

**Grizzly Bear Management
2018 Progress Report
NCDE Portion of Region 1
Montana Fish, Wildlife & Parks**



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Breeding pair east side of the Flathead Valley. Photo by landowner.

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Introduction

In 1993, Montana Fish, Wildlife & Parks (MFWP) hired a Grizzly Bear Management Specialist for Region 1, to work closely with private landowners and agency personnel to minimize conflicts between grizzly bears and humans. More emphasis was placed on a proactive approach of prevention. In 1995, we began pre-emptive capture and releasing bears closer to or within their home ranges. In 1996, working with Carrie Hunt of the Wind River Bear Institute, we began using onsite releases and aversive conditioning in an attempt to modify the behavior of the bear. At the same time, we worked closely with the landowners to identify and secure attractants.

There has been a lot of interest in the methods and philosophy of the program from the bear management community and the public. This has generated local and national media coverage which has highlighted the importance of preventing bear problems in the first place and secondly, how to handle those bears if problems do occur. The methods and techniques developed in the field continue to be refined and improved. An interaction between grizzly bears and humans tends to be very individualistic which makes the analysis of data and presentation of results very complex.

In 2005, Montana Fish, Wildlife & Parks began an augmentation program of capturing grizzly bears with no history of conflict from the NCDE and releasing them into the Cabinet Mountains. Heather and Derek Reich were hired under contract with funding support from the Montana Fish, Wildlife & Parks Foundation and the National Fish and Wildlife Foundation. Since 2011, MFWP has continued the augmentation work with MFWP personnel.

This report is an overview of the work conducted during 2018. It includes prevention efforts, reported grizzly bear conflicts, management captures, releases, monitoring, mortality, and the Cabinet Mountains augmentation program.

Goal and Objectives

Goal: Minimize conflicts between people and grizzly bears.

Objectives:

To minimize grizzly bear conflicts by working with landowners to identify, secure, or remove attractants.

To work with agencies to promote food storage on public lands to minimize grizzly bear conflicts.

To work with city, county, state, and federal governments to minimize grizzly bear conflicts.

To provide information to the media on how people can prevent grizzly bear conflicts.

To respond to grizzly bear conflicts on private and public lands.

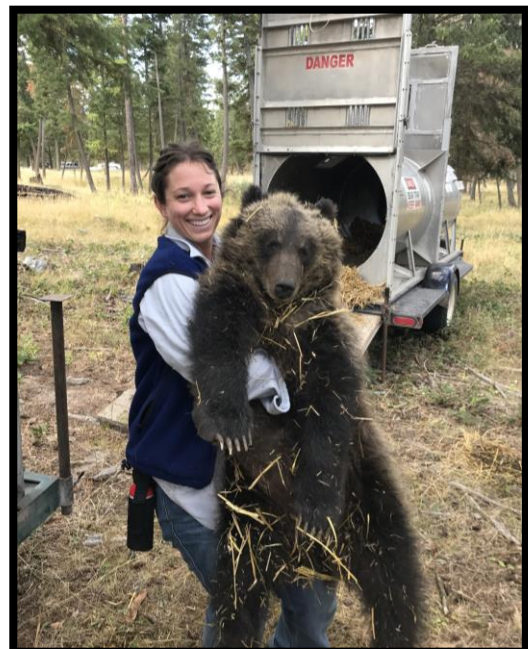
Grizzly Bear Technician

Montana Outdoor Legacy Foundation (MTOLF) and the National Fish and Wildlife Foundation (NFWF) again provided monies to fund a 6 month technician to work with the MFWP Grizzly Bear Management Specialist. This year, Justine Vallieres was hired and began work on May 7, 2018.

Justine was a quick learner and has been confident and proficient handling the tasks associated with responding to grizzly bear conflicts. This involved working closely with landowners and agency personnel when preventing and dealing with reported conflicts. Justine became experienced in trapping, drugging, handling, and monitoring grizzly bears. All of the captures and handling events were conducted in a safe and professional manner. Justine also got experience installing and maintaining electric fences, deploying critter gitters, remote cameras, and assisting landowners in identifying and securing attractants.

The grizzly bear technician position is an extremely important part of the grizzly bear management program. It provides additional personnel to respond to conflicts and to work with landowners on preventing conflicts.

Justine's last day of work was Oct 26th, 2018. We were still dealing with bears into December.



Prevention

The best way to minimize conflicts between people and grizzly bears is to prevent conflicts from occurring in the first place. Prevention can include a wide range of options including education (brochures, press releases, presentations, Bear Fairs), increasing human tolerance, installing and maintaining an effective electric fence, and using approved bear resistant garbage containers. Perhaps the most effective, but also the most time consuming option, is one-on-one communication with people that live and recreate in grizzly bear country. The one-on-one communication needs to be done before a conflict occurs. Unfortunately, most one-on-one communication tends to occur in response to a conflict that has already occurred.

Electric Fencing: Electric fences are very effective at keeping bears from gaining access to attractants. Bear conflict specialist, Kim Annis based in Libby, has developed an electric fencing guide that provides information on how to properly install and maintain an electric fence. We distribute that guide to landowners and also provide them with a link to the MFWP website for additional information. <http://MFWP.mt.gov/fishAndWildlife/livingWithWildlife/beBearAware/bearAwareTools.html>

A large part of our prevention work involved assisting landowners with protecting chickens, pigs, and fruit trees with electric fencing. We helped with the installation of 18 temporary and permanent electric fencing projects located near Eureka, Fortine, Trego, Columbia Falls, Whitefish, Creston, Bigfork, Ferndale, and Swan Lake. We also have an electric fence loaner program and currently have 13 electric fence energizers and net fences that have been loaned to landowners.



A grizzly bear checking out a temporary electric fence installed around an apple tree on the east side of the Flathead Valley.

Over the years we have seen residents install their own permanent electric fencing to protect their poultry and other attractants. A landowner near Eureka built an excellent permanent electric fence around their chicken coop to prevent conflicts with wildlife. I have included a few photos of their setup below:



Critter Gitters: Since 1994 we have been using motion-activated noise makers called Critter Gitters to temporarily keep bears away from attractants. The Critter Gitters are made by Amtek and are powered by a 9-volt transistor battery. We currently loan them out to landowners to put up on chicken coops, garages, and any attractants that can't be quickly secured. We have 15 available and 13 are currently on loan.

Bear Resistant Containers: Since 2004, we have had a program established to loan bear resistant roll out garbage containers to residents. We started with Unbearable bins and have now acquired Kodiak cans thanks to funding provided by Montana Outdoor Legacy Foundation (MTOLF) and the National Fish and Wildlife Foundation (NFWF).

This loaner program has been very popular and currently all but 3 of our containers are on loan. We have had to retire some of the containers due to age and damage by hauling companies when they dump them.

Fruit Gleaning Program: In 2019, we want to try and establish a fruit gleaning program to provide landowners with fruit trees the ability to get their fruit harvested. We have attempted this before with limited success due to lack of participation.

Bear Fairs and Wake-up Social: Several years ago, a group in the Swan Valley started a Bear Fair that was open to the general public. Within a few years, it grew from 50 people to over 300 people attending. Due to the success of reaching out to local residents, additional bear fairs were planned and hosted at the communities of Polebridge, Essex, Coram, and Ferndale.

In 2018 the Bear Fair was again held near Bigfork at the Swan River Community Hall and was organized and hosted by Swan Valley Bear Resources. Agency personnel from Montana Fish, Wildlife & Parks, the U.S. Forest Service, and U.S. Fish and Wildlife Service set up booths and gave presentations. Private NGO's (Swan Valley Connections, Defenders of Wildlife, Living with Wildlife Foundation, Flathead Valley Land Trust, Vital Ground) and company vendor, Counter Assault, also put up displays and gave presentations on electric fencing, bear resistant containers, and the use of bear spray. More than 100 residents and tourists attended the event.

In addition to the Bear Fairs, Swan Valley Bear Resources also started a Bear Wake-up Social several years ago. This event is held during April when bears are emerging from their dens. This year, the event was held at the Swan Valley Community Hall in Condon. Presentations were given by Stacy Courville, Grizzly Bear Biologist from the Confederated Salish and Kootenai Tribes in Pablo and myself. These presentations were well attended by more than 100 local residents.

Presentations, Meetings, and Training

A large part of grizzly bear management involves interactions between the public and agency personnel. This includes formal presentations, meetings, workshops and training. The following is a list of the presentations, meetings, workshops, and training that I was involved with. The list is in chronological order, the type of interaction, date, and participants.

Most presentations are given during the winter months and most workshop and training sessions occur in the spring. Presentations are not typically scheduled during the field season due to the day-to-day unpredictability of the work. Presentations on grizzly bear conflict prevention were given at the following locations and dates:

January:

Science on Tap. Presentation in Bigfork. January 2. Public.
Conservation Strategy Meeting. January 11. Agencies.
Swan Valley Bear Resources Meeting in Condon. January 19. Agencies & NGOs.
Conservation Strategy Meeting in Kalispell. January 30. Agencies.

February:

Grizzly Bear Conflict Meeting in Helena. February 8. MFWP.
Conservation Strategy Meeting. February 9. Agencies.
Grizzly Bear Conflict Response in Helena. Meeting. February 13. MFWP.
Flathead Valley Community College in Kalispell. Presentation. February 16. Public.
Conservation Strategy Meeting. February 27. Agencies.

March:

USFWS Bear Handling Workshop in Bozeman. Workshop & Presentation. March 7-9. Agencies.
Conservation Strategy Meeting. March 13. Agencies.

April:

Conservation Strategy Meeting in Bigfork. April 9. Agencies.
Spring Bear Wake-up Social in Condon. April 12. Public.
Conservation Strategy Meeting. April 17. Agencies.
Legacy Partners Bear Aware Program in Whitefish. April 18. Presentation. Public.
Forest Service Bear Safety Meeting in Hungry Horse. April 23. Agency.
Conservation Strategy Meeting in Hungry Horse. April 26. Agencies.

May:

Federal Aid Presentation in Whitefish. Presentation. May 2. Agencies.
NCDE Spring Meeting in Kalispell. Meeting. May 9. Agencies & Public.
Wildlife Staff Meeting in Kalispell. Meeting. May 10. MFWP.
Leadership Flathead in Columbia Falls. Presentation. May 11. Public.
Range Rider Meeting in Eureka. Meeting. May 17. Agency & Public.

June:

Eureka Bear Management Meeting in Kalispell. June 7. MFWP.
Bear Fair in Ferndale. Presentation. June 9. Public.
North Fork Landowners Association at Sonderson. Presentation. June 10. Public.
USFS Bear Training in Eureka. Presentation. June 12. USFS.

IGBC Meeting in Polson. Presentation. June 19. Agencies & Public.

July:

Mountain Watch HOA in Columbia Falls. Presentation. July 14. Public.

North Fork Interlocal at Sonderson Hall. Meeting. July 18. Agencies & Public.

Summit Restaurant Presentation. July 24. Public.

August:

Glacier Park Conservancy Backpackers Ball in Columbia Falls. August 2. NGO & Public.

Hilary Cooley in field. August 10. USFWS.

BNSF Executive VIP Train Trip in Essex. Presentation. August 12. BNSF and corporate VIPs.

Backcountry Horseman at Lone Pine. Presentation. August 14. Public.

Eureka Fair by Justine. August 24. Public.

September:

School Field Day at Creston. Presentation. September 12. Public.

BNSF Meeting in Whitefish. Meeting. September 18. BNSF.

Flathead Valley Community College. Presentation. September 20. Public.

ARM Rule Hearing in Kalispell. September 27. Public.

October:

USFS meeting in Kalispell. October 4. USFS & Agencies.

NCDE Science Team meeting in Kalispell. October 22. Agencies.

November:

Wildlife Management Institute (WMI) and bear outreach specialists in Kalispell. Meeting. November 1. Agency & NGO.

Western Landowner Alliance meeting in Kalispell. Meeting. November 13. Agency & NGO.

Eureka Range Rider wrap-up in Eureka. Meeting. November 14. Agencies, Public & NGOs.

NCDE Fall Meeting in Missoula. Meeting and Presentation. November 20. Agencies, Public & NGOs.

December:

MFWP Regional meeting in Kalispell. Meeting. December 12. Agency.

Video script for Inspired Classrooms. Edits. December 13. Agency.

Reported Grizzly Bear Conflicts

In 2018, we received over 150 calls related to grizzly bears. Of those calls, most were classified as actual bear conflicts. The other calls were people wanting information about grizzly bears, grizzly bear sightings, media calls, or second hand reports that couldn't be confirmed.

Reported grizzly bear conflicts involved bears getting into unsecured garbage, chest freezers left outside, pet food left outside, bird feeders, livestock grain, chicken feed, killing chickens, fruit trees, property damage to trailers, cars, and a yurt. Numerous calls were received because bears were feeding on grass in yards and being seen next to homes. Some of those bears were captured and translocated.

We had many reports of grizzly bears feeding on domestic fruit. These reports were primarily from the Flathead Valley and included apples, plums, and pears. In some situations, we were able to install temporary electric fences to prevent the bears from accessing the fruit and causing damage to the trees. In a couple of situations, there was not a good way to use electric fencing because of the location of the trees, driveways, and other obstacles. In those situations, we tried to get the fruit picked and monitor the bear activity with remote cameras. Trapping was really not an option due to being unable to compete with all the fruit and creating a potentially dangerous situation by capturing a cub and not the adult female in those locations.

On one property near the Flathead River, we were able to document 8 different grizzly bears feeding on fruit. That included two family groups with cubs. The bears were only coming in at night. In previous years we had already protected the chicken coops with electric fencing. That remained effective and even though the bears were feeding on fruit within 30 feet of the chickens, no chickens were killed and there was no property damage to the coops. The electrified screens and doors have worked for many years since we installed it.

There was a concern about bears going into an open garage to get fruit that was being stored in the garage. We put a critter gitter up on the entryway to the garage to deter any bears from entering the garage. Eventually, most of the fruit got picked and the bears moved on.

We are going to work with the landowner in 2019 to protect most of the fruit trees with electric fencing and also work on getting a fruit gleaning program established in the Flathead Valley to assist landowners in harvesting their fruit.



Photos from some of the grizzly bear conflicts that occurred in 2018. Damage to a yurt, bears at cars, unsecured garbage, and a chicken coop that was broken into.



Adult female grizzly bear that broke into a storage trailer to get cat food and bread near Fortine.

In previous years, the number of calls reporting grizzly bear conflicts ranged from 10 in 1993 to over 250 in 1998. Since 1993, the number of calls has averaged about 100 each year. The number of calls is not necessarily an accurate measure of the level of grizzly bear conflicts for a given year (e.g. one grizzly bear in a subdivision may elicit a large number of phone calls as the bear moves from house to house).

Once a grizzly bear conflict report is received, an effort is made to contact the reporting party and determine if a site investigation is warranted. Once a site has been investigated, a determination is made as to what actions can be taken to prevent further conflicts. In most cases, identifying and properly securing the attractants takes care of the situation. In some cases, the decision is made to attempt to capture the grizzly bear or bears involved. The decision to capture the bear is not automatic and it is based on human safety, bear safety, the type of conflict, location, and behavior of the individual bear.

Emphasis is placed on trying to find solutions that will prevent problems from occurring at the same site again. With the landowner, we walk the property identifying why the bear was attracted to the site and how that attractant can be secured so that this bear or other bears will not visit the site and repeat the problem. Many times the solutions are simple and the landowners are willing to assist us by securing the attractants. Bird feeders, pet food, fruit, garbage, and poultry are the primary attractants we deal with and all are usually easily secured.

Grizzly Bear Management Captures

The decisions to capture grizzly bears for management reasons are not made without careful consideration. Human and bear safety are primary considerations. In many cases, the decision to capture and translocate a bear is made to give us time to properly remove or secure an attractant. In some cases, the decision has been made to remove a bear from the population due to repeat conflicts, level of property damage, or concerns about human safety.



There have been 23 captures of 20 individual grizzly bears. All but one of the captures occurred on private land. Seventeen of the 23 captures occurred outside of the grizzly bear recovery line.

The 20 individual grizzly bears that were captured included 3 adult females, two with 2 cubs of the year, and one with 2 male yearlings, 8 subadult males, 1 adult male, 1 female cub of the year, 2 yearling females and 1 yearling male.

Grizzly bears that were captured and handled were anesthetized with Telazol or

Telazol/Medetomidine administered by syringe pole or Pseudart dart gun. All grizzly bears were examined for injury, age, sex, breeding condition, lactation, and overall physical condition. Temperature and respiration were monitored and recorded. A pulse oximeter was used to monitor heart rate and oxygen level. Supplemental oxygen was provided.

Basic physical measurements were taken and recorded. Weights were recorded with a digital scale. A Bioimpedance Analyzer was used to measure resistance to calculate % body fat to quantify body condition. Bears over 2 years of age were radio-collared and in a special case, two yearling females were radio-collared. All grizzly bears were micro-chipped for identification.

Hair samples were collected for both DNA and stable isotope analysis. Blood was spun using a centrifuge and the serum and whole blood were collected, frozen and sent to Washington State University for stable isotope analysis.

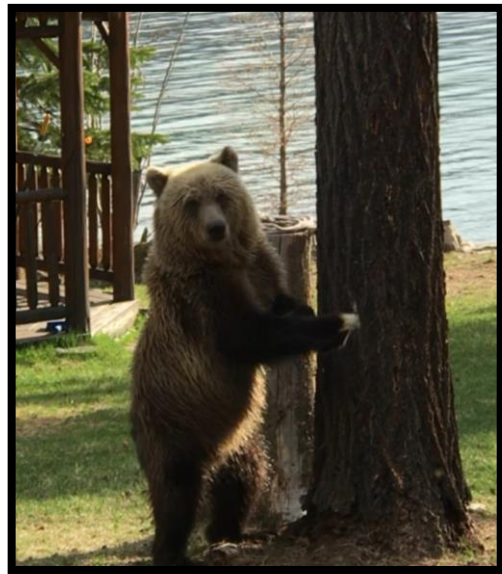
Grizzly bears that we anesthetized were held overnight in culvert traps on a bed of straw until they recovered from the effects of the drugs. They were kept in an isolated area, monitored with minimal human contact and given water once they recovered from anesthesia.



Table 1. Grizzly bears captured for management in Flathead Portion Region 1, 2018.

Record	Bear ID	Capture Date	Sex	Age Class	CapNo	Capture Drainage	Release Drainage	Current Status
419	NWM238	4/30/18	Male	Subadult	1	Thompson	Big Creek KNF	Dead
420	NWM239	5/20/18	Male	Subadult	1	Swan	SFK Flathead	Dead
421	NWM240	5/24/18	Male	Subadult	1	Swan	SFK Flathead	Alive
422	NWM239	5/31/18	Male	Subadult	2	Swan	SFK Flathead	Dead
423	NWM241	5/31/18	Female	Adult	1	Swan	Near Onsite	Dead
424	NWM242	6/1/18	Male	Yearling	1	Swan	Near Onsite	Alive
425	NWM243	6/1/18	Male	Yearling	1	Swan	Near Onsite	Alive
426	NWM236	6/5/18	Male	Subadult	2	Flathead	NFK Flathead	Dead
427	NWM244	7/3/18	Male	Subadult	1	Swan	Euthanized	Dead
428	NWM245	7/5/18	Male	Subadult	1	Tobacco	Euthanized	Dead
429	NWM236	8/16/18	Male	Subadult	3	Tobacco	MFK Flathead	Dead
430	NWM246	8/21/18	Male	Subadult	1	Stillwater	SFK Flathead	Dead
431	NWM246	9/2/18	Male	Subadult	2	Swan	Euthanized	Dead
432	NWM247	9/20/18	Female	Cub	1	Tobacco	NFK Flathead	Alive
433	NWM195	9/22/18	Female	Adult	4	Whitefish	NFK Flathead	Alive
434	NWM248	9/22/18	Male	Cub	1	Whitefish	NFK Flathead	Alive
435	NWM249	9/22/18	Male	Cub	1	Whitefish	NFK Flathead	Alive
436	NWM250	10/8/18	Male	Adult	1	Stillwater	NFK Flathead	Alive
437	NWM178	10/17/18	Female	Adult	2	Stillwater	Onsite	Alive
438	NWM251	10/21/18	Male	Yearling	1	NFK Flathead	Euthanized	Dead
439	NWM252	10/21/18	Female	Yearling	1	NFK Flathead	Euthanized	Dead
440	NWM253	10/21/18	Male	Subadult	1	NFK Flathead	GNP	Alive
441	NWM254	12/17/18	Female	Yearling	1	Swan	Onsite	Alive

NWM238 was a subadult male that was captured at McGregor Lake, west of Kalispell. The bear was frequently observed in yards at McGregor Lake and Marion. The area is between the Northern Continental Divide (NCDE) and Cabinet Yaak Ecosystems (CYE) and is an important connection area between the two ecosystems. The grizzly was digging for voles in yards and eating birdseed from feeders. He was captured, fitted with a GPS radio collar and released on the west side of Kooconusa Reservoir in Big Creek on the edge of the CYE. He traveled to the outskirts of Libby and was observed several times but caused no conflicts. He returned to the area near where he was released and his radio collar went to mortality. His collar had been cut off and he had been shot. His carcass was found farther up the road. The mortality is under investigation.



NWM239 was a subadult male grizzly bear that was originally captured for frequenting yards on a cattle ranch northeast of Bigfork. He was often observed laying near the houses eating green grass. He had not caused any conflicts and was captured as a preemptive action. He was not radio collared and was translocated to the Wounded Buck drainage on the west side of Hungry Horse Reservoir. Eventually he returned to the Flathead Valley and was captured for digging up the carcass of a horse that had been buried next to a barn just south of Hwy 83. We assisted the landowners with installing electric fencing around the horse to prevent other bears in the area from accessing it. He was fitted with a GPS radio collar and translocated to the Deep Creek drainage on the east side of Hungry Horse Reservoir. He moved to the north and spent time in the south end of Glacier National Park. His collar went to mortality and we located him on the railroad tracks at Nyack Flats, where he had been hit and killed by a train. An investigation of the site did not reveal any concentration of grain. It appears he had been feeding on native berries near the railroad tracks before being hit.

NWM240 was also a subadult male that was captured on the same cattle ranch as NWM239. He was observed in yards feeding on green grass. As a preemptive action he was captured, radio collared and released in the Sullivan Creek drainage on the west side of Hungry Horse Reservoir. He soon returned to the Flathead Valley but avoided the ranch property where he was captured. During the summer he dropped his radio collar in a ditch along a private road where he had been feeding on a road-killed deer. This bear did not cause any conflicts and it was interesting to look at his GPS locations. On the morning of the 4th of July he was about ½ mile north of Echo Lake. During the 4th, Echo Lake has A LOT of fireworks going off well into the night. I was curious to see if that caused NWM240 to leave. It didn't. He moved to the east of Echo Lake but stayed within a mile of the lake the whole time. Just an interesting observation.

NWM241, NWM242, NWM243 While trapping for possibly NWM239 on the ranch, we inadvertently captured a female grizzly bear that had two male yearlings. The adult female was captured first and a remote camera on the trap indicated the presence of two yearlings. We were successful in capturing the entire family group. All of the bears were quite small in size but healthy. The female weighed 182lbs and each yearling was under 45lbs. We fitted the female with a GPS collar and released the entire family group on private land within 1.5 miles from



where they were captured. The bears immediately headed into the mountains and spent the rest of their time in the north end of Jewel Basin Hiking area. In the fall, the radio signal went to mortality. Two game wardens hiked into the remote site and located the partial remains of the adult female. The cause of death was classified as natural.

NWM236 In the fall of 2017, this two-year old male was captured with its mother and sibling on the east side of the Flathead Valley for getting into a grape vineyard and fruit trees. The vineyard was protected with electric fence in 2018. We recaptured this bear north of Columbia Falls for getting into unsecured dog food and trying to get into a chicken coop. The bear was fitted with a GPS collar and translocated to the North Fork of the Flathead drainage near the Canadian border. In mid-August he had moved to the Fortine area and was frequently observed in yards and near houses. He was recaptured and released to Puzzle Creek in the MFK of the Flathead drainage. He remained in that area until the fall. Eventually, he dropped his radio collar and ended up on the Blackfeet Reservation. He began breaking into garages and sheds and was removed by Tribal bear managers.

NWM244 This subadult male was originally captured in 2017 on the Confederated and Salish Kootenai Reservation. He was not known to have caused any conflicts but had been captured for feeding on a dead calf. In the fall of 2017 he was near Seeley Lake where he did get access to a harvested deer that was in a shed. He returned to the Seeley Lake area in 2017 and soon started moving north into the Swan Valley. We got reports of him on porches, getting into chicken coops, and accessing garbage. He moved north of Condon and dropped his radio collar along Hwy 83. Eventually, he moved back south of Condon and we got a report of a grizzly getting into a greenhouse and garbage. We set a culvert trap and captured NWM244. Due to his history of known conflicts, the decision was made to euthanize him. While he was in the trap, another grizzly also showed up at the trap site. That bear did move on. We loaned the landowner a critter

gitter to protect pigs and chickens. Also, Swan Valley Bear Resources replaced their damaged garbage container with a new bear resistant container.

NWM245 had been originally captured on a ranch near Fortine and collared for the Grizzly Bear Trend Monitoring Program. He had not caused any conflicts and was often among the cattle on the ranch. He went up the Fortine drainage toward Edna Creek. There, he found a large plastic container of restaurant grease at a private residence. The owner was using it to make biodiesel fuel. Some of his biodiesel was in a shed protected with electric wire. The large container of grease was not. We installed a critter gitter and the bear returned and got shocked by the electric wire around the shed. It turned out to be hooked to 120 Volt AC. The bear dropped to its knees and then left. Eventually, the bear ended up in the yard of Tim Thier, a FWP Wildlife Biologist. The bear acted strange to Thier. It was bedded down near a culvert trap. Thier tried to use cracker shells to chase him away. He just walked up the hill and bedded down again. Thier could not haze him away. He ended up setting the trap and captured him. The decision was made to euthanize the bear based on its behavior and previous conflict. An x-ray afterwards revealed the bear had been peppered with birdshot along the back and hindquarters.



NWM246 This subadult male was captured near the Olney garbage transfer station. The transfer station was protected with electric fencing so the bear did not access the garbage. He was at a nearby residence where he was getting access to grain in a duck pen. He did not kill any of the ducks but did break into the pen. He also placed his paws on the window of the back door to the house. The neighbors also reported he had been up on their porch earlier. While setting the trap in the middle of the afternoon, he came out of the woods and walked toward the trap. We yelled to chase him away, he consequently left, but upon returning once again was captured 30 minutes later. He was fitted with a GPS collar and released in Deep Creek on the east side of Hungry Horse Reservoir. Within two weeks he had traveled to the Swan Valley and got into a bbq grill at a residence and then into a turkey pen to get the feed. Like with the ducks, he did not kill any of the birds. The owners of the turkeys tried to scare him away and he just ignored them. When I arrived, he was bedded down behind the shed. I set the trap and he was captured overnight. Due to his level of food conditioning, habituation and property destruction, the decision was made to euthanize him.

NWM247 was a female cub of the year that was captured near Fortine while trying to capture an adult female that had repeatedly gotten into a storage trailer to eat cat food and bread. The cub was captured in one trap and the adult female and a second cub ignored the other traps at the site. We kept this cub in a single trap that had straw for bedding and water. We left her there for two nights with other traps set and remote cameras deployed. After two nights we took her to my house so I could continue to make sure she had water and scraps of deer to eat while we continued to trap for the family group. After several more days, the family group had not returned to the site. The decision was made to fit the 92lb female cub with a GPS collar and release her back into the wild. We selected the NFK of the Flathead drainage for the translocation site on private property. We are able to drop the radio collar with a remote release so the collar won't get too tight as she grows. She ended up around Polebridge and got into some oat hay in an open barn. We put a temporary electric fence around the oat hay so she couldn't access it. Eventually, she headed into the Whitefish Range and denned. We are hoping she emerges from her den this spring and does not cause any conflicts. We kept traps and remote cameras at the original capture site for two weeks, but the family group never returned.

NWM195, NWM248, NWM249

This family group was captured in September for breaking into a chicken coop and killing chickens. The location was off Edgewood Drive, east of Whitefish. The adult female, NWM195, has a management history involving chickens. Due to the fact she had two cubs of the year, and the landowner had up some electric fencing but was willing to install more in case she returned, the decision was made to translocate the family group into the NFK of the Flathead drainage. She was fitted with a



GPS collar that functioned for a few days and then only intermittently. She immediately returned to the Flathead Valley and ended up on along Whitefish Stage Road where she continued to get into chicken coops. Eventually she moved west to the Stillwater and KM Ranch area. They continued to break into chicken coops and kill poultry. Attempts to trap for them were unsuccessful. We continued to work with landowners to protect their poultry with electric fencing. Eventually, she moved toward the Whitefish Range to den. This family group will be a management concern in 2019.

NWM250 was an adult male grizzly that was inadvertently captured while trying to capture the family group of NWM195 along the Stillwater River. He had no history of conflict and in a preemptive action was fitted with a GPS collar and released in the Coal Creek area in the Whitefish Range. He was microchipped, revealing he had been previously captured during augmentation trapping efforts in the Whitefish Range but had been released onsite. He returned to the Stillwater area and was known to get apples, and he also fed on gut piles during hunting season. Eventually, he ended up on the north end of Whitefish Lake and was observed during a

flight feeding on a dead deer near the railroad tracks. He moved north into the Swift/Lazy Creek areas and denned on the east side of Stryker Ridge.

NWM178 was an adult female with two cubs of the year. She was inadvertently captured along the Stillwater River while trying to capture the family group of NWM195. The microchip revealed this female had been originally captured south of Swan Lake in the Bond Creek drainage in November of 2011. She had gotten horse feed in a barn and was released in the Whitefish Range. A remote camera at the trap site indicated she had two cubs of the year with her. Attempts to capture the cubs were unsuccessful, so with landowner permission she was fitted with a GPS collar and released onsite. The family group reunited and she stayed along the Stillwater River and did not cause any conflicts. Eventually, she moved toward the Whitefish Range to den.

NWM251 & NWM252 These two yearlings lived in the NFK of the Flathead. We got reports of grizzly bears getting into garbage and causing property damage. The reports stated that it was the two yearlings that were causing the conflicts. The adult female has been in the NFK for many years and has been monitored as a management and a trend bear. She had not caused any previous conflicts. Since the adult female was wearing a GPS collar and was not implicated in the conflicts, the decision was made to euthanize the two yearlings and to continue to monitor the adult female. The adult female did remain in the Polebridge area and ended up denning on Cyclone Peak as she did in 2017.

NWM253 was a subadult male that was frequenting an oat field just south of Polebridge. The field had been harvested, but a lot of residual oats remained. Also, there was a stack of oat hay adjacent to the field the bear was feeding on. The problem with the situation was that the bear was feeding right near the NFK road and that he was very visible to the public. We got reports of many bear jams along the road. An attempt was made to haze the bear with cracker shells. He returned to the site quickly. After a report of people getting about 20 feet away from the bear, on foot, to get photos, we decided to capture and translocate the bear as a preemptive action. The bear was captured within 30 minutes, fitted with a GPS collar and in coordination with Glacier National Park, released at Packers Roost in Glacier. The bear moved to the northwest and south of Kintla Lake where he was observed from a flight feeding on an ungulate carcass. He did return to the area near Polebridge but not to the oat field. He denned in the Whitefish Range. The landowner of the property was contacted and he will not be planting any grain in that field in the future.

NWM254 This yearling female was included in this management report even though she wasn't captured due to a conflict. She is considered a management bear because her situation was a management action. She was captured in a leghold trap set by a private trapper while trapping for bobcats. She was part of a family group that included an adult female and two other yearlings. We were contacted and responded with the assistance of Two Bear Air Rescue. It was December 17th, and the trap site required hiking in at least 300 yards from the closest landing spot. After the helicopter dropped off Lee Anderson, Jessy Coltrane, Erik Wenum, and myself, they proceeded to push the family group away from the trapped yearling so we could drug, fit a radio collar and release her. She was caught by just one toe. The entire operation went well and we appreciate the help of Two Bear Air Rescue.

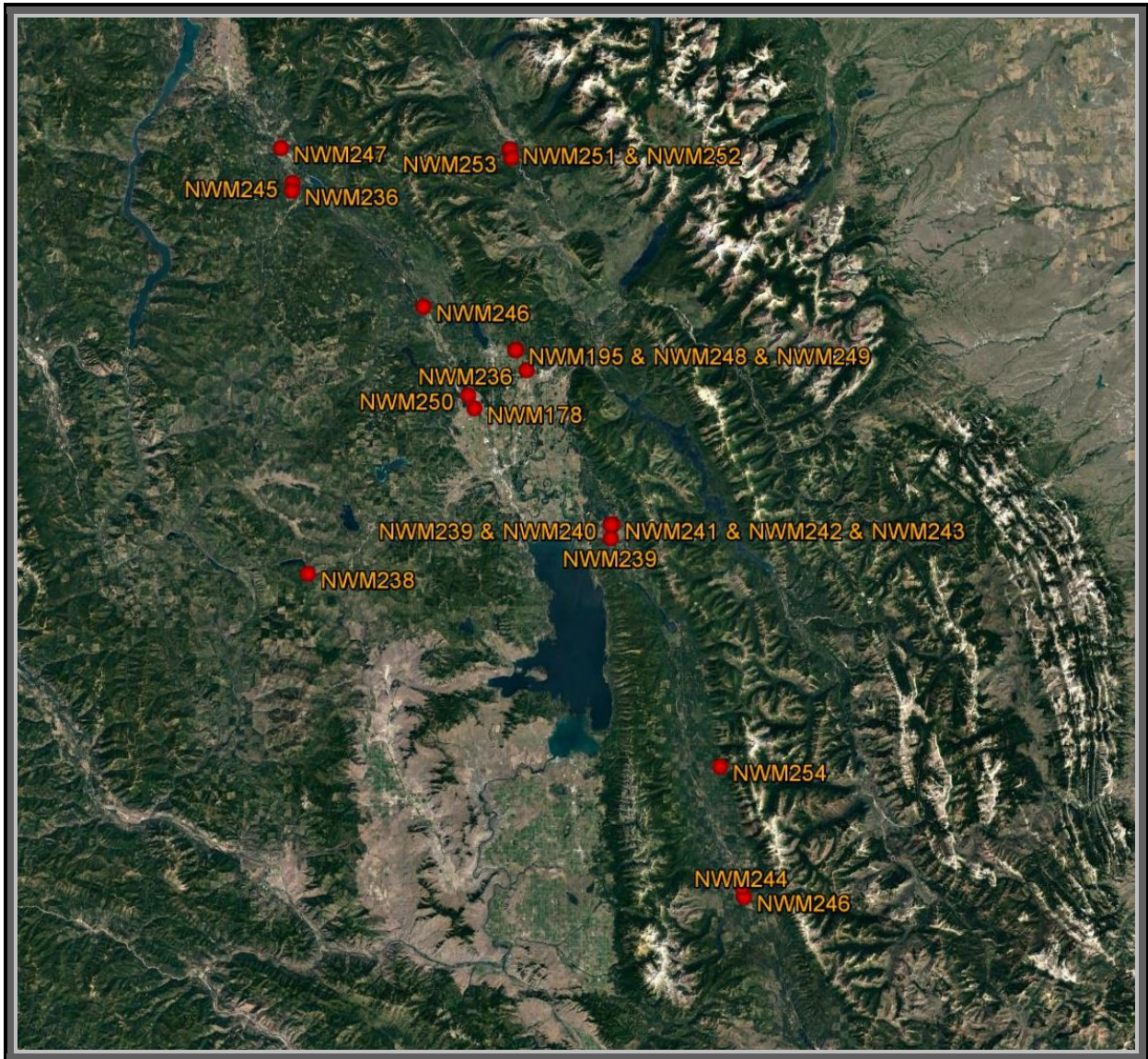


Figure 1. Management grizzly bear capture locations in 2018. Numbers relate to BearID in Table 1.

Grizzly Bear Releases

Sixteen of the 20 grizzly bears that were captured for management reasons were released back into the wild (Figure 2). The other four bears were euthanized. All of the grizzly bear releases are entered into the MFWP website.

The grizzly bears that were released were either translocated to an approved site or released onsite with the permission of the landowners. Eight grizzly bears were released on private land with landowner permission, six were released on the Flathead National Forest, one was released on the Kootenai National Forest, and one in Glacier National Park.

Prior to releasing any bears, we coordinated with the MFWP, USFWS, and the land management agency or landowner. We made sure that there were not any people working, hiking, camping, or parked at or near the release sites. If there was an unattended vehicle at the gate or near the site, we would move to an alternate location.

All of the bears that were released had been held overnight or for a sufficient period of time for the anesthetizing drugs to have worn off. All of the releases were “soft” releases where we just opened the door and the bear left.

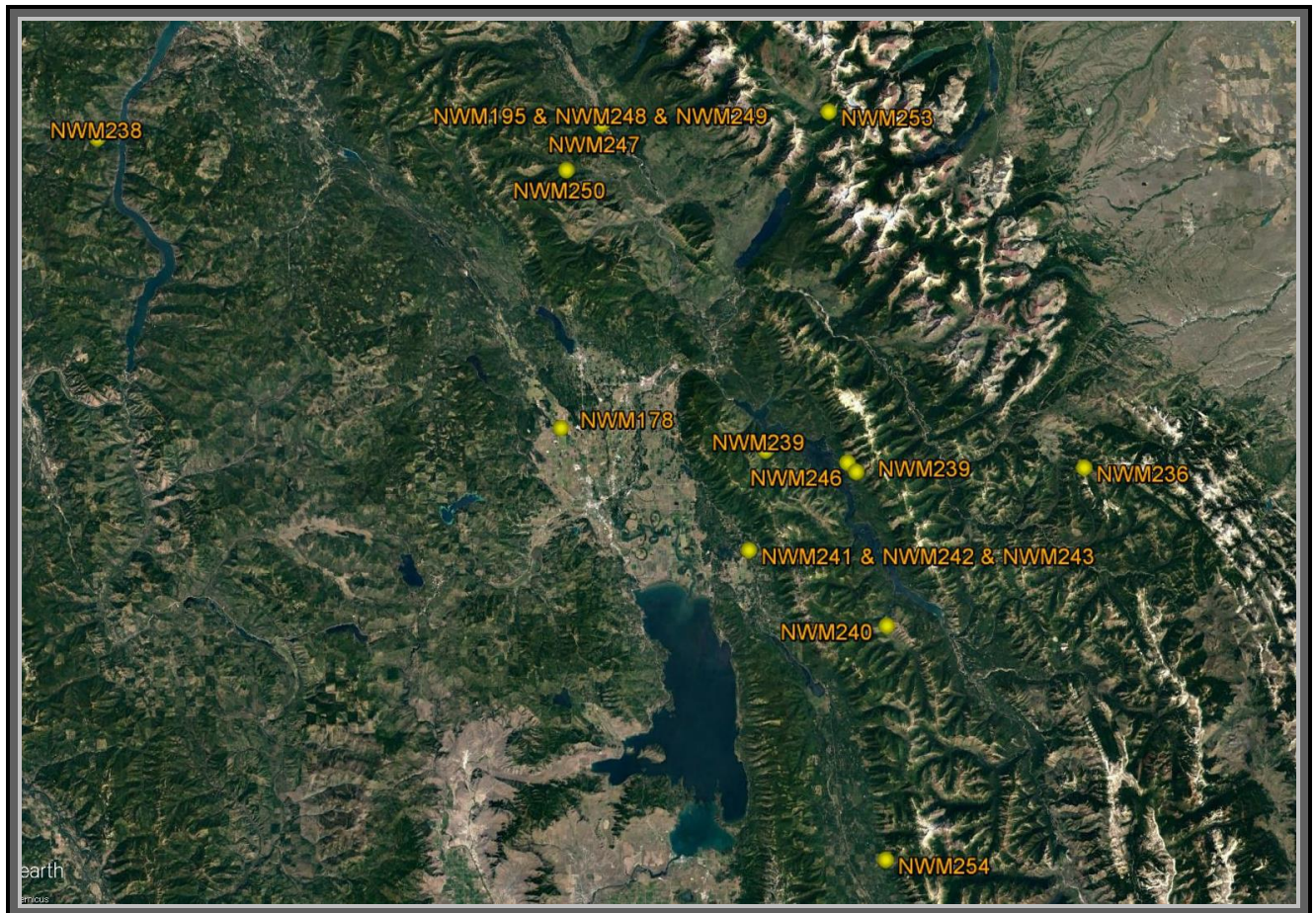


Figure 2. Management grizzly bear release locations in 2018. Numbers relate to BearID in Table 1.

Monitoring

Radio-collared grizzly bears were monitored from the ground and from the air. In previous years we attempted to fly at least once a month. With the new GPS Iridium collars we are able to monitor the bears without the need for monthly flights. A total of 4 monitoring flights were conducted with MFWP helicopter pilots Ken Justus and Rob Cherot, and Two Bear Air Rescue pilot Jim Pierce.

Ten grizzly bears were fitted with Iridium GPS collars with geofence capability and released back into the wild. One yearling was fitted with a vhf collar and released onsite.

Funding for some of the collars and refurbishment of dropped collars was received from BNSF through NFWF and MTOLF. An additional 10 Iridium GPS collars were purchased through MTOLF with money donated by two private individuals.

Grizzly Bear Management Captures (1993-2018)

Since 1993, 254 individual grizzly bears have been captured 441 times as part of the grizzly bear management program. The number of new grizzly bears captured ranged from 1 in 1994 to 23 in 2004.

The years 1998, 1999, 2004, 2011, and 2012 had a large number of grizzly bear captures because of the poor huckleberry crop in the falls of 1998, 2004, and 2011 (Table 2).

Table 2. Grizzly bears captured in management actions within the NCDE portion of Region 1, 1993-2018.

Year	# Captures	# Ind. Bears	# New Bears
1993	2	2	2
1994	1	1	1
1995	16	12	11
1996	12	10	8
1997	15	13	9
1998	24	19	12
1999	26	13	8
2000	13	13	9
2001	15	12	7
2002	8	7	6
2003	14	13	13
2004	42	31	23
2005	8	8	6
2006	11	8	7
2007	21	15	10
2008	13	10	6
2009	13	10	7
2010	25	23	16
2011	45	31	19
2012	19	18	13
2013	12	10	6
2014	10	9	7
2015	15	13	11
2016	16	16	10
2017	21	15	10
2018	23	20	17
R-1 Management Total	441 (mean = 16.9)		254 (mean = 9.7)

Management Grizzly Bear Mortality (1993-2018)

Of the 254 individual management grizzly bears captured in Region 1 since 1993, 125 (48%) are known to have died or have been sent to zoos (Table 3). The majority of the mortalities (56%) have been through management removals. There were no management removals in 1994, 2001 or 2014.

Human-caused mortality of female grizzly bears has a large influence on the recovery of the grizzly bear. Reducing the number of management removals of all grizzly bears, especially females, is a priority with this program. In the first three years (1993-1995), a total of 4 female grizzly bears were removed through management actions. In the following 7 years, 3 additional females were removed, 2 in 2000 and 1 in 2002. The year 2004 saw an all-time high removal of female grizzly bears with 6 females removed through management actions. In 2018, 1 adult female grizzly (NWM241) that had been captured for management died during 2018 from natural causes. Additionally, a yearling female grizzly bear (NWM252) was euthanized in a management action in the North Fork of the Flathead drainage.



Yearling female grizzly bear (NWM252) euthanized in the NFK of the Flathead for management removal.

Seven yearling or subadult males died that were captured in 2018. A subadult male (NWM238) was illegally shot and killed west of Lake Kootenai and is under investigation. Another subadult male (NWM239) was hit and killed by a train at Nyack Flats in the Middle Fork of the Flathead drainage. Four subadult males were euthanized in management actions (3 in MFWP Region 1 (NWM244, NWM245, NWM246) and another one (NWM236) on the Blackfoot Reservation). One yearling male (NWM251) was euthanized in a management action in the North Fork of the Flathead drainage



Subadult male (NWM239) killed by a train at Nyack Flats.

In addition to the known mortality of management grizzly bears captured in 2018, there was a subadult male captured in 2017 that was killed in 2018 and which is currently under investigation. The remains of an adult male (NWM103) were located in the woods near Coram. Cause of death is unknown.

Table 3. Cause-specific and class-specific mortality records for 125 grizzly bears. Numbers represent known mortality of marked grizzly bears captured in management actions in Region 1. 1993-2018.

Class	Cause of Mortality								Total (%)
	Natural	Mistaken id	Self Defense	Management removal	Malicious	Handling	Vehicle/ Train	Unknown	
Adult									
M	0	0	1	13	1	0	1	5	21 (17)
F	1	2	3	9	1	0	1	0	17 (14)
Subadult									
M	0	0	3	19	11	0	6	5	44 (35)
F	1	1	1	6	3	0	2	0	14 (11)
Cub									
Cub	4	0	0	16	0	1	2	0	23 (18)
Yearling									
Yearling	0	0	0	6	0	0	0	0	6 (5)
Total (%)	6 (5)	3 (2)	8 (6)	69 (55)	16 (13)	1 (1)	12 (10)	10 (8)	125

Cabinet Mountains Grizzly Augmentation Program

Since 2005, MFWP has been involved with the capture and translocation of both female and male grizzly bears into the Cabinet Mountains, south of Libby and Troy, Montana.

A total of 16 grizzly bears have been captured within the Northern Continental Divide Ecosystem (NCDE) and translocated to release sites that were approved for the Kootenai National Forest in both the West Cabinet and main Cabinet Mountains. Until their collars fell off it was known that 10 of the 16 augmented bears had remained in the Cabinet Mountains.

During 2018, we captured a subadult male in the Stryker Ridge area and he was released in the West Cabinet Mountains. The grizzly bear did den in the West Cabinet mountains and as of this report, that bear is still alive and near the Montana/Idaho border.



Augmentation male at capture site.



Augmentation male at release site.