GLACIER NATIONAL PARK CONSERVANCY

2020 PROJECT FUNDING NEEDS



FOCUS ON THE FUTURE

Glacier Conservancy 2020 Priorities

This year we celebrate the 20th anniversary of the founding of the Glacier Fund – the Conservancy's predecessor as Glacier National Park's official nonprofit fundraising partner. That visionary group had a big idea: private philanthropy could educate future stewards, inform leadership decisions through scientific research, and preserve the place that means so much to so many.

Today we stand on the shoulders of those visionary leaders. With the support of a growing family of generous contributors like you, we are proud to announce a record 75 grant projects for 2020, totaling over \$2.5 million in private support to our beloved Glacier National Park.

The following pages are dedicated to sharing a personal, in-depth view of the signature projects that distinguish this public-private partnership between the Conservancy and the park as among the most dynamic, productive and impactful of its kind. We hope you'll take a minute to settle into a comfy chair and give it a read. And when you are done, we hope it will stay on your coffee table as a reminder of the important work that you make happen. Together, we're making the impossible possible as we write the next chapter in the history of one of America's greatest natural treasures, Glacier National Park.



John Donovan Chairman, Board of Directors



Dr Withell

Doug Mitchell Executive Director



Cover: Lynx / Bastian Sander Right: Highline Trail / Bob Webster

"The national park idea has been nurtured by each succeeding generation of Americans. Today, across our land, the National Park System represents America at its best. Each park contributes to a deeper understanding of the history of the United States and our way of life; of the natural processes which have given form to our land, and to the enrichment of the environment in which we live."

> - George B. Hartzog, Jr. NPS Director, 1964 -1972





NATIVE AMERICA SPEAKS

Glacier's Indigenous speaker series is the longestrunning in the National Park Service.

The Native America Speaks program, now in its 35th year, is the cornerstone of the park's tribal community engagement project. With continued Conservancy support, the park will employ a full-time ranger to enhance relationships with local tribal communities. It will also support a VISTA volunteer to help create training programs enabling young Blackfeet to find employment in Glacier, and will fund over 100 Native America Speaks presentations throughout the park and on the Blackfeet Indian Reservation.

Funding Needed: \$151,827



Mariah Gladstone ' Shelby McGrady

Sharing Culture

"My father co-founded the Native America Speaks program to amplify Indigenous voices and give a deeper context to this land. It is humbling to share in that legacy and help visitors recognize the roots we have grown over millennia."

- Mariah Gladstone, Blackfeet Culinary Artist and Creator of Indigikitchen

Blackfeet Indian Dancers / Donnie Sexton

CITIZEN SCIENCE

Since 2005, Glacier's citizen science program has invited the public to assist in biological research while recreating in the park.

Glacier National Park's sheer size makes it impossible for the park's few fulltime biologists and scientists to assess the park in its entirety and collect the full scope of data they need. That's where Glacier's citizen science program comes in. This vibrant program allows volunteers to explore, research and learn about Glacier's resources and wildlife, while simultaneously collecting valuable data for park managers.

No Scientific Background Required

Anyone can participate in the citizen science program. This empowers visitors who already plan to recreate in the park to participate, whether that be hiking in the alpine or bird watching along one of Glacier's many beautiful lakeshores.

Already a successful program in Glacier, citizen science is a true public-private partnership with numerous stakeholders and participants in the government, nonprofit, tribal and educational communities. The program helps address a growing list of research and monitoring needs concerning mountain goats, bighorn sheep, pikas, Canada lynx, loons, golden eagles, black swifts, terrestrial and aquatic insects, fungi and invasive species.

Glacier National Park Biologist and Citizen Science Coordinator, Jami Belt, says, "We have a lot of species in the alpine that we want to know more about. What we don't know in the alpine could fill a book." This grant will help provide core funding for staff, expand equipment capabilities and provide overall support for a program that engages park visitors and students in work that delivers actionable results for park researchers and leaders.

Funding Needed: \$ 61,000



Black swift research. / NPS Right: Harelquin duck research on McDonald Creek. / NPS



"My favorite part about the program is how citizen scientists make their own discoveries while doing surveys. They develop their own hypotheses about why wildlife are doing what they do. Many of these hypotheses are brilliant and give us really good food for thought or directions for future research."

– Jami Belt, Biologist and Citizen Science Coordinator Glacier National Park

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2020 PROJECTS

PRESERVATION

- 1 Lake McDonald Barn Rehab
- 2 Backcountry Invasive Weeds Management
- 3 Restoring Harlequin Duck Habitat Phase II
- 4 Fuels Reduction in Greater Apgar Area
- 5 Connecting with Park History
- 6 Digitize and Preserve Historic Motion Picture Film Phase I
- 7 Remove Creosote Lumber from Quartz Lake Trail
- 8 Restoring Clark's Nutcracker, Whitebark and Limber Pine
- 9 Addressing the Impacts of Increasing Visitation Phase II
- 10 Cultural Resources Internship
- 11 Hydro-excavation Trailer
- 12 Park Produced Publications
- 13 Operate Spring Hiker Biker Shuttle on the West Side
- 14 Respond to Increased Visitor-Wildlife Encounters
- 15 St. Mary Auto Shop Tire Machine
- 16 Grizzly Point Photovoltaic Replacmemnt
- 17 Granite Park Photovoltaic Replacement
- 18 Green Glacier's Rides
- 19 Increase Recycling Awareness
- 20 Belly River Cultural Monitoring Phase I
- 21 Gracie Refresher Training
- 22 Operational Effectiveness
- 23 Tribal Tourism Partnership
- 24 Crown Managers Partnership
- 25 Wilderness Character Mapping Phase I
- 26 Lead Backcountry Rangers
- 27 River Patrol Rangers
- 28 Prevent Catastrophic Mussel Infestation
- 29 Increasing Ranger Station Staff at Many Glacier Valley
- 30 Create Accessible Camping Opportunities
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- 32 Swiftcurrent Accessible Trail
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- 36 Reducing Non-Native Plant and Animal Infestation
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- 42 Investigating Vegetation in Fire-Disturbed Areas
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- 65 Two Dog Flats Native Plant Recovery
- 66 Grassland Health Monitoring
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- 69 Grizzly Bear Diet Study: Cutworm Moths Year II
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- 72 Great Gray and Boreal Owl Surveys
- 73 Black Swifts: Monitoring and Sharing Results
- 74 Bighorn Sheep Movements
- 75 The linnii Iniative: Monitoring Impacts to Elk Herds







SHADOW OF THE FOREST

Determining Lynx Population Status in Glacier

Did you know that a lynx can spot a single mouse from 250 feet away? This mysterious cat, known as the "shadow of the forest," has been rarely studied in Glacier because Montana is near the southern extent of their range.

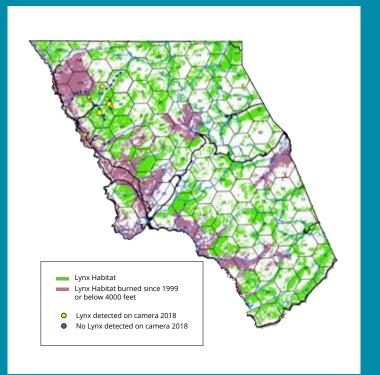
Threatened Species

The majority of lynx live in Canada and Alaska, so most lynx research has derived from further north. This landmark study will change that by providing critical, actionable science about the distribution, habitat use and travel patterns of lynx throughout the park. This work is particularly critical as the Canada lynx is listed as a threatened species under the Endangered Species Act and will likely be heavily impacted by climate change, especially in Glacier, at the southern limit of their range.

Cameras Provide New Approach to Research

This study will survey lynx across the entire park and will give researchers a better understanding of where lynx are currently living in Glacier. Wildlife biologist, Alissa Anderson, says that historically most lynx research has occurred in the winter, when research methods will not interfere with hibernating bears and when it is easier to follow lynx movements via snow tracking. Winter field work is more difficult, dangerous and expensive than summer field work.

Funding Needed: \$106,500



Lynx Territory in Glacier

In 2019, 120 camera traps will be installed throughout the Belly River, Many Glacier, St. Mary, West Glacier and Walton areas of the park. The research team divides the park up using hexagons in order to assess various sections of lynx habitat and to assess how lynx are distributed throughout the park. Once the camera traps are installed, the park will continue to collect the SD cards from these cameras with the help of volunteers from the citizen science program.



"The methods we will employ to study lynx with camera traps in the summer were developed in the state of Washington. I am excited to try them out for the first time in Montana."

– Alissa Anderson, Wildlife Biologist



Camera traps are a noninvasive way to study lynx in their natural habitat and track their patterns. Setting up the cameras is an arduous process. It involves precise placement in order to capture wildlife, and many camera locations are deep in Glacier's backcountry.

"2019 is shaping up to be the 'Year of the Lynx!' Thanks to a very generous tip from a friend, I searched for two days in -20° F hoping to photograph this male cat as he passed through the wilds of Northwest Montana. Some moments are bigger than anything you could ever imagine for your bucket list, and locking eyes with this magnificent creature is more than I could have ever dreamed of. I am incredibly grateful for this wonderful state and all of its wild places and wild inhabitants."

– Cory DeStein Wildlife and Nature Photographer



WHY WE GIVE

Karen and Nick Chickering have been giving to Glacier for three decades.

Nick and I joined the Glacier Conservancy Board of Directors when we retired in the Flathead Valley. It was our way of finding connection with our new home and feeding our passion for the outdoors and conservation. We both have different charities that we support individually, but the Glacier Conservancy is one that we have been deeply committed to as a couple, and have devoted much of our resources to, both in time and financial support. For us, our shared commitment to Glacier represents a legacy project for our family. There are not many places this wild and pristine left in the world, so leaving it intact for the next generations of our own family and yours is critical to us.

In addition to Nick's and my work on the board and regular philanthropic giving, I went one step further and became a citizen scientist in the park in order to grow my interest in wildlife biology and to get a closer look at science and preservation in the park. Through this volunteer work for over 10 years, I have witnessed the passion of our park biologists. The field work demands both physical rigor and at key times, singleminded concentration. My soul is stirred when I am immersed in the ever-changing, awe-inspiring beauty of the park, where there is sometimes quiet and solitude, and at other times, fast-paced coordinated teamwork crafted by experience, good communication and perseverance. Best of all, our work informs park managers and wildlife biologists to make sound decisions that preserve and protect the wilderness. These are a few of the projects I have been privileged to work on, including harlequin duck migration, life cycle and habitat requirements, black swift presence and nesting success, discovering which bat species inhabit the park, mountain goat numbers and use of the landscape, pika location and status.

None of these projects would happen without grants made possible through private donations to the Glacier Conservancy, and I'm proud to be a part of this transformational work.

Karen Chickering prepares to release a harlequin duck after it has been tagged. / Dick Walker



Give Online

It's simple, fast and secure: glacier.org

Stocks, Bonds and other Securities

Many gifts of appreciated securities such as stocks, bonds and mutual funds provide a full deduction for the full fair market value of the donated asset. If you have owned securities for more than one year and the fair market value has increased since you purchased them, you can avoid capital gains tax and receive a charitable income tax deduction equal to the fair market value.

Charitable IRA Rollovers

Individuals age 70 1/2 or older may give up to \$100,000 directly from their individual retirement account without paying federal income tax on the withdrawal. Amounts given this way count toward satisfying the required minimum distribution for the year of the gift.

A Gift in Your Will or Living Trust

The simple act of including a bequest to the Glacier Conservancy in your will or living trust helps to secure the future of our organization. Leaving a legacy gift to the Glacier Conservancy is an opportunity to honor what is close to your heart, and to ensure that the park remains a beloved treasure for future generations. A legacy gift makes a lasting impact beyond your lifetime and commemorates your special connection to Glacier, helping the park thrive far into the future.

If you've included a gift to the Glacier Conservancy in your estate plan, let us know of your intentions. This will guarantee that your wishes are carried out after your lifetime.

A Gift of Retirement Account Assets or Life Insurance

If you have a life insurance policy that you no longer need, you can turn the policy into a charitable, tax-deductible gift by naming the Glacier Conservancy as a partial or full beneficiary of an existing policy. The gift is easy to make. Simply request a change of beneficiary form from your insurance company. If the policy is paid up, you will receive an immediate tax deduction in an amount equal to the policy's cash surrender value. Name the Glacier Conservancy as a beneficiary of an IRA, 401K or 403b, or donate those retirement accounts to reduce or eliminate these taxes completely.

Clements Mountain / NPS

WAYS TO GIVE YOUR GLACIER LEGACY

How will you remember Glacier?

Think of Glacier, and images of its expansive vistas, abundant wildlife and clear blue waters immediately spring to mind. It's how we remember Glacier when we're not in the park and it's how we want to leave it for the next generation.

Every donor's path to purposeful giving is rooted in majestic moments and everyday experiences that create the desire to preserve Glacier's future.



For more details or to discuss planning a gift to the Glacier Conservancy, please contact:

Nikki Eisinger Phone: 406.892.3250 nikki@glacier.org

Thank you for helping preserve and protect Glacier National Park for the next generation.

NAVIGATING A DIGITAL WILDERNESS

Glacier National Park's first social media summit seeks to expand the conversation with social media users about the real-world impacts of online behavior.

Around 3.5 billion people in the world today access social media daily. Leading platforms like Instagram and Facebook are where people get information and create expectations about Glacier National Park.

Glacier's first social media summit will bring together many of social media's top influencers who post about the park, with the goal of improving content quality and informing them about the best practices of following and sharing when using social media to promote Glacier. There are dozens of social media influencers with over 10,000 followers each who frequently post about the park. The combined impact of these accounts, and the hundreds more with only a few thousand followers, easily drowns out Glacier's messaging from their official accounts. While many social media influencers support Glacier's mission to preserve natural and cultural resources for future generations, some influencers lack understanding and respect for the park's rules and regulations.

The two-day training event will invite the region's most influential social media contributors to attend lectures, presentations and workshops that focus on the role social media should play for national parks. Since most managers of these social media accounts proclaim their love of Glacier, it is important to provide them with information on how to be better stewards of the park. This social media summit will be an opportunity for park staff to plead the importance of rules and regulations to a highly influential group.

Funding Needed: \$24,550



Daniel Lombardi / NPS

Expanding the Conversation

"We are mostly excited about the possibilities for social media to be part of the solution. As technology changes faster than policy can keep up, it's important that we engage in difficult conversations about how these new digital tools can be used to preserve wild places while mitigating their potential negative side effects. We don't have answers to a lot of questions right now and we hope that the social media community, which is clearly very passionate about protecting this place, will help us find the best way forward in this new era of the digital outdoors."

- Daniel Lombardi, Visual Information Specialist, Glacier National Park

iPhone Sunset / NPS



ROOM TO ROAM

With annual visitation on the rise, these projects aim at providing the scientific research and resources necessary for humans and bears to coexist on the landscape.

Respond to Increased Visitor-Wildlife Encounters Funding Needed: \$54,500

Authentic wildlife viewing in Glacier is a bucket list item for many visitors. This grant will provide additional wildlife staff to curate safe, meaningful experiences for the public. This investment will also act as a force multiplier by allowing for the training of additional volunteers who can further expand this important work.

Cutworm Moth Study

Funding Needed: \$121,590

This funding will complete the critical two-year study that is providing important information about the dietary habits of Glacier's grizzly bear population. Perhaps surprisingly, data shows the army cutworm moth can represent as much as 50% of a bear's annual caloric intake.



Grizzly bear in Many Glacier campground. / D. Hanlon



Grizzly bear and cub search for cutworm moths under rocks. / Erik Peterson



Death Camas grows next to a hiker on the Highline trail. / NPS

PRESERVING GLACIER'S BACKCOUNTRY

By acting now, we ensure that Glacier's backcountry remains wild and intact for years to come.

Lead Backcountry Rangers

Funding Needed: \$62,000

Keeping the wilderness wild is a core value of the park and the Conservancy. As a result of unprecedented increases in annual visitation, Glacier's incredible wilderness character is increasingly degrading. This program will add two full-time lead backcountry rangers to help address the issues associated with increased visitation. From monitoring for noxious weeds to educating the public on Leave No Trace principles, this project will ensure protection of Glacier's backcountry.

Backcountry Invasive Weeds Management

Funding Needed: \$20,000

Protecting Glacier's pristine backcountry wilderness from invasive plants (weeds) is critical to the preservation of this fragile ecosystem. This grant invests in this forward-leaning work by funding a two-person crew to survey, map and treat noxious weeds specifically in and around backcountry trailheads, trail corridors, campgrounds, hitchrails and cabins across the entire park. This will augment existing front country investments made as part of the park's ongoing maintenance program and allows for an enhanced focus on protection of the park's backcountry plant habitat.

Addressing the Impacts of Increasing Visitation Funding Needed: \$68,500

Increased visitation to Glacier, averaging over 3 million visitors in the past three years, has created an urgent need for actionable data to inform park leadership as they balance resource protection and visitor experience issues. This grant will fund additional staff, counters, cameras and an agreement with the University of Montana to capture and analyze this critical data.



Volunteers remove weeds near St. Mary Lake.



Millennials pose for a selfie on Lake McDonald. / NPS



PROTECTING GLACIER'S PRISTINE WATERS

In addition to the many recreational opportunities they provide, Glacier's waterways are critical for the ecosystems that depend on them.

Prevent Catastrophic Mussel Infestation

Funding Needed: \$70,000

It's hard to overestimate what is at stake in preventing the introduction of invasive mussels into the park's pristine waters and more broadly, to the ecosystem of the Columbia River Basin. One fully mature female zebra muscle can produce hundreds of thousands of eggs in a single season. That's why inspection of every watercraft – kayaks and paddleboards included – that launches in Glacier merits a robust public-private partnership that leverages state, federal and private funds to keep the Columbia River Basin free of this destructive invasive species.

Lake McDonald Water Quality Assessment

Funding Needed: \$12,000

Last studied over 30 years ago, the water quality of the park's most iconic and heavily visited body of water is due for an updated scientific evaluation. Thankfully, one of the world's premier research institutions, the Flathead Lake Biological Station, conducted an earlier study (Ellis et al. 1992) and will partner with Glacier to evaluate and report on the raw water quality data. If changes have occurred since the earlier data was collected, the park will evaluate solutions to the situation.

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Engage Advocates for the Wild and Scenic Flathead River

Funding Needed: \$30,330

2018 marked the 50th anniversary of the Wild and Scenic Rivers Act. This pilot project invests in the future of Glacier's vital waterways. A citizen science approach will be used to augment river use monitoring for the Wild and Scenic North Fork of the Flathead River. This data will inform and guide future management decisions. The project will leverage existing expertise within Glacier National Park, the Flathead National Forest and the field science program at Whitefish High School. The goal is to deliver a mobile data collection app to streamline data management, enable near real-time data displays and to encourage participation by new audiences.



An NPS employee cleans a kayak to prevent the spread of aquatic invasive species. / $\ensuremath{\mathsf{NPS}}$



River ranger rowing on the North Fork of the Flathead River. / NPS

KNOCKING DOWN CLASSROOM WALLS

Funded almost entirely through your support, Glacier's education programming uses place-based learning to connect kids with nature and foster a sense of stewardship.



This project has been accepted for the Whitefish Community Foundation's Great Fish Challenge. If you wish to support this project, you can contribute directly to the Conservancy or visit whitefishcommunityfoundation.org, and donate directly to the Whitefish Community Foundation on behalf of the Glacier Conservancy from July 25 to September 13, 2019.

Ranger-Led Field Trips and Distance Learning

To see the wonder on a student's face the first time they see the majesty and experience the magic of Glacier is to fully understand the power of this critical program. Under the direction of Education Specialist, Laura Law, and in partnership with the Glacier Institute, this impactful program provides access to curriculum-based tools and hands-on learning to over 10,000 students and teachers. In so doing, Glacier has distinguished itself as a national leader in educational programming in national parks.

Glacier Youth Engagement Program

The National Park Service has identified the need to connect children with parks as one of the top five critical issues facing our national parks. This innovative program takes a multifaceted approach to engaging youth, providing experiential opportunities and forging connections to Glacier during the summer. From supplying junior ranger booklets to over 20,000 children to supporting improved experiences at the Apgar Nature Center, this grant provides multiple touchpoints for families and kids on their summer break. This program also funds youth engagement positions that conduct formal children's programs and activities, maintain a campground children's lending library and provide professional development opportunities for local teachers.

Total Funding Needed for 2020 Education Programming: \$864,909



Students touch the pelt of a snowshoe hare as part of a lesson on how the hare's seasonal color change protects it from predators. / NPS

Right: A ranger and a student inspect lichen on a tree. / Sheperd Waldenberger





"Let children walk with nature, let them see the beautiful blendings and communions of death and life, their joyous inseparable unity, as taught in woods and meadows, plains and mountains and streams of our blessed star, and they will learn that death is stingless indeed, and as beautiful as life, and that the grave has no victory, for it never fights. All is divine harmony."

– John Muir, *Thousand Mile Walk to the Gulf*



EXPLORING DARK SKIES

Using groundbreaking remote technology, anyone from anywhere will be able to look through the lens of a new telescope in St. Mary, giving researchers and classrooms from around the world an opportunity to experience Glacier's incredible night skies.

This year will mark the grand opening of the Conservancy funded observation dome at the St. Mary Visitor Center. The ongoing partnership between the Conservancy, Glacier National Park, the Big Sky Astronomy Club and other partners celebrates the wonders of astronomy in Waterton-Glacier, the world's first designated International Dark Sky Park. Your support helps the park maintain a long-term commitment to preserving dark skies by funding the installation of dark sky compliant lighting throughout the park and the expansion of various astronomy education programs. Outdoor artificial lights in cities around the world illuminate our night skies, making it impossible to see most stars in surrounding metropolitan areas. Light pollution also disrupts the natural cycles of plants and causes habitat disruption for many nocturnal species. Through this program, thousands of park visitors, many of whom come from places where light pollution prevents viewing of the night sky, will experience both the science of the cosmos and the majesty of nature's dark skies.

Funding Needed: \$84,720

2020 BY THE NUMBERS WHAT WILL \$2.5 MILLION ACCOMPLISH IN GLACIER?



LEARN ABOUT ALL 75 PROJECTS AT GLACIER.ORG



Glacier National Park Conservancy 402 Ninth St. W. • P.O. Box 2749 Columbia Falls, MT 59912



Construction equipment near Going-to-the-Sun Mountain, ca. 1932 / Glacier National Park Archives





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