THE VITAL GROUND FOUNDATION | FALL 2022

VITAL NEWS

Mule Deer and Quail, by Philip DeManczuk

ONE LANDSCAPE FOR WILDLIFE AND PEOPLE

GATHERING IN GRATITUDE FOR ALL THINGS WILD

As fall turns to winter, people and wildlife alike are gathering. Many of us will soon circle around holiday tables while deer and elk herd together at low elevations where food remains and bears enter dens after the final meals of fall.

Some of those bears are mothers with yearling cubs. These sows have earned their long rest, having finished a season of teaching by showing their young the essential skills of selecting a den site and digging the family's winter shelter. Others are pregnant females who will welcome tiny cubs into the dark warmth of the den come January. When spring arrives, the new families will enter a perilous world.

Thanks to supporters like you, grizzly bears and many other species have more room to roam and safer landscapes to navigate. Read on to learn about the latest habitat protection and conflict prevention efforts you've made possible, as well as several gatherings of our own from recent months in celebration of conservation achievements and the wildlife they benefit. We couldn't do it without you!

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VITAL GROUND FOUNDATION

EXECUTIVE DIRECTOR'S CORNER

Celebrating a Conservation Capstone at Bismark Meadows

When I first joined Vital Ground in 2005 as its Director of Lands and Conservation, grizzly bears in the Lower 48 were in worse shape than they are today. In particular, the small, persisting populations of the Cabinet-Yaak and Selkirk areas in far northwestern Montana and the Idaho Panhandle stood in grave danger of extinction. Just over two dozen bears remained in the American portions of each ecosystem, meaning only a few females welcomed new cubs to the gene pool in any given year.

In the Selkirk Mountains bridging the Idaho-British Columbia border, those mothers would often head to Bismark Meadows come spring, with the first plants of the year growing there. Back in the early 2000s, this 1,100-acre wetland complex stood out to Vital Ground as a crucial conservation opportunity, both because of its seasonal importance to grizzlies and the development risks associated with its proximity to the vacation destination of Priest Lake.

Seventeen years later, the Selkirk grizzly population has doubled in size on the American side and I am proud to say that Vital Ground supporters like you have played a significant role in that recovery. While helping fund conflict prevention efforts in the area, you have also supported a strategic series of conservation acquisitions throughout the ecosystem, with a final 148-acre land purchase earlier this year capping a 20-year effort to protect Bismark Meadows. The project's timeline may seem protracted, but it is emblematic of the patience required to complete the voluntary, incentive-based work of a land trust. Much business remains in the form of planned habitat restoration, but thanks to that patience the entire complex is now secure and fully protected from reckless development in perpetuity.

On an early October morning, as the aspens and cottonwoods turned gold around the meadows, Vital Ground board members, staff and multiple project partners gathered at Bismark Meadows (pictured) to commemorate the long and successful collaboration that has brought the place to a conservation outcome. We were honored to share the time with wildlife managers from the Kalispel Tribe—on whose traditional territory Bismark Meadows sits—along with staff from the Idaho Department of Fish and Game, whose biological research, community outreach and law enforcement programs have been helping bears and people share this landscape for decades.

Many more of you were on our minds that morning, for the conservation of Bismark Meadows couldn't have happened without the full breadth of Vital Ground's community of supporters. There in North Idaho and across the Northern Rockies, your commitment to Vital Ground continues to make lasting recovery a possibility for grizzly bears and the myriad other sensitive species that share their range.

—Ryan

Ryan Lutey, Executive Director

PROJECT UPDATE

CROSSING TOWARD SAFETY

ALONG MONTANA'S CLARK FORK RIVER, A KEY HABITAT LINK BUILDS REGIONAL CONNECTIVITY

Mitch Doherty

The Clark Fork River flows through its confluence with Donovan Creek past the site of Vital Ground's latest collaborative conservation project with the Yellowstone to Yukon Conservation Initiative (Y2Y). In an area with increasing grizzly traffic, a conservation easement on this important habitat linkage helps connect a larger regional landscape.

By Matt Hart

Earlier this fall, two grizzly bears in western Montana made it into the local newspapers—and for all the right reasons this time. Amid a challenging season with increased bear conflicts across the state, managers from Montana Fish, Wildlife & Parks had captured two sub-adult grizzlies in the Bitterroot Valley south of Missoula. The move was preventative rather than reactive, however. The bears had not raided a chicken coop or scattered a neighborhood's trash bins, and the state biologists wanted to make sure it stayed that way.

Rather than relocate them back north into the heart of grizzly country near Glacier National Park or the Bob Marshall Wilderness, the state managers made an unprecedented choice: They dropped the bears due east of the Bitterroot Valley into a wild fold of the Sapphire Mountains, near a protected wilderness area.

Why? As part of the gradual effort to encourage grizzlies' natural return to the larger Selway-Bitterroot Ecosystem, the Interagency Grizzly Bear Committee had recently added the Sapphires to its list of viable relocation areas. Plus, biologists had already pieced together a series of reported photos, videos and in-person sightings that traced the young bears' journey to the Bitterroot Valley. They were a pair of pioneers, having ventured south from the Blackfoot Valley in the Northern Continental Divide Ecosystem (see maps on p. 5 and 7), across Interstate 90 and the Clark Fork River and into the Sapphire Mountains, just east of the Bitterroots.

The news confirmed Vital Ground's conservation strategy in a big way. The area where the bears crossed the Clark Fork, it turned out, was within a few miles of a key piece of land where Vital Ground and the Yellowstone to Yukon Conservation Initiative (Y2Y) were in the final stages of closing a conservation easement.

CONSERVATION AT THE CONFLUENCE

As the young grizzlies settle into life in the Sapphires, a key pathway into those mountains will remain open for bears, elk, moose, native trout and many more animal and plant species. In late September, Vital Ground and Y2Y completed a conservation easement with a private landowner on 34 acres at the confluence of the Clark Fork and Donovan Creek southeast of Missoula.

(continued on page 4)

(continued from page 3)

Confluence areas act as natural bottlenecks for wildlife, making the project a key location within the larger habitat linkage zone between Missoula and Butte that is an increasingly high priority for grizzly conservationists. The facilitation of safer passage across the Clark Fork and I-90 corridor is a crucial step to larger regional connectivity for grizzlies, helping connect the Glacier-Bob Marshall complex with the Sapphire and Bitterroot Mountains.

"Projects such as this one at Donovan Creek not only provide the habitat security bears and other wildlife need, but also limit the opportunity for future conflicts between people and bears," says Mitch Doherty, Conservation Director at Vital Ground. "That's especially important given the level of bear activity and movement we're seeing this year."

LOCAL CONSERVATION WITH REGIONAL IMPACT

Against the backdrop of a regionwide development boom, Vital Ground and Y2Y's latest collaborative effort conserves rich wetland and forest habitat on both sides of the Clark Fork. Located between the communities of Turah and Clinton, the area provides range for elk, moose and deer, native cutthroat and bull trout and even rarer carnivores such as wolverine, fisher and Canada lynx.

A pair of sub-adult grizzlies (not pictured) moved south from the Northern Continental Divide Ecosystem this summer and crossed the Clark Fork River and I-90 near the Donovan Creek project before reaching the Sapphire Mountains and Bitterroot Valley.

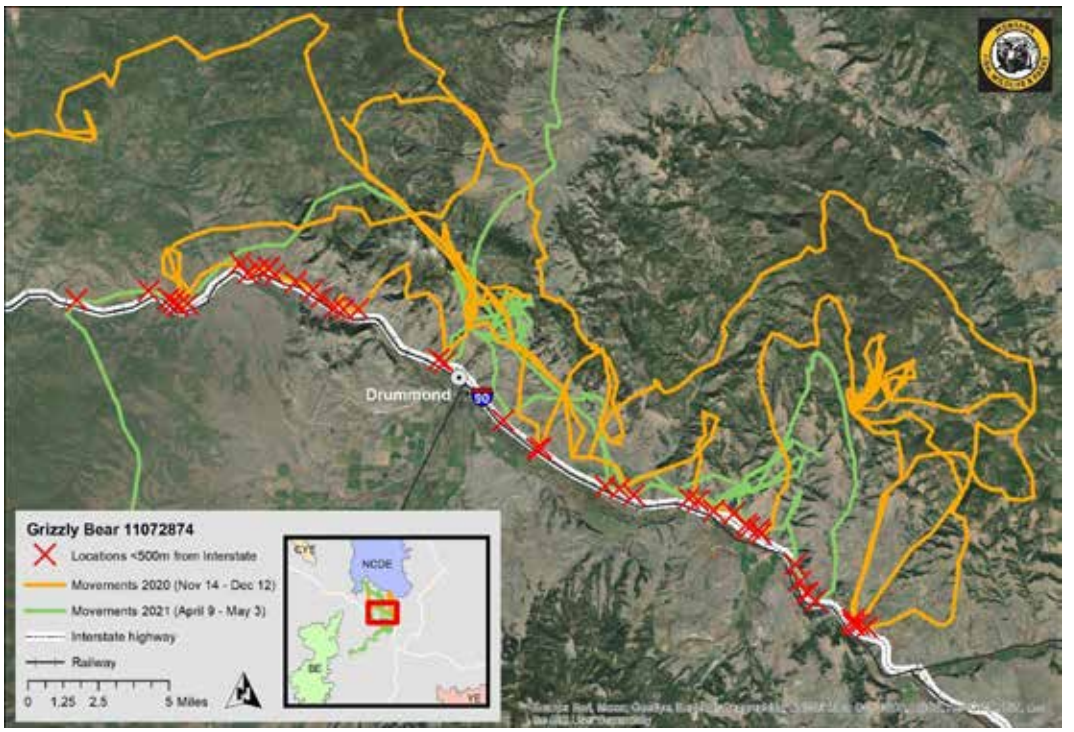
For grizzly bears, this linkage zone carries particular importance in helping facilitate the natural return of a resident grizzly population to the Bitterroot Ecosystem. In addition to this year's pair of grizzlies that moved through the Sapphires, the area drew widespread attention last year when GPS collar data showed that a young male grizzly—dubbed "Lingenpolter" by biologists—attempted to cross I-90 an estimated 46 times within the larger area between Missoula and Butte. While Lingenpolter eventually crossed I-90 successfully, the bear's travels highlighted the need for habitat conservation in a part of Montana seeing increased grizzly activity.

"This wildlife corridor is really important for grizzly bears and other wildlife as they try to navigate I-90 and Missoula's human footprint," says Nick Clarke, Senior U.S. Program Coordinator for Y2Y. "It helps connect the Northern Continental Divide, Greater Yellowstone and Bitterroot ecosystems, and these acres are adjacent to other conservation easements and extensive public lands, allowing wildlife to safely move through and resulting in a significant area of conserved habitat along the Clark Fork River Valley."

COLLABORATING FOR WILDLIFE AND PEOPLE

With Montana ranking among the nation's fastest-growing housing markets and the Donovan Creek confluence just 15 miles from Missoula, increased subdivision and dense development in this part of the Clark Fork Valley would impose further habitat fragmentation and increase the risk of conflicts between wildlife and people. It would also threaten public access to popular areas for hunting, fishing, hiking and other activities central to the region's rural identity.

The project site abuts both public lands and other conserved



East of the Donovan Creek project within the same linkage zone connecting the Northern Continental Divide and Bitteroot ecosystems, GPS collar data from Montana Fish, Wildlife & Parks shows the efforts of a young grizzly bear dubbed Lingenpolter to cross I-90 and the Clark Fork River during the fall of 2020 and spring of 2021.

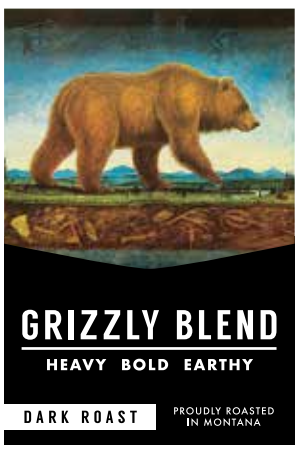
private lands, solidifying open space protection across a larger stretch of the valley. The new conservation easement with landowner Dick Auerbach keeps the property in private ownership and ensures habitat preservation and continuation of the area's open, scenic character.

"We're fortunate to work with landowners like Mr. Auerbach," says Doherty. "These individuals recognize not just the value their land holds for fish and wildlife, but for all of us that appreciate these open spaces, whether we travel these valleys by vehicle, boat or foot."

The collaborative effort builds off Vital Ground and Y2Y's previous work with conservation-minded landowners to achieve lasting solutions for land, wildlife and people. In recent years, the organizations have also joined forces on projects at the confluences of the Clark Fork and Bull River, the Clark Fork and Ninemile Creek and the Kootenai and Yaak rivers. These confluence areas carry outsize conservation value as habitat links for numerous species as well as rich agricultural lands and strongholds of water quality benefitting people and wildlife alike.

"Conserving connections between large areas of habitat is key to healthy ecosystems and wildlife populations," adds Clarke. "We can't take for granted that Montana is home to abundant wildlife and vibrant landscapes. Projects like this in collaboration with private landowners are necessary to ensure that Montana remains the special place that it is."

And with a habitat connection to the Sapphires newly conserved and a new pair of grizzlies calling those mountains home, supporters like you have helped make Montana that much more special.



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CONSERVATION PARTNERS

ON THE LAND, IN THE COMMUNITY

VITAL GROUND'S CONSERVATION PARTNERS MADE BIG STRIDES FOR COEXISTENCE IN 2022

By Matt Hart

Much like people, grizzly bears are omnivores and opportunists. Whether we're bear or human, point us toward a tasty and easily-obtained meal and it's hard to say no.

For grizzlies, those easy meals can be all-natural: a deer or elk carcass found as the winter snow melts, or a hillside full of ripe summer berries. But too often, they take the form of foods related to human development that build bad habits: unsecured garbage or chicken coops, apple orchards or a rancher's calving pen if things get desperate.

In 2022, things have gotten desperate for more of the Northern Rockies' bears than usual. Many climate and weather factors contributed to a poor season for the wild berries that grizzlies rely on for summer nutrition. That led to a fall defined by increased conflicts and more need than ever for community mitigation efforts in grizzly country.

As bears and people move around one another this year and beyond, your support of Vital Ground helps prevent conflicts through our annual Conservation Partners Grant program. From western Wyoming to northern Idaho, 18 partner programs are performing the crucial work of boots-on-the-ground coexistence this year.

SAFER GROUND AROUND YELLOWSTONE

While the grizzlies of the Greater Yellowstone Ecosystem remain genetically isolated from those farther north, your support continues to foster coexistence partnerships in key locations that shrink the gaps between grizzly populations. Near the southern extent of grizzly range, collaboration with the **Shoshone National Forest (No. 1 on map)** in western Wyoming is equipping public land users with the option to rent bear-resistant "Ursack" bags instead of more cumbersome canisters.

Elsewhere, a new collaboration with the **J Bar L Ranch (2)** in the southwest corner of Montana enabled remote camera and hair-corral tracking of grizzlies as well as livestock monitoring to keep bears and herds separate. Partnership with the **National Wildlife Federation (3)** helped retire a conflict-prone 30,000-acre grazing allotment in this same movement area between Yellowstone and the wilds of central Idaho.

Meanwhile, a new partner, **Future West (4),** began an innovative effort using remote aerial photography to help monitor wildlife and livestock movements across several valleys and ranges in southwestern Montana. And **People and Carnivores (5)** helped prevent conflicts in the key north-south connectivity area of the Tobacco Root Mountains via a new bear-resistant garbage container program for the community of Pony.

SETTING UP SUCCESS IN WESTERN MONTANA

The Bitterroot Valley is gradually becoming a focal area for grizzly bear expansion, and ongoing coexistence

efforts are paying off (see p. 3). At the bottom of the valley just south of Missoula, partnership with Vital Ground will help the **Lolo School (6)** add electric fencing around its dumpsters while the **Sleeman Creek Homeowners (7)** do the same at their neighborhood garbage collection site. Up and down the valley, the **Wind River Bear Institute (8)** provides bear-aware education at community events and incident response from its trained team of Karelian bear dogs.

With bear conflicts increasing this season on the edges of Missoula itself, a new partnership with **Missoula Parks & Recreation (9)** provided 16 bear-resistant garbage containers and educational signage for busy recreation areas. And outside Missoula as well as up the Bitterroot, Blackfoot and Ninemile valleys, the **Great Bear Foundation (10)** continues its stellar apple pickup program that gleans 10,000-20,000 pounds of bear attractants from backyards annually.

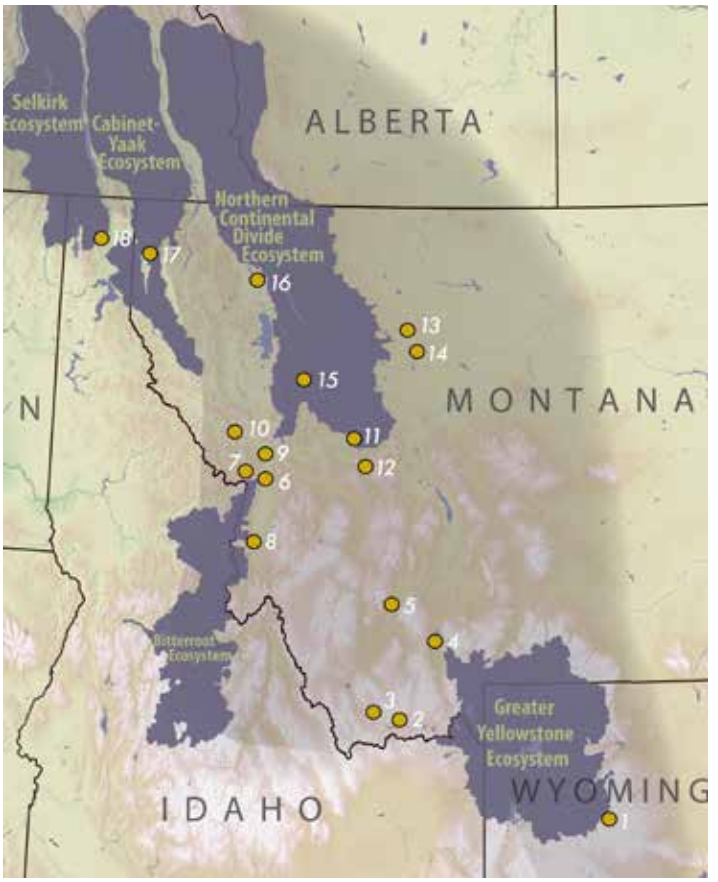
Continuing up the Blackfoot, the **Blackfoot Challenge (11)** installed three new electric fencing projects on ranches and homesites. Collaboration with **Montana Fish, Wildlife & Parks (12)** also kept bears out of trouble in the area, expanding carcass pickup across at least 10 ranches in the countryside between the Blackfoot and Little Blackfoot rivers.

COEXISTENCE ON THE OUTSKIRTS OF GLACIER

While the Blackfoot region marks the southern edge of the Northern Continental Divide Ecosystem, the eastern edge along the Rocky Mountain Front Range is also vital country for coexistence, with grizzlies continuing to follow waterways east onto the prairie from Glacier National Park and the Bob Marshall Wilderness.

Two new partners are mitigating conflicts and improving social tolerance of grizzlies across these rangelands, with the **Rocky Mountain Front Ranchlands Group (13)** supporting a range rider program monitoring wildlife and livestock across 27,000 acres and the **Sun River Watershed Group (14)** outfitting local communities with bear spray training and equipping volunteers at river and park cleanups and other future events.

On the other side of Glacier, the Swan Valley continues to balance the needs of people and wildlife,



with **Swan Valley Bear Resources (15)** offering electric fencing, bear-resistant garbage cans and bear-aware education at community events. Meanwhile, to the north, Vital Ground was proud to support a **Flathead Land Trust (16)** conservation easement outside Whitefish near our own Tamarack Creek project.

Farther west in Montana in the Cabinet-Yaak ecosystem, coexistence efforts continue in the community of Troy with help from the **Troy Farmers Market Apple Festival (17),** an annual event promoting bear-aware education and attractant removal through cider pressing. Finally, community events from northern Idaho to the Bitterroot Valley and Rocky Mountain Front benefitted from the continued presence of **Be Bear Aware (18)**, a traveling educational trailer and outreach team.

Across communities, working landscapes and wild backcountry areas, it takes many hands to prevent conflicts and build social tolerance for bears as grizzlies themselves move farther and wider. With more partners preventing conflicts in 2022 than ever before, your support of Vital Ground plays a crucial role in building safer landscapes for wildlife and people alike. Thank you!

Scott Birmingham

In the Great Bear Rainforest, Reminders of Why We're Here

By Matt Hart

"Welcome to vacation boot camp," said Brian, the manager of Knight Inlet Lodge, shortly after 28 Vital Ground supporters and staff uncoiled ourselves from float plane seats and took our first breaths of the crisp, salt-tinged air of Glendale Cove.

After two pandemic postponements and an ownership change for the lodge, Vital Ground was finally back at Knight Inlet along British Columbia's coastal Great Bear Rainforest, renewing a unique partnership that for two decades has provided the bear-viewing adventures of a lifetime for members of our conservation community.

As Brian's welcome hinted, it would not be a trip for those seeking leisure. Bear viewing was often best in the morning and breakfast was served in the dark at 6:30 a.m., with harbor seals barking from the breakwater as you walked from your room to the mess hall.

For some, days began with quiet sea kayaking in the sheltered cove, watching bald eagles fish and geese flock overhead in the pink shades of dawn. Others headed straight for the viewing stands, the lodge's famed wooden platforms perched above spawning channels where pink salmon gather en masse each fall and grizzly bears emerge from the dark forest to feed.

Concern etched the faces and voices of Knight Inlet's staff during our mid-October visit. Severe drought had plagued much of the province since early summer and water levels were perilously low. Elsewhere along the coast, salmon runs were drying up, but we'd arrived in the nick of time. The channels still held fish and the bears still sought them. On our first afternoon, as daylight waned in long shafts of gold, a chocolate-furred bear called Freckles and her blond-faced yearling walked the green riverbank slowly, crossed with a bit of playful splashing, then settled in a shallow spawning zone to fish. A few times, the cub turned to peer up at us in the stands but her mother stayed focused on the task at hand, modeling the rules of behavior—both human and ursine—that have allowed the lodge to run such an impeccably safe and successful viewing operation for decades: "Move calmly

and mind your own business."

There was time for laughter, too, of course. Between shifts in the stands, guided rainforest hikes and boat tours up the estuary, meals left us bursting. From the kitchen to the boat wheel to evening natural history talks, the lodge staff were consistently knowledgeable and highly skilled. Moreover, new ownership by the six First Nations comprising the Nanwakolas Council—Da'naxda'xw/Awaetlala, Mamalilikulla, Tlowitsis, Wei Wai Kum, Wei Wai Kai and K'ómoks—afforded us the rare opportunity to visit the nearby community of Tsatsisnukwomi and tour its ceremonial Big House, part of a larger daylong marine circuit through Johnstone Strait that included orca and humpback whale sightings and Dall's porpoise playing in our wake.

Matt Hart

With full days and full stomachs, the trip passed all too quickly. But on our final night, gathering for a group photo in front of the lodge's life-sized carving of Bart the Bear, the wonderful week and the long partnership between Vital Ground and Knight Inlet had everyone in spirits of reflection and gratitude. For those of us from the Vital Ground staff lucky enough to make the trip, it was all a moving reminder of why we press forward for grizzly conservation. Intimate moments in the proximity of wild bears renewed hope for the continued recovery of the species in the Lower 48, while time spent connecting with our community and discussing current projects built feelings of shared momentum for the efforts ahead.

Departure day had many of us already talking eagerly of the next Knight Inlet excursion (and we encourage all Vital Ground supporters to stay tuned for updates on when and how to join it). It also brought the balm of cooler air and gathering clouds. Sometime after the float planes carried us from the inlet and the final farewells passed, the promised fall rain began. I watched it out the airplane window in Vancouver and thought of Freckles and her cub, of the salmon whose life cycles would be saved, and I knew there was no time to lose in this nourishing work for a wilder tomorrow.

LATEST NEWS

Falls Creek Project Aims to Conserve Key Habitat, Access

Public recreation access and one of the Lower 48's smallest recovering grizzly bear populations have the chance to benefit greatly from Vital Ground's latest collaboration with the U.S. Forest Service in northwestern Montana. The Falls Creek project aims to secure federal Land and Water Conservation Fund support to protect 200 key acres in the Cabinet Mountains near Troy.

With Vital Ground serving as a land trust partner, the project would add the undeveloped acreage to surrounding Kootenai National Forest lands. With a history as private timberlands, the property is now owned by conservation-minded individuals looking to transfer ownership but keep the land as open space with public access. The project's landscape includes shoreline along Savage Lake and a hiking trail to one of the area's largest waterfalls, both popular recreation sites. Access to these places could be permanently protected with the acreage under public management.

Furthermore, diverse wildlife would benefit from the habitat conserved under federal stewardship. The Cabinet Range is home to moose, elk, wolves, wolverine, native trout and a population of roughly 25 grizzly bears, according to biologists' recent estimates. Amid an ongoing regional real estate and development boom, maintaining open habitat is crucial to these bears' slow road to durable recovery, with the Cabinets' grizzlies and the similarly-sized Yaak Valley population to the north comprising the U.S. Fish and Wildlife Service's Cabinet-Yaak Grizzly Bear Recovery Zone. If successful, the Falls Creek project would conserve an important habitat buffer between the Cabinet high country and more developed areas around Savage Lake. Meanwhile, several other Vital Ground projects near Troy conserve important habitat linkages between the Cabinets and the Yaak.

Because of its benefits to both people and wildlife, the Falls Creek project has already garnered a wide range of state and local support. Montana senators Steve Daines and Jon Tester have both endorsed the conservation effort along with the city council and mayor's office of Troy, the Kootenai Forest Stakeholders Coalition and a broad majority of residents in the Savage Lake area, more than 20 of whom have written letters of support.

To learn more about this exciting ongoing project made possible by your support, check out a new video on the effort by Eric Ian at Vital Ground's YouTube channel: ***www.youtube.com/ForTheGrizzly***.

The Falls Creek project aims to conserve 200 key acres in the Cabinet Mountains near Troy, Mont. Watch Eric Ian's new video on the effort at ***www.youtube.com/ForTheGrizzly***.

Kodiak Commits to "Keep It Wild" in a Griz-Sized Way

For several years running, as Vital Ground's stalwart business partner Kodiak (a.k.a. Kodiak Cakes) has grown its brand, its investment in protecting grizzlies and wildlife habitat has also grown. Through a fundraiser for World Nature Conservation Day this summer, Kodiak—and a famous new spokesperson—have upped their grizzly game again.

Headlined by the outreach of its chief brand officer, actor Zac Efron, Kodiak's Keep It Wild campaign contributed $115,000 to support Vital Ground habitat conservation projects for grizzly bears and all things wild.

The campaign featured sales of Kodiak's Keep It Wild collection, including a new line of trail-ready granola bars as well as classic flapjack mixes, cookies and oatmeal. Conservation supporters could also "wear their care" as part of the campaign, as Kodiak teamed with award-winning graphic designer Aaron Draplin on a gorgeous assortment of Keep It Wild-themed shirts, hats and prints.

"I'm stoked to partner with Aaron Draplin and The Vital Ground Foundation to help preserve precious North American grizzly bear habitats," said Efron. "Thank you for being a part of this important cause."

Like many members of the Vital Ground community, Efron's support for conservation involved witnessing a famous grizzly up close. Earlier this year, Vital Ground ambassador Tank the Bear—a grizzly actor born in captivity, adopted as a cub and trained by Vital Ground co-founders Doug and Lynne Seus—teamed up with Efron to announce the megastar's new role at Kodiak. The pair starred in two videos posted to Efron's popular Instagram account, each of which has garnered more than 3.5 million views. The first mimics an interspecies first date between Tank and Zac, and the second reveals Efron's skill as a pancake chef.

After sharing the stage with Tank, Efron became the lastest human actor to help deliver conservation support for wild grizzies and other species, as he and Draplin turned Keep It Wild into a major social media campaign.

Draplin put it best, echoing why so many of us from all parts of society choose to help the Great Bear.

"When Kodiak approached me to make a design to help preserve grizzly habitats, I jumped at the chance," Draplin said. "I know my design is a little thing, but I was so proud to contribute in any way. I hope my poster inspires folks to learn about these majestic beasts, and contribute to keeping them around for generations."

Vital Ground Welcomes Newest Staffer: Kayla Heinze

As grizzlies' need for connected habitat continues to grow, so does the team at Vital Ground. Our newest staff member fills a versatile role across two departments: Please join us in welcoming Communications and Administrative Specialist Kayla Heinze!

Having studied philosophy and biology as an undergraduate at Occidental College, Kayla specializes in crafting environmental narratives informed by rigorous science and cultural values. The bald eagles of her childhood home in Minnesota, the coyotes of her grandmother's Wisconsin farm, the salmon of her grandfather's cabin in Alaska and countless other creatures have inspired her to reciprocate the gifts of nature by advocating for wildlife conservation. A recent transplant to Missoula, she is getting to know the land through running, hiking, skiing and foraging. When reluctantly trapped indoors she writes poetry, cooks, and is giving homemade kombucha a try.

If you follow Vital Ground's social media channels, you've already encountered Kayla's storytelling as she began working for Vital Ground as a social media intern earlier this year. You may also catch her over the phone if you call our office as she begins assisting the Administrative department in addition to her continued content production for the communications team.

"As I get to know the beautiful landscape of western Montana, I'm excited for the opportunity to contribute to its well-being with Vital Ground," Kayla says. "Coming out of college, I knew I wanted to develop my writing and content-creation skills with an organization shaping their ecological community for the better. At Vital Ground, I've found that. It's been an honor to share and expand our message as a part of this wonderful group dedicated to doing conservation work based on thoughtful science and an equal care for people and wildlife."

Hey Bear: New Vital Ground Partner Raises Awareness

If you've ever gone hiking in grizzly country, you've probably yelled "Hey Bear" more than a few times. The phrase is a staple of bear safety, after all, a way to give grizzlies loud notice of your presence in order to avoid accidentally crossing paths.

In the form of a new Vital Ground business partner, "Hey Bear" is now much more than a warning shout.

Based in the heart of grizzly country in Big Sky, Mont., Hey Bear is a social impact brand advocating safe and responsible coexistence between bears and humans while actively giving back to support bears in their natural habitat. Through public education, support for habitat conservation and sales of high-quality outdoor gear, Hey Bear is a dynamic new force helping bears.

"We share a similar mission and are excited to partner with Vital Ground," said Megan Paulson, CEO of Outlaw Partners, Hey Bear's parent company. "It's a natural fit—Vital Ground has been doing amazing work to provide important habitat connections for bears while fostering healthy coexistence with bears and people. The more people we reach together, the more impact we will make."

The partnership between Hey Bear and Vital Ground is a strong match, with Vital Ground's mission of habitat conservation and conflict prevention aligning with Hey Bear's guiding pillars of bear-aware education and supporting bears in their natural habitat. Under the new partnership, Hey Bear will provide support for Vital Ground's habitat protection projects by donating 1 percent of their sales to our land conservation work.

"I'm excited about Vital Ground's new business partnership with Hey Bear, an enthusiastic company that advocates for human-bear coexistence, bear habitat conservation and education," says Vital Ground Partnerships Director Kevin Rhoades. "Hey Bear's mission aligns nicely with ours, and we're eager to develop the relationship further."

Hey Bear is already engaged in community outreach, promoting bear-awareness at many events in the Yellowstone area this summer, including with Vital Ground at the Big Sky PBR Community Day.

Meanwhile, Hey Bear's online store features an impressive range of products bearing the brand's artistic grizzly logo, from hats, mugs and daypacks to shirts, jackets and other activewear. You can feel especially good wearing Hey Bear knowing that a portion of your purchase supports habitat conservation for wild bears and countless other species in the Northern Rockies.

From all of us at Vital Ground, a hearty welcome to our new teammate in conservation and bear-awareness. Learn more about Hey Bear on their website (**heybear.com**) as well as their Instagram and Facebook channels, and before your next outing, head to their store so "Hey Bear" can be on your shirt or your hat as well as the tip of your tongue!

YOUNG LIVING FOUNDATION

The Young Living Foundation is honored to partner with The Vital Ground Foundation. Through this partnership, the Young Living Foundation donates a portion of all proceeds from Young Living's Animal Scents™ product line sales directly to The Vital Ground Foundation.

The Young Living Foundation is committed to empowering individuals to defy limitations by providing education, wellness, conservation and business opportunities.

Since the establishment of its first farm, Young Living is dedicated to protecting plants, wildlife, and natural habitats. Known for its unique Seed to Seal® process, Young Living Essential Oils ensures its seeds are planted in soil free from chemicals or harmful pesticides.

Prior to sale, Young Living's Animal Scents products have been through the 5-step Seed to Seal® process of purity testing.

The Animal Scents line includes: Animal Scents Ointment, Animal Scents Shampoo and essential oil blends: Infect Away™, Mendwell™, ParaGize™, Puriclean™, RepelAroma™ and T-Away™.

To purchase Animal Scents products and support The Vital Ground Foundation, visit Young Living's Animal Scents product page.

BROWN BEAR'S WORLD

IT'S ALL ABOUT THE GENES

UNTANGLING THE COMPLEXITIES OF GENETIC DIVERSITY IN THE LOWER 48'S GRIZZLIES

By Kayla Heinze, Communications Specialist

In the fall of 1985, five years before Vital Ground was founded, the U.S. Fish and Wildlife Service (USFWS) hosted a workshop on grizzly bear genetics in Missoula. At the meeting, scientists raised concerns about dwindling genetic diversity and bear numbers in four of the six designated USFWS recovery zones. Anchored by Glacier and Yellowstone national parks, the other two zones represented strongholds for grizzlies in the Lower 48.

Still true to this day, the Greater Yellowstone Ecosystem (GYE) and the Northern Continental Divide Ecosystem (NCDE) account for nearly all of the remaining grizzly bears south of Canada. And despite their relative size, biologists are still trying to describe the dynamic genetic realities of these populations to inform conservation plans.

WHEN DIVERSITY DRIFTS

Genetic diversity is a uniquely crucial measure of a species' vitality. The reason why is perhaps best understood by looking at what can go wrong when genetic diversity is reduced.

It typically goes like this: low population numbers lead to a pruning of the gene pool. Known as genetic drift, this process is marked by genes completely disappearing from a small population due to random chance and becomes more powerful as the population shrinks. Traits homogenize and inbreeding increases. As the population's genetic possibilities decrease so does its ability to adapt to unfavorable environmental conditions and other disturbances, like disease.

If this pattern becomes extreme enough, an entire population can enter what is known as an extinction vortex (see Southern California's cougars) — which, yes, is as disastrous as it sounds.

On the flip side, high levels of genetic diversity bolster the resiliency of a population. For grizzly conservation, this means bear populations having a wide array of genetic resources available to help them cope with hazards such as changing food sources. With enough genetic diversity, a population can adapt and prosper for a very long time.

THE MIXED BAG OF GRIZZLY GENES

Genetic drift has been a consistent concern for bears in the Selkirk and Cabinet-Yaak recovery zones, with USFWS biologist Wayne Kasworm estimating fewer than 100 grizzlies in each.

"Genetic diversity and interchange of genetics in these two populations is a lot more important because of their

small size," Kasworm said.

Kasworm and his team have found evidence of some gene flow between the Cabinet-Yaak and Selkirk populations. But these encouraging exchanges have not occured with bears from the larger NCDE population.

"We have not seen interchange of that nature from the NCDE to the Cabinet-Yaak," Kasworm said. "We have seen a couple bears move but many of those bears died before they could reproduce."

For this reason and others, the road to resililency is a winding one. In general, genetic variation takes longer to rebound than population numbers, because random mutations must accumulate over many generations. A population may seem stable based on its total numbers but have low enough genetic diversity that inbreeding and drift still pose a threat.

A 2022 literature review published by Conservation Genetics Resources found that Greater Yellowstone's grizzlies not only had a gene pool "too small for long-term adaptation," but also, according to some studies, a declining level of genetic diversity in recent decades. Currently isolated from the NCDE and other populations, this genetic island could be linked to other areas through connectivity efforts like the One Landscape Initiative.

In the NCDE, a team led by Dr. Tabitha Graves pulled data from 1,115 bears over 14 years and found that there was a stable level of genetic diversity within the core population centered around Glacier National Park and the Bob Marshall Wilderness. Other research has indicated that the NCDE has, overall, a higher level of diversity than the GYE. Despite this, Graves' results showed that three periphery NCDE subpopulations on the southern and eastern edges of the NCDE, where grizzlies have been expanding their range, had low levels of diversity.

These edge populations also showcased "highly ephemeral patterns in genetic diversity." The reproductive behavior of a single individual can have a large impact on the overall level of genetic diversity, as was the case when a single male sired an estimated 10 of the 16 studied bears in the southwestern subpopulation.

Edge populations are important for the long-term health of the grizzly. Typically the meeting place of resident bears and immigrants, they present opportunities for new genes to enter a population and increase its resiliency. But grizzlies in these regions are also more vulnerable to human-induced mortality.

"In our intervening areas we need to concentrate on preventative actions that keep bears out of trouble," Kasworm said. "Getting from one recovery zone to another quite often bears need to traverse areas of human habitation and so it's important for bears to be able to safely navigate that."

REACHING LONG-TERM RESILIENCY

Progress has been made since 1985, yet even within two of the most robust grizzly strongholds genetic diversity has not yet reached a level that ensures the population will be able to adapt to evolving stressors.

Equally arduous as unveiling grizzly genetic trends is predicting how these threats will unfold in the future. As conservationists deeply concerned with the long-term health of grizzlies, Vital Ground considers it a priority to encourage genetic exchange and, therefore, resiliency. While population numbers in the NCDE and GYE are promising indicators that the species is on a positive trajectory toward recovery, the unstable levels of genetic diversity in those populations, not to mention those in their much smaller neighboring ecosystems, inspire us to continue being ambitious with our connectivity projects.

Our work building wildlife corridors, aimed at linking the GYE, NCDE and other recovery zones, often takes place along those crucial edge regions where bears can conduct their genes to isolated groups but are also at a higher risk of human-related trouble. Through habitat conservation projects and conflict mitigation partnerships, we are committed to both protecting open spaces and making park-adjacent communities safer for bears.

Your support of Vital Ground's One Landscape Initiative gives grizzlies a chance to overcome the odds and repopulate the lands they once roamed freely. Connectivity establishes bridges for genetic exchange, allowing bears in each recovery zone to share the best of their genetic resources with other populations and adapt to whatever changes lie ahead.

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The Vital Ground Foundation's mission *is to protect and restore North America's grizzly bear populations for future generations by conserving wildlife habitat, and by supporting programs that reduce conflicts between bears and humans.*

In support of this mission, we:

- Protect habitat that grizzlies need to survive including other species that share their range;
- Work where private lands and human impacts meet some of the wildest places left on the continent;
- Target projects that conserve critical lands, sustain habitat connections and prevent conflicts between bears and people;
- Ground our projects on current science and strong collaborative partnerships.

As a 501(c)(3) charitable nonprofit, our success depends on you!
Visit *www.vitalground.org* to donate or become a member.

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