2015-2016
Grizzly and Black Bear Management Report
Cabinet-Yaak Ecosystem
Montana Fish, Wildlife & Parks
Region 1

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INTRODUCTION

The Cabinet Yaak Ecosystem (CYE) is a recognized recovery zone for the threatened grizzly bear population in the Cabinet-Purcell Mountain region located northwest Montana and northeastern Idaho. In 2012, the estimated total abundance of grizzly bears in the CYE was 48-50 bears (Kendall et al, 2015) separated into 2 fragments; the Cabinet Mountains and the Yaak River drainage. The CYE is one of 6 designated grizzly bear recovery areas in the lower 48 states.

Montana Department of Fish, Wildlife & Parks (FWP) grizzly bear management specialists have proved successful at fostering public awareness, tolerance and support of grizzly bear management and conservation. The most effective conservation solution for preventing management related mortality of grizzly bears is to work one-on-one with residents on how they can share the landscape with bears. However, disseminating information on co-existing amicably with bears is only partly effective. Directly helping residents prevent human-bear interactions is the key to reducing conflicts and fostering a higher tolerance for bears, which in turn will support grizzly bear population recovery efforts. On-the-ground assistance is needed to resolve interactions with bears and find effective long-term solutions on securing attractants that are specific to a situation.

In response to a growing need for on-the-ground grizzly bear management and public outreach, Montana Fish, Wildlife & Parks (FWP) created a grizzly bear management specialist position for the CYE in 2007. Because both grizzly and black bears are found in the CYE region, the CYE bear specialist works to reduce and resolve human-black bear conflicts to prevent future human-grizzly bear conflicts.

The primary goals and objectives of the CYE bear management specialist are:

- Emphasize human-bear conflict prevention
- Identify and help secure bear-attractants on public and private lands
- Respond to human-bear conflicts on public and private lands
- Provide permanent solutions for human-bear conflicts by working with residents, local government, and agencies
- Improve support, understanding, and tolerance for grizzly bears and population recovery
- Reduce preventable grizzly bear mortalities

A USFWS research team, headed by Wayne Kasworm, performed the first grizzly bear research in the Cabinet Mountains in the 1980's. They concluded that a very small population, perhaps fewer than 15 grizzly bears, remained in the Cabinet Mountains (USFWS, 1990), which resulted in a pilot program that tested population augmentation techniques. This successful program has resulted in 19 grizzly bears relocated to the Cabinet Mountains from 1990-2016. In 1986, this USFWS research team also began a population monitoring program in the Yaak River drainage (Kasworm et al, 2015.). The CYE USFWS grizzly bear team is stationed at the FWP Libby Field Station and works closely with the CYE FWP bear management specialist.

This position is funded by a grant from the National Fish and Wildlife Foundation (NFWF) with a 1:1 match provided by Hecla Mining Company (formally Revett Mining Company). Hecla Mining Company is a silver and copper company that owns the 3 largest mining claims in the Cabinet Mountains; Troy Mine, Montanore Mine and Rock Creek Mine. The company has

provided matching funds since 2006. NFWF is an independent nonprofit organization that supports conservation efforts throughout the United States and its territories.

The following is a brief summary, with highlights, of the 2015 and 2016 field seasons.

MANAGEMENT AREA

Located in northwest Montana, the Cabinet-Yaak Grizzly Bear Recovery Zone encompasses approximately 6,800 km^2 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. Private land ownerships are primarily along the major creeks and rivers. The Cabinet Mountains Wilderness encompasses 381 km^2 of higher elevations within the recovery area.

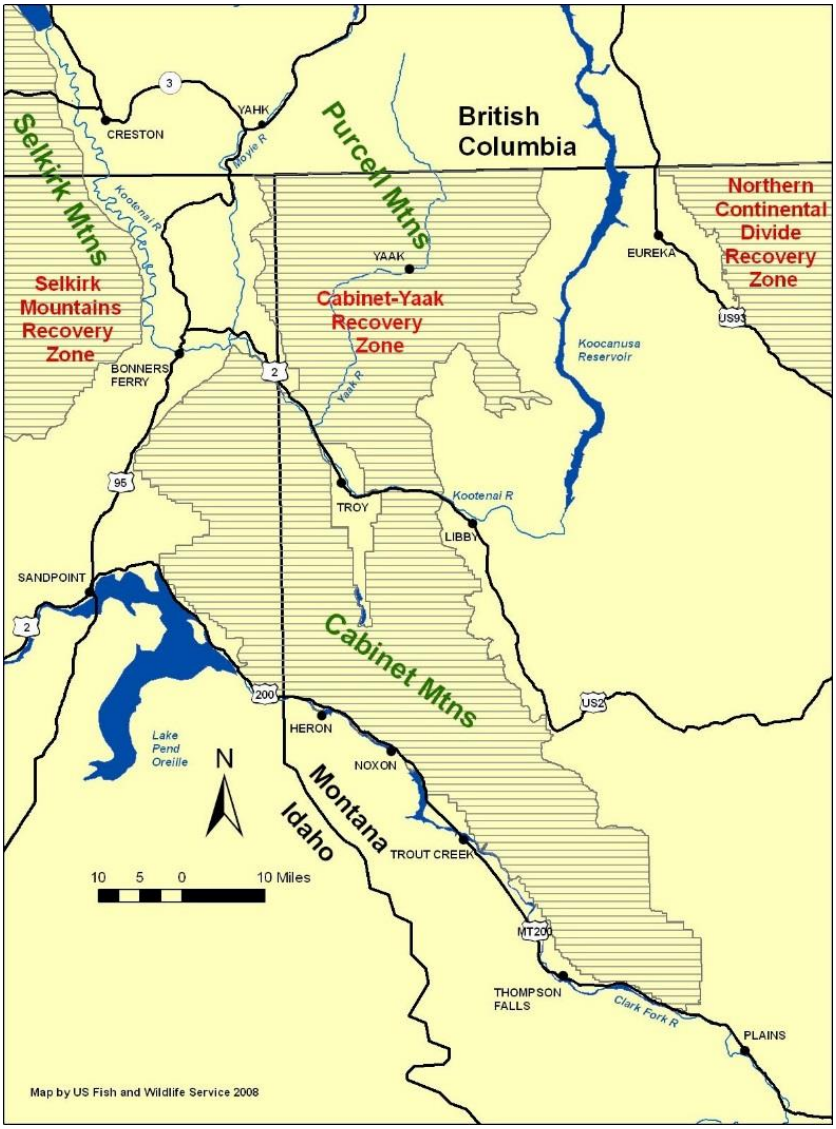

Figure 1. The shaded areas represent grizzly bear recovery zones in NW Montana and northern Idaho

The CYE grizzly bear specialist's area of responsibility includes all or part of 2 Counties, the CYE recovery zone, and communities adjacent to the recovery zone boundary. Reducing human-bear conflicts in the communities surrounding the CYE recovery zone decreases the risk of human-caused grizzly bear mortalities, and benefits grizzly bear population connectivity. The communities are Libby, Troy, Yaak, West Kootenai, and Happys Inn in Lincoln County, and Heron, Noxon, Trout Creek, Thompson Falls, Plains, and Paradise in Sanders County. It is bounded by the Idaho state line to the west, Canadian border to the north, Salish Mountain Range to the east, and the MFWP Region 2 boundary line to the south (Fig. 2).

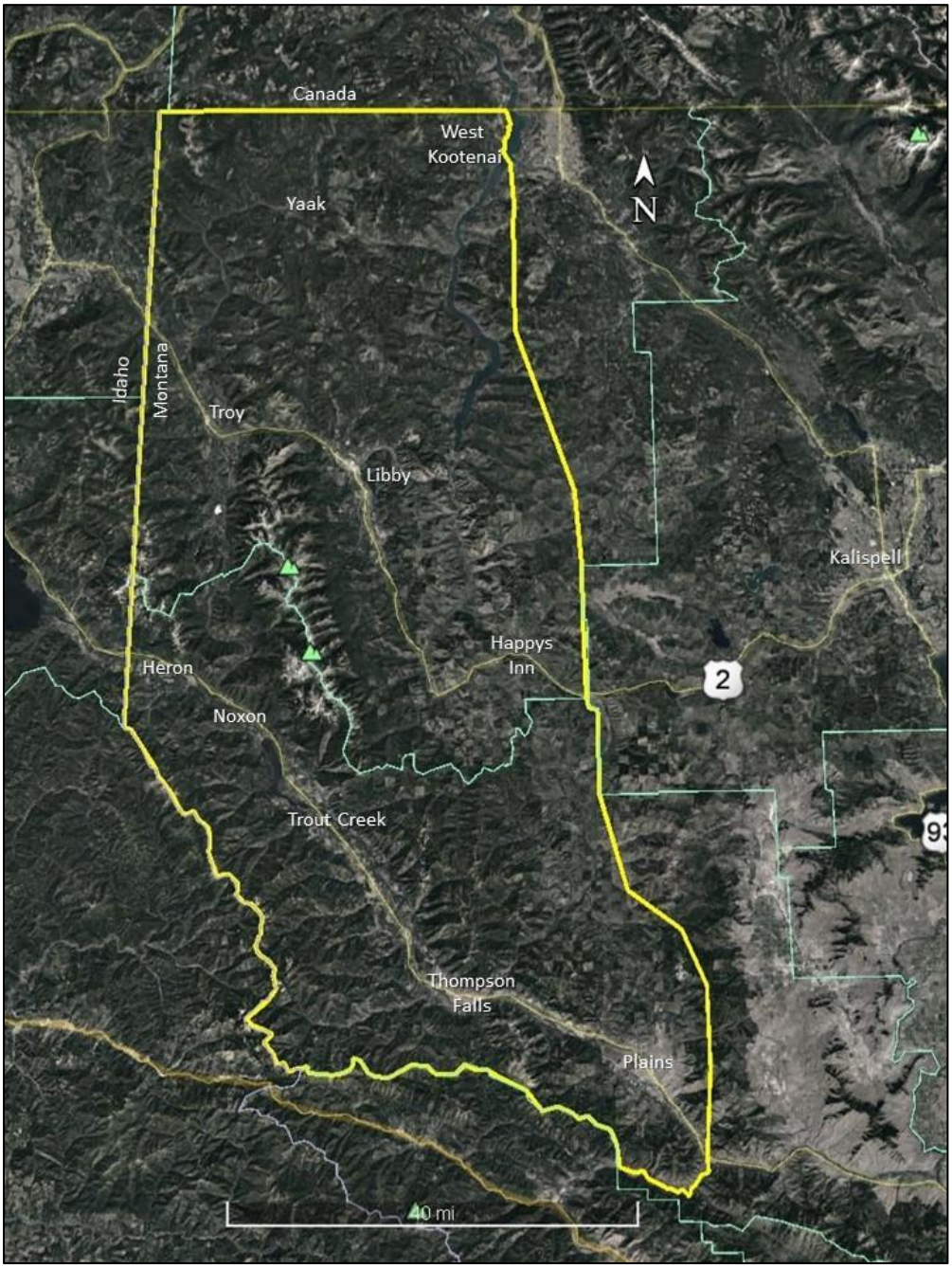

Figure 2. CYE grizzly bear specialist's area of responsibility

HUMAN-BEAR CONFLICT AND PREVENTION

Eliminating anthropogenic food sources is the key towards eliminating conflicts between bears and people. Interactions between bears and people are individualistic in nature therefore the tools used to resolve conflicts are dependent upon the situation. Finding a resolution may be as simple as discussing the nature of the conflict and helping someone find a solution that is both effective and possible for their individual situation. Time spent visiting one-on-one with residents goes a long way towards fostering tolerance and support for effectively co-existing with bears. Solutions to a conflict may include, but are not limited to, 1) placing the attractant inside a secure structure, a bear-resistant container, or behind an electrified fence, 2) loaning of a bear-resistant container, 3) loaning and/or helping build an electrified fence, and/or 4) setting of a trap to remove the bear from the location, either temporarily or permanently.

The primary goal of this program is to place emphasis on conflict prevention and to provide permanent solutions to conflicts. Education, bear-resistant containers and electrified fencing are the primary tools used to resolve a human-bear conflict. While the relocation or removal of a bear may also be used, removing the bear without also attempting to secure the attractant is ultimately unsuccessful in resolving the current or future conflicts. Relocation of the bear is a temporary solution and does not address the source of the conflict. If attractants remain, other bears will continue to discover them, causing the conflict to persist from year to year. It is necessary to secure attractants, regardless of whether a trap is set.

Conflicts

The definition of "conflict" includes situations where bears were actively engaged in accessing, or attempting to access, attractants. Or, situations where bears had offensive or defensive encounters with people. It *does not include* bears 1) seen near homes, 2) backcountry sightings, 3) vehicle or train mortalities, 4) injured bears, or 5) bears in non-fruit bearing trees.

The number of conflicts reported is not necessarily an accurate representation of the level of human-bear conflicts for a given year. For example, not everyone having a conflict with a bear will contact FWP and request assistance. Numbers of conflicts are recorded by location only; although it might take several site visits or phone conversations to resolve a conflict at an individual location, the conflict is recorded as just 1 conflict. Conflicts at nearby homes, even if the conflicts are caused by the same bear, are recorded separately. Attractants are recorded individually, even if they are not independent from each other; sometimes it is impossible to determine the primary attractant that caused a conflict if multiple attractants were available.

In 2015, a warm, dry winter lead to a hot, dry summer. Very poor berry production in mid to low elevations was documented throughout the region. However, huckleberry availability in higher elevations was good. The Cabinet Mountains experienced several lightening-started wildfires that began in August and burned through the fall. The poor natural food availability forced bears to walk long distances to find adequate food sources, and resulted in the highest number of human-black bear conflicts ever recorded in the CYE. The opposite was true for 2016. Adequate spring and summer rains produced very good berry production at all elevations.

In 2015, I received 253 reports of human-bear conflicts, which is quite a bit higher than the 10-year average of 91. In comparison, the following year, 2016, I received 93 reports of human-bear conflicts. In 2016, in addition to better natural food availability, people may have worked harder at preventing conflicts after experiencing conflicts in 2015. See Appendix D for the

yearly number of conflicts and captures of bears due to conflicts. Bears captured and relocated for conflict are reported and available on the FWP website at:
http://fwp.mt.gov/fishAndWildlife/livingWithWildlife/relocation/

2015

I received a total of 468 bear related reports in 2015; four hundred and thirty (430) were about black bears, 23 were about grizzly bears, and 5 specifically concerned both species. An additional 10 were regarding a bear species that could not be positively identified. Of these, 293 reports were related to conflicts with black bears, and 4 with grizzly bears (Figure 3).

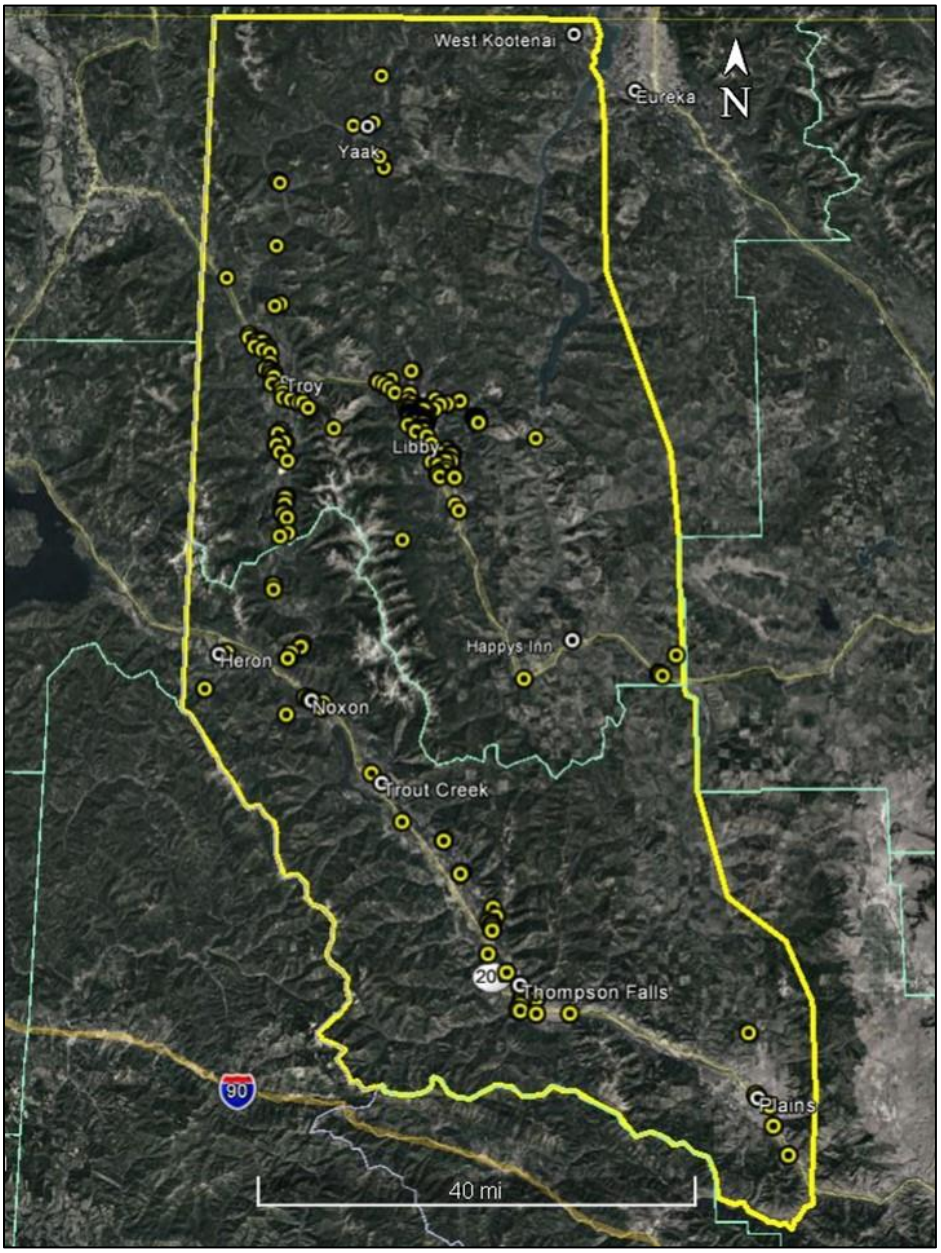

Figure 3. 2015 bear conflict calls

The majority of conflicts with black bears were primarily due to garbage, fruiting trees, or chickens. However, there was an extremely wide range of reasons (Table 1). Conflicts with grizzly bears were primarily due to fruit trees, apiaries, and pet food.

Table 1. Attractants identified as the primary cause of human-black bear conflicts in 2015

Garbage	128	In campground	3	Batteries	1
Fruit trees	79	Encounter	3	Pet carcass	1
Chickens	14	Garage	3	Compost	1
In yard	12	Beehives	3	Fridge	1
On porch	10	Home entry	3	Garden	1
Pet food	8	Property damage	3	Groceries	1
Livestock feed	5	Vehicle damage	3	Root cellar	1
Deer carcass	4	Grill	2	Total	293
Bird feeder	3				

Temporary electric fencing was used at 35 locations, and bear-resistant garbage containers were used at 9 locations as the primary tool to resolve the conflict. No further action was needed at these locations as the electric fencing and/or garbage containers were 100% effective at resolving the conflicts.

Traps were set at 53 locations over 141 trap nights; 33 traps captured 39 black bears (12 of which were cubs-of-the-year (COY)) and 1 grizzly bear. Thirty (30) black bears were relocated, 2 were released on-site, and 7 were humanely euthanized. One grizzly bear was relocated. Temporary electric fencing was used to secure attractants in conjunction with a trap at 13 of these locations. The electric fencing was 100% effective at preventing further conflict.

Household garbage was the primary cause of human-bear conflicts throughout the CYE. The primary hotspots were around Libby and Thompson Falls. In Libby, the west side of town had the most garbage conflicts. Most residents in this area have garages or sheds to securely store their containers, but many were leaving them outside all the time or placing them at curbside the night before pickup. Several residents purchased their own bear-resistant containers or borrowed an FWP container. Due to the high volume of accessible garbage, and the number of bears attempting to access it, I attempted to trap bears at several locations throughout the fall. Because of the high volume of available garbage in all areas surrounding the trap locations, I was unsuccessful in all but 3 locations. The problem continued in spring of 2016 and I worked with Warden Laverdure to give written warnings those residents that continued to have bears accessing unsecured garbage. That proved successful, as several more residents purchased bear-resistant containers or found another method to permanently secure their garbage. The best example of this was the 2 trailer-court neighborhoods that had black bears in their dumpsters yearly. Once the property owners received a written warning from Warden Laverdure, they immediately secured their dumpsters; one purchased a bear-resistant dumpster from Kootenai Disposal and the other secured it with electrified fencing. In the EmKayem Village neighborhood NE of Libby, I was somewhat successful in getting residents to use their garages to secure garbage containers in 2015, but when the problem continued in the spring of 2016, the neighborhood association mailed information out to the residents requiring garbage to be secured in a bear-resistant manner. Six residents purchased their own bear-resistant containers and other residents secured theirs in garages. In Thompson Falls,

Warden Troy Hinck also addressed unsecured garbage by giving residents warnings and/or citations when bears accessed their garbage, which I believe will help reduce garbage related conflicts over time.

Fruit trees grow in many yards throughout southern Lincoln County and all of Sanders County, and in 2015 bears seemed to find nearly all of them. Inside Libby city limits, fruit trees were a huge attractant for multiple black bears. Many of the houses are rentals and many residents do not use, or remove, the fruit from trees in their yards. Setting traps in a city setting is not ideal, and with an abundance of available fruit, I missed as many bears, as I captured. Just south of downtown Libby, I trapped and relocated 5 bears in 7 days in a 3-block area (Figure 4).

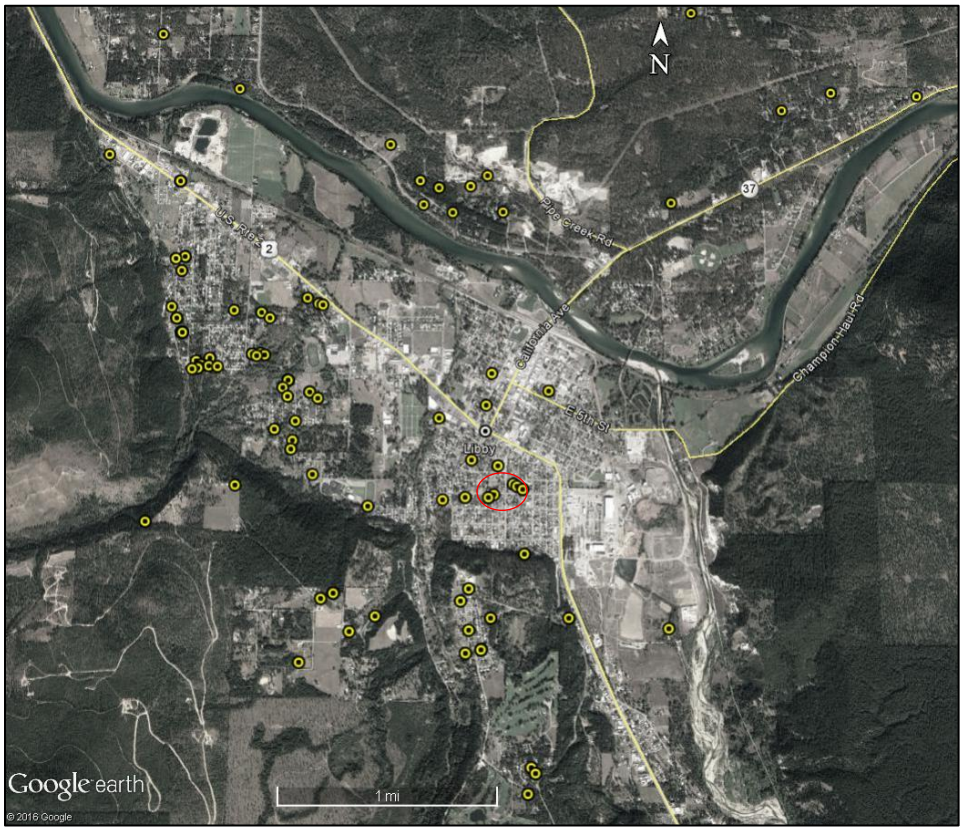

Figure 4. 2015 black bear conflicts in Libby primarily due to fruit trees and garbage. The red circle indicates where 5 black bears were captured in 7 days

The EmKayem Village, north of Libby, also has a large volume of fruiting trees throughout the neighborhood. Over the years, residents have allowed black bears feed from the trees every fall. However, in 2015 the neighborhood experienced a large volume of bears, mostly family groups, feeding in multiple trees day and night. At one point, I counted 14 individual bears in the neighborhood at one time. Because multiple trees and other attractants continued to be available, removing bears did not eliminate the conflicts. I loaned several temporary electrified fences and garbage containers, and the neighborhood association emailed residents Bear Aware information with a request that they secure all attractants. I captured and relocated a female black bear with 2 COY (Figure 5), was unsuccessful at capturing a second female with 3 COY, and successfully captured a female with 1 COY. This last family group (BB1590 and COY) was relocated approximately 30 miles away, however they returned to the neighborhood in less than a week and began breaking into garages. At the same time, a separate,

independent bear, also began breaking into garages. Both the independent bear and BB1590 with COY were subsequently captured and humanely killed. Fortunately, the residents of this neighborhood want to eliminate all future conflicts. In 2016, the neighborhood association mailed all residents information on securing attractants, and asked me to present and discuss ways to prevent future conflicts in their neighborhood. As a result, there were no reported conflicts related to fruit trees in 2016.

Figure 5. Black bear family of 4, captured and relocated from EmKayem Village in 2015

On 20 May 2015, campers at the Kootenai National Forest (KNF) campground at Howard Lake reported a moose carcass surrounded by bear scat on the lake trail near the handicapped boat ramp entrance. The KNF Libby District immediately closed the campground to the public. We investigated but could not determine if the carcass was being fed on by a black bear or grizzly bear. I placed several trail cameras on the carcass and captured several hundred photos of an unmarked male grizzly bear (Figure 6) and dozens of photos of a black bear. I suggested that we attempt to remove the moose carcass, monitor the site for bear activity and reopen the campground after bear activity ceases. I worked with USFWS to attempt to radio collar, or at least identify through DNA, the unmarked grizzly bear feeding at the site. We removed what remained of the moose carcass, placed a single strand of barbed wire around the site, trail cameras, and a culvert trap at the trail entrance. The grizzly bear did not return. The KNF reopened the campground following the Memorial Day weekend.

Figure 6. Unmarked male grizzly bear feeding on a moose carcass near the KNF campground at Howard Lake in the Cabinet Mountains.

On 05 October 2015, a Libby resident reported that a bear knocked over their hobby beehives. While they had a well-designed electrified fence around their hives, their energizer battery was dead and the bear walked through the non-functioning fence. I loaned them a fully functional energizer, assisted them with fence repair, and set a trap. The following morning, I captured a 7-yr old 500-lb male grizzly bear (726) at the site (Figure 7).


Figure 7. Bill and Nancy Hogan with sedated male grizzly bear 726.

Grizzly bear 726 had previously been captured for research in the Yaak by the USFWS as a 2-year old. This was the first time that this bear was documented south of highway 2. This was also the first documented crossing of a native Yaak bear to the Cabinet Mountains. He was collared and relocated in upper Bear Creek in the Cabinet Mountains. Since then, 726 has been documented crossing highway 2 and the Kootenai River at least 14 times between October 2015 and November of 2016 (Figure 8).

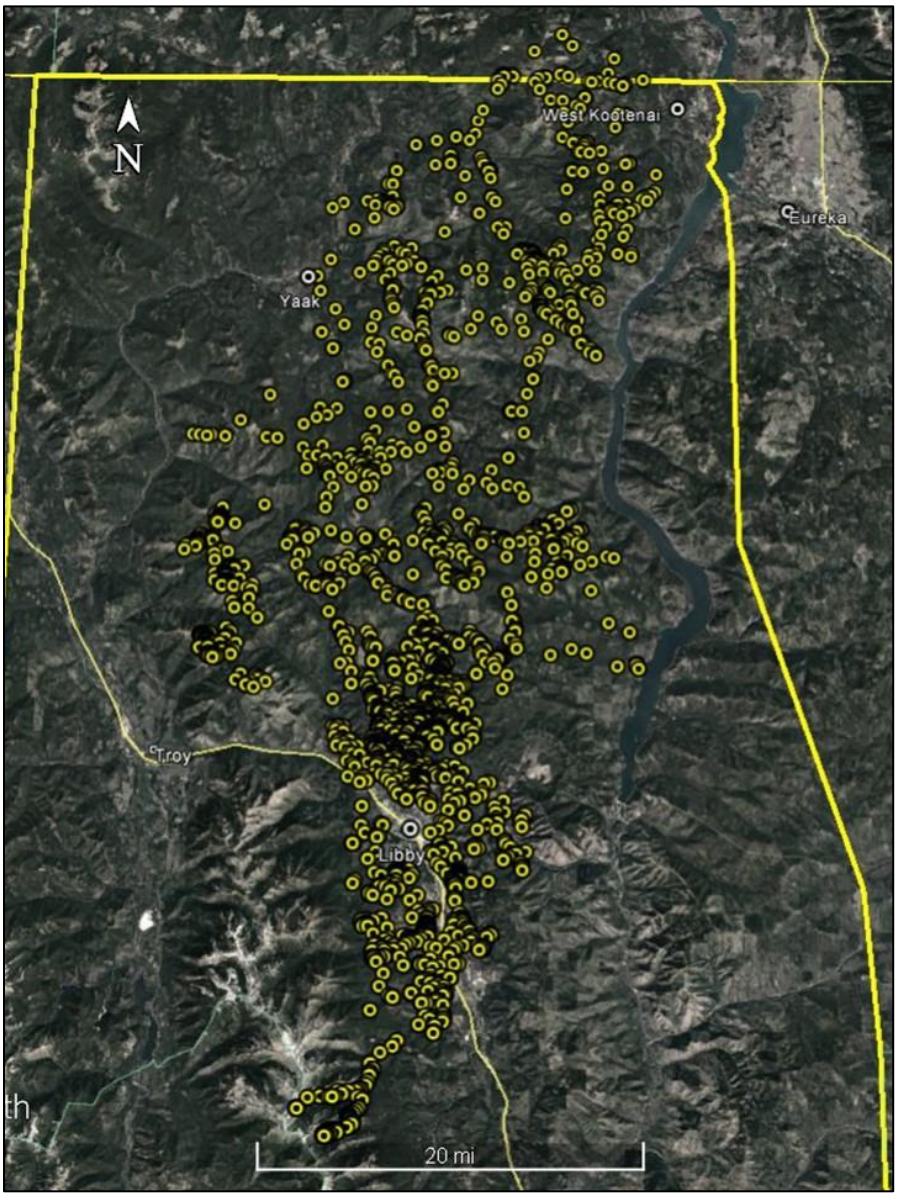

Figure 8. Grizzly bear 726 GPS locations between October 2015 and November 2016

In both the fall of 2015 and 2016, 726 spent a great deal of time in the Libby area. It appears he was primarily eating the carcasses and gut piles of deer deposited along FS roads after being harvested, and traveled regularly to the most popular carcass dumping locations around Libby. Despite 726's close movements around the Libby area (Figure 9), I received zero reports of conflicts of this bear the rest of 2015 or in all 2016.

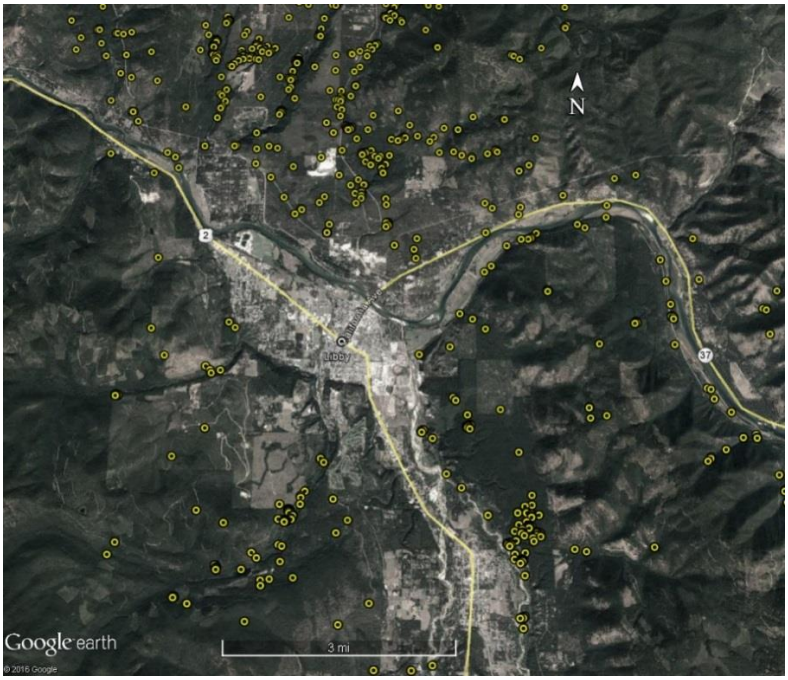

Figure 9. Grizzly bear 726 movements around Libby from October 2015 and November 2016

2016

I received a total of 167 bear related reports in 2016; one hundred forty-three (143) were about black bears, 15 were about grizzly bears, and 3 specifically concerned both species. An additional 6 reports were regarding a bear species that could not be positively identified. Of these, 93 reports were related to conflicts with black bears, and 8 with grizzly bears (Figure 10).

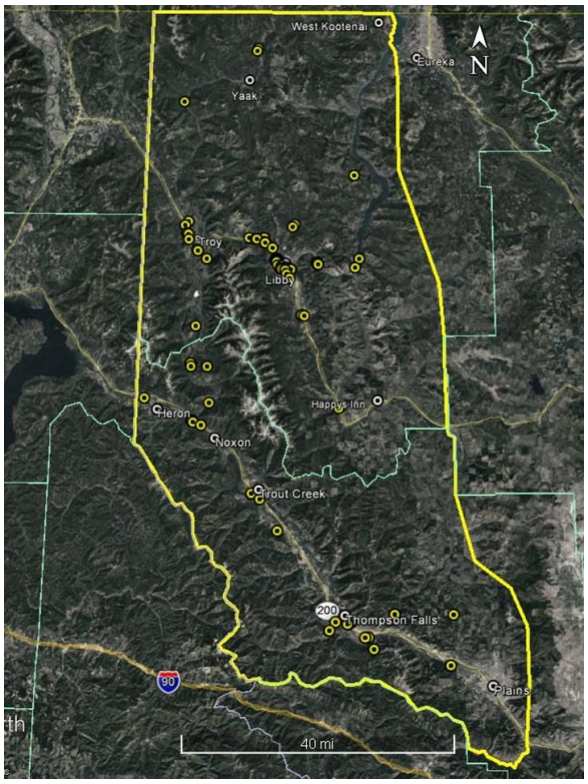

Figure 10. 2016 All bear conflicts

The majority of black bear conflicts were primarily due to garbage, fruiting trees, or bird feed. However, there was a wide range of (Table 2). Conflicts related to grizzly bears were primarily due to livestock feed, livestock depredation, bird feed, and garbage.

Table 2. Primary attractants identified in human-black bear conflicts for 2016

Garbage	39	Human food	2
Fruit trees	14	In boat	1
Bird feeders	7	Freezer	1
Chickens	4	Hides	1
Encounter	4	Beehives	1
Livestock feed	4	Under house	1
Pet food	3	Inside vehicle	1
Orphaned cub	3	In yard	1
On porch	3	Injured	1
Deer carcass	2	Total	93

Temporary electric fencing was used at 16 locations, and bear-resistant garbage containers were used at 15 locations as the primary tool to resolve a conflict. No further action was needed at these locations, as the electric fencing and/or garbage containers were 100% effective at resolving the conflicts.

Traps were set at 11 locations over 30 trap nights; 6 traps captured 4 black bears and 2 grizzly bears. Three of these black bears were relocated and one was humanely killed. The black bear that was humanely killed had been captured twice before in previous years and could not be relocated a third time. Both grizzly bears were relocated. Additionally, 2 orphaned cubs were captured by hand; 1 was relocated and 1 was humanely euthanized. Temporary electric fencing was used to secure attractants in conjunction with a trap at 5 of these trap locations. Electric fencing was 100% effective at preventing further conflict.

On 25 September 2016, I received a call from a family in the Seventeen Mile Creek drainage that a grizzly bear had killed a small domestic pig. The property owner initially thought the bear might be a black bear, so he followed bear into the woods with his son and his livestock guardian dog. About 300 yards from the pig pen, they saw a bear feeding on the pig in thick steep timber that they identified as a large male grizzly bear. The bear charged them but the guardian dog successfully deterred the charge while the property owner and his son backed out of the area. That afternoon, I placed an electrified fence around the pig pen and chicken coop that the family kept in operation until December. I set a trap next to the pen after finding a grizzly bear track and fresh scat near where the bear went into the pen. The property owner had 3 livestock guardian dogs that kept the bear from returning to the pig pen for 4 days. Once they finally brought the dogs into the house, the bear returned and went into the trap. We identified the bear as GB722 that had been captured in previous years by the USFWS CYE research team. GB722 was now 17-years old, weighted 525-lbs (less than he's weighted in previous years), and had multiple broken canines (Figure 11). He was relocated to the upper Pete Creek drainage. He spent some time in the upper Yaak area but by mid-October walked south towards Libby. Unfortunately, after less than 3 weeks of operation, his collar began to fail to collect GPS data, therefore specific location data for the time he spent north of Libby, prior to denning, is sparse (Figure 12).

Figure 11. Grizzly bear 722

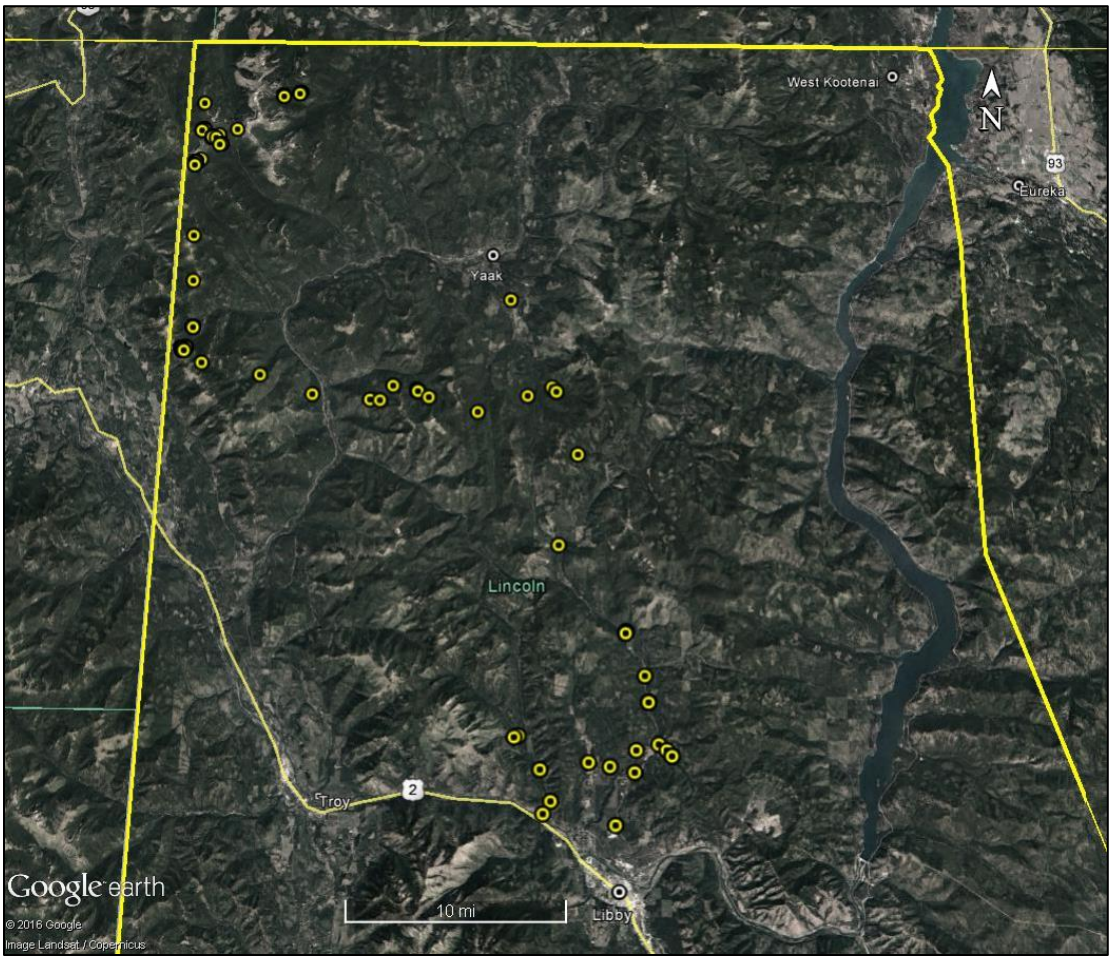

Figure 12. Grizzly bear 722 movements in October-November 2016

On 10 October 2016, I received a call from a resident in the upper Yaak area that a grizzly bear had broken into their chicken coop. The bear did small damage to the chicken coop door, left some hair tufts on the door frame, and ate a large quantity of chicken feed. The bear did not kill any chickens. The property owners believe they had seen the bear several times in days prior and that the bear had taken a backpack and bow that had been left out on a quad overnight. There were cattle, horses, pigs and other poultry on the property, along with other attractants not easily secured in a short period of time. I set an electrified fence around the chicken coop and set a trap. I captured an unmarked sub-adult male grizzly bear, approximately 3 years old and weighing 385-lbs. The bear, GB922, was collared and relocated to upper Spread Creek the following day. Shortly thereafter, 922 walked into northern Idaho and began hanging out low in the Moyie River area. I coordinated with Idaho Fish & Game's Brian Johnson, and he determined that the bear was feeding on a large deer feeder on unoccupied private land. Brian contacted the landowners who offered to remove the feeder. After the feeder was removed 922 left the area almost immediately. No residents in the area reported seeing or having a conflict with the bear. By early November, 922 moved into the Seventeen Mile Creek drainage where he denned.

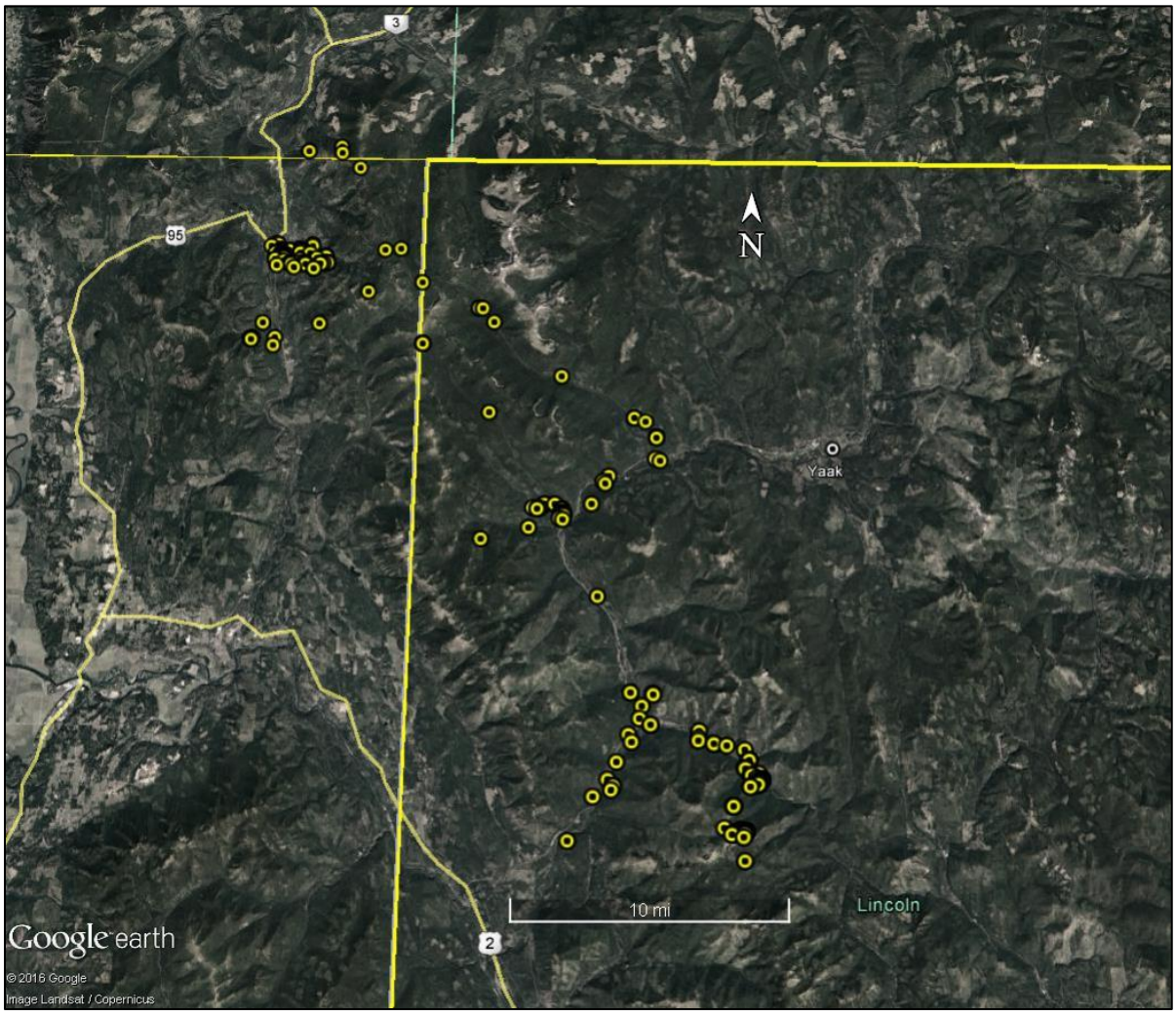

Figure 13. Grizzly bear 922 movements from October – November 2016

Non-conflict reports
These reports include bears seen near homes, front-country or back-country sightings, tracks, vehicle or train mortalities, injured bears, bears up non-fruit bearing trees, questions or concerns, and reports of illegal activity. Even though these reports are not conflict related, I discussed conflict prevention with each caller. I record these reports to track the number reported non-conflict bear activity.

2015
I received 113 non-conflict reports regarding black bears. There were 75 people that reported generally seeing a bear in multiple, non-conflict, situations; 10 bears killed by vehicles or trains, 5 injured (but ambulatory) bears, 8 orphaned cubs, and 2 possible illegal activity (which were passed on to law enforcement). Five people reported that their loaner electric fence or garbage container had successfully deterred a bear.

I received 11 non-conflict reports regarding grizzly bears. Grizzly bear tracks were found at the Lincoln County landfill in Libby, 5 back country sightings, 4 sightings near homes, and 1 general concern about grizzly bears in the area.

I was involved in 9 non-bear related calls regarding injured deer, crows, and raptors, and conflicts related to bighorn sheep, beavers, and mountain lions. Responses were coordinated with an FWP area biologist, Warden, or wildlife rehabilitator.

2016
I received 30 non-conflict reports regarding black bears. There were 15 people that reported generally seeing a bear in multiple, non-conflict, situations; 8 bears killed by vehicles or trains, 2 injured (but ambulatory) bears, 4 orphaned cubs, and 1 possible illegal activity (which was passed on to law enforcement).

I received 4 non-conflict reports regarding grizzly bears, all of which were either front or back country sightings.

I was involved in 10 non-bear related calls regarding injured or dead deer, turkeys, and raptors, conflicts related to mountain lions, missing cattle, and sightings of feral pigs. Responses were coordinated with an FWP area biologist, Warden, or wildlife rehabilitator.

Prevention calls
Prevention calls are from people that specifically reached out for assistance on how to prevent conflicts with bears. These do not include people that had a bear conflict immediately prior to calling. I record these calls to track the number of residents that request assistance prior to having a conflict, and to demonstrate success for preventing conflicts before they occur.

2015
I received 34 calls from residents requesting help with preventing conflicts with grizzly bears and/or black bears. Of these, 27 specifically requested some form of assistance with designing permanent electrified fencing. I assisted with the installation of 7 of these permanent electrified fencing at residences in Libby, Noxon, Yaak, Thompson Falls, and Plains (Figure 14). To my knowledge, all 7 fences have been 100% effective at preventing a conflict with a bear. I loaned a Troy resident a back-country food-canister for a hiking trip into the Cabinet Mountains. Five

additional people called specifically looking for general information on conflict prevention for their residences.

Figure 14. Permanent electrified fence around a chicken coop in the Yaak

2016

I received 23 calls from residents requesting help with preventing conflicts with grizzly bears and/or black bears. Of these, 19 residents specifically requested some form of assistance with designing permanent electrified fencing. I assisted with the installation of 7 permanent electrified fencing at residences in Libby, Noxon, and Thompson Falls. To my knowledge, all 7 fences have been 100% effective at preventing a conflict with a bear. I loaned 3 bear-resistant garbage containers, and had one new resident ask about safe camping and hiking in grizzly bear country.

SANITATION

I continue to coordinate with Lincoln and Sanders Counties on making their many public waste transfer sites bear-resistant. My primary role is to help the counties identify funding, through which materials to secure the sites can be purchased, and to help design effective and affordable bear-resistant fences. In previous years, we used a combination of chain link fence and electrified wires to secure the transfer sites in the Yaak, Fourth-of-July Creek, Savage Lake, Highway 2 South, Trego, and Glen Lake. No bears have accessed these sites since being secured. I have been working with the Lincoln County landfill manager on designing affordable and effective drive-over electrified mats as an alternative to traditional gates. This would allow the sites to be electrified and in operation 24 hours per day instead of the 12 hours per day they are currently in operation.

In 2015, there were 6 county-operated public waste-transfer stations being visited by multiple bears; 5 in Lincoln County and 1 in Sanders County. We coordinated the temporary removal of dumpsters at the Halfway House and Troy landfill sites. In 2016 bear activity continued at the Halfway House, Troy KOA, Fisher River, and Troy City sites. As a result, the county made plans to secure more transfer sites throughout 2017 and 2018 as funding becomes available. The Halfway House and Little Joe's sites will be removed and consolidated to a new site at the intersection of Highway 56 and the Troy Mine road, on land donated by Lincoln County by Hecla Mining Company. The City of Troy and Lincoln County cooperated to remove the dumpsters at the Troy landfill, and, through a grant from Vital Ground, fence the site inside city limits. Funding was also found through Y2Y, the USFWS and Defenders of Wildlife to secure the site at the Fisher River. In 2015 the county discovered that the bear-resistant dumpsters they purchased and placed at the West Kootenai 1 site were not holding up to rigorous use. This site will be changed to a fenced site and the bear-resistant dumpsters will be repaired and distributed to very low use sites throughout the county. The Eureka Commissioner, Mike Cole, is pursuing funding and land availability to secure the sites at West Kootenai 1, West Kootenai 2 and Pinkham Creek. After these are completed, there will only be 5 non-secured waste transfer sites in the CYE portion of Lincoln County; Yaak Hill, Troy KOA, McGinnis Meadows, Happys Inn, and Rexford.

In 2015, I assisted Sanders County with design and construction of an electrified fence around the public waste transfer site at the bottom of Rock Creek off Highway 200. The waste transfer site in Thompson Falls was visited multiple times by a black bear family as the site and building was unable to be secured. The County will be moving this site by 2018 and FWP has recommended the new site be secured against bears, using similar fence design as the Rock Creek site. The transfer sites in both Heron and Trout Creek are scheduled to be updated in 2018 and similar fencing recommendations have been made.

I assisted the US Army Corps of Engineers Libby Dam with securing the dumpsters at their campgrounds and recreation areas. In spring of 2016, 2 black bears accessed garbage in bear-resistant dumpsters. These dumpsters had previously been damaged, or these doors were not being closed by users. In addition to making some repairs and changes to the dumpsters, they placed large informational stickers on the dumpsters that direct users on how, and why, the dumpsters should be latched. By fall of 2016, the Corp of Engineers no longer had bears accessing the dumpsters.

In 2015 and 2016, the Montana Outdoor Legacy Foundation, secured funding that was used to purchase electrified fencing materials and Kodiak containers (fully automated bear-resistant garbage containers) for use in the CYE. The electrified fencing materials are used to temporarily secure attractants as human-bear conflicts occur and loaned out to residents to secure attractants prior to a conflict. The Kodiak containers are loaned out to residents that do not have a secure building to house their garbage containers, cannot afford to purchase their own bear-resistant container, or want to try a container prior to purchase. In 2015 and 2016 I coordinated with the private hauling company, Kootenai Disposal, that services all of Lincoln County. I loaned their many customers the fully automated Kodiak containers until late 2016 when the company worked with Defenders of Wildlife to purchase 24 containers of their own. I will continue to work with the company to help them secure more bear-resistant containers for the residents of Lincoln County. I continue to work with the private hauling company in Thompson Falls, Butte Services, and they are now offering bear-resistant containers to their customers on an as-needed basis.

At the end of 2016 I retrieved 26 garbage containers that had been on temporary or permanent loan to residents. In 2017 I will be placing large permanent markings on all of the FWP Kodiak loaner containers so that they will not be confused with the identical containers that the Libby based private hauling company rents to their customers.

EDUCATION, OUTREACH AND MEETINGS

Education and outreach programs are designed to increase public's awareness of grizzly bear behaviors and biological needs. When possible, public workshops are offered on the effective use of electrified fencing to deter bears. Local fairs and festivals are attended with a booth filled with materials designed to educate about bear behavior and biology.

2015

FWP Libby Bow Hunter Education class
Libby Hiking Club
KNF Campground hosts
Libby Rotary Club
Troy After School program
Libby High School Advanced Biology class
KNF Libby Ranger District bear spray training
Libby 7th grade Science, Technology, Engineering, and Math (STEM) program
Kootenai Kiwanis Family Day Fair
Troy 4th of July Festival
Huckleberry Festival
Lincoln County Fair with the KNF Eureka-based Bear Ranger
Revett Minerals Environmental Stewardship Group
Interagency Grizzly Bear Committee (IGBC) CYE Subcommittee meetings
Lincoln County Commissioner meetings
Sanders County Commissioner meetings
Western Black Bear Workshop in Canmore, Alberta

2016

KNF Libby District Bear Spray Training
KNF Three Rivers Ranger Districts Bear Spray Training
David Thompson Search and Rescue in Libby
Apiary Workshop hosted by MSU Extension in Thompson Falls
Presentation for residents of EmKayem Village in Libby
Troy High School Outdoor Class
Wilderness class for Troy High School, hosted by the Montana Wilderness Society
Kootenai Headstart end of year picnic
Libby Dam Wildlife Days
Lincoln County Commissioner meetings
Lincoln County Environmental Health meeting
Sanders County Commissioner meeting
Meetings with Troy, Montana Mayor
Helca Mining Company Environmental Stewardship Group
Interagency Grizzly Bear Committee (IGBC) CYE Subcommittee meetings

In 2015, male grizzly bear, GB732, hide was tanned for education. GB732 was originally captured in the Yaak in 2011. He was killed at a residence just north of Libby a month after being relocated. His hide was tanned and rugged, with forms placed in the head and paws. In 2016, I had the hide of female black bear 1590 also tanned and rugged. BB1590 and her cub began breaking into garages in the EmKayem village in late 2015, as a result both were humanely killed after being captured. The hides will be used in educational and outreach programs, teaching people how to identify the difference between grizzly bears and black bears.

HUMAN-CAUSED GRIZZLY BEAR MORTALITIES

Grizzly bear mortalities are classified as "known human-caused" if it was determined that humans, or their activities, directly caused the death of a grizzly bear within the Montana portion of the CYE. See Appendix C for a list of all known grizzly bear mortalities, human-caused or otherwise, within the MT portion of the CYE from 2007-2016.

On 24 May 2015, a camper at the KNF Yaak Falls campground reported finding the carcass of a sub-adult male grizzly bear just beyond the camping area. USFWS law enforcement investigated and determined that several days prior, campers had chased and shot at this bear when it wandered near the campground area.

There were no known human-caused mortalities of grizzly bears in the Montana portion of the CYE in 2016.

CABINET MOUNTAINS GRIZZLY BEAR AUGMENTATION PROGRAM

In 1987, the USFWS proposed a plan to augment the Cabinet Mountains portion of the population with sub-adult female bears from outside the area. This approach involved transplanting adult or sub-adult female grizzly bears, captured from remote areas with similar habitat to the Cabinet Mountains, that had no history of conflicts with humans (USFWS 1990, Servheen et al. 1987). Between 1990-1994, the USFWS selectively captured 4 young female bears from the Canadian portion of the Northern Continental Divide Ecosystem (NCDE) grizzly bear population and transplanted them to the Cabinet Mountains. This initial test of the augmentation program was determined successful, and actively continued in 2005, partnering with FWP to capture the bears. Since 2005, FWP has captured and relocated up to 2 grizzly bears per year to the Cabinet Mountains as part of this program. See Appendix B for a list of all grizzly bears augmented into the Cabinet Mountains from 1990-2016.

In June 2015, augmentation grizzly bear 921 was confirmed to have died from natural causes in the North Fork (NF) of Ross Creek in the west Cabinet Mountains. A more detailed account of this bears movements can be found in USFWS Wayne Kasworm's 2015 annual report.

On 04 August 2015, a 2-3yr old male grizzly bear was captured in the Whitefish Range and released in the west Cabinet mountains above Spar Lake. The bear walked south into Idaho shortly after the fires began in the west Cabinets. The bear was illegally shot and killed over bait by a black bear hunter on September 30th along the NF of the Coeur d'Alene River.

On 25 July 2016, a 3yr old male was captured in the South Fork (SF) of the Flathead River. The bear was released in the west Cabinet Mountains above Spar Lake. The bear remained in the west Cabinets throughout much of the fall in the upper Ross Creek and upper Spar Creek drainages. He was last located in the main Cabinet Mountains prior to winter 2016-2017.

USFWS continued to monitor the female augmentation bear from 2014. She spent much of 2016 in the northern portion of the main Cabinet Mountains ranging from the South Fork of the Bull River to Cedar Creek. She denned in the upper Cedar Creek area before winter of 2016-2017.

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APPENDIX A

Grizzly bear captures due to human-bear conflicts from 2007 – 2016

DATE	ID	SEX	AGE	REASON	CAPTURE	RELOCATE	FATE
9/18/2007	772	F	8	In backyard; dug under chain linked fence to get into fruit trees in backyard	Pilgrim Creek, Noxon	SF Marten Creek, KNF	Unknown
9/18/2007	791	M	COY	In backyard; dug under chain linked fence to get into fruit trees in backyard	Pilgrim Creek, Noxon	SF Marten Creek, KNF	Unknown
9/18/2007	789	F	COY	In backyard; dug under chain linked fence to get into fruit trees in backyard	Pilgrim Creek, Noxon	SF Marten Creek, KNF	Unknown
8/30/2010	1374	M	2	On porch, checking out small livestock, in garbage	Young Creek, West Kootenai	Spread Creek, KNF	Dead
7/11/2011	724	M	4	Killed young 4-H pigs	Graves Creek, Thompson Falls	Devils Club Creek, KNF	Unknown
10/27/2011	732	M	3	Dug up buried dog	Yaak River, Yaak	Lookout Creek, KNF	Dead
10/05/2015	726	M	6	Hobby beehives	Granite Creek, Libby	Bear Creek, KNF	Alive
9/29/2016	722	M	18	Killed young pig	Seventeen Mile Creek, Troy	Pete Creek, KNF	Alive
10/10/2016	922	M	3	Inside chicken coop	Yaak River, Yaak	Spread Creek, KNF	Alive

APPENDIX B

Bears relocated to the Cabinet Mountain Range as part of the CYE grizzly bear population augmentation program from 1990 – 2016

YEAR	ID	SEX	AGE	CAPTURE	RELOCATION	FATE – as of Dec 2014
1990	218	F	5	NF Flathead River, BC, Canada; NCDE	EF Bull River, KNF; CYE	Denned 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	Denned in Cabinet Mts 1992 Produced 1 cub 1992, Natural mortality July 1993
1993	286	F	2	NF Flathead River, BC, Canada; NCDE	EF Bull River, KNF; CYE	Denned 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	Whoopee/Hiatt Creek, KNF; CYE	Denned West Cabinet Mts 2005 and 2006, Lost collar September 2007
2006	782	F	2	SF Flathead River, FNF; NCDE	Whoopee/Hiatt Creek, KNF; CYE	Denned West Cabinet Mts 2006-07, Lost collar August 2008; DNA detected in 2012 by USGS study
2007	-	-	-	-	-	-
2008	635	F	4	Fitzsimmons Crk, Stillwater SF; NCDE	EF Bull River, KNF; CYE	Killed by train near Noxon, 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	Whoopee/Hiatt Creek, KNF;CYE	Denned in West Cabinet Mtns 2009-10, returned to FNF May 2010
2010	713	M	3	Dead Horse Crk; FNF, NCDE	Whoopee/Hiatt Creek, 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	Whoopee/Hiatt Creek, KNF; CYE	Denned in Cabinet Mtns 2011; lost collar June 2012
2011	725	F	2	Puzzle Crk, FNF; NCDE	Whoopee/Hiatt Creek, KNF; CYE	Walked to GNP and denned 2011; walked to WNP, returned to West Cabinets to den in 2012; walked to GNP and WNP in 2013, returned to West Cabinets 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; dropped collar on schedule Oct 2014
2013	919	M	2	Cola Crk, FNF; NCDE	Whoopee/Hiatt Creek, KNF; CYE	Denned in Cabinet Mtns 2013; dropped collar 2014
2014	920	F	2	Dead Horse Creek, FNF; NCDE	Whoopee/Hiatt Creek, KNF; CYE	Denned in main Cabinet Mtns
2014	921	F	2	Dead Horse Creek, FNF; NCDE	Whoopee/Hiatt Creek, KNF; CYE	Bear died natural mortality in June of 2015
2015	924	M	2	Stryker Basin, FNF	Whoopee/Hiatt Creek, KNF; CYE	Bear illegally killed by black bear hunter in Idaho on 9/30/15
2016	926	M	3	South Fork of Flathead, Sullivan Creek	Whoopee/Hiatt Creek, KNF; CYE	Alive in November 2016 in Cabinet Mtns

APPENDIX C

Known grizzly bear mortalities within the MT portion of the CYE from 2007 – 2016

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
10/26/14	79575279**	M	6	Self-defense	Little Thompson River
5/24/15	None	M	Unk	Illegal	Yaak River

* 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.

** This bear originated from Canada, captured at a 2 year old for research; Captured again in spring of 2014 in Eureka in a suspected calf depredation (although not confirmed); bear then relocated to GNP; it was collared with VHF transmitter but it was unknown that it was in the CYE area until it was killed. Hunter sitting under tree shot bear at close range after it walked out of brush. Bear was not acting aggressively at the time it was killed.

APPENDIX D

Conflicts and captures of both grizzly bears and black bears in the CYE from 2007 - 2016

Year	Reported **Black Bear** Conflicts	Captured **Black Bears** for Conflict Resolution	Reported **Grizzly Bear** Conflicts	Captured **Grizzly Bears** for Conflict Resolution
2007	60	4	2	3[a]
2008	31	4	1	0
2009	36	9[b]	2	0
2010	99	11	4	1
2011	81	5	18*	2
2012	93	16[c]	10*	0
2013	45	4	4	0
2014	63	4	1	0
2015	293	39[d]	4	1
2016	103	3	8	2

* Majority of calls due to 1 bear

[a] Adult female with 2 COY

[b] Includes 1 family group with 2 COY

[c] Seven bears captured at 1 location

[d] Multiple family groups, 12 COY total