

Cabinet-Yaak Ecosystem Bear Management Report

Montana Fish, Wildlife & Parks

2013



Photo by Kelly Bertellotti

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Please note that information contained in this report is subject to change.

INTRODUCTION

The Cabinet-Yaak Ecosystem (CYE) is one of 6 designated grizzly bear recovery areas in lower 48 states. The CYE is home to a federally threatened grizzly bear population in the Cabinet-Purcell Mountain region located northwest Montana and northeastern Idaho. There are an estimated 45-49 grizzly bears in this ecosystem (Kendall, 2012) separated into 2 fragments; the Cabinet Mountains and the Yaak River drainage. The recovery of this threatened grizzly bear population is integrally linked to the recovery of grizzly bears in the lower 48 states. It is one of only 6 areas in Idaho, Montana, Washington and Wyoming that have habitat suitable for self-sustaining grizzly bear populations.

Grizzly bears were once found throughout the state of Montana. By the 1970's the bears were limited to just 3 areas in Montana where suitable grizzly bear habitat remained, and populations continued to decline due to public intolerance and human-caused mortality. As a result, the grizzly bear populations in Montana are now somewhat isolated, causing concerns about the genetic diversity within small populations like the CYE. To aid in the success of recovery throughout all of Montana, it is important that grizzly bears remain in the CYE so that in the future they may once again be reconnected with nearby grizzly bear populations, increasing the overall diversity and stability of the grizzly bear population in the lower 48 states.

Perhaps the greatest success towards recovery efforts for the grizzly bear in the state of Montana has been the development of bear management specialist positions by FWP. The FWP grizzly bear management specialists have proved successful at fostering public awareness, tolerance and support of grizzly bear management and conservation. This is especially important during a time where grizzly bears have begun to expand their range into formally historic areas of eastern and western Montana.

Proctor et al. (2004) documented several significant threats to grizzly bear recovery in the Cabinet-Yaak and Selkirk grizzly bear recovery areas in Montana and Idaho. These threats were identified as human-caused mortality, the lack of population linkage, the need to improve habitat security and the need for population augmentation in the Cabinet Mountains. This program addresses the primary threat of human-caused mortality and, through the monitoring of transplanted individuals and reducing potential conflicts with humans, assists in the population augmentation effort for the Cabinet Mountains. Reducing human-bear conflicts in priority linkage areas will benefit grizzly bear population connectivity.

There is a high risk of grizzly bear mortalities related to habituation (where a bear loses its natural caution around humans), human-food conditioning and negative encounters with humans. The risk is especially high in residential, developed area, and public waste transfer stations. Habituated bears are at high risk of illegal killing because of their increased exposure to people. Food-conditioned bears experience high mortality rates, as they may be killed illegally, or are destroyed or removed from the population through management actions. Local social values and attitudes contribute to the mortality risk, as does the grizzly bears increased exposure to black bear, or big game hunters, who may wrongly kill a grizzly bear due to mistaken identification.

In response to a growing need, in 2007 FWP created a grizzly bear management specialist position for the CYE. I was hired in June of 2007 to work closely with residents and local government to address current human-bear conflicts and to foster local public support for

grizzly bear recovery. This is instrumental in reducing the mortality risks to grizzly bears that result from the increasing human population in western Montana. Education and community outreach efforts are designed to prevent human-bear conflicts and to increase awareness and tolerance of co-existing with grizzly bears. Because both grizzly and black bears are found in the CYE region, outreach efforts for resolving human-black bear conflicts will also prevent future human-grizzly bear conflicts, thereby reducing human-caused grizzly bear mortalities.

MANAGEMENT AREA

Located in extreme northwestern Montana, the Cabinet-Yaak Grizzly Bear Recovery Zone encompasses approximately 6,800 km² of northwest Montana and northern Idaho (Fig. 1). The Cabinet Mountains constitute approximately 58% of the recovery zone and lie south of the Kootenai River. The Yaak River drainage lies to the north, bordering both Canada and Idaho.

Approximately 90% of the recovery zone is on public land administered by the Kootenai, Lolo, and Panhandle National Forests. Plum Creek Timber Company Inc. and Stimson Corp. hold a significant amount of private timber land in the area. Individual land ownerships are primarily along the major creeks and rivers. The Cabinet Mountains Wilderness encompasses 381 km² of higher elevations of the recovery area in the Cabinet Mountains.

The CYE grizzly bear specialist working area encompasses the communities of Libby, Troy, West Kootenai, Yaak, Heron, Noxon, Trout Creek, Thompson Falls, and Plains. It is bounded by the Idaho state line to the west, Canadian border to the north, the Salish Mountain Range to the east and the MFWP Region 2 boundary line to the south (Fig. 2).

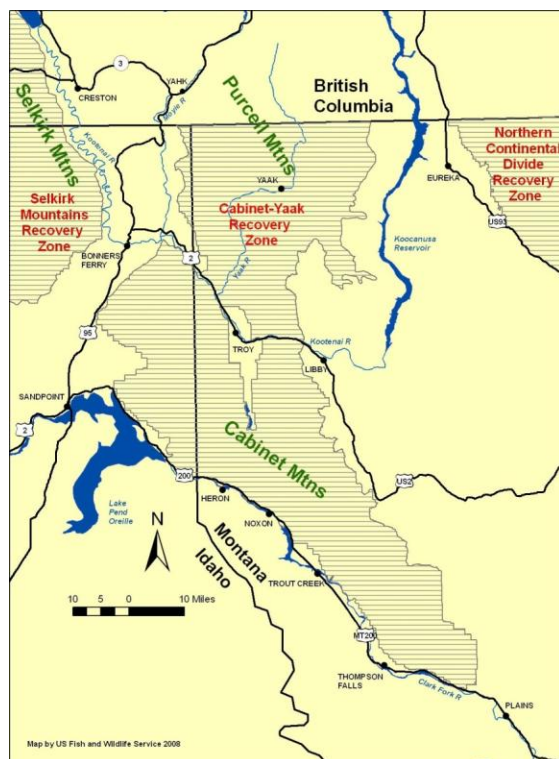


Figure 1 Cabinet-Yaak grizzly bear recovery zone

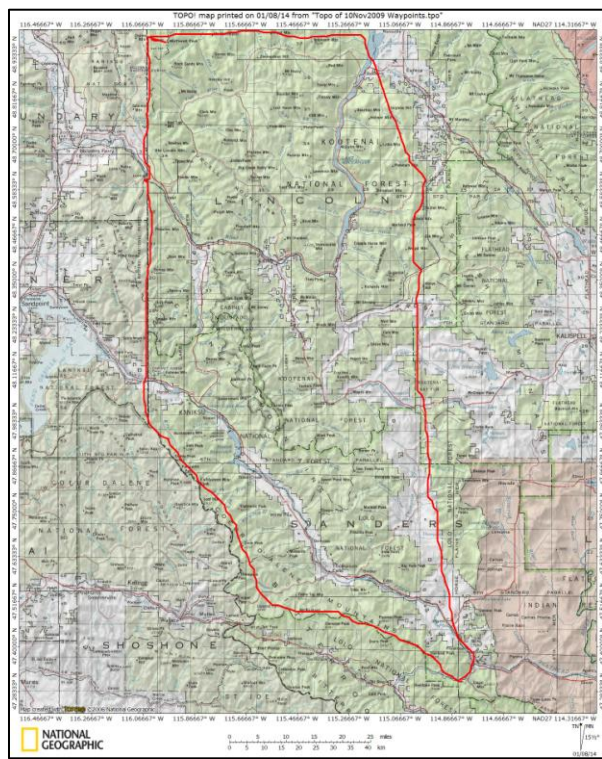


Figure 2. CYE bear management specialist working area

METHODS

Human-Bear Conflicts

When addressing a conflict with a bear, I use a consistent message. I avoid the use of the term “problem bear”, as it assigns blame only to the bear and ignores the humans involved in the situation. It is also inaccurate, and inappropriate, to use the term “problem people”, even though it is typically humans that create the conflict by having unsecured anthropogenic food sources available. Therefore, I always use the term “human-bear conflict” or “conflict with a bear” as it provides an accurate explanation of the situation without assigning blame.

Conflicts with bears exist because anthropogenic food sources are provided by people and taken advantage of by bears. Eliminating the anthropogenic food source is the key towards eliminating, or preventing, a conflict with a bear. The tools used to resolve human-bear conflicts are dependent upon the situation. Tools may be as simple as discussing the nature of the conflict via phone and helping the caller come up with a solution that is both effective and physically possible for their particular situation. For example, if the caller has a bear tipping over their garbage container, telling the caller to “secure their garbage container” is totally ineffective if the caller does not have a secure location in which to do so. I may also visit the residence (once or multiple times) to assess the causes of the conflict and assist them in coming up with a reasonable solution. Solutions to the conflict may include, but are not limited to, 1) securing the attractant inside a structure (with 4 solid walls, roof and sturdy door), a bear-resistant container or behind an electrified fence, 2) loaning of a bear-resistant container to secure attractants, 3) loaning and/or helping build an electrified fence to secure attractants, and/or 4) setting a trap to remove the bear from the location, either temporarily or permanently.

Most conflicts are resolved quickly and effectively by securing the attractant. Education, outreach, bear-resistant containers and electrified fencing are the primary tools used to resolve or prevent a human-bear conflict. Attempting to trap and remove a bear without also attempting to secure the attractant is a poor solution to the conflict. Relocation of the bear does not address the reason why the bear caused a conflict, it only addresses the symptom. Often bears will return to the area of capture, or another bear will arrive and the conflict will continue. Therefore I attempt to resolve human-bear conflicts by always attempting to secure attractants, regardless of whether a trap is set to capture a bear or not. I recognize that the simple act of setting a trap can affect the outcome, or perpetuate a problem, of future conflicts in that area.

One of the primary goals of this program is to improve the level of information on coexisting with grizzly bears that was previously available to area residents, with a major emphasis placed on preventing conflicts with bears. When bear problems are not adequately addressed, there can be negative consequences for the reputation of the grizzly bear, minimizing the public’s tolerance of grizzly bears and threatening population recovery efforts in the region. I am on-call to resolve existing black bear and grizzly bear conflicts quickly and in ways that attempts to prevent the removal or death of bears. And I work with local residents and communities to further reduce the risk of attractant-related conflicts with bears.

The number of conflict calls received and reported is not necessarily an accurate representation of the level of black or grizzly bear conflicts for a given year or season. For example, the activity of a single bear may elicit several phone calls as the bear moves from place to place. In addition, not everyone having bear conflict will contact FWP to report it or ask for assistance.

Numbers of calls are recorded by location only. For example, while I may receive several phone calls from the same resident, and even make several site visits, it is recorded as only 1 call as long as the incident is being caused by the same bear. However, calls from neighboring locations, even if the incidents are caused by the same bear, are recorded separately. If more than one type of attractant is accessed by a bear at the same residence then they are recorded separately, even if they are not independent from each other. For example, each attractant is recorded separately as 1) in garage, 2) songbird feed and 3) garbage, if a bear 1) walks into an open garage, 2) got into a bag of bird seed, and 3) also got into garbage.

Interactions between bears and people, and the methods used to address a bear-human conflict, are individualistic in nature. Therefore the tools used for each response are determined on a case-by-case basis making the analysis of data difficult. See Appendix A for a list of all grizzly bears captured due to conflicts from 2007-2013.

Cabinet Mountains Grizzly Bear Population Augmentation Program

Research on native grizzly bears began in the late 1970's in the Cabinet Mountain Range and ran through the late 1980's, where few individual grizzly bears were detected and minimal reproduction was observed. The population was believed to be in decline and headed toward extirpation. To possibly reverse this trend, a plan was proposed in 1987 by the US Fish & Wildlife Service (USFWS) to augment the Cabinet Mountains portion of the population with sub-adult female bears from outside the area. This approach involved transplanting remote, back-country adult or sub-adult female grizzly bears, which had no history of conflicts with humans, from other areas of similar habitat to the Cabinet Mountains. The goal was to test if this technique would help reverse or slow population decline in the Cabinet Mountains through reproduction (USFWS 1990, Servheen et al. 1987).

In 1990 the USFWS selectively captured young female bears from the Northern Continental Divide Ecosystem grizzly bear population to the Cabinet Mountains. Between 1990 and 1994, four female grizzly bears were relocated to the Cabinet Mountains from the North Fork of the Flathead River in British Columbia, Canada as the initial test of the augmentation program. Through DNA monitoring by the USFWS CYE grizzly bear research team, it was determined that the grizzly bear augmented to the Cabinet Mountains in 1993 remained in the Cabinet Mountain Range, successfully reproduced, and her first generation offspring had also reproduced. Therefore, the initial test of the augmentation program was determined to be successful and actively continued in 2005 (Kasworm et al., 2012).

In 2005 FWP began to actively assist this USFWS project by conducting the back-country trapping efforts in the Northern Continental Divide Ecosystem (NCDE) to provide the bears that would be augmented into the Cabinet Mountains. Since then, FWP has captured and relocated 0-2 bears per year to the Cabinet Mountains as part of this population augmentation program. See Appendix B for a list of all grizzly bears augmented into the Cabinet Mountains from 1990-2013.

Known Human-Caused Grizzly Bear Mortalities

These mortalities are only those known cases where it was determined that humans, or their activities, directly caused the death of a grizzly bear within the Montana portion of the CYE. Other grizzly bear deaths may have been recorded within the CYE by USFWS grizzly bear

researcher Wayne Kasworm, but were either outside of Montana or determined to be the result of natural causes. Therefore, they are not discussed in this section. See Appendix C for a list of all known grizzly bear mortalities within the MT portion of the CYE from 2007-2013.

Education and Outreach

Education and outreach programs are designed to increase public's awareness of grizzly bear behaviors and biological needs so that an understanding of the bear exists; thereby reducing "social jeopardy". Information is positive in nature and targets specific audiences, such as hunters, hikers, recreationists, rural homeowners, livestock operators, rural communities or those with commercial interests (i.e. loggers, miners, etc.).

Information for hunters on bear identification and bear behavior is designed to reduce the accidental killing of grizzly bears (through mistaken identity), while increasing the safety of hunters in grizzly bear country. School presentations and programs that describe bear biology and behavior provide long-term benefits by informing our future residents about ways to effectively coexist with wildlife. School children often take these lessons home to their parents and extended families. Public workshops are offered on the effective use of electrified fencing around bear attractants, such as small livestock and feed, fruit trees/orchards, and apiaries. Open public events, such as local fairs and festivals, are attended with a booth filled with materials designed to entice visitors and educate them about bear behavior and biology at the same time.

Technical assistance is offered to county government and local businesses, such as securing complimentary funding via grant writing, and on recent developments of bear-resistant containers and tools. Training programs are also offered to federal, state and county agency employees that teach bear biology and behavior, and on the appropriate use of bear spray.

RESULTS AND DISCUSSION

Human-Bear Conflicts

Natural food resource availability is variable from year to year. In years of poor natural food resources there will typically be an increase in human-bear conflicts. Sub-adult bears, particularly those on their own for the first time, and females supporting cubs commonly exploit abundant non-natural foods near people. Undesirable behaviors learned during these times will carry over to future years of poor natural foods and during other stressful times within a bear's lifetime. In 2013, a wet spring resulted in normal green up and production of grasses and forbs. Low, mid and high elevation fruiting plants produced an excellent crop of berries from July-September, resulting in a lower than average number of human-bear conflicts (Fig. 3). The following is a brief summary and highlights of conflict activities during the 2013 season.

Confirmed grizzly bear activity

In late March grizzly bear tracks were reported near a resident's chicken coop up the Bobtail Creek drainage. The same week, a grizzly bear was on the back porch of a neighbor that had illegal deer feeders nearby. Given the location, it was suspected that the bear might be research bear 726. Grizzly bear 726 was confirmed to have visited these same residents in May 2012 while he was radio collared. A trap was set along with 2 remote cameras, but was

removed after 5 nights of inactivity. The resident with the illegal deer feeders received an official warning to cease feeding of deer by FWP game warden Tamie Laverdure.

In mid November, a resident off MT Highway 2, south of Libby, reported grizzly bear tracks near several homes along Granite Creek. The tracks were determined to be that of the 2013 augmentation grizzly bear 919. The bear came up from Granite Creek, circled around the edge of the residents property, visited several garbage cans at the end of a nearby cul-de-sac (the bear did not access the garbage), walked down the road and crossed Highway 2. Telemetry locations placed the bear the following day on the north side of Highway 2 on McMillian Mountain. Followup telemetry locations found the bear had recrossed the highway and had returned to the main Cabinet Mountains and denned a short time later.

In late November, a resident in the upper Granite Creek area reported that 2 hunter harvested deer had been removed and consumed by a grizzly bear. The bear consumed 2 hunter harvested deer in a 2 week time period at different locations on the same property. The deer carcasses were hung too low outside and were easily accessible by the bear. A trail camera captured images of a single adult grizzly bear feeding on the deer carcass at one location. The bear does not appear to have any permanent capture markings on it, such as ear tags, nor was it wearing a radio collar. Due to the closeness in location and time, and the single set of tracks found, it is assumed that they were removed by the same bear.

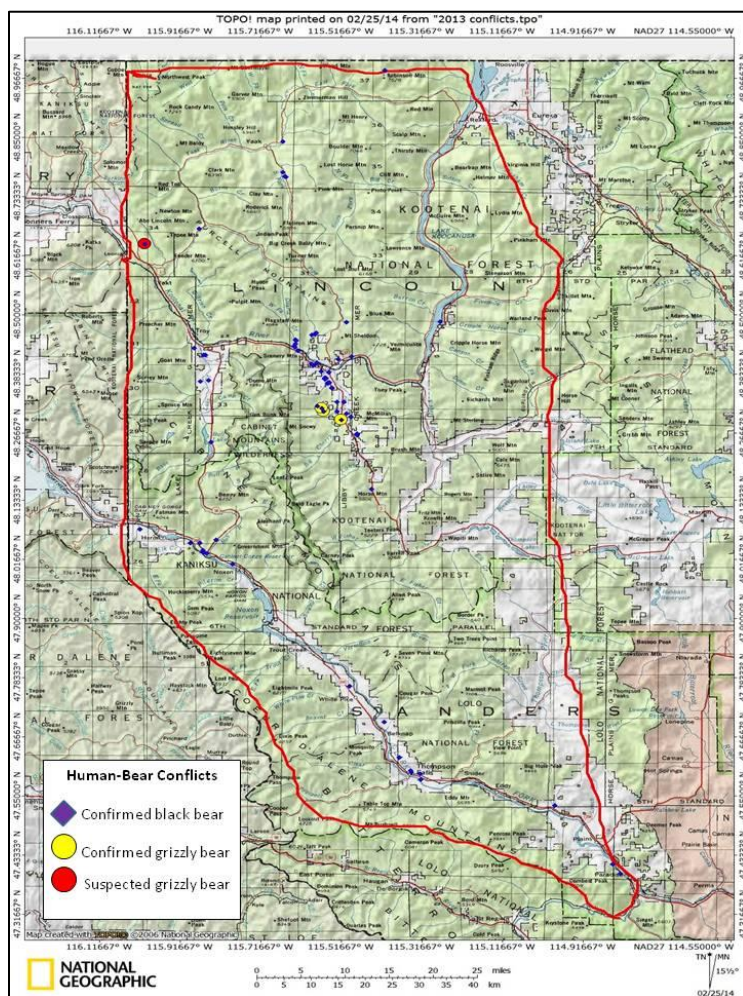


Figure 3. 2013 Black bear and grizzly bear activity in the CYE

Table 1. Confirmed grizzly bear activity

Date	Location	Type	Capture?	Bear ID	Sex	Age	Capture Drainage	Relocation Drainage
3/21/13	Libby	In Yard	No	726?	M	-	-	-
3/25/13	Libby	On Porch	No	726?	M	-	-	-
11/11/13	Libby	Tracks	No	919	M	-	-	-
11/25/13	Libby	Deer Carcass	No	-	-	-	-	-

Grizzly Bear Management Captures

There were no captures of grizzly bears in the CYE for human-bear conflicts or other management reasons during 2013.

Confirmed Black Bear Conflicts

Conflicts with black bears were confirmed at 60 residences, with some locations having multiple attractants causing the conflict (Table 2.).

Table 2. Causes of black bear activity and conflicts

Type	#	Type	#
Garbage	26	Bird Seed	2
Sighting	8	Pet Food	2
Poultry	6	Up Tree	2
Fruit Trees	6	Camper	2
Porch	5	Injured	1
Deer Carcass	5	Killed by Car	1
Garage	3	Orphaned	1
Freezer	3	Home entry	1
Damaged Car	2	Bark stripping	1
Yard	2	Abandoned bldg	1
Dumpsters	2		

Traps were set at 13 locations with 6 black bears captured (Table 3). One of these traps was set by Warden Tom Chianelli in the Plains area and the female black bear that was captured was handled and released by Erik Wenum and his technician Kylie Jones. Another bear captured was a 15-lb yearling black bear found in a cow pasture. The bear was guided into a dog crate with a Catch-All © pole and transported to the FWP Wildlife Rehabilitation Center in Helena. The yearling died of severe malnourishment 2 days later.

Table 3. Black bears captured for management in the CYE

Date	General Location	Type	Bear ID	Sex	Age Class	Notes
3/30/13	Libby	Orphaned	None	M	Yearling	15-lb yearling discovered in cow pasture; died of starvation
5/31/13	Plains	Garbage/garage	Unk	F	Adult	Bear handled and released by Erik Wenum
6/12/13	Heron	Chicken feed/Garbage	1359	M	Adult	Extremely thin
6/29/13	Troy	In Yard	1360	F	Adult	Hanging in yard, no attractants, bear wouldn't leave
10/8/13	Heron	Chicken feed, freezer, cat food in camper	None	U	Yearling	Incidental bear, may be part of family group finding multiple attractants at location
11/8/13	Libby	Deer carcasses/garbage	None	M	Adult	Bear consumed 2 hunter harvested deer; one hung too low, the other placed inside camper with door open. In outdoor garbage cans

Temporary electrified fences were set at 7 locations to resolve a current conflict. In addition, I either loaned (or helped set) a temporary electrified fence or consulted/assisted on creating a permanent electrified fence at 10 other residences. Fifteen of the 17 locations were using electrified fencing to secure either fruiting trees or poultry/poultry feed. One permanent fence was created to secure beehives (Fig. 4) and another used a modified fencing design to secure an outdoor freezer (Fig. 5).



Figure 4 and 5. Electrified fencing used to permanently secure a hobbyists beehives near Libby and an outdoor freezer in the Yaak.

Certified bear-resistant garbage containers were used to resolve human-bear conflicts at 7 locations. Containers are on permanent loan at 2 of those locations. Another 7 containers were loaned out to residents wanting to use them before they had a conflict. There were an additional 8 locations where containers were already out on permanent loan from previous years.

In late May, a resident in Troy had a car damaged by a black bear (Fig. 6). The doors were all locked so the bear did not get inside, however the bear did damage to the rear bumper and scratched paint on every door. There were no attractants inside the car. A trap was set even though the resident was reluctant to agree to the trap. There was no bear activity in the week the trap was set so no bear was captured. In May 2012 a bear, likely the same bear, opened this same car's door. There were no attractants in the car at that time either. This residence has multiple bears each year despite having no attractants available.



Figure 6. Vehicle damaged by a black bear south of Troy

Critter Gitters© were used at a location in the Yaak to deter a bark stripping black bear in mid-June. The noise devices were moved several times by the resident to discourage the bear from stripping bark from the large trees nearest to their house and out-buildings. Also in June, an abandoned back-country campsite at Lake Geneva was ransacked by a bear of unknown species (Fig. 7). The families using the site had abandoned it in haste as a late spring storm moved in, forcing them to quickly evacuate and head back to town. However, several days after leaving gear, food and other items at the campsite, no one had returned to retrieve them. Nor were they secured in a bear-resistant manner. At some

point within those several days, a bear had torn into most of the items that were left behind and had gotten several food rewards. No humans were in or nearby the campsite at the time. The condition of the site was report to KNF law enforcement by 2 hikers, and the incident was investigated. The entire area surrounding Lake Geneva, Plumb Bob Lake and the Young Creek trail was closed by the KNF for 2 weeks. The site was cleaned up and bear poles were installed by the KNF to allow future campers to hang attractants more easily.



Figure 7. Lake Geneva backcountry camp site torn apart by a bear of unknown species.

I received 8 non-bear related calls with residents reporting small livestock killed by something other than a bear, and injured eagles, geese and wild turkeys. The response to these calls was coordinated with the FWP area biologist, FWP Warden, licensed wildlife rehabilitator or Wildlife Services.

Cabinet Mountains Grizzly Bear Population Augmentation Program

On 30 July 2013, a sub-adult male grizzly bear (919), approximately 2-yrs old, was captured in the Cola Creek drainage of the Flathead National Forest by FWP's Tim Manley. The bear was transported to the Libby Field Station for workup, and subsequently released on 01 August 2013 above Spar Lake near the Whoopee and Hiatt Creek drainages (Fig. 8.).



Figure 5. Kim Annis and Kelly Bertellotti monitor grizzly bear 919, the grizzly bear released in 2013 as part of the CYE grizzly bear augmentation program.

The bear remained in the main portion of the Cabinet Mountain range throughout the remainder of 2013, with the exception of a short foray across Highway 2 to Macmillan Mountain and back during mid November. In mid November, a resident off MT Highway 2, south of Libby, reported grizzly bear tracks near several homes along Granite Creek. The tracks were determined to be that of the 2013 augmentation grizzly bear 919. The bear came up from Granite Creek, circled around the edge of the residents property, visited several garbage cans at the end of a nearby cul-de-sac (the bear did not access the garbage), walked down the road and crossed Highway 2. Telemetry locations placed the bear the following day on the north side of Highway 2 on McMillan Mountain. Follow-up telemetry locations found the bear had re-crossed the highway and had returned to the main Cabinet Mountains and denned a short time later.

Known Human-Caused Grizzly Bear Mortalities

There were no known human-caused grizzly bear mortalities in the CYE during 2013.

Education and Outreach

Tonya Chilton-Radandt and I gave a presentation on preventing human-wildlife conflicts to Libby city residents, as per request by the Libby Mayor. We then consulted with the Libby city planning board on how the city might address human-wildlife conflicts within city limits. The city is considering the steps needed to create a wildlife management plan for the city as there have been concerns in a few areas regarding residents feeding wild turkeys and deer, which may create nuisances and attract bears. We also assisted in the creation of an educational mailer and a new ordinance making it illegal for residents to feed wild turkeys and pigeons inside city limits. The mailer was sent to city residents and residents in the surrounding area that had information on the perils of feeding wild animals. It also served to notify residents of the new ordinance.

Quarterly meetings were held with the Sanders County Commissioners where we had multiple discussions regarding the construction of bear-resistant electric fencing at the county run waste transfer sites in Heron, Noxon and Trout Creek. The Montana Fish, Wildlife & Parks Foundation secured a grant for \$2,000 that was given to the county towards the creation of a bear-resistant fence at the Noxon site, which the county hopes to have completed by the end of 2014. The Foundation is looking to secure further grants in 2014 to help Sanders County complete this project.

Monthly meetings were held with the Lincoln County Commissioners. There was no new bear-resistant fencing constructed at Lincoln County public waste transfer sites in 2013, as there are limitations at current site locations for the construction of permanent fences.

The USFWS donated 3 electric fencing kits to be used by residents in the CYE that are unable to purchase or construct their own electrified fencing to secure attractants in their property. Defenders of Wildlife donated six 50-ft electrified net fences for loaning out to the residents in the CYE area. Defenders of Wildlife and the Montana Fish, Wildlife & Parks Foundation secured separate grants in 2013, purchased 8 Kodiak bear-resistant garbage containers and donated them to this program. They will be loaned to residents in areas where garbage is collected by a local hauler. We hope that the haulers like the containers, as they are a newer design and fully automated, and will purchase some of their own for their clients to use in the future.

I gave bear related educational presentations for multiple groups; residents of the Yaak, 2 bow hunter education classes, career day at Libby Elementary (Fig. 9), STEM day for Libby 7th graders, SAF 5th grade tour, Libby Middle School hiking club, Libby city residents, Residents of West Kootenai, Friends of Scotchman Peaks Wilderness, Revett Minerals, Employees at Troy Mine, and Libby Boy Scout Troop. I manned the CYE bear educational booth at several festivals and fairs; Libby Family Fair, Eureka Rendezvous, Kootenai Kiwanis Fair, Libby Museum (Fig. 10), Troy 4th of July Festival, and the Lincoln County Junior Fair.



Figure 9. Libby Elementary School Career Day



Figure 10. Opening day fair at the Libby Museum

Wayne Kasworm and I conducted our annual field trip for the Libby High School advanced biology class in the Bear Creek drainage and I did an outdoor program for Provider Pals. I also did an electric fencing workshop for the residents of the Yaak that was hosted by Defenders of Wildlife. I am the Information and Education co-chair for the Interagency Grizzly Bear Committee's (IGBC) Selkirk/Cabinet-Yaak Subcommittee. I gave program updates and presentations at both the spring and fall subcommittee meetings.

Miscellaneous

A student from the University of Montana was hired as a paid volunteer to assist bear management in the CYE between May and August of 2013. The position was offered courtesy of the Montana Fish, Wildlife & Parks Foundation (now known as Montana's Outdoor Legacy Foundation). Kelly Bertellotti was hired and volunteered out of the MFWP Libby Office from late May to mid August. She gained experience in working in fisheries management, wildlife management, human-bear conflicts, wildlife education and outreach, grizzly bear research and various wildlife surveys with Montana Fish, Wildlife & Parks, US Forest Service and US Fish and Wildlife Service.

In the spring, I attended the Montana Chapter of The Wildlife Society's annual meeting and in the fall I attend a conference hosted by the International Association of Bear Research and Management in Provo, Utah.

ACKNOWLEDGEMENTS

There are many people that, without which, this program would be unable to function effectively. I sincerely thank Wayne Kasworm for all that he does to help me and this program. Without his knowledge, data and inspiration, I would not be able to keep this program running. I thank, and admire, him greatly.

In 2013 this program was lucky to be provided with a paid volunteer from the University of Montana through the Montana Fish, Wildlife and Parks Foundation (now known as Montana's Outdoor Legacy Foundation). My thanks go to Kelly Bertellotti for her excellent assistance, her willingness to put in long hours and for trying a multitude of new things throughout the summer.

Many thanks also go to: FWP Biologists Tonya Chilton-Radandt, Bruce Sterling, Tim Thier, Tim Manley and his technician Lindsey Stutzman; FWP Wardens Tom Chianelli, Tamie Laverdure and Phil Kilbreath; and to the many dedicated people that work with the USFS Kootenai National Forest, most notably Sarah Canepa, Randy Hojem, Lynn Johnson, Steve Johnson, and Dave Wroblewski.

My thanks to Erin Edge, Russ Talmo, Robyn King and Patti Sowka. They all have provided immeasurable services to the people of Lincoln and Sanders Counties through the non-profit organizations for which they work.

My thanks to the USFWS for their donations of loan materials for the residents within the CYE. And lastly, to the National Fish and Wildlife Foundation and Revett Minerals, Inc. for the grants that keep this program and position available for the people, and bears, of the CYE.

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APPENDIX A

Grizzly bear captures due to human-bear conflicts from 2007 – 2013

DATE	ID	SEX	AGE	REASON	CAPTURE	RELOCATE	FATE
9/18/2007	772	F	8	In fruiting trees, dug under chain linked fence to get into backyard	Pilgrim Creek	South Fork Marten Creek	Unknown
9/18/2007	791	M	COY	In fruiting trees, dug under chain linked fence to get into backyard	Pilgrim Creek	South Fork Marten Creek	Unknown
9/18/2007	789	F	COY	In fruiting trees, dug under chain linked fence to get into backyard	Pilgrim Creek	South Fork Marten Creek	Unknown
8/30/2010	1374	M	2	On porch, checking out small livestock, in garbage	Young Creek	Spread Creek	Dead
7/11/2011	724	M	4	Killed young unsecured pigs	Graves Creek	Devils Club Creek	Unknown
10/27/2011	732	M	3	Dug up buried dog, inside chicken coop	Yaak River	Lookout Creek	Dead

APPENDIX B

Bears relocated to the Cabinet Mountain Range as part of the CYE grizzly bear population augmentation program from 1990 – 2013 (Kasworm et al., 2012).

YEAR	ID	SEX	AGE	CAPTURE	RELOCTATION	FATE – as of Dec 2013
1990	218	F	5	NF Flathead River, BC, Canada; NCDE	EF Bull River, KNF; CYE	Dennded in Cabinet Mts 1990, Lost collar August, 1991, observed July 1992
1992	258	F	6	NF Flathead River, BC, Canada; NCDE	EF Bull River, KNF; CYE	Dennded in Cabinet Mts 1992 Produce 1 cub 1992, Natural mortality July 1993
1993	286	F	2	NF Flathead River, BC, Canada; NCDE	EF Bull River, KNF; CYE	Dennded in Cabinet Mts 1993-95, Lost collar at den April 1995, hair snag 2004-2009, self-defense mortality November 2009
1994	311	F	3	NF Flathead River, BC, Canada; NCDE	EF Bull River, KNF; CYE	Lost collar July 1994, recaptured October 1995 south of Eureka, MT, released in EF Bull River, Signal lost November 1995
2005	A1	F	8	NF Flathead River, FNF; NCDE	Spar Lake, KNF; CYE	Dennded West Cabinet Mts 2005 and 2006, Lost collar September 2007
2006	782	F	2	SF Flathead River, FNF; NCDE	Spar Lake, KNF; CYE	Dennded West Cabinet Mts 2006-07, Lost collar August 2008
2007	-	-	-	-	-	-
2008	635	F	4	Fitzsimmons Crk,	EF Bull River, KNF; CYE	Killed by train near Heron,

				Stillwater SF; NCDE		MT October, 2008
2008	790	F	3	Swan River; NCDE	EF Bull River, KNF; CYE	Illegally killed near Noxon, MT October, 2008
2009	715	F	10	Big Creek, FNF; NCDE	Spar Lake, KNF; CYE	Denned in West Cabinet Mtns 2009-10, returned to FNF May 2010
2010	713	M	3	Dead Horse Crk; FNF, NCDE	Spar Lake, KNF, CYE	Denned in Cabinet Mtns 2010, lost collar September 2011
2010	714	F	3	Spruce Crk, FNF; NCDE	Silver Butte Pass, KNF; CYE	Returned to FNF July 2010
2011	723	M	2	Stryker Ridge, FNF; NCDE	Spar Lake, KNF; CYE	Denned in Cabinet Mtns 2011; lost collar June 2012
2011	725	F	2	Puzzle Crk, FNF; NCDE	Spar Lake, KNF; CYE	Walked to GNP and denned 2011; walked to WNP, then returned to West Cabinet Mtns and denned in 2012; walked to GNP and WNP in 2013, then returned to West Cabinet Mtns August 2013; lost collar October 2013
2012	918	M	2	Upper Whitefish Lake, Stillwater SF; NCDE	EF Bull River, KNF; CYE	Denned in Cabinet Mtns 2012
2013	919	M	2	Cola Crk, FNF; NCDE	Spar Lake, KNF; CYE	Denned in Cabinet Mtns 2013

APPENDIX C

Known grizzly bear mortalities within the MT portion of the CYE from 2007 – 2013

DATE	ID	SEX	AGE	REASON	LOCATION
9/22/07	354	F	11	Self-defense	Canuk Creek
9/24/08	None	Unk	3	Unknown	Fishtrap Creek
10/20/08	635	F	4	Train	Noxon, Lower Clark Fork River
10/20/08	790	F	3	Illegal	Noxon, Lower Clark Fork River
11/1/09	286	F	18	Self-defense	East Fork Bull River
6/25/10	675-COY	Unk	COY	Natural	American Creek
9/6/10	1374*	M	2	Unknown	BC, Canada: cut-off collar found a few miles N of MT border in CA
10/11/10	None	M	Adult	Human-caused/Unknown	Pine Creek
2011	Unk	Unk	Unk	Unknown	Rock Lake
9/16/11	None	M	Adult	Mistaken ID	Faro Creek
11/13/11	799	M	4	Mistaken ID	Cherry Creek
11/24/11	732	M	3	Self-defense	Pipe Creek
2012	342	M	19	Human-caused/Unknown	Little Creek

*This bear captured and relocated within MT for management 7 days prior to locating his collar in Canada, which had been cut off with a knife.