

Rocky Mountain Front Grizzly Bear Management Program 2021 Annual Report Choteau Office- Region 4 Montana Fish, Wildlife and Parks



Prepared by:

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Acknowledgements

The 2021 bear management season served as the first season under the current bear management specialist. Thus, a summary of the season cannot be complete without acknowledging the many men and women who dedicated their time and expertise to making the transition easier. Funding for bear management efforts was funded by Montana Fish, Wildlife, and Parks (MFWP) and a portion of conflict prevention and public safety materials was funded by a grant from The Vital Ground Foundation. The Choteau bear management team would like to acknowledge the following:

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Introduction

MFWP Region 4 consists of two bear management specialists that share all grizzly bear responsibilities. MFWPs grizzly bear management programs operate under permitting from the USFWS as the grizzly bear in Montana is federally listed as a threatened species.

The Choteau area grizzly bear management team consisted of all new personnel for 2021. Grizzly Bear Management Specialist, Chad White, was recruited from MFWP's Region 1 Black Bear and Mountain Lion Management Program starting in Region 4 beginning in February. Daniel McHugh was hired as the area Grizzly Bear Management Technician.

Grizzly bears have a long history of occupancy on the Front. Though the grizzly is a native species that historically ranged throughout Montana, its distribution and abundance when it was federally listed in 1975 was very much different then it is currently. Today, grizzly bears have been documented as far east as Big Sandy. This eastern landscape hasn't seen grizzly bears in many decades and its human occupants have certainly never shared their land with grizzly bears. This large eastern expansion of grizzly bear distribution creates an elevated need for proactive conflict management and education.

The trend that we saw through the field season was a conflict level trending upward in the early spring to a peak of conflict in the late spring/early summer timeframe that consisted primarily of livestock depredation followed by a lower but consistent inverse level of conflict trending downward into the late summer consisting primarily of grain conflicts.

Bear mortality was elevated this season. We documented 11 confirmed cases of bear mortality and 3 possible poaching cases.

Technician

The Choteau bear management team received base funding from the state for a bear management technician. From April until December, Daniel McHugh served as the area Grizzly Bear Management Technician aiding the management team in its efforts. In his first year as



technician, he was tasked with learning how to effectively implement preventative techniques such as removal of attractants and electric fencing.

The Choteau area bear technician is also 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 2021 year also offered opportunities for Daniel to build 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 1. Daniel McHugh Bear Management Technician retrieving a bear collar

Goals and Objectives

The Goals in the first year of this program were to meet, and develop relationships with, the community of the Front as well as other agency or NGO personnel, gain an understanding of the conflict issues the public may be dealing with, and to minimize or attempt to provide relief from those conflicts with public safety being a primary objective.



Our objectives to reach this goal include public outreach and education, trust building with the public to foster bear tolerance, application of conflict prevention and response techniques, bear hazing, aversive conditioning, relocation, and euthanasia.

Under the umbrella of human-bear conflict management there are categories and subcategories that together work to minimize the occurrence of conflict. These can be thought of as a Venn diagram with conflict prevention, response, and information, education, and outreach (I, E, & O) being the core essential objective categories to support the goals of bear/human conflict management.

I, E&O, Prevention, and Response

Information, education, and outreach are a very important step 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 their understanding of conflict prevention tools that are available to them. This process was implemented by organizing individual landowner meetings, large public engagements, local working groups, media relations, providing brochures bear spray and other material, participating in city hall meetings, tribal consultations, school and public safety trainings, and search and rescue training. In addition, every engagement with a member of the public, be it at the grocery store or the gas pump, provides an opportunity to discuss bear safety and conflict mitigation. In total, we participated in over 12 events and reached over 300 people at the events alone. We gave out 59 cans of bear spray to the public.







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.



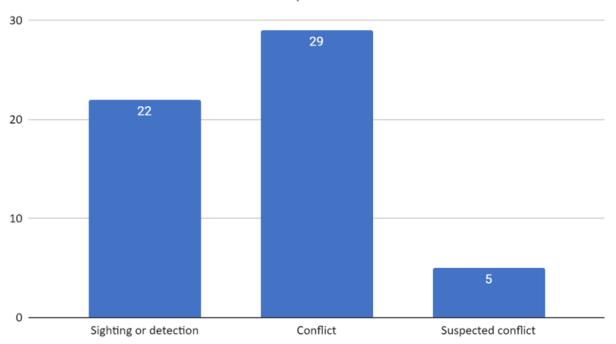
Conflict response is fundamentally necessary to elevate public safety and to build or maintain tolerance for grizzly bear coexistence on the Front. The Choteau management team operates as an on-call response unit. We make a concerted effort to maintain available personnel, throughout the year, that have 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.







Prevention and response efforts



Calls Responded To

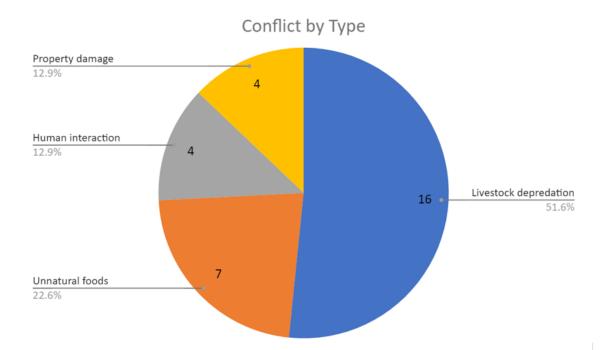
Figure 1. Calls physically responded to. Calls were considered conflicts in instances where bears killed or attempted to kill livestock, had a negative encounter with a human, consumed unnatural foods, or damaged property. Sighting or detections were instances where a bear was confirmed by agency personnel to have been in the area and the team responded. Suspected conflicts were calls responded to where a landowner or agency suspected a bear to be involved but it was determined that a bear was not.

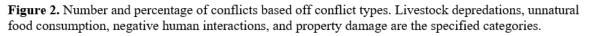
During the 2021 management year (01/01/2021- 12/31/2021), the Choteau bear management team responded to a total of 74 grizzly bear related calls. Of those calls, 56 were documented as either a new (not recurring) confirmed sighting, suspected conflict, or confirmed conflict (see Figure 1.). A call was considered a *confirmed sighting* if a grizzly bear was physically observed by agency personnel, if photo verification was made by agency personnel, or if conclusive grizzly bear sign (hair, tracks, etc.) was verified by agency personnel. If a call was received alleging a grizzly bear was responsible for a conflict but was later determined by agency personnel to have resulted from another cause (black bear, coyote, domestic dog, etc.), it was considered a *suspected conflict*. In instances where a grizzly bear was the most likely culprit or confirmed by agency personnel to have been the primary cause of conflict, a call was considered a *conflict*.

In an effort to draw a distinction between a *sighting* and a *conflict*, calls were only considered conflicts if bears were determined to have obtained 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 were also considered *conflicts*. Instances where bears were observed near businesses, workspaces, or dwellings but did not linger or engage in other forms of conflict were considered *sightings*.





Each of the 29 confirmed conflicts in management year 2021 fell into four categories: unnatural foods, property damage, livestock depredation, and human interaction (see Figure 2). 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.).

By a wide margin, the majority of conflict calls responded to were livestock depredations (Figure 2; 51.6%). What's more, the total number of depredation conflicts tallied were instances where the Choteau bear management team was present for an independent or joint investigation with USDA Wildlife Services personnel. The number 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, 9 were instances of killed or injured cattle, 5 were sheep, and 1 was chickens.

Conflicts by month

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) recorded not only the highest call volume as opposed to summer (July-September), and fall (October-December), but the highest



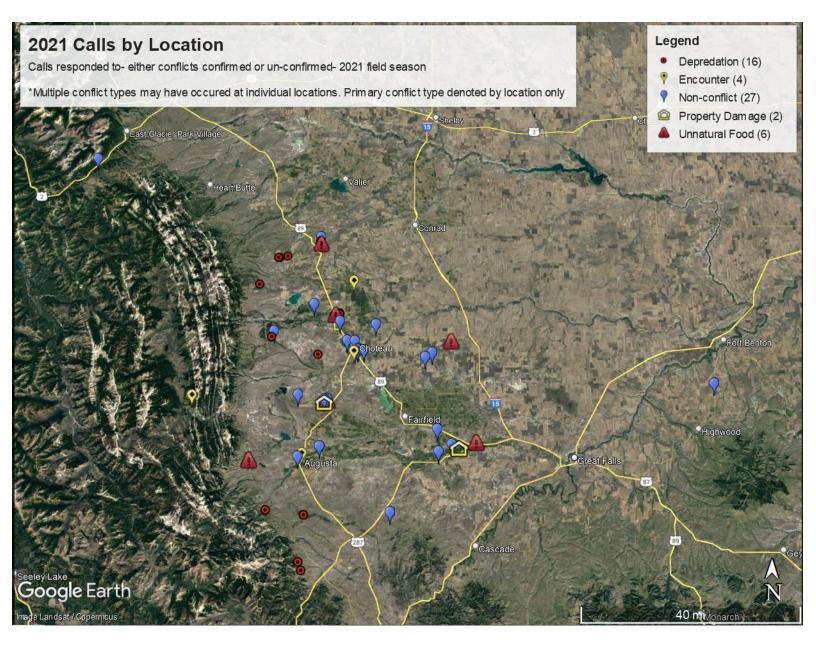
number of depredations (Table 1), likely due to the coinciding emergence of hungry bears from winter dens with little natural food available and spring calving of cattle.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Responded	0	0	1	9	12	14	13	12	6	5	2	0	74
Conflict confirmed	0	0	0	5	5	5	4	4	2	3	1	0	29
Depredations	-	-	-	4	3	4	1	2	-	1	-	-	

Table 1. Call volume by month with calls responded to against confirmed grizzly bear conflicts in 2021.



Calls By Location





Captures

The Choteau team captured and collared three bears for management, two bears for grain bin use research, and assisted with the capture of one bear for population monitoring. A three-year-old male was captured in May at a cattle depredation trap site West of Choteau. He was believed to be a non-target bear and was instrumented with a GPS collar and released onsite.

A yearling male was captured twice in June for a repeated chicken conflict West of Choteau. He was first ear tagged with a very high frequency (VHF) tracking transmitter and hard-released on-site. He was then captured again two days later, GPS collared, and relocated to Spotted Bear on the Flathead National Forest. The bear was later killed in a poaching/malicious event.

An adult male (approximately 8 years old) was captured in August for cattle depredation North of Choteau. The bear was collared and held overnight then euthanized the following day. This grizzly bear's skull and hide will be used for educational display at the Freezeout Lake Wildlife Management Area field office. The bear's orange ear tags with the number 687 will serve as an educational reminder that this animal was destroyed because of a cattle conflict.

Two bears were GPS collared in September for grain bin use research in areas that collar data was also lacking. A three-year-old female was collared and released on the Sun River between Augusta and Simms. A three-year-old male was collared and released west of Highway 287 between Choteau and Augusta.

In June, we assisted the population monitoring team in re-capturing a known female West of Augusta. This bear has been contributing data to the population trend monitoring team for many years. This is her third GPS collar worn.

Mortalities

Grizzly bear mortality rate was high this field season. We documented eleven confirmed bear mortalities and three possible mortalities all occurring during the months of May through November. Mortality causes consist of two natural deaths, four vehicle strikes, one management removal, and four shootings (Three of which are being investigated as poaching/malicious intent, and the remaining is a case of self-defense). The three possible mortalities include a vehicle strike, dependent cub of a vehicle struck female, and a defensive shooting.

Natural mortality causes consisted of one drowned yearling female, and one yearling male killed by another bear. Both mortalities were North of Choteau in May separated by 1 mile and less than 5 days. The male's death, and possibly the female as well, is likely a case of infanticide where an adult male kills the offspring of a female that are sired by another male. It is believed this practice is done by males with the intent to cause the female to enter an estrous cycle so that she may be bred by the offending male.

Also in May, a male cub of the year was killed by a vehicle collision North of Choteau. Residents in the area noted that a female with 3 cubs of the year had been living in the area. A



female with 2 cubs was documented by FWP in the immediate area the night following the incident and again through the season.

In June, 2 bears were killed in vehicle strikes. A 4-year-old male was hit on highway 220, dying in the front yard of a residence. No conflict within the area was documented. A 2-year-old male was hit on a secondary gravel road near Simms 4 days later. Campers in the area noted a vehicle driving erratically in the area that night though no further information was able to be collected.

In mid-July, near Pendroy, a lactating female was hit on Highway 89. She died on the edge of a nearby pond. 1 cub of the year was seen in the area though capture attempts were not successful. This cub is considered a possible mortality.

In August, an approximately 8-year-old male was euthanized after being captured in a cattle depredation North of Choteau.

Also in August, near Valier, a yearling male was poached/maliciously killed in a chokecherry patch. This incident is under federal investigation.

In September, a 3–4-year-old female was poached/maliciously killed between Fairfield and Fort Shaw. This incident is under federal investigation.

In October, FWP received a report of a collision with a grizzly bear south of Choteau on Highway 287. The field investigation found no evidence of contact made with the bear though the incident is considered a possible mortality.

Also in October, a pheasant hunter East of Bynum, hunting with no dog or partner, was charged by a bear at close range. The hunter shot at the bear once with his 12-gauge shotgun and once with his .45 long colt side arm. The bear did not contact the hunter. FWP responded with approximately 20 staff members over a 2-day period, using a civilian drone, 2 bear dogs, and a helicopter flight. Several bears were found in the area over the 2-day period though none showed any sign of injury indicating a further human safety risk. This bear is considered a possible mortality.

In November, an 8–10-year-old male was killed in a poaching/malicious event along the Teton River West of Choteau. This incident is under federal investigation.

Also in November, a 15–20-year-old male was killed in self defense by a hunting guide accompanying clients in the Gibson Reservoir area. The guide shot the bear once in the head at a reported 3 feet as the client fell over a log backwards. The hunter said that the bear's head landed at his feet. The party found a dead elk nearby that is believed to be involved in the cause of the incident.

Monitoring

To adequately monitor grizzly bear vital rates, cub production and survival, and collar fitment, we strive to fly once per month during the months that bears are active. 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 A-Star helicopter flown by chief pilot Joe Rahn.

Also conducted in the same airship was an emergency flight in response to an encounter between a pheasant hunter and a grizzly bear where shots were fired in self-defense and the fate



of the bear was unknown. The use of the helicopter allowed us to get a close look at all bears in the immediate area of the encounter to assess them for injury that could pose a human safety risk. If an injured bear had been located, and the decision made to euthanize the animal, the helicopter allowed us safe access to the animal in need of euthanasia.

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 easily if it is to be captured.

Additional Duties and Responsibilities

In addition to preventative and active grizzly bear conflict management, Education and outreach efforts to the regional public and agency personnel, the Choteau bear management team aided MFWP and Teton County personnel on a variety of tasks. Some of these tasks include black bear management, assisting with grizzly bear research efforts, sheep and goat surveys, and local search and rescue operations.

Black bear

Black bear management in Montana's Region 4 is a joint effort between local managers, biologists, and wardens. While the Choteau management team's primary focus remains reducing and responding to grizzly bear conflict, the team also responds to black bear conflicts in an array of circumstances: when species of bear is unknown, when handling and tagging assistance is needed, when travel to and actions warranted are feasibly accomplished while not detracting from grizzly bear response time and quality.

Over the course of the 2021 season, the Choteau management team responded to 4 black bear conflicts and aided in the capture, processing, and relocation of 1 bear. Of these responses, 1 was an attempted cattle depredation, 1 was a chicken coop break-in which was repaired and secured with electric fencing, and 2 were instances of bears obtaining human trash/food. All conflicts were resolved with no recurring conflicts and no lethal removals.

Bighorn Sheep

To aid MFWP regional biologists in bighorn sheep population assessments, the Choteau bear specialists accompanied the regional biologist in conducting a spring sheep survey near Gibson reservoir as well as providing supplementary population data in the fall.



Mountain Goat

To aid MFWP regional biologists in mountain goat population assessments, the Choteau management team spent two days in the backcountry participating in a mountain goat population survey effort.

Search and Rescue

The Choteau bear management team was also closely involved with Teton County's search and rescue operations. The team contributed by providing bear safety education to the members of the search and rescue team. The bear management team also aided in a search and rescue operation in Teton County by providing professional support in a case of potential bear involvement. In conclusion, the operation did not have any bear involvement.

Conclusion

To conclude, the 2021 season accomplished two primary objectives: Initiate relationships with landowners, producers, agency personnel, and the broader public; meet the conflict prevention, mitigation, and response needs of the Rocky Mountain Front relative to the expanding population of grizzly bears in the region and the surrounding area.

While transitioning a new bear management team into the region was a great challenge, efforts did not go unnoticed. Spending time with producers to learn their operational needs, meeting with members of the public, and solidifying relationships with other agencies to make the public aware of our presence was key in smoothly accommodating the needs of the region. It is a long process to gain trust in the community and will continue perpetually. With that in mind, efforts made in the 2021 season were a major step in the right direction.

Much of the Choteau management team's time was given to prevention over the course of 2021. Electric fences and mats, attractant removal, and public outreach were the primary tools used to prevent conflict. These tools will continue to be invaluable in the future, as well as the potential for expanding prevention efforts such as preemptively capturing, GPS collaring, and monitoring bears. Preventing conflicts remains the best available tool for creating tolerance and coexistence between bears and the public.

Conflicts in 2021 were minimal in comparison to other regions throughout the state, likely attributed to lower density of human populations and good natural food production—namely choke-cherry (*Prunus virginiana*), among others. The conflicts that the Choteau management team did respond to were primarily a result of the challenges faced by producers to reasonably secure attractants while also effectively meeting operational needs. It will be a continual effort to aid producers in meeting these challenges in the coming years as grizzly bear ranges expand and warming climates alter natural food availability.

Finally, with the 2021 season coming to its close there are many opportunities for growth in the coming year. Aside from continuing the efforts from the 2021 season, 2022 will require creativity and an open mind as the team learns more about the bears in the area and the needs of



the community. The Choteau team looks forward to rising to the occasion and evolving as is required to continue keeping people, property, and bears safe.