



Crown Managers
Partnership

FORUM REPORT

INDIGENOUS LEADERSHIP IN
HONORING & CARING FOR THE
CROWN OF THE CONTINENT
ECOSYSTEM

MARCH
2023

Summary of the Crown Managers Partnership's
2023 Forum | Stick Game Arbor, Browning, MT

The Crown of the Continent Ecosystem is an iconic landscape. As we work to connect the lands, waters, and life in this region, we recognize they were not always divided as they are today.

We thank all Indigenous Peoples who call this land home for their continuing stewardship. We honor their sovereignty and respect their unique connections and knowledge of these places. We are committed to being more conscientious and inclusive by working closely with Indigenous Peoples who call the Crown of the Continent home, to create a just and equitable future.



About the Crown Managers Partnership

The Crown Managers Partnership (CMP) is a voluntary group comprised of Tribal, First Nation, federal, state, and provincial land and resource managers and universities in Montana, Alberta, and British Columbia. We recognize that no single agency has the mandate or resources to wholly address common ecological challenges throughout the Crown of the Continent Ecosystem. We therefore work together across borders to tackle shared ecological challenges and priorities.

As we embark on our third decade of collaborative stewardship, the CMP continues to foster collective, landscape-scale management guided by culture and science. We are inspired by the understanding that water, fish, and wildlife do not recognize borders, and that shared resources require shared management. Also, that Americans, Canadians, and sovereign Indigenous nations can work together to conserve this shared landscape for generations to come.

2023 Forum Objectives

- Build new, and expand existing, relationships among Tribes, First Nations, and land management organizations.
- Share stories of Indigenous leadership in caring for lands within the Crown of the Continent Ecosystem.
- Explore plans and pathways for Indigenous conservation leadership within the Crown of the Continent.
- Learn and create space within your organizations for Indigenous insight on conservation.





AGENDA OVERVIEW

MARCH 14TH | DAY 1

Biocultural

MARCH 15TH | DAY 2

Aquatics

Dinner and Mookakin Food
Demonstration

MARCH 16TH | DAY 3

Terrestrial

Field Trip to visit linnii Herd and
Regenerative Snow Fencing

MARCH 17TH | DAY 4

Taking care of the land and people
together

About the Forum

The 2023 Forum theme was “*Indigenous Leadership in Honoring & Caring for the Crown of the Continent Ecosystem*”, and was held in-person over four days from March 14-17, 2023. The Forum was hosted by the Aamskappi Piikunni (Blackfeet) Nation and held at the Stick Game Arbor in Browning, Montana. Over 170 registrants, including 50 students, from various government, non-government organizations and the local Blackfeet community attended a variety of presentations, panel discussions and a field trip to visit the Blackfeet linnii (Bison) Herd at the Buffalo Spirit Hills Ranch.

The 2023 Forum was the best attended, with the most diverse presentations and panels by Indigenous elders, youth, researchers, managers and technicians, since the inception of the annual CMP Forum in 2001. Attendees travelled from across the geographic extent of the Crown and beyond.

Thank you!

A big “thank you” to the CMP's Forum Planning Team for their hard work in putting together an excellent line up of speakers, youth and elder panels and a great field trip, to share knowledge on Indigenous Leadership in the Crown. This Forum would not have been possible without you.

Thank you to our fantastic moderators who shared their time and knowledge with us all.

Thank you, also, to Chanel Snow and her catering team for the plentiful and delicious food, snacks and drinks during the Forum. Thank you also to Anna Bullshoe and Darnell Rides at the Door for food prep for the traditional Blackfoot food demonstration that taught those in attendance how to prepare Mookakin.

Thank you to Carleigh Grier-Stewart for capturing the forum through her camera lens and sharing the photos for this report.

Lastly, thank you to all the attendees for making the Forum educational, dynamic and fun!



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FORUM OVERVIEW



MARCH 14TH | BIOCULTURAL

Elders and youth shared landscape scale perspectives about the significance of place and way of being.



MARCH 15TH | AQUATIC

How Indigenous Knowledge develops, implements, and coordinates Indigenous-led projects happening in rivers, streams, and wetlands (including topics such as beaver mimicry, native fish restoration, northern leopard frog recovery, and contaminant reduction). The day ended with a communal traditional meal and a Mookakin demonstration.



MARCH 16TH | TERRESTRIAL

Innovative Indigenous-led projects such as food sovereignty, whitebark pine restoration, ecological connectivity, and buffalo rematriation. The day included a field trip to visit a nearby buffalo herd and a regenerative snow fencing project.



MARCH 17TH | TAKING CARE OF THE LAND & PEOPLE TOGETHER

We learned about an innovative guardianship program and how Tribes and First Nations incorporate climate change adaptation when caring for the land.

PIPE OFFERING CEREMONY

March 13th

After the CMP Steering Committee meeting from 1:00-4:00 p.m., a traditional Blackfoot (Siksikaitsitapi) pipe offering ceremony was conducted by Kainai (Blood Tribe) elders, Mike Bruised Head, Peter Weasel Moccasin and Aamskappi Piikunni (Blackfeet Nation) elder John Murray. The pipe offering ceremony has been practiced among the Blackfoot people for millennia and is a ceremony that is held prior to a significant event to smudge, smoke and pray that everyone involved arrives safely, that the event is successful, and that everyone arrives safely back home to their loved ones.

The pipe offering ceremony involves the offering of pipes owned by individuals involved in the sacred Blackfoot societies, to the elders conducting the ceremony. The pipes are passed around the circle of individuals wishing to participate, who smoke the pipe and offer prayers for a successful event. We are grateful to the elders for conducting this ceremony prior to the beginning of the Forum, and for their generosity in inviting Forum participants into that space.



BIOCULTURAL

March 14th

During the first day of the Forum, traditional Indigenous prayers, speakers and youth and elder panels provided perspectives on Indigenous ways of knowing, traditional and historic cultural and holistic practices of landscape use and management, the importance of maintaining renewal and reciprocity on the landscape, Indigenous-led projects being undertaken through an Indigenous lens that elevate traditional Indigenous knowledge and practice and repatriating Indigenous place names back onto the landscape (mountains, rivers, lakes, sacred sites) that have meaningful stories of landscape history. There was formal and informal discussion among participants throughout the Forum on how these perspectives and practices can be better integrated into the future management and conservation of biocultural diversity in the Crown of the Continent Ecosystem.

Invocation

Elder Stephen Small Salmon, Confederated Salish & Kootenai Tribes

Opening of the Forum

Christen Falcon & Elliot Fox, Lead Planners

Introduction to the CMP

Linh Hoang & Kim Pearson, Crown Managers Partnership Chair and Steering Committee

Keynote Speaker

Dr. Leroy Little Bear

Youth Panel

Moderator - Christen Falcon

Mariah Durglo, Confederated Salish & Kootenai Tribes (CSKT); **Kolton Running Crane**; **Celina Gray**, **Wyatt Wippert**, Blackfeet Nation

Elder Panel

Moderators - Mike Durglo, CSKT & **Termaine Edmo**, Blackfeet Nation

Mike Bruised Head, Kainai (Blood Tribe); **Darnell Rides at the Door**, Aamskappi Piikunni (Blackfeet Nation); **Stephen Small Salmon**, Confederated Salish & Kootenai Tribes;

Ira Provost, Piikani Nation; **Carol Murray**, Aamskappi Piikunni (Blackfeet Nation); **Peter Weasel Moccasin**, Kainai (Blood Tribe)

Siksikaitstapi (Blackfoot Confederacy) Niitsitapi-led Network for Blackfoot Guardianship of Rocky-Mountain East Slopes

Kimmy Houle, Blackfoot Confederacy Tribal Council & **Paulette Fox**, Harmony Walkers Inc.

To kick off the first day of the Forum, an opening blessing and prayer was offered by Confederated Salish & Kootenai Tribes (CSKT) elder, Stephen Small Salmon. This was followed by Forum Planning Co-Leads, Christen Falcon and Elliot Fox, welcoming everyone and opening the Forum. CMP Forum planning team members, Linh Hoang and Kim Pearson, then provided an overview of the 2023 Forum, a history and update on the CMP, and past and current initiatives.

Dr. Leroy Little Bear from the Kainai (Blood Tribe) First Nation provided an opening keynote presentation beginning with an explanation of the importance of song and offered a traditional Kainai (Blood Tribe) song. He continued with information that set the context for the Forum, and provided deep insights into Blackfoot ways of knowing, the long Blackfoot presence and history in the Crown that owes its pristine continuation to the cultures that have been its stewards for millennia, current Western science vs Blackfoot perspectives on conservation, differences in Blackfoot & Western metaphysics paradigms, and what needs to be done to sustain the Crown Ecosystem for the future.

The elder's panel then shared landscape scale perspectives about the significance of place and ways of knowing and being through an Indigenous lens and why Indigenous involvement is needed to ensure biocultural diversity is sustained for the future of the Crown ecosystem. Each elder told their own story.

Kimmy Houle and Paulette Fox (Kainai – Blood Tribe) wrapped up Day 1 by presenting on the Blackfoot Confederacy (BFC) Guardianship of the East Slopes Knowledge Hub initiative led by the BFC (Siksikaitapii) Tribal Council that is pursuing an International Blackfoot (Niitsitapi) led Network for Guardianship of the Rocky-Mountain East Slopes. The guardianship area covers the transboundary region of the east-slopes including the Badger Two-Medicine, Milk, Oldman and Bow River watersheds located in traditional Blackfoot Territory. The BFC Guardianship initiative is currently in its third and final year of funding and they are looking ahead to expand beyond year 3. The growth of eco-disturbances creates an urgent need for protection. The BFC initiative is drawing on and continuing the inherent Blackfoot holistic ways of: Being, Valuing, Knowing and Doing, that will form the basis of the hub as a framework for Blackfoot governance.

Day 1 of the Forum was a great start to begin building better relationships among Tribes, First Nations, and land management organizations in the Crown, as stories were shared on Indigenous leadership in caring for lands within the Crown Ecosystem. There was powerful energy in the room that brought people to tears on the first and subsequent days of the Forum.



AQUATIC

March 15th

On the second day we heard about the importance of Aohkii (water) to the Indigenous communities around the Crown. Research focused on native trout (bull and westslope cutthroat species), beaver mimicry, contaminants to river basins, carbon uptake by wetlands and northern leopard frog rematriation and transboundary collaboration occurring in the Crown were presented. We heard from Blackfoot elder, Leon Rattler, about the sacred bundles and that they are timekeepers of the universe and the world and are our living connection to the sun, the moon, the stars and cosmos, the flora and fauna, the air, and the cleansing that water and fire bring to the landscape. The elder spoke about climate change and how it has shifted migration cycles and seasons of plants and animals, which affects Blackfoot seasonal rounds and when they can open the bundles. We learned that the Blackfoot are a matriarchal society that respects their women (matriarchs) who give us life and the significance of female plants and their potent healing properties. We gained an understanding of impacts to cultural resources and learned from Tribes and First Nations on how to best manage culturally significant areas.

Blackfoot Confederacy & Blackfeet Fish & Wildlife Native Trout Work

Jeremiah North Piegan, Blackfeet Fish and Wildlife Department; **Alvin First Rider**, Blood Tribe Land Management & **Elliot Fox**, Blackfoot Confederacy Tribal Council

Beaver Mimicry

Termaine Edmo & elder Leon Rattler

Large scale mining impacts in the Kootenai watershed

Shawn Young, Kootenai Tribe of Idaho & **Erin Sexton**, Flathead Lake Biological Station

Soil Carbon in Natural vs Constructed Wetlands on the Flathead Reservation in Montana

Mariah Durglo, Confederated Salish & Kootenai Tribes

Working Together to Restore Matsiyíkkapisaa/Northern Leopard Frog at Paahtómahksikimi

Alvin First Rider & Kim Pearson

Restoring Northern Leopard Frogs to Flathead Reservation

Art Soukkala, CSKT

Mookakin Making Demonstration

Elder Darnell Rides at the Door, Blackfeet Nation

Traditional Blackfoot Dinner

Chanel Snow, Blackfeet Nation

The second day of the Forum began with a joint presentation by Jeremiah North Peigan, Fisheries Biologist with the Blackfoot Fish & Wildlife Department, Elliot Fox, Assistant Project Manager for the Blackfoot Confederacy (BFC) Native Trout Recovery Project and Alvin First Rider, Environmental Researcher with the Blood Tribe Land Management Department (BTLMD), where we learned about important fisheries work happening east of the continental divide in the Alberta and Montana portions of the Crown Ecosystem.

The BFC trout project study area included the Oldman River watershed, whose headwaters are in the mountains of the Crown Ecosystem and subsequently drain through the eastern slopes and out onto the prairies. The BFC trout project focussed on two native trout species in the study area, Bull (BLTR) and Westslope Cutthroat Trout (WSCT), that are both listed as “threatened” under the Canada Species at Risk Act (SARA) and in the United States, WSCT are listed as a “Species of Concern” in Montana and BLTR are listed as “Threatened” under the Endangered Species Act (ESA). BFC trout project staff trained technicians from the four BFC Nations (Amskappi Piikunni, Kainai, Piikani and Siksika) in conducting Environmental DNA (eDNA) sampling, water temperature logger installation and monitoring, habitat restoration and spawning bed surveys.

The main highlights of the three-year BFC trout project were finding two previously undocumented populations of WSCT in the Oldman watershed in Shale and Callum Creeks and finding numerous streams where BLTR and WSCT still exist, albeit in lower numbers compared to historical records. Some Blackfoot Ecological Knowledge was shared with Forum participants that was collected from interviews with Blackfoot elders on the significance of fish, water and historic places in Blackfoot territory.



Forum participants learned about the Blackfeet Fish and Wildlife Department (BFWD) fisheries program that focuses on the streams and lakes located on the 1.5 million acres that make up the Blackfeet Reservation. The BFWD were partners and participants in the BFC Native Trout Recovery Project and learned the methods employed by that project. The BFWD fisheries program is also involved in the following activities:

- utilizing Passive Integrated Transponder (PIT) technology and methods to estimate general fish population and distribution data by tagging and monitoring native trout (BLTR and WSCT) movement in some of the tributaries and lakes draining through the Blackfeet Reservation.
- The BFWD fisheries staff collaborate closely with United States Fish and Wildlife Service (USFWS), Glacier National Park (GNP), Montana Fish, Wildlife and Parks (MTFWP) and the United States Geological Survey (USGS) in monitoring Blackfeet fish populations, of which some are transboundary.
- Conducting fish salvage operations on water and irrigation canal diversions that pose a significant threat to native trout species becoming entrained in those canals;
- Construction of a new diversion dam on the St. Mary River that diverts water to the Milk River will begin in 2024 that will better prevent native trout from being entrained and lost to the population.
- Conducting electrofishing activities on tributaries to confirm native trout presence/absence and to periodically take tissue samples for DNA analysis.
- Maintaining and enforcing fish regulations on Blackfeet Reservation fisheries.

The BFWD fisheries staff will be collaborating with the BFC trout project in 2023 to conduct aquatic and terrestrial habitat assessments in the newly created Chief Mountain unit to prepare for the reintroduction of bison to this unit in the next few years.



Termaine Edmo, with the Piikani Lodge Health Institute (PLHI), informed Forum participants about some of the work the PLHI is involved in. A Beaver Mimicry project was the first implementation project from the Blackfeet Climate Adaptation Plan in 2018 that involves the construction of beaver dam analogues (BDA's) in streams on the Blackfeet Reservation that mimic beaver dams and hopefully attract beavers back to those streams.

We learned that Brother Beaver is a very important and sacred species for the Blackfeet. The most important part of this project was empowering youth. Partners in the project are: Blackfeet Community College, Big Sky Conservation Corps, Blackfeet Nation, Pikunni Lands Crew, Blackfeet High School, Center for Large Landscape Conservation, Montana Conservation Corps and a few others. Fellows were matched up with Knowledge Holders; K-12 were engaged in working on field monitoring, photo surveying, flow devices, etc. The Montana Beaver Working Group gave them amazing opportunities and looked to them for next steps; Next steps include getting the guidebook in producers' hands as part of an educational outreach program.

We learned that we are all connected to the underwater beings and it is up to us to steward those places, songs, and spirits, as we seek to honor them. This is how we will support the transfer of all this knowledge. Seeing these students' eyes open and the community come together really was Termaine's 'aha' moment; The project received a Stewardship Award for this project in 2021 and hosted a watershed tour in 2022 with the theme being drought resilience. We also learned that some of the beaver mimicry projects need to be repaired or reconstructed each year because they get washed out.

Termaine mentioned that the PLHI and project participants planted 200 willows on both sides of the stream which is near the new stick game arbor that is being built to replace the current building, and not even two weeks after, they started seeing birds and insects and frogs; all during the terrible drought and she managed to keep 90 of those trees alive; The PLHI is going to a Phase II – bringing everything that they need – frogs, trees, medicines – in Heart Butte; including whitebark pine.



TAOS YELLOW OWL

What We Can Do To Help Our Traditional Foods

ESSAY BY TAOS YELLOW OWL

Does climate change affect traditional foods? Short answer is yes. During this past summer there were no Sarviss Berries. My aunties had to go to a Sarviss Berry Farm because of the drought caused by climate change and global warming. The drought causes a lack of water in the ground making it hard for plants to grow. Although the berries from the farm were good, that takes away from the traditional method of harvesting. My people have picked berries for thousands of years. Gathering the berries naturally is better for mind, body and spirit. Plus it's just better to get the berries out in the natural world so you can give an offering of thanks. How we can solve this problem is by installing Beaver Mimicry Dams. This is a way to spread water into the ground more efficiently and it's cheap to do.

How to do this is simple, I attended a camp this summer where we installed nine Beaver Mimicry Dams in stream. You need about five or six posts depending on how wide the stream is. We used old Tipi poles, three to five feet long. Depending on how deep the stream is. Then you need to pound those into the ground in a zigzag pattern. After that you have to gather up rocks and place them on the side of the posts against the flow of the stream forming a rock wall. The Rock wall can't be too big or too small. Then you need willows or any other indigenous trees you can find. After you harvest some willows you place them in a weaving pattern between the posts. Start from side to side until you meet in the middle with weaving of willows. Don't use so much that completely plugs up the dam and don't use too little to where it lets water go through the Dam. The water needs to flow over the top of the dam. Then dig up some sedge about two buckets worth maybe more depending on the size of the dam. Then you cover the holes in willows with the wet sedge for reinforcement.

For the dams job is not to completely stop the water in the stream but rather by slowing it down. This ensures that the water is spread all throughout the ground and is stored better. This helps the Sarviss Berries and any other plants in the area grow. By keeping the water stored for longer periods of time.

All the materials used for Beaver Mimicry Dams came from nature and would be free. Labor is free if you are building dams for yourself. Also all the tools used do not acquire gas, just your hands and muscles. The only cost is gas to help you get materials and transport them to Beaver Mimicry Dams site.

The ultimate goal is to install Beaver Mimicry Dams all across my community. This would help my community by bringing back life to the Sarviss Berries, all other traditional foods and all the surrounding plants. Having my community people build dams will help their state of mind and mental health. By getting back to nature and helping to keep our traditional plants growing.

This past year it was very stressful for my aunties and other community members. Because we didn't have enough of our essential traditional food, the Sarviss Berry, that my people have used for eons in ceremonial practice. Strategically placing the Dams across my community will help us further mitigate traditional food insecurity.

With this in mind Beaver mimicry is the best way to help bring back traditional foods naturally. This is also a good way to help combat climate change and global warming. And returning back to our traditional ways of learning from the first engineer, the beaver. Like we have done for millennia.

As part of his remarks during the Youth Panel, Taos Yellow Owl read this essay that he had written at camp with the Native Science Field Centers at Blackfeet Community College. We are so grateful to him for his permission to share it here.

Leon Rattler is a beaver bundle holder and Elder and shared some remarks and knowledge:

- As you start to travel into the spiritual world – what is important about migration of animals and changing of climate when we open our bundles and when we close our bundles?
- The bundle itself is too complicated and too vast in knowledge for most of us to comprehend, and I view myself as a student and am trying to learn and pass on the songs and knowledge associated with the bundle;
- What animals are migrating right now and how does that spread the light we have in this world?
- You see sores on the sides of the elk, the deer, the fish, all the animals because of the pesticides we put on our fields; and how we fence off everything now so they cannot move;
- The bundles are a timekeeper of this universe and a timekeeper of this world;
- Climate change has shifted migration cycles and seasons and animals, which affects when we can open the bundles;
- I felt like when I went to universities was like being brainwashed; they wanted me to change the way that I looked at things; so my elders told me just to be sure to return and then don't leave; never did I think that I would find myself sitting in the places where they used to sit;
- We come from a matriarchal world, and it is the female that gives life to us and the female plants that we pay attention to; e.g. 3 sage leaves from a female sage plant has the potency of a ball of leaves from a male plant;
- When we pick sweetgrass, we gather it all in the same place and have to do it sustainably and choose the female leaves – you can't just show up and cut a bunch and think you have something holy; all of these lessons were taught to us by Elders; one told me, "You will never understand the importance of what we are telling you until it comes time to do it."
- Beaver bundle: we pay attention to what the stars are doing; and what the moon is doing; how does that reflect on the plants today; sometimes because of pollution we cannot see it; and sometimes because of the way that fire cleanses our world we cannot see it; and sometimes because of the way that water cleanses our world we cannot see it;
- This is all so important to us because it is our heart, because that is where unconditional love comes from;
- I listen and watch to think about how this all affects my artwork; but sometimes you have to live in both worlds (university for his brain and beaver bundle and Blackfoot culture for his heart);
- And in a nutshell; that is what the beaver bundle is for us.



Erin Sexton, Senior Scientist with the Flathead Lake Biological Station and Sean Young, Fish and Wildlife Director with the Kootenai Tribe of Idaho presented on large scale mining impacts in the Kootenai watershed on the west side of the continental divide impacting the Crown ecosystem, among other nearby landscapes. The Crown Ecosystem is ecologically intact but jurisdictionally fragmented, and fragmentation of the landscape makes it harder to overcome challenges in this region. The Elk River had five open-pit coal mines operating that discharge high concentrations of nitrate nitrogen and selenium, which exceed toxic levels for wildlife. Rivers are not a great spot for coal mines because everything is interconnected and because they are biodiversity hotspots. As a result, the Elk River is losing its stonefly diversity and abundance, and aquatic communities below the mines have changed. The BC-MT Memorandum of Understanding and Cooperation, signed in 2010 which says we'll work together across the boundary and permanently banned mining in the Flathead, However, the Ktunaxa were allowed to witness this signing but not allowed to sign it which was problematic then and still is today.

There are still 4 active mines in the Elk Valley and three new proposals, and the contaminants are being spread hundreds of miles downstream, affecting the Columbia River and crossing Ktunaxa and Confederated Salish and Kootenai Tribes' Territories and Nations. Data collected from the Elk River is a story of regulatory negligence. In 1992 selenium started crossing the boundary of safety for wildlife; and in 2014, despite skyrocketing levels far above that threshold, BC signed an agreement to allow the coal mines to expand significantly. Often called the invisible contaminant because it acts on the reproductive organs of wildlife, so eggs fail to hatch, and offspring die.

The Kootenai Tribe of Idaho aims to educate people about what is really going on in the ecosystem and how to restore it within the confines of modern-day structures and ownership, with focal species of white sturgeon and burbot. Fish are key but it is a holistic ecosystem restoration approach. The sturgeon hatchery facility is 30+ years old with a new state of the art hatchery upgraded in 2015. The burbot hatchery is almost 20 years in the making. Burbot are released at 10-11 months old and 100,000 have been released over the years. They have filled the recruitment gaps that have been going on for decades.

The focus is now on habitat restoration for fish spawning in a big connected alluvial floodplain valley, which is difficult due to resistance to change. Genetic profiling is used to track fish and water chemistry and contaminants. Large-scale habitat restoration has been successful in the Kootenai River, restoring birds and working with private landowners. Contaminants are a major issue as pollution levels have exceeded safety thresholds, and no mitigation has been done in the Elk Valley. Fish sampling has shown high levels of contaminants, causing deformities in fish and bioaccumulation in bull trout and freshwater mussels. Montana and Idaho will likely be listed as impaired based on fish tissue sampling results. Restoration efforts have cost \$500 million so far, but more funding will be needed to continue. Indigenous people have a significant role in addressing these issues.

Mariah Durglo from the CSKT presented on soil carbon in natural vs constructed wetlands. Mariah discussed the benefits of wetlands such as supporting biodiversity, erosion control, water storage, carbon storage and cultural connections. Mariah's research question focused on comparing the soil carbon storage levels between natural and constructed wetlands in the same watershed. The hypothesis is that soil carbon levels will be greater in natural wetlands than in highly disturbed constructed wetlands. The methods included surveying three natural wetlands and one constructed wetland, taking soil samples, using a Munsell color chart, and conducting three sample days. The results showed that Swartz Lake had the highest carbon in the spring and steadily decreased throughout the season. Other natural wetlands had similar patterns but had about half the amount of carbon as Swartz Lake. Swartz Lake had nearly ten times the carbon measured in the constructed wetland at the Pablo reservoir.



Kim Pearson, Ecosystem Scientist, Nature Legacy Program, Parks Canada – Waterton and Alvin First Rider with the BTLMD presented on working together to restore Matsiyikkapisaa (Northern Leopard Frog) at Paahtomahksikimi (Waterton Lakes). The plight of amphibians in the Crown Ecosystem was discussed with a focus on the northern leopard frog. The frog is at risk in the region, and its cultural significance to the Blackfoot people is also noted. Blackfoot cultural significance: war shirt with a tadpole design represents youthful energy; a tepee with a tadpole design represents fertility; April is frog month for the Blackfoot and tadpoles are also sacred because they can travel between the terrestrial and aquatic world. Northern leopard frog population declines are thought to be from a combination of drought, habitat loss, and chytrid (a fungus that is lethal to adult frogs but doesn't affect tadpoles). In 2003, work to return northern leopard frogs to the landscape began with Parks Canada. In 2015, after unsuccessful attempts in 2007-10, Northern leopard frog egg masses were successfully translocated from areas where the species still exists to areas where it has disappeared. Site selection for translocation is important, and collaboration between western and Indigenous ways of knowing is necessary for successful efforts. Citizen science has been essential for reporting sightings of northern leopard frogs.

Art Soukkala, Wildlife Biologist with the CSKT, presented on restoring northern leopard frogs to the Flathead Reservation. In the 1970-80's, populations of northern leopard frogs disappeared from western Montana but still exist in the eastern part of the state. The reintroduction of species to reservations, such as peregrine falcons, trumpeter swans, and sharp-tailed hawks, has been successful. There was concern about bringing populations from eastern Montana into western Montana, but genetic testing showed little difference between the two populations. Egg masses were found to be a better option for transportation than adult frogs. Tadpoles were initially released in a contained area for protection but were later released into the natural environment after a few days in captivity. The first release site was the Stinger Creek headwaters, and the second site was Little Bitterroot. The tadpoles at the second site were larger, and full metamorphosis occurred earlier. Between the two release sites, 128 egg masses were translocated, and 281,087 tadpoles were released. In 2017, frogs were found beyond where they were released, breeding over a nine-mile stretch.



There was a short break after the last presentation on Day 2 and Blackfoot elder, Darnell Rides at the Door, demonstrated how to make Mookakin (pemmican) with the help of her granddaughter. Mookakin is a traditional Blackfoot food. Traditionally, mookakin was prepared from the lean meat of large game animals such as buffalo, elk or deer. The meat was cut in thin slices and dried over a slow fire, or in the hot sun until it was hard and brittle. Then it was pounded into very small pieces, almost powder-like in consistency, using stones. The pounded meat was mixed with rendered fat with a ratio of approximately 50% pounded meat and 50% fat. Dried fruits such as service (saskatoon) berries, cranberries, blueberries, or choke cherries were pounded into powder and then added to the meat/fat mixture. Mint was sometimes added to better preserve the food. Mookakin was traditionally made in large quantities and then packed into “green” rawhide pouches for storage. Mookakin was a highly nutritious food that was packed on long trips and stored in strategic locations in Blackfoot territory that ensured access to food at all times of year as the Blackfoot made their seasonal rounds. It was a critical source of nutrition in the winter and times of starvation. Forum participants were then guided in making their own Mookakin and sampled it and took the leftovers with them.

Day 2 ended with a traditional Blackfoot meal consisting of traditional bison roast and berry soup that was prepared by Forum caterers, Chanel Snow and James Harwood, and was delicious.



TERRESTRIAL

March 16th

The theme for Day 3 was terrestrial (land) and Forum participants learned about Indigenous research on Whitebark Pine (WBP) restoration efforts on the Flathead Reservation; Naapi's Garden, a project in the Kainai (Blood Tribe) community to grow traditional plants for food, medicine and ceremony; connectivity efforts in the Crown by the Center for Large Landscape Conservation; the Buffalo Treaty, the traditional significance of bison to the Blackfoot people, the linnii (bison) Initiative, the Blackfeet Buffalo Program and efforts to return bison to the Chief Mountain area; the history and return of the National Bison Range and the importance of bison to the CSKT. Day 3 ended with a field trip to the Blackfeet Spirit Hills Bison Ranch where Forum participants had an opportunity to see some of the bison herd. A small group of Forum participants then travelled to the Browning High School and viewed three examples of snow fences designed to trap snow near streams and wetlands to help recharge ground and surface water flows.

Sowing History, Growing culture, planting language: CSKT's Whitebark Bio Cultural Restoration
ShiNaasha Pete, CSKT

Naapi's Garden & Katoyiss Seed Bank
William Singer III, Kainai Nation

Nature Undivided
Katie Deuel, Center for Large Landscape Conservation

Lunch - Traditional meal
Chanel Snow, Blackfeet Nation

Soil carbon in natural vs constructed wetlands
Mariah Durglo, Confederated Salish & Kootenai Tribes

The Buffalo Treaty
Alvin First Rider, elder Dan Fox, elder Leon Rattler, Ervin Carlson

CSKT Bison Range Restoration
Whisper Camel-Means & Steph Gillin, CSKT

Field Trip to Blackfeet Spirit Hills Buffalo Ranch
Ervin Carlson & Wyatt Wippert, Blackfeet Nation

Field trip to Snow Fences
Tyrel Fenner, Blackfeet Nation Hydrologist

ShiNasha Pete, WBP Restoration Manager for the CSKT, discussed biocultural restoration by the CSKT utilizing WBP and the importance of WBP trees, which are keystone species that can live for thousands of years and provide habitats for over 100 other species. WBP also has cultural significance to the Confederated Salish and Kootenai Tribes (CSKT) and is an important part of their traditional stories and language. However, WBP forests are threatened by invasive pathogens like blister rust and severe fires that are now burning in high elevation areas. To combat this, CSKT has begun a restoration effort that involves collecting seeds from WBP trees that show genetic resistance to blister rust, growing seedlings in greenhouses, and planting them in culturally important areas of the Reservation. The restoration effort also involves using prescribed fires to restore natural heterogeneity to WBP forests. ShiNasha stressed the importance of mentorship and training for students in forestry programs and notes that it may take 60-80 years for the WBP trees to start producing seeds, making this work a legacy for future generations.

William Singer III (Api'soomahka – Running Coyote) from the Kainai Nation (Blood Tribe), discussed the importance of decolonizing our diets and returning more to our traditional, natural diets, as a lot of the foods we eat are now processed, containing large amounts of salt, sugar and preservatives that have caused diabetes and hypertension that is rampant globally in most Indigenous communities that have been colonized. He spoke about some of the traditional plants used for food, medicine and ceremony and mentioned specific properties different plants contain that promote good health. William described the establishment of Naapi's Garden, where native plants are grown and used for food, medicine, and ceremony. He provided numerous samples of some of the plants he harvested and brought to the Forum for participants to try.



Katie Deuel with the Center for Large Landscape Conservation (CLLC) discussed the importance of maintaining ecological connectivity networks on large landscapes that sustains biodiversity and species migration. The importance of connectivity as the circulatory system of nature and the significant threats to it, such as climate change and linear infrastructure like roads and railroad tracks was also discussed. Animals react to climate change in three ways: move, adapt, or die. Ecological networks provide the architecture for large-scale conservation, including people on the landscape. Linear infrastructure has a massive impact on animals, with many getting bumped and killed every year in the US and worldwide. To restore connectivity across roaded areas, overpasses and underpasses are used. The Blackfeet Nation Animal Vehicle Collision Reduction Plan is connected to the Blackfeet Nation's Climate Adaptation Plan, and a Tribal Lands road map is used to report animal collisions.

Dr. Leroy Little Bear, who was instrumental in establishing the Buffalo Treaty and returning numerous bison herds back to their Indigenous homelands, was scheduled to present on his bison experiences, however, he was unable to attend due to a last-minute change in his schedule. In his place, other Indigenous individuals involved in restoring bison to their traditional lands stepped up.

Blackfoot elder Dan Fox, who was born and raised on the Blood Indian Reserve with nine siblings, talked about his experience with establishing his own bison herd. He began engaging with buffalo because he needed healthy food, and later, when he got sick, he started using bison broth as part of his recovery process. This led him to switch to a natural diet without refined foods like beef, dairy, and seafood. He started buying bison every year and now has 30 head, which he only captures once a year. The more he leaves them alone, the better, and since he has had them, many other animals have come back, such as badgers, weasels and birds that have been absent since bison disappeared. He has a bison harvest every year and works with the Elders, with a full day of ceremonies and a feast at the end of the day, where elderly ladies teach the young ones about traditional processing of the whole animal.



Alvin First Rider with the BTLMD, spoke about how The Buffalo Treaty was created after the Blackfoot Buffalo Dialogues in 2008, which focused on reconnecting with the land and healing the community. The treaty was signed in 2014 by 14 Indigenous Nations and has grown to include over 50 Tribal Nations, NGOs, and schools. Its purpose is to honor, recognize, and revitalize the relationship between Indigenous peoples and buffalo, providing a safe space for them to live together again. The Treaty continues to grow, with recent signatories including the University of Lethbridge and Lethbridge College. During the Buffalo Dialogues, an empty chair was always present for the buffalo, who shaped the conversations leading up to the Treaty. Two years ago, the Blood Tribe returned 40 Plains Bison, that were absent for over 140 years, to the Blood Reserve where numerous individuals and groups come to see them, pray, make offerings and sing.

Blackfeet elder, Leon Rattler, described the importance of the buffalo to Indigenous communities, including the Return of the Buffalo Survival School and the significance of the buffalo in helping people with illnesses and cancer. Leon discussed the restoration of traditional knowledge and practices, including songs and stories, along with the return of the buffalo. He also highlighted the significance of the buffalo to the land and soil, and the role it plays in renewing the environment. Finally, he expressed gratitude for the return of the buffalo and its place in Indigenous ceremonies and culture.

Ervin Carlson, Director of the Blackfeet Buffalo Program and President of the Intertribal Buffalo Council (ITBC), spoke about the Blackfeet Buffalo Program that aims to restore the cultural and spiritual connections between Indigenous peoples and the buffalo. The program was established in the 1970s to make bison free roaming like other wildlife. At the time, Ervin was the Agriculture Director for the Blackfeet Tribe and was put in charge of the program in 1996, and two herds have been established since then. The buffalo provide healthy meat for the tribe and help restore their cultural connections. The ITBC is working to return buffalo to Indian country. Buffalo skulls were found in the mountains after a fire, revealing that buffalo were not only plains animals. The linnii Initiative, an NGO, is now Indigenous-led and working towards the restoration of buffalo and cultural connections.



Whisper Camel-Means and Steph Gillin discussed the CSKT Bison Range Restoration efforts. In December 2020, Congress restored the bison range to the Confederated Salish and Kootenai Tribes (CSKT), and by January 2022, it was fully restored. The museum has been Indigenized and features signs, a quarterly newsletter, and a gift shop that supports tribal vendors, vendors on the reservation and vendors in the state of Montana. The celebration saw Deb Haaland, US Secretary of the Interior, attend a visit to the CSKT Bison Range. The bison range is spread across 18,500 acres, hosting several animals such as 325 bison, 350 elk, deer, pronghorn, bighorn, bears, and wolves. The Culture Committee showcases the tribe's connection with the land, and the museum displays artifacts such as scrapers, teepees, and a bison bladder used to carry water. The restoration process highlights the importance of women and their relationship with the bison. The Salish language has no word for ownership, and the tribe had to purchase land back, even off the reservation. The CSKT hopes to build another visitor center on Ravalli Hill and continue to manage the herd with low stress handling.

Following the Day 3 presentations, a large group of Forum participants carpoled in the early afternoon and visited the Blackfeet Spirit Hills Buffalo Ranch, where Ervin Carlson and Wyatt Wippert, Indigenous Led/Innii Initiative Programs Coordinator, explained the Blackfeet buffalo herd operations and where the two different herds were located on the Reservation. The Elk Island herd was grazing in a pasture near the Ranch headquarters and participants got an opportunity to see the animals from a safe distance when they approached, curious to see who we were. We had great weather for the field trip, although there was still snow on the ground, and participants had opportunities for some great photos. Following the bison field trip, A small group of Forum participants then travelled to the Browning High School and viewed three examples of snow fences designed to trap snow near streams and wetlands to help recharge ground and surface water flows. Tyrel Fenner, Blackfeet Hydrologist with the PLHI, explained the design and purpose of the snow fences and plans to construct other snow fences around the Reservation.



TAKING CARE OF THE LAND & PEOPLE TOGETHER

March 17th

The final day of the Forum included presentations on Climate Change work happening with the CSKT that involve elders and youth, the Nature Conservancy's Lands Collective initiative that is supporting Blackfeet conservation work and the Glacier Guardian Program, recently established by the Blackfeet Nation to support bison reintroduction and other wildlife and fisheries conservation work in the Chief Mountain area. The Forum wrapped up with the remaining participants gathering in a circle where Blackfeet elder, Robert "Smokey" Rides at the Door, offered a closing prayer thanking the Creator for a great meeting and for everyone to have safe travels back home to their families.

CSKT Climate Change Strategic Planning
Mike Durglo, CSKT

Blackfeet Lands Collective and The Nature Conservancy
Dylan DesRosier, Blackfeet Nation

Blackfeet Glacier Guardian Program
Ryan Running Wolf, Blackfeet Nation

Closing Prayer
Elder Robert "Smokey" Rides at the Door, Blackfeet Nation



Day 4 of the Forum was opened by Mike Durglo Jr, Tribal Preservation Department Head and Climate Change Advisory Committee Chairman with the CSKT, who discussed the climate planning efforts of the CSKT. The Climate Change Strategic Plan was first created in 2013 and is updated every five years, with the third edition to be released in 2023. The plan involves interviews with elders and the Environmental Advocates for Global and Local Ecological Sustainability (EAGLES) program for youth involvement. The 2023 update will be more comprehensive and emphasize connectivity, and WBP restoration is an important element. In 2022, CSKT passed a resolution to make climate change a top priority on the reservation, and they are currently working on building story maps for each of the 10 sectors involved in the plan to get information out to the public.

Dylan DesRosier, Blackfeet Program Manager with The Nature Conservancy, Montana office, discussed the land as we see it today that is a result of thousands of years of intentional land stewardship by Indigenous peoples. Often it is thought that indigenous land stewardship was passive and not intentional, but that is a big misconception. Dylan stressed that we are inheriting all the benefits of their hard work. He also discussed the intentional land stewardship practices of Indigenous communities, particularly the Blackfeet, and the efforts of The Nature Conservancy to promote and collaborate in these efforts that began in 2015. The Blackfeet Lands Collective is creating a baseline directory of Blackfoot-led conservation projects, initiatives, etc., with the hope of facilitating collaboration. The goal of The Nature Conservancy is to emphasize Blackfeet efforts and promote collaboration. The directory is currently a hard copy document but will eventually be an interactive online tool. The main goal is to increase the Nation's control over lands. The Nature Conservancy is helping with land acquisition. Also working to expand transboundary efforts beyond reservation borders into Canada, to help tear down those borders and challenges.

The final presentation at the 2023 CMP Forum was provided by Ryan Running Wolf. Ryan is the former Chief Warden with the Blackfeet Fish and Wildlife Department, who now leads the Glacier Guardian Program in the newly established Chief Mountain Unit on the Blackfeet Reservation. The program is the only guardian program in the US, with a goal of reintroducing bison to the area. Some of the current projects include studying elk migration and the impact of fencing, moose and trout studies and aerial wildlife counts. The Blackfeet Tribal Business Council recently cancelled 28,000 acres of grazing leases for 8 years in the Chief Mountain Unit, that were paid out by The Nature Conservancy to those that were actively ranching. The program has recently applied for a grant to involve high school and college students in natural resources.

The Forum concluded with the remaining participants gathering in a circle in the Stick Game Arbor where Blackfeet elder, Robert "Smokey" Rides at the Door, offered a closing prayer that gave thanks to the Creator for a great meeting and asked that all participants have a safe trip home to be reunited with their loved ones.

WHAT WE HEARD

The following includes feedback received about the functionality of the forum itself to be used for future planning:

- Importance of having Indigenous presentations and involvement (ceremony & Indigenous Knowledge) at Future CMP Forums and keeping the conversations going.
- Having more field activities for participants at future Forums with interactive elements to reiterate the classroom being outside.
- Having more breakout sessions at future Forums to facilitate individual productive conversations among participants and expand networks.



NEXT STEPS & OPPORTUNITIES

- Create a CMP policy for appropriately and fairly compensating Indigenous Knowledge Holders and leaders for their time as co-leads and/or participants on Forum Planning Committees, members of Forum panels, presenters, etc.
- Ensure that Indigenous worldviews, knowledge, and leadership are as strongly interwoven and represented at all future forums as they were in 2023.
- Revise CMP publications (e.g. *Invasive Plants of the Crown of the Continent*, etc.) so that next versions have Indigenous Knowledge and tribal projects and work represented throughout, and to ensure that all references to species include names in the languages of the tribal nations of this land wherever applicable.
- Revise the introduction provided by the CMP Steering Committee Chair at the beginning of each Forum so that it is more inclusive of Indigenous worldviews and leadership across the Crown, and that it acknowledges, more explicitly, that the astonishing level of ecological integrity across the landscape is the direct result of thousands of years of stewardship and management of the Tribes and First Nations across this region.
- Extend the learning undertaken at the 2023 forum to further engage Indigenous communities, organizations and individuals in the ongoing collaborative work of CMP.

Interested in learning more about the Crown Managers Partnership?

Recognizing that no single agency has the mandate or resources to address regional environmental issues, the Crown Managers Partnership (CMP) formed in 2001. The CMP is a voluntary partnership amongst federal, state, provincial, Tribal and First Nation agency managers and universities in Alberta, British Columbia, and Montana. We are a community of practitioners that collaborate on common issues, share resources, & exchange knowledge.

Our current shared conservation priorities include five needle pines, fire on the landscape, invasive species, native salmonids, watershed integrity, forest carnivores, and fish and wildlife habitat connectivity. Any experts are welcome to join our working groups - we are a coalition of the willing!

To learn more about the work that we do, check out our [website](#) and our [2021-2025 Strategic Framework!](#)

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