

Rocky Mountain Front Grizzly Bear Management Program 2022 Annual Report Choteau Office- Region 4 Montana Fish, Wildlife and Parks



Prepared by: Daniel McHugh, Bear Management Technician Chad White, Grizzly Bear Management Specialist



Acknowledgements

In its second season, the Choteau Bear Management Team accomplished a plethora of objectives that would not have been possible without the help of a variety of contributors. Funding for bear management efforts was provided by Montana Fish, Wildlife, and Parks. Additional thanks to Safari Club International and Montana Outdoor Legacy Foundation for providing funding for additional management resources across the region. The Choteau bear management team would like to acknowledge the following:

The MFWP bear management team out of Conrad, Wesley Sarmento, Jack Austin, and Erin Fenger; MFWP Supervisory staff Gary Bertellotti and Cory Loecker; MFWP game wardens Rod Duty, Adam Gearing, and Mike Krings, and the entire Region 4 enforcement division; MFWP regional wildlife biologists Brent Lonner, Ryan Rauscher, Sonja Anderson, and Jake Doggett; The regional USDA Wildlife Services (Wildlife Services) team including Kraig Glazier, John and Kurt Miedtke, Skippy Simms, Glen Hall, Dymond Running-Crane, and Luke Peebles; MFWP helicopter pilot Joe Rahn; Jeff Horn of the Blackfeet Tribe; Forest Service Biologist Dave Kemp, and supporting staff of the Helena-Lewis and Clark National Forest, Flathead National Forest, Montana Department of Natural Resources, and BNSF railway; MFWP Northern Continental Divide Ecosystem (NCDE) Trend Monitoring team Lori Roberts, Milan Vinks, Kyle Yorke, and Cecily Costello; Hilary Cooley, Ben Jimenez, Amber Kornak, and Rory Trimbo with US Fish and Wildlife Service (USFWS) Grizzly Bear Recover.

Introduction

Grizzly bears (*Ursus arctos*) have a long history of occupancy on the prairies east of the continental divide. Though the grizzly is a native species that historically ranged throughout Montana and much of the West, its distribution and abundance when it was federally listed in 1975 was significantly diminished compared to historical and modern levels. In 2022, grizzlies were documented as far east as the North Moccasin Mountains near Lewistown, MT. While Region 4 is home to a large portion of the Northern Continental Divide Ecosystem (NCDE) and its associated Grizzly Bear Recovery Zone, grizzly bears have expanded eastward onto private land outside of the recovery zone. A large majority (>95%) of the grizzly bear conflicts/complaints the Choteau Bear Management Team (CBMT) responded to in 2022 took place on private land. Thus, the primary responsibility of the CBMT is to balance the needs of a threatened species and private landowners encountering them amidst their operation.

The 2022 bear management season was the second under the current bear management staff configuration in Montana's Region 4. The CBMT consisted of returning personnel in 2022: Grizzly Bear Management Specialist Chad White, and Bear Management Technician Daniel McHugh. Staff consistency was vital to the continued growth of regional relationships with the public, land and wildlife management agencies servicing the area, NGOs, and MFWP regional staff. For clarity and consistency, the bear management team out of Conrad, MT is responsible for all bear management needs north of Muddy Creek/Teton River to the Canadian border (See Figure 1). The Choteau Bear Management Team (CBMT) is responsible for the area south of Muddy Creek/Teton River to the Missouri River. Calls east of I-15 and south of the Missouri River are completed by whichever team can respond most quickly. A majority of MFWP's Region 4 is private land. Much of that private land is utilized for livestock and agricultural production.

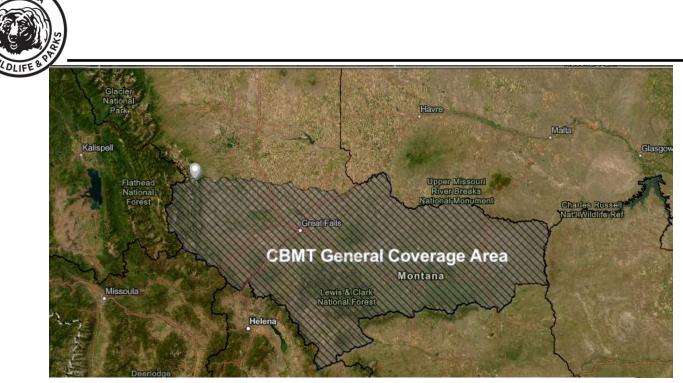


Figure 1. MFWP Region 4 and the portion of the region CBMT is generally responsible for.

Similar to the 2021 season, the peaks in call volume and responses by the CBMT were in mid to late spring and late summer/early fall. In total, cattle and sheep depredations were down from 2021. However, a statewide failure of natural foods contributed to increased call volume and depredations later in the season (August/September). Grizzly bear mortalities followed the same trend, being below average through spring and summer and peaking in late summer and early fall.

Technicians

The Choteau bear management team received base funding from the state for a bear management technician. From March until December, Daniel McHugh served as the area Bear Management Technician aiding the management team in its efforts (Figure 2 a). In his second year as technician, Daniel was a significant contributor to the program.

The Choteau area bear technician is responsible for several other management tasks. Daniel independently responded to conflicts as needed, competently aided in bear trapping, processing, and relocation efforts, and monitored marked bear activity to prevent potential conflicts. The 2022 year also offered opportunities for Daniel to further develop connections with landowners, agency staff, and contribute substantively to data analysis and reporting.



In 2021, the state provided permanent funding for a 0.75 FTE conflict technician. Funding for this position proved to be vital for the management team to adequately meet the needs of the region and will continue to be of major importance. The Choteau management team is grateful for the investment in quality help along the Rocky Mountain Front.



Figure 2 (a). Bear Management Technician Daniel(b) Conflict Prevention Technician ErinMcHugh administering drug to an immobilized bearFenger cleans up spilled grain on a rainy day.

In early 2022, Region 4 secured funding for and hired Erin Fenger as a Conflict Prevention Technician (Figure 2 b). Erin's primary responsibility is to work with the entire region to strengthen conflict prevention efforts through livestock carcass pickup, electric fence construction, grain bin fortification, conflict prevention education, and general attractant security and cleanup.

Erin has been working for MFWP for 4 years, primarily in AIS. She is originally from the Sweetgrass Hills in Montana. Her experience growing up on a ranch and working with producers and agricultural communities made her an excellent fit for her new role in FWP.

Goals and Objectives

The primary goal in the 2022 season was to maximize the working knowledge of bears in the region for the purpose of meeting the 3 tenants of bear conflict management: education, conflict prevention, and conflict response. While there is considerable room for growth, we outlined clear objectives for how to meet this overarching goal: Identify areas of highest priority for education events; utilize public knowledge, interagency intel, and GPS collar information to implement conflict prevention techniques; use all available tools as needed to respond to



conflicts including hazing, aversive conditioning techniques, attractant removal and security, capturing, relocating, or euthanizing bears.

I, E&O

Information, education, and outreach (I, E&O) is critical in the process because it provides a pay-it-foreword approach to bear management by improving the public's safety, knowledge of bear biology and ecology, and understanding of conflict prevention tools that are available to them. Implementation of this process was accomplished by organizing individual landowner meetings, large public engagements, local working groups, and media relations; providing brochures, bear spray, and other materials; participating in city hall meetings, tribal consultations, school and public safety trainings, and search and rescue training. Additionally, Region 4 bear management specialists live in the communities they serve. Every interaction within small Rocky Mountain Front communities is an opportunity to grow public knowledge and trust in the agency.

In 2022, the CBMT participated in or lead 11 educational talks to well over 250 individuals ranging from community wide education events, schools, US Forest Service, and colleges. Over the course of the season, the team also gave out over 100 cans of bear spray in over 10 bear spray educations.

While some regions employ a full-time Bear Education and Information employee, Region 4 specialists provide that need to the local community. The CBMT prioritized education in communities by the following criteria: having grizzly bears recently reestablished on the landscape; having had grizzlies on the landscape for a period of time but received minimal agency attention; or receiving repetitive educations but having evolving management needs due to increased bear activity. A few examples, respectively, are Lewistown, Sun River, and Choteau (See Figure 3).



Figure 3. Daniel McHugh (left) and Chad White (right) give bear education to a group of students and citizens of the towns of Choteau and Sun River, respectively.

Prevention

Conflict prevention is the effort that MFWP, the public, and other agency or nongovernmental organizations (NGO) focus on as a primary strategy to reduce bear/human conflict. Prevention is the action of identifying and removing attractants or securing them in a bear resistant container, structure, or fence.



The CBMT constructed over 20 permanent electric fences, electrified 2 dumpsters, and built a handful of electric driveway mats. We placed 6 permanent bear signs at public access sites and high priority public use area and gave out 1 bear resistant trash can. Removal of attractants is a vital component of conflict prevention, and our team aided landowners by removing thousands of pounds of grain, hundreds of dead livestock, and thousands of apples including 1 apple tree. Finally, we are in the process of finding a permanent solution to implementing permanent signage on high bear use Block Management Area and worked with MFWP Access Technicians to place immediate permanent signs in the local area (See Figure 4).



Figure 4. Examples of prevention efforts across the region including an electrified chicken coop, a dump trailer full of livestock carcasses, an electrified dumpster, and a bear aware sign near Sun River WMA (left to right).

Conflict

Conflict response is fundamentally necessary to elevate public safety and to build or maintain tolerance for grizzly bears on the Front. The CBMT operates as an on-call response unit. We make a concerted effort to maintain available personnel, throughout the year, that have the training necessary to respond promptly to a call and take necessary actions to mitigate the issue at hand. We respond to every call, though we prioritize calls that need immediate response in order to maintain a safe environment and to minimize or prevent bear/human conflict. Applying tools and techniques such as electric fencing or mats, bear resistant containment or attractant removal, use of scare devices and other hazing and aversive conditioning techniques is generally the first action necessary to address a conflict that is already present. If the conflict is such that the issue is not likely to be resolved with application of these tools, bear trapping and either hard release, relocation, or euthanasia is a necessary alternative.



During the 2022 management year (01/01/2022- 12/31/2022), the Choteau bear management team responded to a total of 114 bear related calls, an increase from 2021 (76). Of those calls, only 37 were deemed legitimate conflicts/complaints (See warranting management action, an increase from 2021's 29 conflicts/complaints). Our team saw a steady flow of calls warranting a response from April through September, with steep increases in confirmed conflicts/complaints in mid-spring and steep decreases in early fall (See Table 1).

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Calls Physically Responded to	0	0	0	22	21	12	12	15	23	9	0	0
Confirmed Conflict/Complaint	0	0	0	6	7	4	4	8	5	3	0	0

Table 1. Calls responded to and against calls confirmed to be a grizzly bear conflict/complaint warranting management action.

In 2022, the CBMT made a concerted effort to more accurately draw a distinction between confirmed *conflict* and *complaint*, in large part because state legislation dictates how to proceed with management action based on specifics of the incident. In an effort to draw a distinction between a *complaint* and a *conflict*, calls were only considered conflicts if bears were determined to have obtained previously secured unnatural foods (human food, pet & livestock feed, etc.), were responsible for property or agricultural damage (fences, buildings & structures, vehicles, etc.), had killed or injured livestock, or were involved in negative human interactions, namely aggressive encounters (bluff charges, attacks causing human injury, or attacks causing human fatality). Instances involving habituation to businesses, workspaces, or dwellings where proximity posed a potential threat to people and warranted management action were also considered *complaints*. All definitions utilized by our team remains consistent with the 1986 IGBC definitions for nuisance status.

Each of the 37 confirmed conflict/complaints in management year 2022 fell into five categories: unnatural foods, property damage, livestock depredation, proximity to people/home, and human interaction (see Figure 5). Additionally, a single conflict call could fall under more than a single conflict category if the bear involved was responsible for multiple conflicts in a single instance (i.e., instances where a bear broke into a building to eat unnatural foods would be categorized as a single conflict and two conflict types: property damage and unnatural foods).

Note: In the 2021 season, *proximity to people/home* was included in the *human interaction* category.

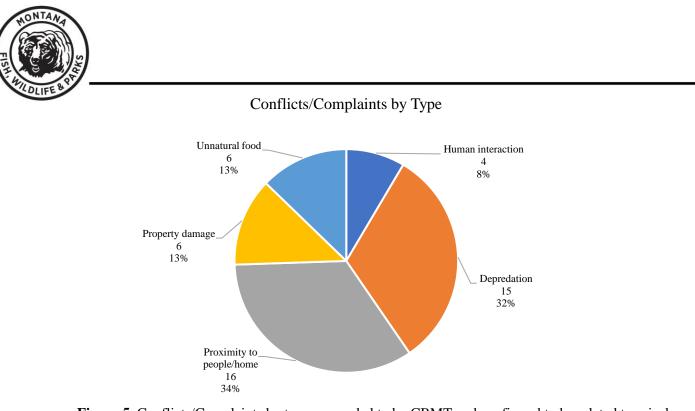


Figure 5. Conflicts/Complaints by type responded to by CBMT and confirmed to be related to grizzly bear. Proximity to homes and people along with depredations made up the majority of call responses requiring management action (66%).

Due to the nature of land ownership in MFWP's Region 4 being largely private livestock operations, the number of depredations season to season is of primary interest to our management team, the public, and the conservation of grizzly bears. The number of depredations presented for the purpose of this report does not represent the totality of depredations attributed to grizzly bears in the region as Wildlife Services may have been present at depredations not reported to MFWP. Of depredation calls responded to and confirmed by MFWP personnel, 8 were instances of killed or injured cattle, 5 poultry, and 1 sheep (Figure 6). These numbers are slightly down from 2021, and a single subadult male bear was responsible for 4 of the confirmed cattle depredations.

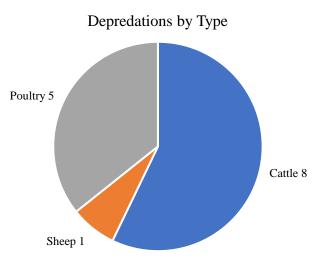


Figure 6. Confirmed grizzly bear depredations physically responded to by Choteau Bear Management team. These numbers do not include depredations responded to by USDA Wildlife Services without the aid of Montana Fish, Wildlife and Parks personnel. Categories include cattle, poultry (chickens, ducks, turkeys, etc.), and sheep.



In addition to the type of conflict responded to by the Choteau bear management team, time of year played a major role. Spring months (April- June) and late summer (August-September), saw the highest numbers of call responses and confirmed conflicts/complaints (Table 2). As opposed to 2021, cattle and sheep depredations were evenly distributed between spring and late summer, with a marked decrease in spring depredations. Likely, this distribution is due to the coinciding factors of a highly productive spring green-up with abundance of natural foods, and severe drought and food failure in late summer limiting production of vital berry crops.

complaints in 2022.													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Responded	0	0	0	22	21	12	12	15	23	9	0	0	114
Conflict confirmed/ complaints	0	0	0	6	7	4	4	8	5	3	0	0	37
Depredations	0	0	0	4	1	1	4	1	3	0	0	0	14

Table 2. Call volume by month with calls responded to against confirmed grizzly bear conflicts/complaints in 2022.

The CBMT worked closely with city and community leaders across the East Front to give the most updated conflict prevention information, work together to best meet the needs of the respective communities, and identify proactive measures to keep bears from finding trouble. We initiated neighborhood call trees on multiple occasions, used a call multiplier alert system 3 times, and worked closely with local and statewide media outlets to provide information in conjunction with MFWP Director's office in Helena. We are working to find the best way possible to share vital information with the public while also prioritizing safety, privacy, and efficacy.

Finally, the CBMT responded to calls broadly across our area. Similarly to 2021, we saw an uptick in confirmed grizzly bear sightings and complaints east of Great Falls. However, the bulk of the conflicts/complaints took place west of I-15 (See Figure 7)



Conflict Locations by Type





Figure 7. Locations and conflict/complaint type responded to by CBMT in 2022 season.

Captures

The CBMT captured and handled 5 grizzly bears for management, 2 of which were preemptive collaring efforts to help identify conflict prone bears. The captured bears are as follows:

An old adult male (~25-30-year-old) was captured on a ranch northeast of Rogers Pass. This and surrounding ranches receive heavy pressure from bears on livestock, particularly in the spring while calving. While few calf carcasses were recovered for investigation, the CBMT coordinated with USDA Wildlife Services (WS) and surrounding landowners to preemptively capture, mark, and release bears on site to narrow down potential culprits. On 5/7/2022, our team captured and collared the adult male. However, the collar was dropped a few days after handling the bear due to collar malfunction.

Our team captured a yearling male bear along the Sun River for killing chickens near the town of Vaughn, MT. The bear was relocated by US Fish and Wildlife Service (FWS) personnel to Pike Creek south of Glacier Park. The bear was later removed in Region 1 after serially killing poultry in the Flathead Valley.

In July of 2022, we preemptively captured a prime age adult male along Skunk Creek northeast of Rogers Pass. Ranches in the area receive a high level of pressure from bears. In this case, multiple yearling cattle depredation attempts had happened in both 2021 and 2022. While both black and grizzly bears are abundant in this region, a variety of age and sex class grizzly bears had been detected creating a challenge in identifying the likely culprit(s). In conjunction with surrounding landowners and WS, we marked and released the male on site. While multiple depredations occurred in the area, the marked bear was never nearby. He later dropped his collar in October.



A subadult male was trapped and collared in September for a poultry depredation on the southeast edge of Choteau, MT. Subsequent to handling and marking, the bear was relocated to Sunset Mountain near Rogers Pass by FWS personnel. The bear quickly moved to a ranch east of Augusta, MT, where he spent the remainder of the season before heading to his den in late November.

In late October, a bear was found on a ranch near the Sun River Wildlife Management Area acting suspiciously. The bear was seen circling to his left continuously and appeared to be suffering from blindness and neurological malfunction. The subadult male was free darted, placed in a culvert, and housed at Freezout Lake for 5 days. A thorough handling revealed no external injuries. After the bear showed no signs of recovery, he was euthanized and examined by MFWP veterinary staff. Examination revealed that the bear was suffering from HPAI (H5N1 avain influnza).

Mortalities

Grizzly bear mortality rate was lower in the 2022 season than 2021. We documented eight confirmed grizzly bear mortalities: 4 were management removals due to livestock, 1 was vehicle hit, 1 was removed due to illness, 1 was removed after being wounded by a hunter, and 1 died of unknown causes.

In April, a subadult male was removed near Augusta, MT after repeatedly killing cattle just outside of town. The culprit was free shot by WS with the assistance of our team after clear evidence linked him to the depredation.

In September, a subadult male was recovered between Choteau and Conrad, MT after being struck by a vehicle. Our team worked closely with the Teton County Sheriff's Department to safely recover the bear in the night. The person responsible for hitting the bear did not come forward.

Also in September, an adult male collared bear was removed by WS after killing sheep near Choteau, MT. The bear had only been confirmed to be involved with one depredation in 2022 but had likely been the culprit on multiple depredations at the same ranch in 2021. With permission from FWS, our staff aided in tracking the bear using telemetry. The bear had been collared at a depredation site the season prior.

WS removed a large male, also in September, northeast of Rogers Pass near the Dearborn River after repeatedly killing cattle. The 13 year old male, weighing 779 lbs, and had been previously marked as a cub of the year. He had no known history of conflicts prior to 2022.

In October, an adult female was removed by WS just outside of Augusta. Our team did not respond to or aid in this removal and has very little information.

A pheasant hunter and his wife encountered a large male grizzly bear on a Block Management Area east of Choteau, MT in early October. The bear ran out of the brush at close range, running into the man and breaking his leg. The man fired two shots from his shotgun and one from his pistol, wounding the bear. While this was a defensive encounter, the bears wounds warranted removal. In conjunction with FWS, MFWP staff and the Teton County Sheriff's department located the bear with a drone before removing it. The 678 pound male was of prime age with no conflict history and was an unfortunate example of the need to improve public safety education across the region.

An old adult female was found and reported dead in a patch of caragana brush near Freezout Lake in late October. It appeared that the carcass had been present for multiple days



and was significantly degraded. The scene was jointly investigated by MFWP staff and FWS enforcement. The investigators found no signs of foul play and the bear died of unknown causes.

Finally, a yearling male was euthanized by the CBMT in late October after showing signs of a neurological disorder. The bear was held at Freezout Lake for five days before being deemed unfit to be released back into the wild. It was later determined that the bear suffered from HVAI, one of 3 such bears to test positive for the virus in Montana and the first record of the virus in grizzly bears.

Monitoring

To adequately monitor grizzly bear vital rates, cub production and survival, and collar fit, we strive to fly once in spring after bears emerge from dens, once in mid-summer to monitor cubs, and once before denning for a final look before denning. This information helps us monitor grizzly bear habitat use, population demographics, and animal welfare. In addition to the research benefits of regular aerial monitoring, these flights give us a very good perspective of the landscape which helps us learn how to prioritize management activities based on habitat quality, anthropogenic food sources, and proximity of bear presence to human development. These monitoring flights were conducted in an MFWP owned Astar helicopter flown by chief pilot Joe Rahn.

All grizzly bear collars on the Front range currently in use this season were GPS collars. This gives us fantastic monitoring information for both research interests as well as management interests to prevent conflict with humans. These collars can be programmed to send location information at varying intervals, document bear activity information, give rapid mortality notice, and can be turned off during the denning period to save battery life. We strive to observe collar data of all marked bears in the area at least once per week and as often as daily. This great level of detail available digitally allows us to remain available to the public for preventative efforts and conflict response as well as remaining well informed of collared grizzly bear activity.

Some of these collared bears end up in conflict with humans or in proximity of humans warranting management action. These radio collars allow us to monitor bear location in the field in real time giving us the ability to inform landowners of bear presence, actively haze bears from areas we do not want them to be comfortable in, and to target a collared bear more effectively if it is to be captured or removed.

The CBMT aided the NCDE Trend Monitoring program by completing a ten day trapping effort in the South Fork of the Sun River in late June/early July. Over the course of 7 trapping nights, no grizzly bears were detected, and one non-target black bear was trapped, tagged, and released.

Black Bear Management

In addition to preventative and active grizzly bear conflict management, the CBMT responded to a high volume of black bear calls and conflicts in the 2022 season. Black bear management in Montana's Region 4 is a joint effort between local specialists, biologists, and wardens. While the CBMT must prioritize grizzly bear response, the team also responds to black bear conflicts and complaints as needed. Our team spent a significant amount of time and resources on black bear management in 2022 for a variety of reasons: areas where conflicts occurred were occupied by both species, staffing in the region was not sufficient to meet the needs of black bear conflicts, and the natural food failure across the state appeared to have a greater impact on black bears in Region 4. While our team responds if available, we are unable



to provide adequate response to black bear calls if they are in conflict with grizzly bear calls. However, we recognize a need in our region for more succinct black bear management as grizzly bears expand their range. Because a proper response to black bear conflicts meets grizzly bear management demands, we encourage forward thinking management strategies and funding to meet regional needs.

Over the course of the 2022 season, the Choteau management team responded to 18 black bear conflicts or complaints and aided in multiple successful and unsuccessful capture efforts. Of these responses, we successfully captured, tagged, relocated, or euthanized 6 bears. However, we spent considerable time attempting to trap others.

A significant amount of time and resources was spent on black bear management across the region by the CBMT. Receiving and responding to calls, performing preventative measures such as electric fencing and site visits, and efforts to trap bears in response to conflict were responsible for a large portion of resources spent on black bears. While MFWP wardens and biologist have the skillset and tools to respond to bear conflicts, they are often not sufficiently equipped to provide preventative measures. As grizzly bears expand eastward in our region, we believe it is paramount that our state and region consider bolstering staff and funding for black bear management across the region.

Conclusion

To conclude, the prioritized 3 objectives in the 2022 season: Identify areas of highest priority for education events; utilize public knowledge, interagency intel, and GPS collar information to implement conflict prevention techniques; use all available tools as needed to respond to conflicts including hazing, aversive techniques, attractant removal and security, capturing, relocating, or euthanizing bears. While there is considerable room for improvement to be had, our team was successful in initiating the efforts to meet these milestones. Over the course of the 2022 season, the CBMT saw astounding improvement in landowner and community relations, knowledge of area and bear use across the region, and proficient conflict resolution.

Our team was solely responsible or significantly aided in education events ranging from Craig, Lewistown, Sun River, and our base town of Choteau, MT. While these were successful, well-attended events, we acknowledge the need to broaden our efforts and continue to re-initiate contact with the communities we have already spent time in. We hope to continue our growth of call-trees (as needed), outreach, and information dissemination.

The efforts made by our team to implement region wide preventative practices were a major step in the right direction. From working with wardens to provide lasting solutions on black bear conflicts, to working with landowners to identify attractants of high concern requiring immediate attention, our team spend a large portion of our time thoroughly entrenched in providing prevention techniques across the board. Electric fencing, attractant removal, and attractant aversive conditioning efforts with bears showing signs of habituation are at the core of our program. However, the CBMT can improve on preemptive collaring efforts as it is among the most useful tools at a bear managers disposal. Better understanding how bears in our region use our landscape will get ahead of range expansion and the inevitable conflicts that follow if not monitored.



Finally, conflicts across our region remain lower that more developed areas across the state. However, our region is not immune to the coinciding factors of developmental and bear range expansion, with which conflicts occur. Food failure years such as 2022 illustrate how the opportunistic nature of black and grizzly bears can lead to significant problems pertaining to the safety of people, livestock, and bears. For this reason, the CBMT is consistently working to remain at the cutting edge of conflict management.