilson
Gao Yufang

By the Numbers

55 Research Associates

25 Average Number of Employees on Payroll Last Five Years

87 Interns/Student Researchers (cumulative)

43 Active Projects

70 Partnering Organizations

54 Total Number of Workshops and Conferences

Locations of Projects In Last Five Years

12 States / **14** Countries

94% Percent Spent Annually on Program

34 Years of Longest Current Running Project

$755,128 Average Annual Income In Last Five Years

NRCC Welcomes New People

NRCC is pleased to welcome Kyran Kunkel as a new Research Associate. Christine Gertschen joined our Board of Advisors. NRCC was grateful to host two AmeriCorps Service Member Interns: Cameron Burke and Avila Kahm.

KYRAN KUNKEL
Research Associate

Dr. Kyran Kunkel has led large multi-collaborator wildlife conservation programs in the Western US for more than 30 years. Kyran is an Affiliate Professor in Wildlife Biology at University of Montana, a Research Associate at the Smithsonian Institution, a National Geographic Explorer, and founder and director of the Conservation Science Collaborative. He served as American Prairie founding Director of Wildlife Restoration and Science, a founder of World Wildlife Fund's Great Plains program, senior biologist for Turner Endangered Species Fund, and regional biologist for the Alaska Region of the National Park Service. Kyran's extensive background has included the first cougar research in the Great Plains, swift fox reintroductions, desert bighorn sheep and cougar restoration, the first large-scale and long-term study of wolves and other top predators and prey in the Western US, and a wolf-grizzly-livestock conflict prevention program in seven Western states. He collaborates on similar projects with large mammals in Nepal, Kenya, Cameroon, Botswana, and South Africa. Kyran prides himself on trusted relationships with farmers, ranchers, and indigenous partners.

CHRISTINE GERTSCHEN
Board of Advisors

Chris's storied career has been spent on the front lines of Idaho conservation, environmental education, advocacy, and engaged citizenship. Founding and directing the Sawtooth Science Institute in 1990, housed within Idaho State University, she educated thousands of Idaho teachers and students in its nearly two decades of operations. In that span, she served for nine years as Director for Idaho's Environmental Education Association. She holds teaching privileges at Boise State University, where she holds her master's degree. She remains fully engaged in creating a better future and potential for people and wildlife in Idaho and beyond. From her home in Hailey, Idaho she participates in local advocacy, outreach, volunteerism, organizing, instructing, community building, and opinion writing. She is keenly interested in the next generation: mentoring and supporting young leaders who will be those carrying the torch forward for the wild.

CAMERON BURKE
AmeriCorps Intern

Cameron (Cami) spent her childhood in Park City, Utah, soaking up any activity that connected her to nature. In 2024, she graduated from Boston College with a Bachelor of Arts in Environmental Studies and a concentration in Biodiversity Conservation. She followed her love of the outdoors to Jackson, Wyoming, where she worked as a wrangler, naturalist, and wildlife guide, before serving with NRCC during the 2024-2025 winter AmeriCorps term through Teton Science Schools.

AVILA KAHM
AmeriCorps Intern

Avila began her AmeriCorps service term in May with Teton Science Schools (TSS), and volunteered as NRCC's intern during her fall term with TSS. Originally from Salt Lake City, she attended the University of Utah, where she earned a Bachelor of Science in Economics and International Studies. Her service with AmeriCorps and NRCC comes from a passion for community-based learning, environmental education, and values in connection to place, curiosity, and learning

NRCC Associate and Partner Win Prestigious Camp Monaco Prize

Research Associate Corinna Riginos. Photo credit: Brian Bitterfield

The Camp Monaco Prize is a highly-competitive annual award presented by the Buffalo Bill Center for the West and the Prince Albert II of Monaco Foundation to foster native biodiversity conservation in the Greater Yellowstone Ecosystem. The inaugural Camp Monaco Prize was given in 2013 to a team that included NRCC Research Associate Joe Riis, focused on elk migrations. This year's $100,000 prize has gone to Research Associate Dr. Corinna Riginos and Project Partner Charlotte Cadow, along with Dr. Courtney L. Larson, together representing The Nature Conservancy in Wyoming.

The Greater Yellowstone Ecosystem hosts one of the most intact plant and animal communities in the continental U.S. But this historically invasive species-resistent region is growing more vulnerable to invasion, particularly by cheatgrass, as climate change brings warming temperatures, shifting precipitation patterns, and increasing disturbances to the landscape. Cheatgrass reduces wildlife habitat by crowding out native plants, and increases wildfire risk, drying earlier in the season compared to native grasses. Riginos and Cadow's winning project supports proactive strategies for land managers through mapping, technical guidance, and cross-boundary collaboration.

Project Partner Charlotte Cadow. Photo credit: Brian Bitterfield

Research Associate Rich Reading, pictured with wife Lauren McCain, receiving The Colorado Wildlife Society's 2025 Outstanding Achievement Award.

Reflections on a Life in Conservation

This past spring, NRCC Research Associate Dr. Richard Reading received The Colorado Wildlife Society's Douglas L. Gilbert Outstanding Achievement Award. Rich has dedicated his career to creating interdisciplinary solutions for wildlife and landscape conservation worldwide, focusing on grassland ecosystems in North America, Mongolia, Botswana, and Peru. Among other prestigious recognitions, Rich received the Order of the Polar Star, the highest honor from the Mongolian National Government for expatriates. In Colorado, Dr. Reading continues to play a vital role in the reintroduction of wolves, helping to create a framework for their recent restoration and serving as a Colorado Parks & Wildlife Commissioner. He is Vice President of Science and Conservation at the Butterfly Pavillion, a zoo and international research center in Colorado's Front Range. Here, he reflects on his journey, the influence of NRCC in his career, and what is needed for the future.

By Rich Reading, NRCC Research Associate

My earliest memory is seeing an owl on our family's patio in Elk Grove Village, Illinois. The memories that follow mostly exhibit a similar theme — animals, and particularly wildlife. Since I can remember, I always wanted to be a wildlife biologist. This evolved into a conservation biologist as I grew to understand the serious threats facing wildlife. I feel privileged indeed that my dreams eventually became reality. NRCC and Susan Clark played a key role in helping me to realize those dreams.

In 1988, Susan hired me to work on prairie dog and black-footed ferret conservation efforts in Montana through a cooperative arrangement with NRCC and the US Bureau of Land Management. With Susan's mentorship, I turned that work into an interdisciplinary PhD overseen by Susan and Dr. Stephen Kellert at Yale University. During my PhD work, Susan recruited me to help with my first international conservation work on eastern barred bandicoots — a marsupial endemic to southeastern Australia — again through NRCC.

I never looked back. Fast forward to today, where I apply the knowledge gained from Susan's mentorship to address conservation problems using interdisciplinary, policy science-based approaches. I have been honored and privileged to work with some of the brightest, most accomplished conservationists in around thirty countries on six continents, a few of which I called home for months or years at a time. I have worked with a huge diversity of critters, from butterflies to elephants and African wild dogs, and from vultures to iguanas and frogs. Similarly, I have dabbled in a diversity of disciplines, publishing in the ecological and social sciences.

When I look ahead, I see that the threats to the natural world have never been greater. The solutions to addressing these threats require novel, comprehensive, and interdisciplinary approaches. The challenges I have faced in my conservation career have included some physical discomforts, like when my car broke down in the Gobi Desert and I had to hike out some 60 km with just two liters of water. Yet the most difficult and intractable problems, by far, have arisen in the social sciences. No silver bullets exist for this task, such as working to overcome strong myths held by powerful interest groups in large carnivore conservation in North America. The conservation work we must employ is difficult and messy. Given that context, no organization is better suited to developing effective approaches to conservation than NRCC. I am proud to remain a Research Associate and look forward to continuing to learn from Susan and my other NRCC colleagues into the future.

Just the other day there was a Red-tailed hawk perched over the employee's entrance to Butterfly Pavilion, only a few meters away from entering staff. Upon seeing (and of course photographing) it, I experienced that same joy as I did when I saw the owl so many decades earlier in Illinois. Some things, it seems, never change.

Rich and Lauren in Rocky Mountain National Park, Colorado.

The Northern Rockies Conservation Cooperative: A Distinctive Model for Modern Conservation

By Susan G Clark, NRCC Co-Founder and Board Emeritus, and Katie Christiansen, Executive Director

The modern era is one marked by environmental degradation, political instability, and social divisions, all threatening to unravel the fabric of human and natural communities. This shared global situation demands different, more effective methods for solving complex issues. For nearly four decades, the Northern Rockies Conservation Cooperative has worked to refine and apply an integrative, interdisciplinary framework with the rigor and capacity required to meet this moment. Our track record is a strong list of accomplishments.

The Northern Rockies Conservation Cooperative, or simply NRCC, is built around a straightforward idea: Conservation for the Common Good. This mission acknowledges that healthy natural systems benefit everyone, that nature is a shared common good, and that we must advance human dignity, mutual respect, and well-being for all. We apply this goal to our wide-ranging work, which requires that we not only work to protect wildlife and ecosystems, but also to strengthen the democratic and civil foundations that allow human and natural communities to function and thrive together.

Working for Conservation for the Common Good means understanding not just ecology, but also the values, histories, and relationships that shape human choices. To meet this goal, we use an integrative, interdisciplinary framework grounded in the Policy Sciences — a century-old field uniting knowledge, values, and action for the common good. This approach emphasizes rational inquiry, moral responsibility, reflection, and engagement, applied through three orientations: a 360-degree view of problems, full contextual awareness, and a focus on better decision-making.

An illustrated outline of the Policy Process framework by NRCC Co-founder Denise Casey.

Being problem-oriented means holding the full breadth and depth of reality, including goals and values (*What outcome do we want?*), trends (*What is the historical context?*), conditions (*What are the causes of the problems?*), projections (*What is likely to happen?*), and imagining future possibilities (*What alternative will promote desired goals?*). Contextual awareness means that every problem is understood within its broader social, cultural, political, historical, and biophysical setting. This awareness entails identifying one's own standpoint, appreciating the perspectives of others, and navigating uncertainty and complexity with openness, humility, and rigor. It supports transition from narrow self-interest toward a perspective of the public good. A focus on decision-making and problem solving emphasizes an iterative process that leads to better, more just, durable, and democratic outcomes.

Together, these orientations form a coherent framework for action in complex systems, such as those we face today. Our textbook on this framework, *The Policy Sciences*, is now used in 30 countries. This disciplined process transforms the way we understand and address problems and, therefore, supports solutions that are deeply informed by the reality of the situation. Refined through our 38 years of experience, NRCC's network applies this framework not as abstract theory, but as a living practice honed through real work on the ground, with real outcomes.

NRCC is focused on increasing the skills, knowledge, capacity, leadership, and citizenship of individuals and communities required for coexistence. This summer, we gathered in Wilson, WY to host visiting speakers and facilitate discussion on wolves and large carnivore conservation from North America to the Himalaya. Photo credit: Matthias Marklin

We base our practice in the Greater Yellowstone Ecosystem — one of the last, most intact natural systems on Earth, and a region looked to as a beacon of hope for human-nature coexistence.

From this vast landscape of wildlands and wildlife, NRCC reaches outward, connecting scientists, scholars, practitioners, community leaders, educators, students, and policy makers in an encompassing, organic network convened around shared purpose and principles.

The open design of our network frees each of our associates to respond efficiently to emerging issues with original ideas, critical partnerships, and creative solutions. And this flexible structure and mode of operation means that our core work proceeds on low overhead and high initiative. By our very design we are nimble, innovative, collaborative, and effective.

Behind NRCC's most visible engagements — our body of research and publications, our people, workshops, courses, and events — lies our core impact: the cultivation of a critical-thinking, and problem-solving culture, and the shared commitment to building a better future.

The culture we promote values collaboration over competition, learning over dogma, and a long view over quick fixes.

We promote connection rather than control. Deep connection takes time. Much of NRCC's most essential work is immeasurable, woven into relationships, community dialogues, and civic, intellectual, and applied cultures. And much of our work operates at timescales requiring patience and tending: the cultural change we promote takes time to go from root to sprout. But change at this level is what is necessary to realize Conservation for the Common Good.

Humanity's task today is to build the outlook, intellectual, and moral infrastructure for a sustainable future. NRCC recognizes this as the underlying challenge and opportunity of our times. In response, we remain committed to our steady practice of bringing people together to think, learn, and act in the common good. We continue our work across communities and ecosystems to expand the reach of integrative problem solving that empowers people and groups to think systemically and to act collaboratively. We carry forth the legacy of conservation and democracy we so fortunately inherited, and yet that is in crisis, so that generations to come may continue to know and access the benefits of nature and civic and personal liberties. In all of this, we remain hopefully and practically engaged for the future.

We base our practice in the Greater Yellowstone Ecosystem – a prototype of the human-nature relationship. Photo credit: Chuck Peterson

Carnivore Restoration, Coexistence, and the Myths of the American West — and the Consequences for Colorado's Wolf Reintroduction

By Matt Barnes, NRCC Research Associate

Research Associate Matt Barnes talking at a campfire, from the film Welcome Home. *Photo credit: Alan Lacy, Reel Earth Films*

Through his NRCC project Reintegrating Wildness, Research Associate Matt Barnes works on the front lines of Colorado's nascent wolf recovery, after several years of working with ranchers in the wolf and grizzly country of the Northern Rockies. A rangeland and wildlife ecologist, and former ranch manager, he strives to combine the perspectives of applied science, conservation policy, regenerative ranching, and backcountry recreation to improve policy and promote coexistence. He served on Colorado's wolf restoration Stakeholder Advisory Group, and is also on the board of the Rocky Mountain Wolf Project.

To the three "C's" of restoration — cores, corridors, and carnivores — I would add a fourth, *coexistence*. Some may view "rewilding" as an absence of humans and human activity, in which case coexistence would be problematic, but the simple reality in the American West and most of the world is that wildness must be *reintegrated* into human landscapes.

Conflicts about charismatic carnivores such as wolves and grizzly bears represent a much deeper clash of worldviews, values, and visions for the future. The animals are the proverbial tip of the iceberg: the visible manifestation of that which is weightier and less visible. Issues about land and animals are underlain by social and governance issues, which are underlain by even deeper cultural issues. At the core, people are arguing for fundamentally different relationships to more-than-human nature. In that sense, we find ourselves in a cultural-religious conflict masquerading as a scientific debate.

Here in the American West, how a person feels about the history of this land and Euro-American settlement — for example, whether as a heroic pioneering epic or a genocide — likely influences how they feel about restoring extirpated carnivores. Ranchers, hunters, and trappers are more deeply connected to that frontier history than any other subculture in America. The predominant perspective of these groups holds that grizzly and especially wolf restoration is a repudiation of their cultural history. Of course, even the word "frontier" implies a certain perspective.

What's at stake here is the very origin myth of America, the myth of the frontier, and its variations in the cowboy and wilderness myths. And that mythology can be traced back to the origin myth of the entire Zoroastrian-Judeo-Christian-Islamic tradition, in which Paradise is always depicted as a garden, juxtaposed against the wilderness, with humans as God's hired gardeners. (Moreover, in that myth, it is when we make a mistake in our caretaker role that we lose our connection to the divine and are cast out of the garden and into the feared wilderness.) We hear echoes of this mythos in ideas like "the balance of nature" as well as in sentiments like "wildlife must be managed." That very identity is challenged by carnivore restoration.

What we need most may be to find a way for all perspectives in this debate to be recognized as partially true: scientifically, of course, but also mythically. This will need to begin with viewing the various perspectives not as two sides and a middle, but as an evolution of stages where each successive stage must transcend-and-include the previous. Where our earliest and deepest mythos can, and probably must, be included in, rather than erased by, our later and broader values and traditions. Here we must recognize our longstanding cultural emphasis on all things domestic over all things wild, and expand our ethos of care to all of life, not just those aspects we find useful; but also, re-*membering* or re-imagining ourselves as part of that world.

For those of us who value wildness, we need to recognize that further gains in carnivore restoration will be made not in some vast or distant wilderness, but here on working landscapes, centered on those parts of the mountain West with relatively large amounts of public land and native prey populations. We need to redefine old ideas like balance, management, stewardship, and even sustainability. We will not stop harvesting resources, even as we

Colorado holds a lot of potential for wolves, but it all hinges on interaction with humans. Photo credit: Ben Bluhm

recognize that nature is far more than resources to be harvested. We need a new archetype, not just the agrarian gardener-steward, and not a new-age return to a hunter-gatherer master-of-the-animals, but one that blends aspects of these older ideas with newer ones informed by ecology, conservation biology, the policy sciences, and more. Here at NRCC, we call that Conservation for the Common Good, and recognize it as an ever-evolving ethos.

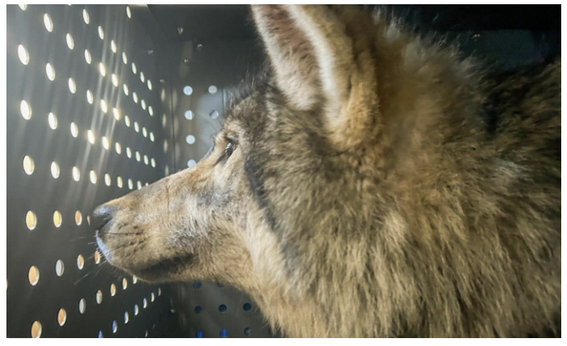
Colorado's wolf reintroduction illustrates the debate over carnivore restoration in the West. In many ways it continues the restoration begun more than three decades ago in the Northern Rockies. Many of the arguments and debates are familiar, but there are foundational ways in which Colorado is trying to do it differently.

The Southern Rockies, stretching from southern Wyoming across western Colorado to northern New Mexico, have a matrix of public and private land — a working landscape — and a human population density similar to the Northern Rockies (about 12 people per square mile). But there are no large core wilderness areas in the Southern Rockies comparable to those in the north, including the vast landscapes of the Greater Yellowstone Ecosystem, the Northern Continental Divide, and the Frank Church-River of No Return Wilderness. The state of Colorado contains about as much public land as Greater Yellowstone, and about as many elk (wolves' primary prey) as Wyoming and Montana combined. Colorado holds a lot of potential for wolves, but it all hinges on interaction with humans.

The Southern Rockies are also an island, and wolves from the north simply weren't finding it at a rate that would establish a population. A few years ago, I explored potential corridors to northwestern Colorado, and it was clear that anti-carnivore policies such as Wyoming's "predator zone," where wolves can be shot on sight across 85% of the state, were preventing natural recolonization of Colorado.

In 2020, Coloradans voted to restore wolves: the first use of direct democracy, anywhere in the world, to restore an endangered species. I had hoped this would make wolves more palatable than a federally-led program, but it has played out with no shortage of conflict. There have been at least five major attempts to derail the program, including lawsuits, petitions to the Parks and Wildlife Commission, and a bill in the state's General Assembly. In the latter case, I co-wrote a letter with NRCC's Executive Director Katie Christiansen to all Democratic members of the legislature, showing how that bill was anti-democratic, and I testified in committee hearings. Ultimately, the bill was amended to remove its worst language, but still successfully de-funded the state's reintroduction program. Now we have continued demands for a "pause" combined with the federal administration interfering by claiming that sourcing wolves from Canada is a violation of the experimental population designation, known as the 10(j) rule — a flip-flop from the federal opinion under the previous administration, when the US Fish and Wildlife Service actively supported Colorado in obtaining wolves from British Columbia.

Despite rhetoric to the contrary, Colorado is doing more to support its livestock producers in coexisting with wolves than any other state in wolf country. Colorado Parks and Wildlife (CPW) has created arguably the most robust livestock conflict minimization program in the nation with tools like range riders, flags, noise makers, and lights — largely supported by voluntary purchase of the 'Born to be Wild' license plate, developed by the Rocky Mountain Wolf Project, which has already raised more than $1 million for conflict minimization. Most of that money is being used on the Colorado range rider program, administered by CPW and the Colorado Department of Agriculture — which is only the third state-led range rider program in the country. Moreover, the CPW Commission's wolf-livestock compensation program is the most generous compensation program for any predator in North America, if not the world.



Colorado's gray wolf reintroduction is in progress, yet remains precarious and is under political attack. Photo credit: Colorado Parks and Wildlife

As of late 2025, Colorado's wolf population numbers only about twenty adult wolves, and the reintroduction remains precarious. All of the ecological benefits of wolves depend on a significant population size — exactly what the "pause" in releases proposed by anti-wolf groups is intended to limit.

We are continuing to work with our agencies, our friends in the ranching and hunting communities, and other conservation organizations to reduce conflict and find solutions. But if there is one thing we know from the Northern Rockies, it is that coexistence is a long game.

Caring for Greater Yellowstone

By Peyton Curlee Griffin, NRCC Board President

Can you find the whitebark pine researcher in this photo?
Photo credit: Colin Wann

The answer to the perennial question *"How well are we taking care of the Greater Yellowstone Ecosystem?"* varies depending on who you ask.

For a first-time visitor to the region, this might be one of the wildest and most amazing places imaginable. Home to grizzly bears, bison, far-ranging elk and pronghorn, along with otherworldly geothermal features, I'd agree that this place is truly wondrous and wild. However, a longtime resident might express concern about increasing traffic, hot summers, commercial development, and the subdivision of ranch lands. I'd agree with them too. A Tribal member whose ancestors were the First People of these lands and waters might describe how their rights were taken away, their culture was absorbed, and that the air, water, fish, birds, and wildlife of this region are not being respected, and I would also agree.

Duality and plurality are fundamental to human culture and history. Charles Dickens, writing about the French Revolution, recognized this truth when he said it *can be both* the best of times and the worst of times. It's natural and tempting to see only one side of an issue — to rely on our singular perspective, experience, and values. But to see only one side threatens to disconnect us from a full understanding and causes us to lose sight of common ground. In the Greater Yellowstone Ecosystem, many things can be true at once. If we work to identify and connect these different truths, such unity will be a vital step toward protecting the best of this cherished place and ensuring it remains a wild treasure for our children, grandchildren, and future generations.

Across the ecosystem, many dedicated people work every day to elevate and preserve the best of our region's natural and human resources. Their work offers critical perspectives on the status of our care of the region. Many of these individuals have warned us that we shouldn't take the persistence of the GYE's biodiversity for granted. While this region is unlike any other in the lower 48 — in that it still supports the full range of mammals that existed here before Euro-American settlement, including healthy populations of top predators like grizzly bears and the long-range seasonal migrations of deer, elk, and pronghorn — there is no guarantee that this abundance will persist. *Both things are true.* The future of the GYE's wildlife depends on humans' ability to change our current course and integrate our perspective to include much larger temporal and spatial scales.

The Northern Rockies Conservation Cooperative supports a vibrant network of Research Associates (RAs) and Project Partners (PPs) that generates vital evidence about the condition of the region's natural functions and biodiversity, as well as the effectiveness of our decision making and governance. These experts come from various fields, subjects, and approaches, all united by a shared commitment to Conservation for the Common Good. Their research offers valuable insights into how effectively we are safeguarding this unique region and how we can make improvements.

Tracking a Changing Climate

Mike Tercek (RA) created *ClimateAnalyzer.org*, an open-access platform for researchers, students, and citizens that compiles GYE climate data from the 1890s to today. His models and visualizations help land managers, policy makers, and citizens understand regional climate trends and plan for adaptation in a rapidly changing world.

Illuminating Climate Impacts on Plants

Trevor Bloom (RA) explores how shifting climate conditions are altering the stages of plant development, such as flowering, and how those changes have effects on trophic systems and connected species from pollinators to herbivores, omnivores, and carnivores. Through his research, outreach, and citizen science Wildflower Watch initiative, he has partnered with The Nature Conservancy (TNC) and the National Park Service, and made films including *For Everything There Was a Season*. Trevor is currently working with **Corinna Riginos** (RA) and **Charlotte Cadow** (PP), both with TNC, to carry out experimental field studies to establish best practices for maintaining and restoring native grasses while limiting the spread of invasive species like cheatgrass.

Conserving a Keystone Species

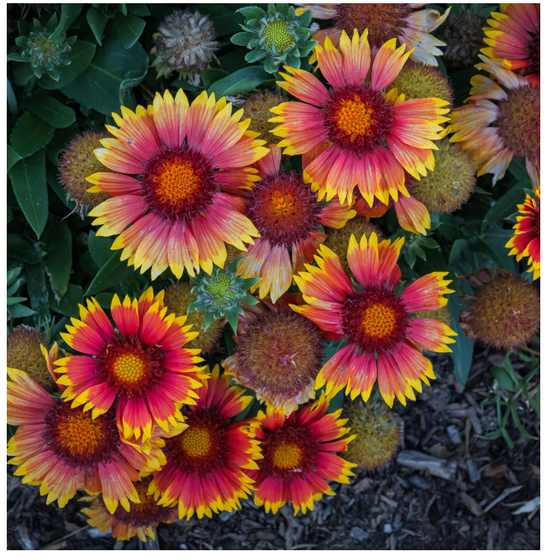
On high mountain slopes across the GYE, **Nancy Bockino** (RA) and NRCC's Whitebark Pine Team lead research, conservation, and restoration efforts for whitebark pine, a threatened keystone species vital to snowpack retention, watershed stability, and diverse wildlife species. Together with **crew member Colin Wann**, Nancy has produced educational videos (Vimeo: *For the Love of Whitebark Pine*) that highlight the tree's mutual relationship with the Clark's nutcracker and its importance to the high altitude ecosystem's resilience.

Monitoring the Health of Wetlands and Amphibians

Amphibians perhaps best exemplify the many forces that are changing this landscape and threatening its survival. These sensitive indicators of ecosystem health have been the focus of research and conservation efforts within NRCC's longest-running program — spanning 38 years. Our Amphibian Team of RAs, PPs, and field leads, including **Debra Patla, Chuck Peterson, Andrew Ray, Ben LaFrance, Mary Greenblatt, Erin Muths, and Blake Hossack**, have been monitoring GYE amphibian populations and wetland dynamics as water regimes change, road and housing development increases, pesticide use proliferates, UV exposure rises, and diseases like chytrid fungus and ranavirus threaten native frogs and salamanders.

Beyond Park Boundaries

Gao Yufang (RA) and Susan Clark (NRCC Co-Founder and Board Emeritus) collaborate on many publications regarding the challenges and opportunities for coexistence present within the GYE. In their forthcoming co-authored book chapter, they trace the history and evolution of the Greater Yellowstone's "ecosystem" concept, examine current challenges amid rapid environmental and social change, and recommend practical, sustainable, and publicly supported improvements to science, management, and policy. For a more robust resource, Susan's 2021 book, *Yellowstone's Survival*, takes stock of the whole system and context, and outlines a roadmap for the work ahead.



Climate change is shifting the timing of plant flowering, with rippling effects.
Photo credit: Chuck Peterson

Chuck Peterson of NRCC's amphibian crew in YNP's habitat for Western tiger salamanders, boreal chorus frogs, and Columbia spotted frogs.
Photo credit: Chuck Peterson

A Path Forward for a Resilient Future

The conservation successes of the 20th century — bringing back bison, grizzly bears, wolves, and eagles — were achieved through collective action and organization around a shared goal. We owe an enormous debt of gratitude to those who came before us and worked hard to protect this place from the permutation that has undermined natural systems across much of the rest of the lower 48 states. I give thanks every day to share this land with moose, eagles, whitebark pines, and many wild neighbors who I hope will have the resilience to survive far beyond my lifetime.

But the challenges of the 21st century are perhaps more daunting. Intertwined economic, social, political, legal, ecological, and other obstacles present us with great complexity. The degree to which we share goals is opaque. The scope of the problem requires knowledge and experience that can complement the strong technical science skills already developed.

The question before us is no longer "*How well are we doing?*" but "*How can we do better?*" To preserve the gift of this place, we must scenario-plan and co-learn what is happening to the GYE and create a shared goal to improve. Our ability to better coordinate across jurisdictions, landscapes, and the long timelines inherent in the biophysical processes and biodiversity of this region ultimately rests on how we organize ourselves for the challenge.

NRCC's network is future-proofing the GYE by helping chart that path forward. We remain committed to connecting people and organizations through our open and organic network of skilled professionals. Our Research Associates and Project Partners embody many of the critical elements called for now: coordination around a shared goal, a collaborative and innovative spirit, and a rigorous problem-oriented approach to the complex, real-world issues of our time. The NRCC Network is helping ensure that the Greater Yellowstone Ecosystem — its wildlife, waters, and people — endures as a living legacy for generations to come.

Reflections on People and Grizzly Bear 399

By Susan G. Clark, NRCC Co-Founder and Board Emeritus

How we understand ourselves and how we value wildlife underlies our relationship with the natural world and all opportunities for future coexistence. Photo credit: Chuck Peterson

Through her descendents, 399 will continue to shape how people value and understand bears – and coexist with nature – for generations. Pictured here is one of the triplets of Grizzly 610, who was one of Grizzly 399's daughters. Photo credit: Ben Bluhm

For many years, Grizzly Bear 399 was the most famous bear in the world. Her prominent presence and long life in the wilds of the Greater Yellowstone Ecosystem, along with her encounters with the modern landscape, made her a beloved household name. She faced heavy tourism, encroaching human development, and road traffic, all while caring for dozens of cubs. Her death, after being hit by a car in Teton County's Snake River Canyon in October 2024, was a major event with lasting impacts on humanity's ongoing efforts in wildlife conservation.

Grizzly 399 was a real animal with a complex ecology and behavior, yet she also carried deep symbolic meaning. And the meaning varied among and within different communities. This fact directly reflects people's core values. Values are entities or events regarded as valuable or desirable because they meet the needs of individuals and groups. Newspaper articles, letters, and social media all reveal the values of people involved in the 399 saga.

Grizzly 399's death prompted me to consider the public's response, government actions, and the future of bear and wildlife stewardship in the rapidly changing Greater Yellowstone region. The result of my efforts is a short book that explores 399's story, larger issues of coexistence, including the current management program (for example, bureaucracy), and ways to improve conservation efforts. I draw on my 57 years of living and working in the Greater Yellowstone Ecosystem, beginning with my own fieldwork on grizzly distribution and abundance in Teton County during the 1970s. Over the years, I've continued to observe and, at times, actively participate in grizzly bear conservation. I base these insights on my experiences, as well as knowledge from other carnivore management programs, social sciences, and interdisciplinary fields.

> *"As our world continues to change rapidly and become more complex, systems thinking will help us manage, adapt, and see the wide range of choices we have before us."*
>
> Dr. Donella Meadows, American environmental scientist, 2008

The people-value dimension in bear conservation was overlooked as a scientific and pragmatic matter. Given this oversight, interactions were dominated by conventional notions among individuals, bureaucracy, professionals, the public, researchers, and leadership. This inattention to people's values is at the root of the conflict in the 399 story. Values are about functional interpersonal relations, including respect, power, rectitude, affection, well-being, wealth, enlightenment, and skill. The individuals and groups include those of us who lived nearby and were responsible for her care. It also involved the public, and especially scientists, managers, and policymakers. 399's story shows what happens when conflicting values and views clash, hindering a cooperative and comprehensive conservation effort.

Over the past 50 years, Greater Yellowstone's grizzly bear recovery program has increased the region's population from 150 bears in the mid-1970s to about 1,000 today, without systematically or explicitly including people's complex value wishes. This biological progress was made possible by the dedication of many individuals, both within and outside government, and by an investment of more than $50 million to achieve this significant growth.

The program encountered numerous technical, operational, and governance challenges, along with complex social and cultural issues. Values have been addressed implicitly, perhaps unconsciously. However, value dynamics and deep structural problems have hindered the development of more effective coexistence policies, risking the future of Yellowstone's grizzly bears. These issues — truly systemic problems — relate to bureaucracy, professionalism, research approaches, and leadership that support our current conservation system. Sadly, these systemic problems are often ignored or insufficiently addressed, as is the dynamic between people and values.

The story of 399 illustrates the interconnected systems and value dimensions at play in conservation arenas. It highlights our tendency to overlook the systems and cultures that shape human-wildlife coexistence programs. People and institutions often focus only on certain parts of a system, which usually worsens a polarized situation and hinders a shared understanding of people and conservation efforts. 399's story raises the question: How can we break this cycle and find common ground?

The history of 399 and the GYE's long-term grizzly bear conservation efforts raise important questions — practical, conceptual, and philosophical — about our connection to bears, wildlife, and nature. As challenges grow, we can no longer ignore these system and people-value issues. The future of conservation and collaboration depends on our ability to address these as a whole. The story of 399 provides crucial lessons for promoting coexistence.

> *Perhaps 399's most important legacy is as a spark, prod, and opportunity to fully and meaningfully engage with each other around basic problems and questions of human-wildlife coexistence.*

Coexistence can be a unifying goal for all of us, not just a vague hope. By coexistence, I mean a dynamic, context-dependent governance outcome where both people and wildlife can thrive in shared landscapes. Achieving this requires aligning human values and activities with ecological processes across the entire Greater Yellowstone Ecosystem — rather than, as is common now, prioritizing human behavior over ecological realities and wildlife needs. For it to be meaningful, coexistence must be clearly articulated, actively pursued, and integrated into culture, policy, and practice.

Ultimately, my upcoming modest book aims to help us adapt our conservation system for greater effectiveness. I emphasize that the improved system should be more realistic, relevant, contextual, strategic, and flexible than our current program. To support this upgrade, I offer an actionable problem-solving framework that anyone can use to promote wildlife and nature conservation. It focuses on people's functional views and interactions. It can help us increase our rationality and practicality and clarify the reasons for coexistence in the first place.

This system could improve overall conservation efforts, resolve conflicting viewpoints, build trust in government, and support both democracy and environmental sustainability. My recommendations are based on the work of many dedicated, hardworking individuals inside and outside of government, as well as those across the social sciences, ecological sciences, and policy communities, who together forge new paths toward coexistence. Ongoing support from these experts, public servants, leaders, and activists — within a strengthened system — is vital for a healthy future.

Coexistence requires aligning human values and activities with ecological processes. This is in contrast to the predominant operating principle today of prioritizing human behavior over ecological realities and wildlife needs. Grizzly 1063 with cubs. Photo credit: Ben Bluhm

Drawing from the Field: An NRCC Network Art and Science Collaboration

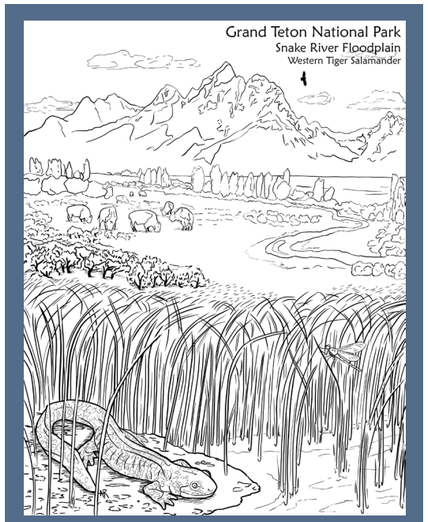
The Northern Rockies Conservation Cooperative is an incubator for interdisciplinary partnerships. We foster a culture of collaboration and collective effort among our network of diverse experts. NRCC's amphibian team exemplifies this collaborative and interdisciplinary culture. Their recent amphibian conservation photo and education exhibit (based on photographs from Research Associate Chuck Peterson) has traveled throughout the Greater Yellowstone region, and a science and art partnership between Project Partner and field scientist Andrew Ray and Research Associate and artist AM Rasmussen has produced coloring pages, stickers, and other visual outreach materials.

Here, Executive Director Katie Christiansen converses with AM and Andy on what drives and shapes their partnership, and about their collaborative work to broaden engagement on amphibian conservation.

1. Why is collaborating with an artist/scientist meaningful to you?

AM: It is important to me to create illustrations that are interesting and attractive, but most importantly, true. Collaborating with scientists means I have access to their expert knowledge and personal familiarity with organisms and systems that aren't accessible in other ways. I have the privilege of combining their knowledge, experience, and passion with my curiosity to create art that informs, excites wonder, dispels misunderstanding, and presents science and nature to people of all ages, education levels, and backgrounds.

Andy: Collaborating with artists makes the topic of conservation more accessible and engaging. In my field work, I study amphibians in their natural habitats — experiences few others have on a regular basis. Art adds depth to field science by bridging this experience gap and capturing the beauty and complexity of species and their critical habitats. This excites people and sparks curiosity that leads to deeper understanding, future interest, and, hopefully, support for conservation. In my experience, thousands of written words simply cannot create the kind of impression that an artistic rendering does.



A coloring page depicting the Western tiger salamander set in Grand Teton NP's wetland habitat, created through a partnership between NRCC Network members artist AM Rasmussen and field scientist Andrew Ray.

2. What does the collaborative process typically look like?

AM: Collaboration involves a lot of questions. Foremost of those questions are "What is the purpose of the illustration," and "With whom are we communicating?" Once we establish those answers, Andy and I use them to inform decisions like art style and medium, organism's pose, and level of artwork detail. I then get to ask smart people, like Andy, a lot of questions about really cool nature and science! Using these exchanges, I create sketches that generate more questions about the organisms, their habitat, and how to tell their story. Through multiple iterations, we refine the ideas and the sketches until we feel it communicates what we want.

Andy: The process starts with a conversation about the project's goals. AM's science background allows her to quickly grasp natural history elements and the overall vision. We work back and forth on key features, including the positioning of an organism and habitat elements. Before finalizing, we often consult subject matter experts and field biologists to ensure accuracy. Since national park lands serve as the backdrop for our work, we also consider ways to highlight iconic features of national parks that emphasize associations and connect visitors to less understood park resources.

3. What do you hope will emerge from this collaboration?

AM: I hope to continue these types of projects and collaborations, and to share them with as many people as possible. It is really neat to see how our projects help introduce people, especially young audiences, to amazing and important aspects of our natural world. It's wonderful to hear people are enjoying the stickers and coloring pages and to know I've helped inspire curiosity and positive impressions. Andy and I have more projects in the works that inspire personal work, like a watercolor salamander series and a comic about a tiger salamander in Yellowstone.

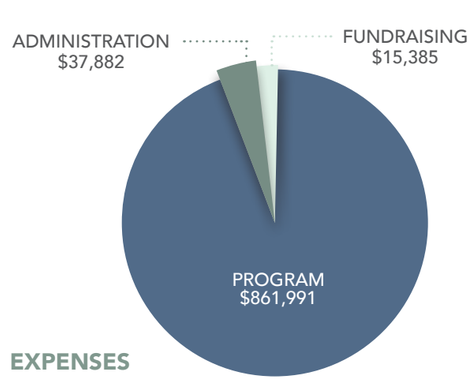
Andy: I've seen firsthand how art captures attention — whether it's a child excited by a sticker for their water bottle or an educator using a coloring page to spark conversations about conservation, natural history, or ecology. Interactions around art open doors and provide an opportunity to discuss our monitoring and conservation work in national parks. A new project we have in the works is a thematic coloring book featuring a compilation of species and habitat stories from national parks all around the country. I'm excited to keep building on the momentum of this partnership and using art as a powerful entry point to conservation.

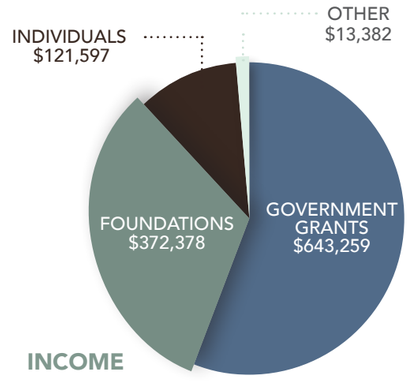
Boreal chorus frog illustration and sticker, by AM Rasmussen

2024 Financial Report

NRCC is a 501(c)3 non-profit organization headquartered in Jackson, Wyoming. Our revenue comes from a wide variety of sources, including foundations, government agencies, and individuals. We hope you too will consider supporting our work and we thank you if you already have.

In 2024, 94% of all expenditures directly supported conservation projects.





NRCC would like to extend a special thank you to each of our supporters

David Adams
Joe Albright and Marcia A Kunstel
Peter D and Charlotte Alexander
American Forests
Anonymous
Arch and Joanie Aplin, Greater Houston Community Foundation
Carol Baker and Mark Stein
Sybilla Balkanski
Bartlett Family Donor Fund
Cynthia Bloom
Joe R and Nancy R Bohne
William Ferdie Bradley Jr. Foundation, Greater Kansas City Community Foundation
Reid M and Anne S Buckley
Burroughs Nature Study Club
Franz J Camenzind
Ann and Vance Carruth
Linda and James Cherney
Geneva Chong and David T Barnett
Frances H Clark
Susan G Clark and Denise Casey
Brot Coburn and Didi Thunder
Colorado State University
Betsy A Collins and Mary Whitney
William E Collins and Lokey Lytjen
Community Foundation of Jackson Hole (CFJH)
CFJH – Anonymous
CFJH – Old Bill's Fun Run Co-Challengers and Friends of the Match
Cony Corporation
Jordan Cook
Eugenie CT Copp and Ken Overfield
Eva Crane
Mitchell Dann
Anna-Lisette Davis and Daniel Abraham
Steven D Deutsch
Lloyd J and Michele W Dorsey
EcoTour Adventures, LLC
Dennis S Emory – In memory of Liza, the dog
Patty D Ewing
Aïda Farag
Gibson, Dunn & Crutcher LLP
Greater Yellowstone Coalition
Mary and Daniel Greenblatt
Jim and Peyton Curlee Griffin
Chuck Harris and Karen M Jerger
Ann H Harvey and Michael Campbell
Bruce M Hayse and Susan L Bullock
Janice L Hayse
Holdfast Collective, Marin Community Foundation
Jackson Hole Mountain Resort
Jackson Hole Public Art
Lisa Johnson
Jeff and Diane Jung
Knobloch Family Foundation
Gary Peter Kofinas
Kevin and Sue Kroeger
Berthe K Ladd
Danni Langdon and Carl Jacobson
Mary Mathil Lohuis
Susan Lurie
Jessica Mann
Linda A Mars
Vance Martin
Heather L Mathews
George K McClelland, Jr
Bernard McHugh
Joan and Fillmore McPherson III
Dean Millsap
Carl Mitchell
Tom Montgomery
National Park Service
Kenneth and Jacqueline Oldham
Panthera Corporation
Panoram Foundation, Inc
William Pasfield
Debra Patla and Merlin M Hare — In memory of Bert Raynes
Susan Patla
Peak Performance
Bradley and Julia Imber Peck
Rangeland Foundation
Andrew Ray
Dana and J. Mark Ray
Pamela and Ed Reading
Beverly Rollings – In memory of Brent Brock
Jonathan and Alex Schechter
Maggie and Brian P Schilling
Michael K and Claudia G Schrotz
Sandy and Dick Shuptrine
Eugene Simonov
Rebecca and Samuel Singer
Clark Sisk and Sharon Marshall
James (Doug) Smith
Mona Powers Sobieski
Edward Spevak
Kim B and Jim Springer
Gordon and Elizabeth Stephenson
Nancy H Taylor
Stio
Studio Marklin LLC
Meredith and Tory Taylor
Tenley Thompson and Daniel Bowen
Stephen M and Amy Unfried
USDA Forest Service
US Geological Survey
Heinz K and Trudi Walter

This list reflects all support received between Oct.1, 2024 and Sept. 30, 2025
Photo credit: R.J. Turner

NORTHERN ROCKIES
CONSERVATION
COOPERATIVE

185 Center St. Ste. C/D
P.O. Box 2705
Jackson, WY 83001

Support NRCC today!

Donations from supporters are critical to continue our conservation efforts. Please make your gift online, or use the enclosed envelope, today.

Cover photo of grizzly bear by Photographer-in-Residence R.J. Turner
Back cover photo of Mount Moran, Grand Teton National Park by R.J. Turner
Year in Review designed by Creative Curiosity creativecuriousitygraphics.com