2024 Wyoming Grizzly Bear Job Completion Report

Wyoming Game and Fish Department
Large Carnivore Section
December, 2025

Authors:

Clint Atkinson, Mark Aughton, Mike Boyce, Justin Clapp, Josiah Crump, Justin Dellinger, Brian DeBolt, Luke Ellsbury, Thomas Kelly, Ryan Kindermann, Ken Mills, Phil Quick, Paul Rivera, Kesley Secrist, Scott Stingley and Dan Thompson

TABLE OF CONTENTS

INTRODUCTION

This completion report summarizes grizzly bear work completed by the Wyoming Game and Fish Department's (Department) Large Carnivore Section (LCS) and regional personnel during 2024. In the past, this information was included in multiple reports that were not readily available to agency personnel, the legislature, or the public. This report allows the Department to present information pertaining to grizzly bears in Wyoming in one cohesive document available to all interested parties.

POPULATION MONITORING – CAPTURE SUMMARY

Similar to the annual monitoring programs for other species, grizzly bears are captured annually by the Department, and while the methods may differ, the goal is the same, to collect the data necessary to conserve and manage the population. In addition, data collected during annual monitoring have been extremely useful in answering many important questions regarding the Greater Yellowstone Ecosystem (GYE) grizzly bear population. Data on grizzly bear survival and reproduction, biological samples, body condition, and collar locations are vital components of the overall population monitoring program. These data enable us to accurately monitor the grizzly bear population in relation to recovery goals in the GYE.

To maintain a representative sample of marked grizzly bears in the population, capture efforts occur systematically throughout the Demographic Monitoring Area (DMA); an area of biologically/socially suitable habitat where the population is monitored and evaluated consistently to assess demographic criteria for a recovered grizzly bear population. Capture efforts cease by early fall to avoid conflicts with hunters during big game hunting seasons. The following summarizes trapping efforts for the 2024 season.

2024 WGFD Dubois Grizzly Bear Capture Summary

Capture efforts were initiated on 13 May 2024 and concluded on June 12. All traps, baits, scent lures, and other equipment were removed from sites by June 17. Eleven individual grizzly bears were captured and tagged, seven of which were radio-collared (Table 1). Biological samples were collected from each individual to gain insight into the overall grizzly bear population.

Table 1. Grizzly bears captured in the Dubois area in northwest Wyoming, May-June 2024.

Bear ID	Capture Date	Sex/Age Class	Location	Collar
GB1000	5/17/24	Adult male	Brent Creek	GPS collar
GB1003	5/19/24	Adult male	West Fork Long Creek	GPS collar
GB1105	5/22/24	Subadult male	Double Cabin	GPS collar
GB1107	5/25/24	Subadult female	East Fork Long Creek	GPS collar
GB1108	5/27/24	Adult male	Brent Creek	GPS collar
GB1105*	5/27/24	Subadult male	Double Cabin	GPS collar
G283	5/30/24	Adult male	Middle Fork Long Creek	None
G284	6/1/24	Adult male	Middle Fork Long Creek	None
G285	6/3/24	Adult male	Middle Fork Long Creek	None
G286	6/4/24	Subadult male	Double Cabin	None
GB1110	6/5/24	Adult female	Middle Fork Long Creek	GPS collar
GB1112	6/9/24	Adult male	Brent Creek	GPS collar

*Recapture - released without handling

2024 WGFD Blackrock Grizzly Bear Trapping Summary

Capture efforts were again initiated on 7 July 2024 and concluded July 31. All traps, baits, scent lures, and other equipment were removed from sites by August 5. Twelve individual grizzly bears were captured and tagged, eight of which were radio-collared and three of which received VHF ear tag transmitters. Biological samples were collected from each individual to gain insight into the overall grizzly bear population.

Table 2. Grizzly bears captured in the Blackrock drainage in northwest Wyoming, July 2024.

Bear ID	Capture Date	Sex/Age Class	Location	Collar
GB1117	7/10/24	Yearling female	Moosehorn	VHF eartag
GB1119	7/12/24	Adult female	North Fork Spread Creek	GPS collar
G289	7/13/24	Yearling male	Kettle Creek	None
GB1120	7/17/24	Adult male	North Fork Spread Creek	GPS collar
GB1121	7/19/24	Yearling female	Kettle Creek	VHF eartag
GB1122	7/20/24	Adult male	Split Rock	GPS collar
GB1123	7/20/24	Adult female	Moosehorn	GPS collar
GB1120*	7/23/24	Adult male	North Fork Spread Creek	GPS collar
GB702	7/23/24	Adult female	Kettle Creek	GPS collar
GB1124	7/27/24	Adult female	Kettle Creek	VHF collar
GB1125	7/28/24	Adult male	North Fork Spread Creek	GPS collar
GB1127	7/29/24	Adult male	Kettle Creek	GPS collar
GB1128	7/30/24	Cub of year male	Two Ocean	VHF eartag

*Recapture- released without handling

LCS biologists collect samples (e.g., draw blood) for analysis and tag (e.g., tattoo on the inside of the upper lip) an immobilized grizzly bear while closely monitoring vital rates.

GRIZZLY BEAR USE OF INSECT AGGREGATION SITES

Army cutworm moths (*Euxoa auxiliaris*; moths) were first recognized as an important food source for grizzly bears in the GYE during the mid-1980s (Mattson et al. 1991, French et al. 1994). Early observations indicated that moths, and subsequently bears, showed specific site fidelity. These sites are generally high alpine areas dominated by talus and scree adjacent to areas with abundant alpine flowers. Because insects other than moths may be present and consumed by bears (e.g., ladybird beetles [Coccinellidae family]) as well, we generally refer to such areas as "insect aggregation sites." Within the GYE, observations indicate army cutworm moths are the primary food source at these sites.

Since the discovery of bears feeding at insect aggregation sites, numerous bears have been observed at or near these sites. Observability is high because of the lack of tree cover and the number of bears using the sites. However, complete tabulation of grizzly presence at insect sites is extremely difficult. Only a few sites have been investigated by ground reconnaissance and the boundaries of sites are not clearly known. In addition, it is likely that the size and location of aggregation sites fluctuate from year to year with moth abundance and variation in environmental factors such as snow cover.

Our knowledge of these sites has increased over time, and techniques for monitoring grizzly bear use of these sites have changed. We developed a technique in 2000 that delineates sites by buffering only the locations of bears observed actively feeding at insect aggregation sites by 500 m; this distance is used to account for errors in aerial locations. The borders of the overlapping buffers at individual insect sites are dissolved to produce a single polygon for each site. These sites are identified as "confirmed" sites. Because these polygons are only created around feeding locations, the resulting site conforms to the topography of the mountain or ridge top where bears feed and does not include large areas of non-talus habitat that are not suitable for moths. Records from the grizzly bear location database from July 1 through September 30 of each year are then overlaid on these polygons and enumerated. "Possible" insect aggregation sites are identified as previously confirmed sites, sites with only one observation of an actively feeding bear, or sites with multiple observations of bears in a single year. These sites are then monitored in subsequent years for additional observations of actively feeding bears, and if so, are added to the confirmed sites list. When the status of a site is changed to confirmed, analysis is done on all data back to 1986 to determine the historical use of that site. Therefore, the number of bears using insect aggregation sites in past years may change as new sites are added, and data from this annual report may not match those of past reports. New observations of grizzly bears actively feeding in previously undocumented areas will be added as possible sites and monitored for future use. In addition, as new observations of actively feeding bears are added along the periphery of existing sites, the polygons defining these sites increase in size and, thus, more overlaid locations fall within the site. This retrospective analysis brings us closer each year to the "true" number of bears using insect aggregation sites in past years.

As with 2023, only one round of grizzly bear observation flights was flown in 2024. Thus, the number of hours flown over insect aggregation sites was again reduced compared to pre-2020 flight totals. However, unlike 2020, but like 2023, most observation flights (71%) were conducted with a secondary observer in addition to the pilot.

Analysis of grizzly bear use of insect aggregation sites in 2024 resulted in 162 observations of actively feeding grizzly bears on previously identified, confirmed sites. We recorded another 159 observations of grizzly bears present at confirmed sites, for a total of 321 observations of grizzly bears on moth sites. We detected a new possible site and merged two previously existing confirmed sites. Thus, while there were no new confirmed sites added from our 2024 efforts, assessment of the data now indicates the number of sites is 35 confirmed and 20 possible. (Note that associated tables and figures have been updated to reflect these changes.)

Overall, the number of locations with grizzly bears on insect aggregation sites in 2024 (n = 397) was an increase from 2023 and a new record for observations of grizzly bears associated with insect aggregation sites (Table 3). This number includes all grizzly bear locations from aerial observation flights, telemetry flights, iridium locations, and observations made during flights for other species (the n = 325 from Table 3 does not include iridium locations). The number of grizzly bears documented on sites and the percentage of confirmed sites with

documented use by grizzly bears varies from year to year, suggesting that moth numbers may be greater in some years than others, which may be due to variable snow conditions or the number of moths migrating from the plains (Figure 1). In 1993, a year with unusually high snowpack, the percentage of confirmed sites used by bears and the number of observations recorded at insect aggregation sites were very low (Figure 1, Table 3). In all other years, the percentage of insect aggregation sites used by grizzly bears varied between 47 and 83% (Figure 1).

When we control for the amount of observation effort by including only bears observed during regularly conducted observation flights (see "*Observation Flights*" section below), the number of bears observed using insect aggregation sites per hour of flights has shown an overall increasing trend since these flights began in 1997 (Figure 2). Whereas the number of bears observed per hour in 2024 was slightly above the average for the previous 10 years, the number of hours flown was 10% lower than years in which two rounds of flights were conducted. Thus, like in 2023, the number of observations per hour flown was higher in 2024 than in previous years when two flights were conducted (Figure 2).

LCS staff, in collaboration with Interagency Grizzly Bear Study Team staff, recently published a paper on grizzly bear use of moth sites (Clapp et al 2025; *Exploring the exploitation of migratory moths by radio-marked grizzly bears in Wyoming, The Journal of Wildlife Management)*. The paper used data from radio-collared grizzly bears to examine: 1) site fidelity of individual grizzly bears, 2) duration of use of moth sites, 3) daily activity patterns on moth sites, and 4) movement patterns in relation to moth sites.

Clapp, J. G., M. A. Haroldson, J. A. Dellinger, D. D. Bjornlie, D. J. Thompson, and F. T. van Manen. 2025. Exploring the exploitation of migratory moths by radio-marked grizzly bears in Wyoming. Journal of Wildlife Management doi: 10:1002/jwmg.70128.

Received: 31 March 2025 | Revised: 6 August 2025 | Accepted: 25 August 2025

DOI: 10.1002/jwmg.70128

THE JOURNAL OF WILDLIFE MANAGEMENT

THE WILDLIFE SOCIETY

NOTE

Exploring the exploitation of migratory moths by radio-marked grizzly bears in Wyoming

Justin G. Clapp[1] | Mark A. Haroldson[2] | Justin A. Dellinger[1] | Daniel D. Bjornlie[3] | Daniel J. Thompson[1] | Frank T. van Manen[2]

Table 3. Summary statistics for grizzly bear use of confirmed insect aggregation sites, Greater Yellowstone Ecosystem, 1986–2024.

Year	Number of confirmed aggregation sites[a]	Number of sites used[b]	Number of aerial telemetry locations	Number of ground or aerial observations
1986	4	2	7	5
1987	5	3	3	17
1988	5	3	11	28
1989	9	7	9	41
1990	14	11	9	77
1991	16	13	13	169
1992	18	12	6	108
1993	19	3	1	2
1994	19	9	1	32
1995	21	12	7	40
1996	23	15	21	68
1997	24	16	17	84
1998	27	22	9	185
1999	27	14	26	156
2000	27	13	49	97
2001	28	18	23	128
2002	30	21	33	256
2003	30	20	9	163
2004	30	16	2	134
2005	32	19	16	198
2006	32	17	15	147
2007	32	19	19	162
2008	32	23	16	181
2009	34	23	12	170
2010	34	18	3	136
2011	35	22	10	165
2012	35	24	20	253
2013	35	23	27	297
2014	35	24	11	343
2015	35	21	13	211
2016	35	20	11	208
2017	36	22	20	280
2018	36	20	18	267
2019	36	30	20	336
2020	36	27	19	325
2021	36	23	30	327
2022	36	24	84	230
2023	36	21	51	303
2024	35	23	72	325
Total			743	6,654

[a] The year of discovery was considered the first year a telemetry location or aerial observation was documented at a site. Sites were considered confirmed after additional locations or observations in a subsequent year and every year thereafter regardless of whether or not additional locations were documented.

[b] An aggregation site was considered used if ≥1 location or grizzly bear observation was documented within the site during July–September of that year.

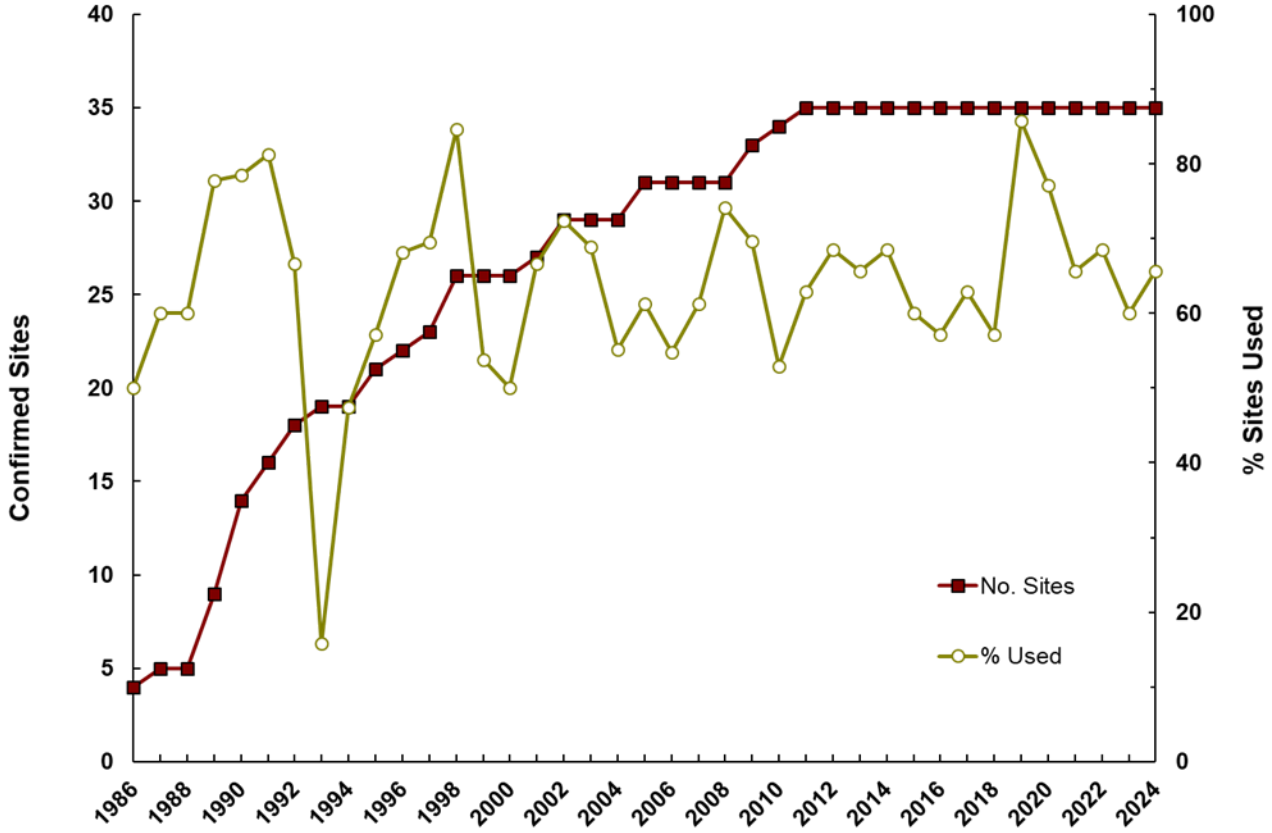


Figure 1. Annual number of confirmed insect aggregation sites and percentage of those sites at which telemetry relocations of marked bears or visual observations of unmarked bears were recorded, Greater Yellowstone Ecosystem, 1986–2024.

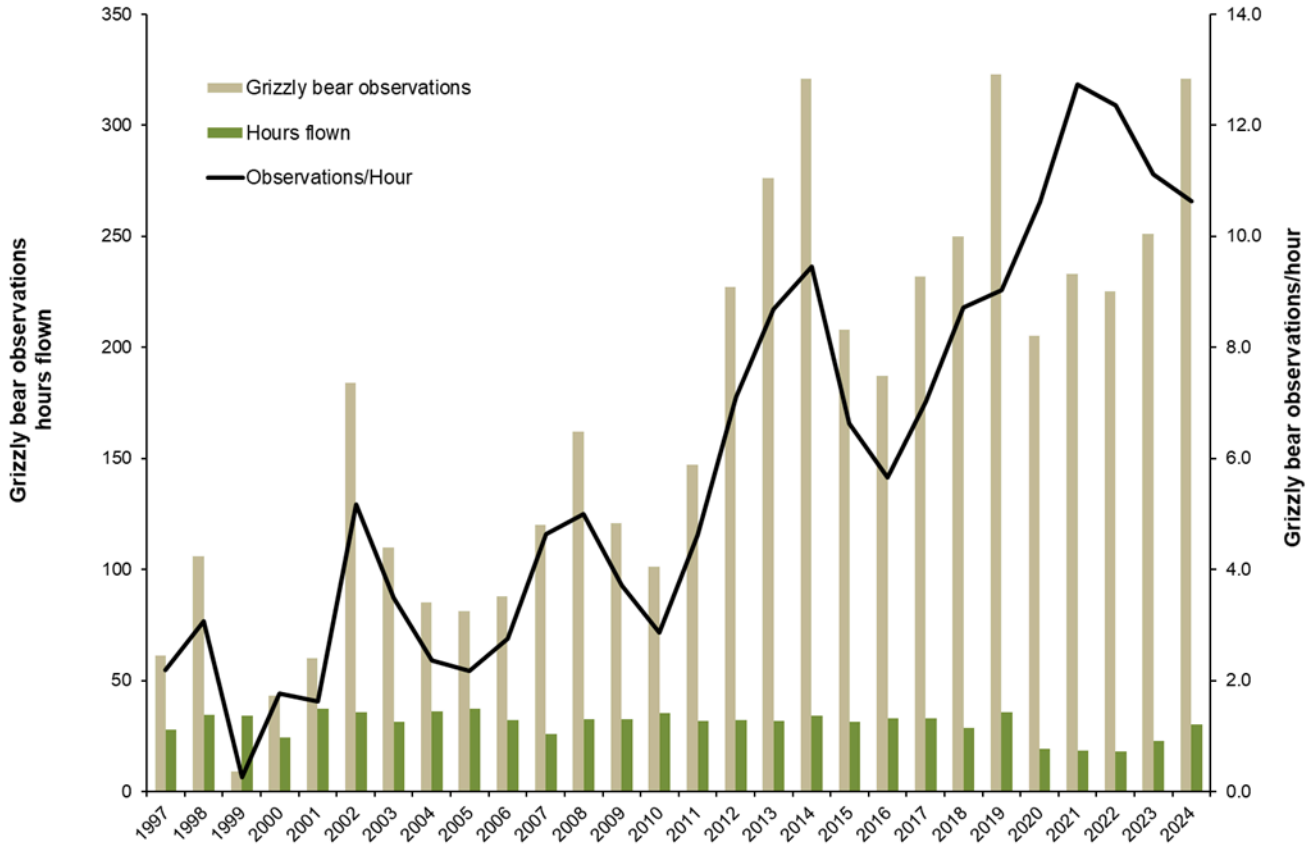


Figure 2. Number of grizzly bears observed (tan bars) on insect aggregation sites during observation flights only, survey hours (green bars) for these bear management units (BMU), and grizzly bear observations per survey hour (black line) during observation flights of BMUs containing all known insect aggregation sites, Greater Yellowstone Ecosystem, 1997–2024.

OBSERVATION FLIGHTS

Fifty-four Bear Observation Areas were established in 2014 (Figure 3). In 2024, one round of observation flights was conducted: 36 BOAs were surveyed during this round (6 Jun–16 Aug); 14 of which were surveyed by WGFD staff from 29 July – 19 August. Herein, we report on the flights involving WGFD staff. Total duration of observation flight time was 30 hours and 10 minutes; average duration of individual flights was two hours and ten minutes (Table 4). Excluding dependent young, 251 bear sightings were recorded during observation flights. Of the 251 sightings, five were radio-marked bears (1 female with young, and 4 females without young), 202 were solitary unmarked bears, and 44 were unmarked females with young (Table 4). Our observation rate was 8.32 bears per hour for all bears. A total of 79 young (48 cubs of the year, 28 yearlings, and three 2-year-olds) were observed (Table 4). Observation rates for females with dependent young were 1.49 females with young per hour and 0.89 females with cubs per hour (Table 4).

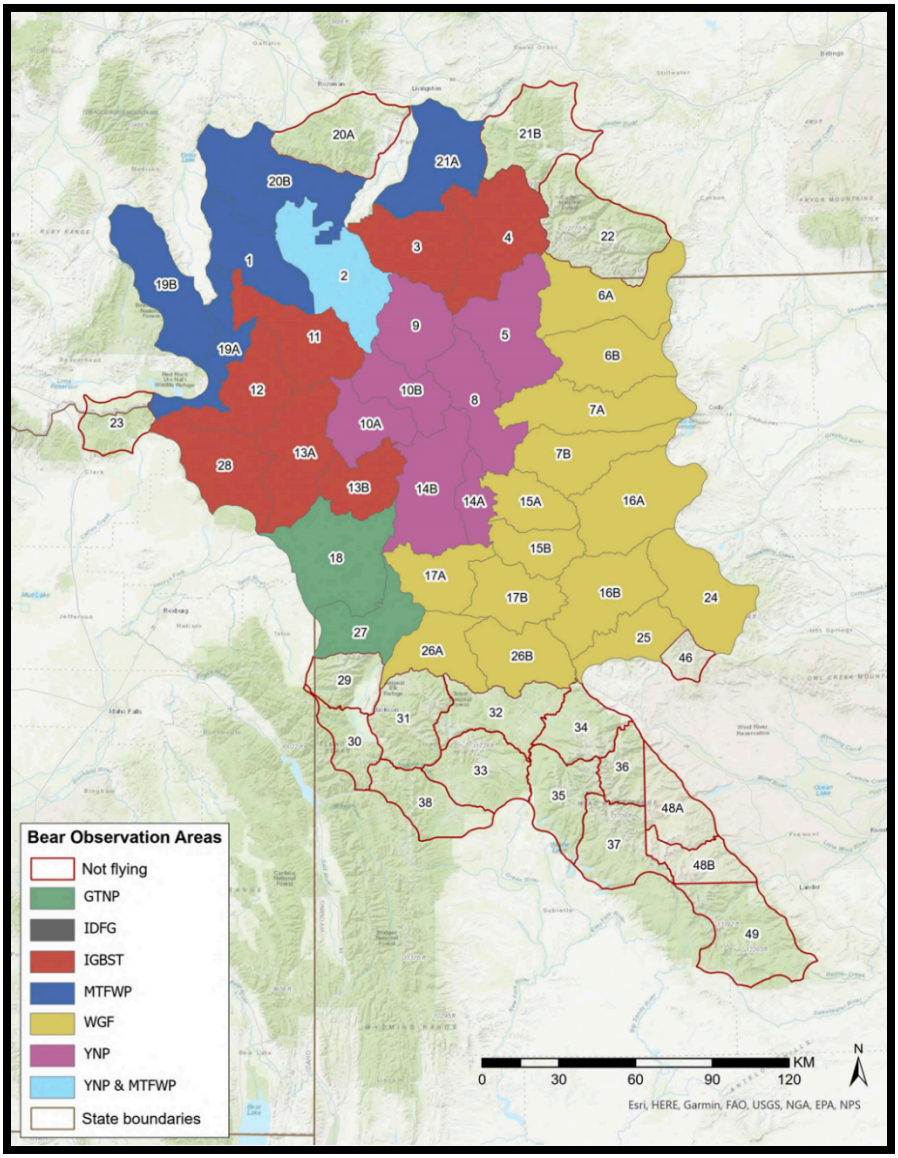


Figure 3. Grizzly bear observation areas for aerial surveys, Greater Yellowstone Ecosystem, 2024. Areas in yellow were surveyed by WGFD staff in 2024. Numbers represent the 54 Bear Observation Areas (BOAs), with several larger areas split into 2 subsections (A and B). Base map source: 2013 National Geographic Society, i-cubed, Washington, D.C.

Table 4. Annual summary statistics for grizzly bear observation flights, Greater Yellowstone Ecosystem, 2009–2024. Note, 2024 only includes data from areas surveyed by WGFD LCS staff.

Year[a]	Observation period	Total hours	Number of flights	Average hours/flight	Bears seen					Observation rate (bears/hour)		
					Marked		Unmarked		Total number of groups	All groups	With young	With cubs
					Lone	With young	Lone	With young				
2009	Round 1	90.3	47	1.9	1	0	85	21	107	1.2		
	Round 2	93.6	47	2	2	0	157	34	193	2.1		
	Total	183.9	94	2	3	0	242	55	300	1.6	0.3	0.2
2010	Round 1	101.1	48	2.1	0	2	93	22	117	1.2		
	Round 2	93.3	46	2	0	0	161	41	202	2.2		
	Total	194.4	94	2.1	0	2	254	63	319	1.6	0.3	0.2
2011	Round 1	88.9	47	1.9	2	1	153	31	187	2.1		
	Round 2	71	35	2	4	0	109	23	136	1.9		
	Total	159.8	82	1.9	6	1	262	54	323	2	0.3	0.2
2012	Round 1	95.4	48	2	4	2	178	35	219	2.3		
	Round 2	73.7	35	2.1	2	1	117	30	150	2		
	Total	169.1	83	2	6	3	295	65	369	2.2	0.4	0.2
2013	Round 1	97	48	2	2	1	152	44	199	2.1		
	Round 2	72.8	35	2.1	4	1	171	48	224	3.1		
	Total	169.8	83	2.1	6	2	323	92	423	2.5	0.6	0.4
2014	Round 1	104	52	2	2	2	170	47	221	2.1		
	Round 2	88.6	43	2.1	3	1	188	60	252	2.8		
	Total	192.6	95	2	5	3	358	107	473	2.5	0.6	0.3
2015	Round 1	104	52	2	4	1	126	34	165	1.6		
	Round 2	88.6	44	2	1	2	142	41	186	2.1		
	Total	192.7	96	2	5	3	268	75	351	1.8	0.4	0.2
2016	Round 1	106.8	53	2	5	3	133	36	177	1.7		
	Round 2	86.5	42	2.1	1	2	95	32	130	1.5		
	Total	193.3	95	2	6	8	228	68	307	1.6	0.4	0.2
2017a	Round 1	105.5	54	2	7	2	153	36	198	1.9		
	Round 2	79	40	2	8	2	127	36	173	2.2		
	Total	184.5	94	2	15	4	280	72	371	2	0.4	0.3
2018	Round 1	105.8	54	2	6	3	185	58	252	2.4		
	Round 2	73.6	40	1.8	1	1	105	35	142	1.9		
	Total	179.4	94	1.9	7	4	290	93	394	2.2	0.5	0.3
2019	Round 1	107.8	54	2	7	4	183	56	251b	2.3		
	Round 2	91	42	2.2	9	1	188	43	242c	2.7		
	Total	198.8	96	2.1	16	5	371	99	493	2.5	0.5	0.2
2020	Round 1	78.5	36	2.2	7	2	222	72	303	3.9		
	Round 2											
	Total	78.5	36	2.2	7	2	222	72	303	3.9	0.9	0.5
2021	Round 1	69.9	33	2.1	8	4	214	71	297	4.3		
	Round 2											
	Total	69.9	33	2.1	8	4	214	71	297	4.3	1.1	0.6
2022	Round 1	75	36	2.1	12	2	240	71	299	4		
	Round 2											
	Total	75	36	2.1	12	2	240	71	299	4	0.79	0.43
2023	Round 1	78.4	36	2.2	5	1	258	59	317	4		
	Round 2											
	Total	78.4	36	2.2	5	1	258	59	317	4	0.75	0.37
2024	Round 1	30.2	14	2.2	4	1	202	44	251	8.3		
	Round 2											
	Total	30.2	14	2.2	4	1	202	44	251	8.3	1.49	0.89

[a] Dates of flights (Round 1, Round 2): 2009 (26 May–17 Jul, 8 Jul–27 Aug); 2010 (8 Jun–22 Jul, 10 Jul–24 Aug); 2011 (15 Jun–17 Aug, 21 Jul–29 Aug); 2012 (29 May–30 Jul, 9 Jul–23 Aug); 2013 (6 Jun–25 Jul, 7 Jul–20 Aug); 2014 (10 Jun–25 Jul, 7 Jul–29 Aug); 2015 (1 Jun–21 Jul, 1 Jul–31 Aug); 2016 (2 Jun–24 Jul, 7 Jul–28 Aug); 2017 (1 Jun–31 Aug, 4 Jul–28 Aug); 2018 (12 Jun-13 Aug, 10 Jul-29 Aug); 2019 (4 Jun–6 Aug, 4 Jul–28 Aug); 2020 (10 Jun–16 Aug, not flown); 2021 (11 Jun–15 Aug, not flown); 2022 (26 Jun-23 Aug, not flown); 2023 (6 Jun-16 Aug, not flown); 2024 (29 Jul-19 Aug, not flown).

[b] Includes observation of 3 cubs of the year without adult female present.

[c] Includes observation of 2 cubs of the year without adult female present.

Table 5. Size and age composition of grizzly bear family groups seen during observation flights, Greater Yellowstone Ecosystem, 2009–2024. Note, 2024 only includes data from areas surveyed by WGFD LCS staff.

		No. of females with cubs by litter size			No. of females with yearlings by litter size			No. of females with 2-year-olds or young of unknown age by litter size		
Year[a]	Round	1	2	3	1	2	3	1	2	3
2009	Round 1	0	6	4	2	3	1	3	1	0
	Round 2	6	11	1	3	7	1	4	1	1
	Total	6	17	5	5	10	2	7	1	1
2010	Round 1	2	7	2	2	6	1	4	0	0
	Round 2	10	10	7	5	4	3	1	4	3
	Total	12	17	9	7	10	4	5	4	3
2011	Round 1	4	8	3	3	6	1	2	2	3
	Round 2	2	8	4	2	2	1	1	3	0
	Total	6	16	7	5	8	2	3	5	3
2012	Round 1	5	19	1	2	3	4	0	2	1
	Round 2	5	9	0	4	6	2	1	3	1
	Total	10	28	1	6	9	6	1	5	2
2013	Round 1	8	20	4	1	5	0	3	4	0
	Round 2	11	21	3[c]	2	7	0	0	5	0
	Total	19	41	7[c]	3	12	0	3	9	0
2014	Round 1	8	17	3	6	14	0	1	0	0
	Round 2	1	15	8	11	18	3	2	2	1
	Total	9	32	11	17	32	3	3	2	1
2015	Round 1	6	18	15	2	20	6	0	2	0
	Round 2	9	22	12	2	24	6	2	0	4[d]
	Total	15	40	27	4	44	12	2	2	4[d]
2016	Round 1	3	16	2	5	8	1	2	2	0
	Round 2	8	11	6	2	4	1	1	1	0
	Total	11	27	8	7	12	2	3	3	0
2017	Round 1	6	14	3	4	7	2	0	2	0
	Round 2	5	20	2	5	3	0	1	1	1
	Total	11	34	5	9	10	2	1	3	1
2018	Round 1	7	24	10	5	7	2[b]	3	3	0
	Round 2	5	8	4	6	11	2	0	0	0
	Total	12	32	14	11	18	4	3	3	0
2019	Round 1	11	10	2c	9	16	5	6	0	1
	Round 2	2	14	3	8	14	2	0	1	0
	Total	13	24	5	17	30	7	6	1	1
2020	Round 1	10	29	1	12	18	2	0	2	0
	Round 2									
	Total	10	29	1	12	18	2	0	2	0
2021	Round 1	10	21	10	9	21	3	1	0	0
	Round 2									
	Total	10	21	10	9	21	3	1	0	0
2022	Round 1	11	18	3	8	16	2	0	1	0
	Round 2									
	Total	11	18	3	8	16	2	0	1	0
2023	Round 1	5	11	5	7	12	2	2	1	0
	Round 2									
	Total	5	11	5	7	12	2	2	1	0
2024	Round 1	10	13	4	10	6	2	1	1	0
	Round 2									
	Total	10	13	4	10	6	2	1	1	0

[a] Dates of flights (Round 1, Round 2): 2009 (26 May–17 Jul, 8 Jul–27 Aug); 2010 (8 Jun–22 Jul, 10 Jul–24 Aug); 2011 (15 Jun–17 Aug, 21 Jul–29 Aug); 2012 (29 May–30 Jul, 9 Jul–23 Aug); 2013 (6 Jun–25 Jul, 7 Jul–20 Aug); 2014 (10 Jun–25 Jul, 7 Jul–29 Aug); 2015 (1 Jun–21 Jul, 1 Jul–31 Aug); 2016 (2 Jun–24 Jul, 7 Jul–28 Aug); 2017 (1 Jun–31 Aug, 4 Jul–28 Aug); 2018 (12 Jun-13 Aug, 10 Jul-29 Aug); 2019 (4 Jun–6 Aug, 4 Jul–28 Aug); 2020 (10 Jun–16 Aug); 2021 (11 Jun–15 Aug, not flown); 2022 (26 Jun-23 Aug, not flown); 2023 (6 Jun-16 Aug, not flown); 2024 (29 Jul-19 Aug, not flown).

[b] Includes 1 female with 4 yearlings.

[c] Includes 1 female with 4 cubs.

[d] Includes 1 female with 4 young of unknown age.

GRIZZLY BEAR DISTRIBUTION

The GYE grizzly bear population had been reduced to only a few hundred bears when it was first listed as threatened under the Endangered Species Act in 1975. As the population increased in the intervening years, grizzly bears have reoccupied areas of their former range, including areas where their presence has not been known for over 100 years. Documenting range expansion has become an important part of grizzly bear population monitoring, providing researchers, managers, and the public with spatial data on grizzly bear presence necessary to inform conservation and management.

From its inception, the Interagency Grizzly Bear Study Team (IGBST) has recorded confirmed locations of grizzly bears throughout the GYE as part of routine population monitoring. These locations have been used to create periodic estimates of occupied grizzly bear range since the early 1980s (Basile 1982, Blanchard 1992, Schwartz et al. 2002, Schwartz et al. 2006). Bjornlie et al. (2014) developed a technique that uses all confirmed grizzly bear locations, sightings, captures, mortalities, conflicts, and telemetry locations and observation. These locations are overlaid on a grid of 3-km cells to determine occupancy and the areas surrounding the centers of occupied cells are then interpolated to create a surface of occupied range (Bjornlie et al. 2014). Since the adoption of this method, biannual updates of grizzly bear occupied range have revealed steady range expansion. Additionally, reanalysis of location data dating back to the 1970s provides estimates of historical grizzly bear range for direct comparison with current data.

Bjornlie et al. (2014) recommended pooling location data over a 15–20 year period to provide an accurate representation of grizzly bear occupied range. We used a 15-year period of location data in a moving window analysis to provide annual estimates of occupied range. Thus, an annual estimate contains location data from that year and the previous 14 years (e.g., 2008–2024 for the reported year 2024). This report is an update of the occupied range analysis presented in the 2022 IGBST annual report (Dellinger et al. 2023).

Using this technique, analyses of grizzly bear locations from 1976 through 1990 produced an estimate of GYE grizzly bear occupied range almost entirely contained within the Grizzly Bear Recovery Zone (GBRZ) established in the 1993 Grizzly Bear Recovery Plan (USFWS 1993). By 2000, occupied range had grown slightly to the south and east but was still mostly contained within the GRBZ (Figure 4). However, in the 2000s, range expansion gained momentum and continued to increase, particularly in mountainous terrain to the northwest and southeast of the GRBZ (Figure 4). The addition of 2023–2024 location data resulted in a similar distribution to the previous iteration (Dellinger et al. 2023). Overall, grizzly bear occupied range appears to be stabilizing, which may be due to the species re-occupation of suitable habitat within the GYE (Figure 4). To provide spatial perspective, the southeastern extent of 2024 occupied range at the tip of the Wind River Range is substantially closer to the towns of Salt Lake City, Utah (294 km), and Fort Collins, Colorado (366 km), than to Bozeman, Montana (405 km) at the northern extent of grizzly bear range.

From 1990 through 2020, the area of occupied range has increased steadily at a rate of 4% per year from just over 23,000 km^2 in 1990 to 70,468 km^2 in 2020 (Figures 4 and 5). The apparent stabilization in range from 2020 to 2024 (67,569 km^2) could be an indicator that grizzly bears are now occupying all ecologically and socially suitable areas in the GYE (Figure 5). Thus, further range expansion in GYE may be unlikely.

Grizzly bear occupied range now includes 96.8% of the DMA. Occupied range has expanded 45 km beyond the DMA boundary to the east and west, and by as much as 60 km in the Wyoming Range in the southwestern portion of the GYE. The 2024 data show that 28.5% of GYE grizzly bear range is now outside the DMA boundary (Figure 5). As grizzly bears advance into new areas, they are encountering more human-dominated landscapes, many of which are private lands dominated by agricultural uses. By 1990, just over 600 km^2 of private lands were encompassed within grizzly bear occupied range, an area half the size of Grand Teton

National Park (GTNP). By 2024, 10,786 km^2 of private lands occurred within occupied range, an area 550 km^2 larger than Yellowstone National Park (YNP), GTNP, and the John D. Rockefeller Parkway combined (Figure 6). Grizzly bear expansion into private lands can result in an increased potential for human-bear conflicts.

There were only a few confirmed grizzly bear locations outside occupied range in 2023 and 2024. Two noteworthy locations farthest beyond occupied range included a 2024 verified location in the Wyoming Range approximately 23 km north of the town of Kemmerer, Wyoming, which was 120 km south of the DMA boundary. This site is the most southerly confirmed location of a grizzly bear in the GYE since well before recovery efforts began. The second noteworthy location also occurred in 2024 and was a verified location in the Bighorn Mountains, approximately 130 km east of the DMA boundary. This is the most easterly confirmed location of a grizzly bear in the GYE since well before recovery efforts began. Additionally, genetics revealed that a grizzly bear detected in 2021 in the Snowy Mountains of Montana was from the GYE. These locations add to other wide-ranging locations of bears in 2018 when: 1) grizzly bear tracks were confirmed near Ocean Lake, approximately 25 km northwest of Riverton, Wyoming, and 2) a family group was captured near the town of Byron, approximately 50 km northeast of Cody, Wyoming.

Verified locations of grizzly bears in places novel in recent history have become relatively common in many areas of the GYE and beyond. Confirmed locations from 2018 and 2022 west of Interstate Highway 15 in the Pioneer Mountains and Big Hole Valley near Wisdom, Montana are located outside the Yellowstone Distinct Population Segment and likely are from bears originating from either the GYE population or the Northern Continental Divide Ecosystem population in northwestern Montana.

However, these outlying locations do not constitute occupied range. There will likely continue to be verified accounts of grizzly bears well beyond the occupied range in the GYE; but it appears that occupied range has plateaued and range expansion has peaked since 2020. Overall, the recovery of grizzly bears in the GYE is an important wildlife conservation success story; but this success presents formidable new challenges for wildlife managers and people living, working, and recreating in these areas. This is particularly pertinent in recently occupied areas where bear-resistant infrastructure to reduce access to anthropogenic foods often does not exist.

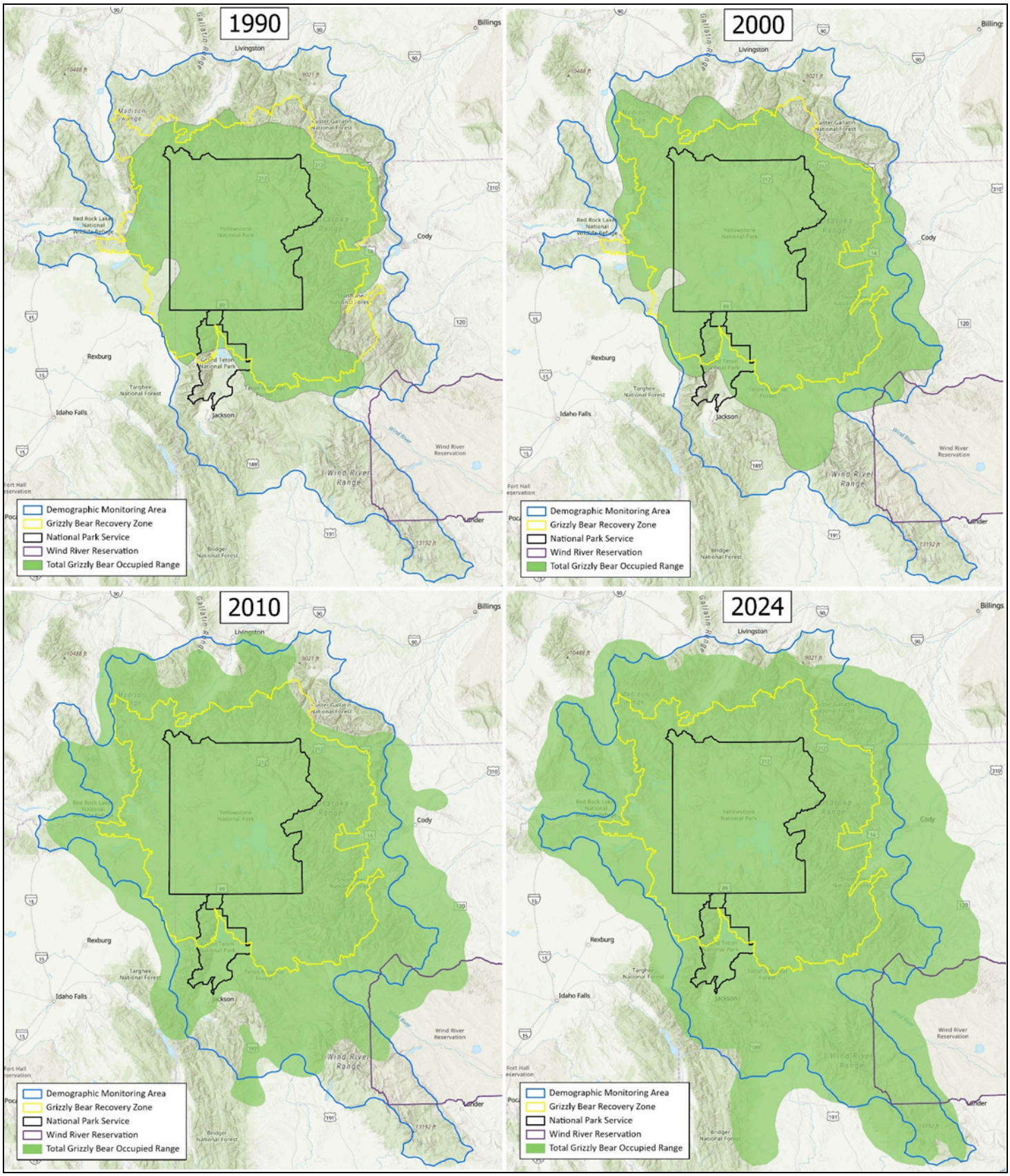


Figure 4. Grizzly bear occupied range (green shaded area) in the Greater Yellowstone Ecosystem based on 15-year data windows ending in 1990, 2000, 2010, and 2024. Base Map Source: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

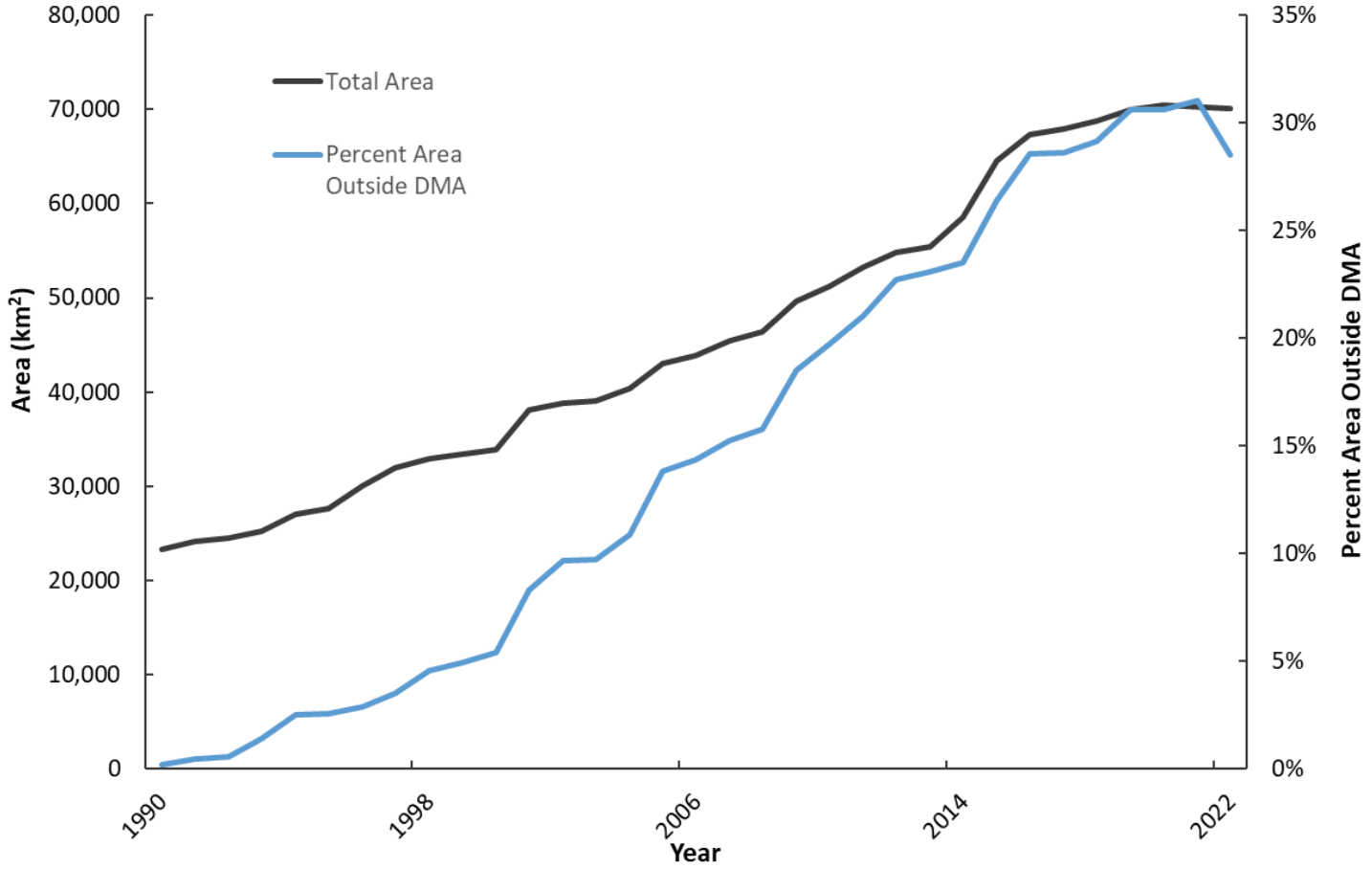


Figure 5. Total area of grizzly bear occupied range and percent of area of occupied range outside the Demographic Monitoring Area (DMA) in the Greater Yellowstone Ecosystem, 1990–2024.

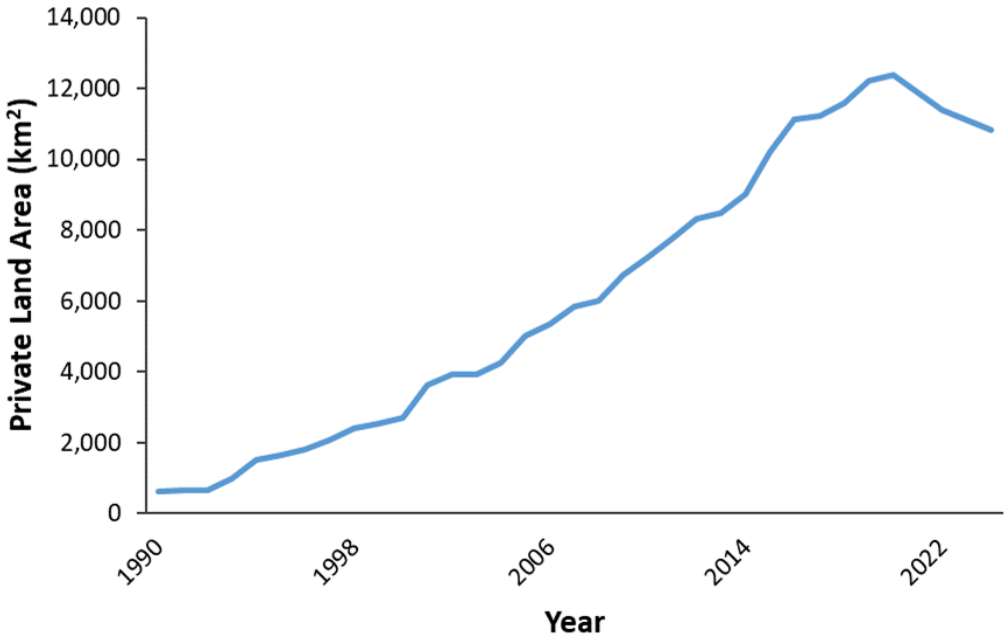


Figure 6. Area of private land within grizzly bear occupied range in the Greater Yellowstone Ecosystem, 1990–2024.

GRIZZLY BEAR CONFLICT MANAGEMENT

Human-grizzly bear interactions and conflicts in Wyoming are typically a result of grizzly bears seeking unnatural foods associated with people and property, close encounters with humans, or livestock depredations. The number and location of human-bear conflicts is influenced by unsecured unnatural attractants (e.g. human foods and garbage), natural food distribution and abundance, grizzly bear abundance and distribution, as well as human and livestock landscape use patterns.

The management technique of capturing grizzly bears in areas where they may come into conflict and relocating them to remote locations is a common practice throughout their range. Relocating bears achieves several social and conservation functions: (a) reduces the chance of property damage, livestock damage, or human interactions in areas where the potential for conflict is high; (b) reduces the potential for grizzly bears to become food conditioned and/or human habituated which often results in destructive and/or dangerous behaviors; (c) allows grizzly bears the opportunity to forage on natural foods and remain wary of people; and (d) could prevent removing grizzly bears from the population which may be beneficial in meeting population management objectives.

The Department relocates and removes grizzly bears as part of routine management operations. The decision to relocate or remove a bear is made after considering a number of variables including age and sex of the animal, behavioral traits, health status, physical injuries or abnormalities, type of conflict, severity of conflict, known history of the animal, human safety concerns, and population management objectives. Grizzly bears are relocated in accordance with state and federal law, regulation, and policy.

In 2005 the Wyoming Legislature created Wyoming Statute §23-1-1001 as follows:

> (a) Upon relocating a grizzly bear or upon receiving notification that a grizzly bear is being relocated, the department shall provide notification to the county sheriff of the county to which the grizzly bear is relocated within five (5) days of each grizzly bear relocation and shall issue a press release to the media and sheriff in the county where each grizzly bear is relocated;
>
> (b) The notice and press release shall provide the following information:
>
> (i) The date of the grizzly bear relocation;
> (ii) The number of grizzly bears relocated; and
> (iii) The location of the grizzly bear relocation, as provided by commission rule and regulation;
>
> (c) No later than January 15 of each year the department shall submit an annual report to the Joint Travel, Recreation, Wildlife, and Cultural Resources Interim committee. The annual report shall include the total number and relocation area of each grizzly bear relocated during the previous calendar year. The department shall also make the annual report available to the public.

Subsequently, the Commission promulgated Chapter 58 Notification of Grizzly Bear Relocation Regulation to further direct the implementation of W.S. §23-1-1001 as follows:

> **Section 1. Authority.** This regulation is promulgated by authority of W.S. §23-1-1001.
>
> **Section 2. Definitions.** Definitions shall be as set forth in Title 23, Wyoming Statutes, Commission regulations, and the Commission also adopts the following definitions:

(a) "County Sheriff" means the County Sheriff's Office in the county where a grizzly bear is relocated.

(b) "Location of the grizzly bear relocation" means the proper name of the drainage in which a grizzly bear is relocated and the estimated number of miles from the relocation site to the nearest municipality, topographical feature or geographic location.

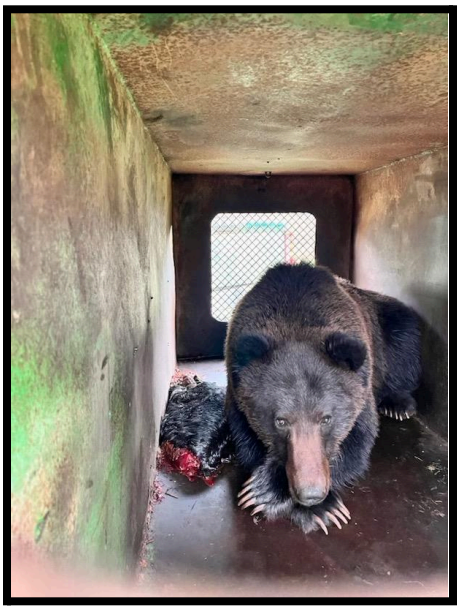
(c) "Provide a press release" means the Department shall provide to the County Sheriff and the media in the county in which a grizzly bear is relocated, a press release including the location of the grizzly bear relocation, number of grizzly bears relocated, date of the relocation and the reason the grizzly bear was relocated.

Section 3. Notification of relocation. Upon relocating a grizzly bear or upon receiving notification that a grizzly bear is being relocated, the Department shall notify the County Sheriff of the date, number of grizzly bears relocated, the location of the grizzly bear relocation and the reason of the relocation via direct telephone conversation, written or electronic correspondence, or personal contact within five (5) days of the date of the relocation. The Department shall provide a press release to the County Sheriff and the media in the county where a grizzly bear is relocated of the date, number of grizzly bears relocated, the location of the grizzly bear relocation and the reason of the relocation within five (5) days of the date of relocation of any grizzly bear.

WYOMING GAME AND FISH COMMISSION

By: _____
Mike Healy, President

Dated: January 22, 2014



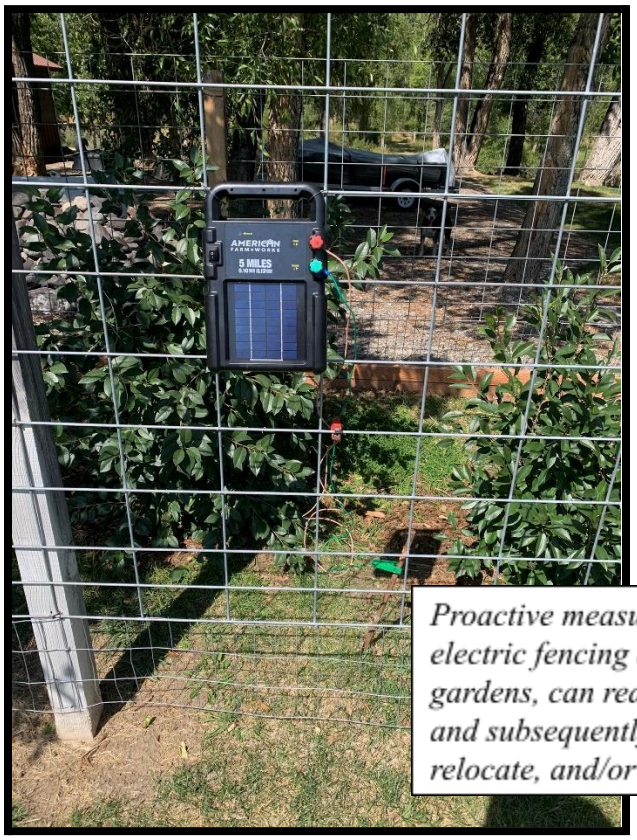
CONFLICT MANAGEMENT – CAPTURE, RELOCATION AND REMOVAL

During 2024, the Department captured 42 individual grizzly bears in 43 capture events (GB1130 was captured twice) in an attempt to prevent or resolve conflicts (Table 6, Figure 7). Of the 42 individual captures, 12 were female (8 adults, 4 sub-adults) and 30 were male (18 adults, 12 sub-adults) grizzly bears.

Of the 42 individual captures, 24 captures were a result of bears killing livestock (cattle, sheep, and chickens), and 15 were captures involving bears that obtained food rewards (pet, livestock food, garbage, fruit trees), or were frequenting developed sites or human populated areas unsuitable for grizzly bear occupancy. Three additional grizzly bears captured in management actions were not considered the offending bears. Of the 43 capture events, 28 (65%) were in Park County, six (14%) in Sublette County, four (9%) in Fremont County, two (5%) in Hot Springs County, two (5%) in Teton County, and one in Washakie County (2%; Table 6).

Of the 42 individual captures, there were 7 relocation events (Table 6, Figure 8). All of the relocated grizzly bears were released on U.S. Forest Service lands in or adjacent to the Primary Conservation Area/Recovery Zone. Of the 7 relocation events, 5 were conducted in Park County (71%), one (14.5%) in Teton County, and one (14.5%) in Sublette County (Table 6).

Grizzly bears are removed from the population due to a history of previous conflicts, a known history of close association with humans, or if they are deemed unsuitable for release into the wild (e.g. orphaned cubs, poor physical condition, or human safety concern). Of the 42 grizzly bears captured, 31 bears were removed from the population. Of these 31 removals, 19 (61%) were outside of the Demographic Monitoring Area, which is the area considered suitable for the long-term viability of grizzly bears in the GYE. Two additional grizzly bears (9-15-24 and 9-30-24 in Table 6) were removed by Department personnel without being captured.



Proactive measures, like constructing electric fencing around fruit trees and gardens, can reduce conflict potential and subsequently the need to capture, relocate, and/or remove a grizzly bear.

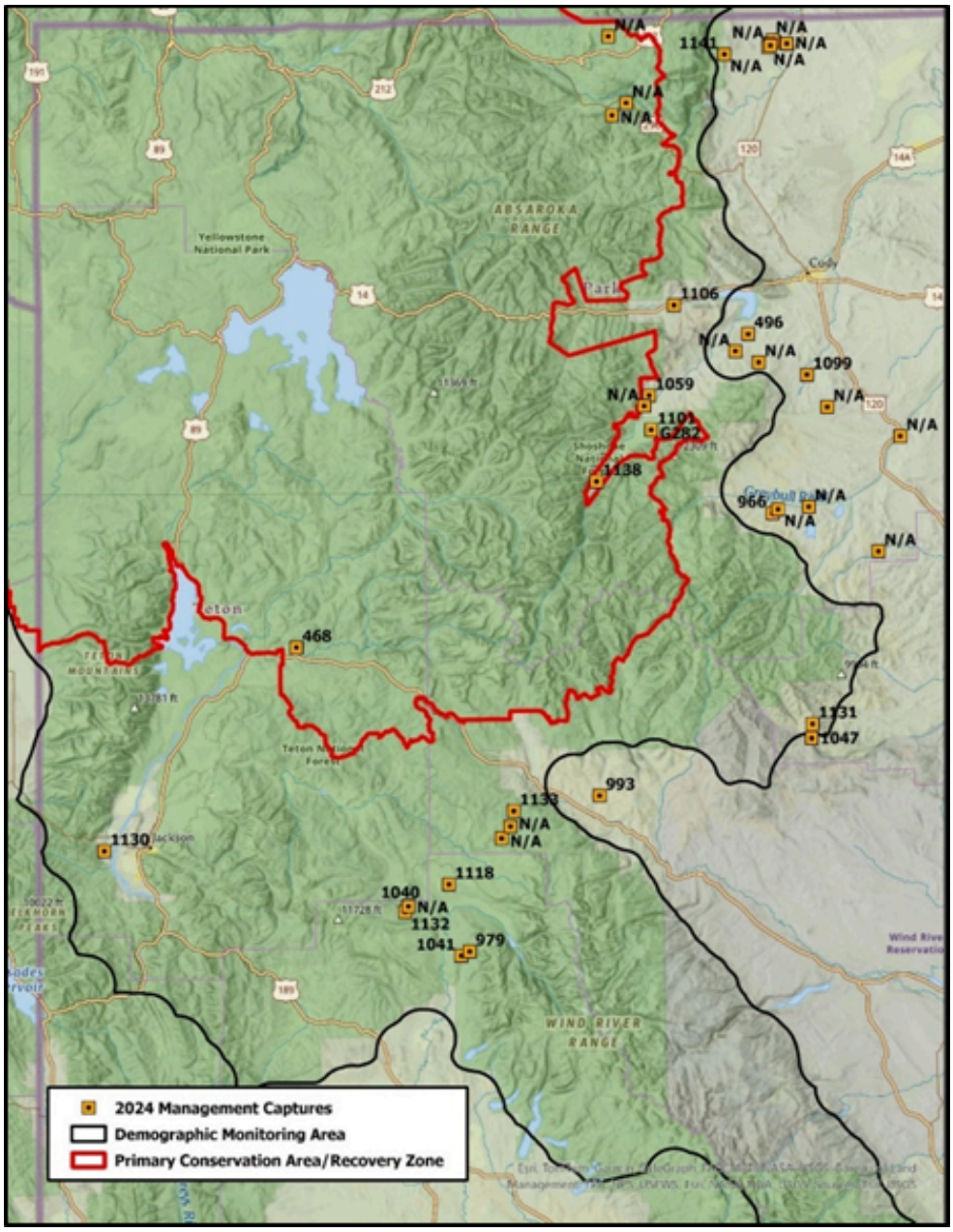


Figure 7. Capture locations (n = 43) for grizzly bears captured in conflict management efforts in the Wyoming portion of the Greater Yellowstone Ecosystem, 2024. Grizzly bear ID labeled as "N/A" were grizzly bears captured and removed from the population without being given a chronological capture number. Because of the mapping scale, some locations are combined at one symbol, and the 4-15-2024 capture in Washakie County is not visible on this map. A complete list is provided in Table 6.

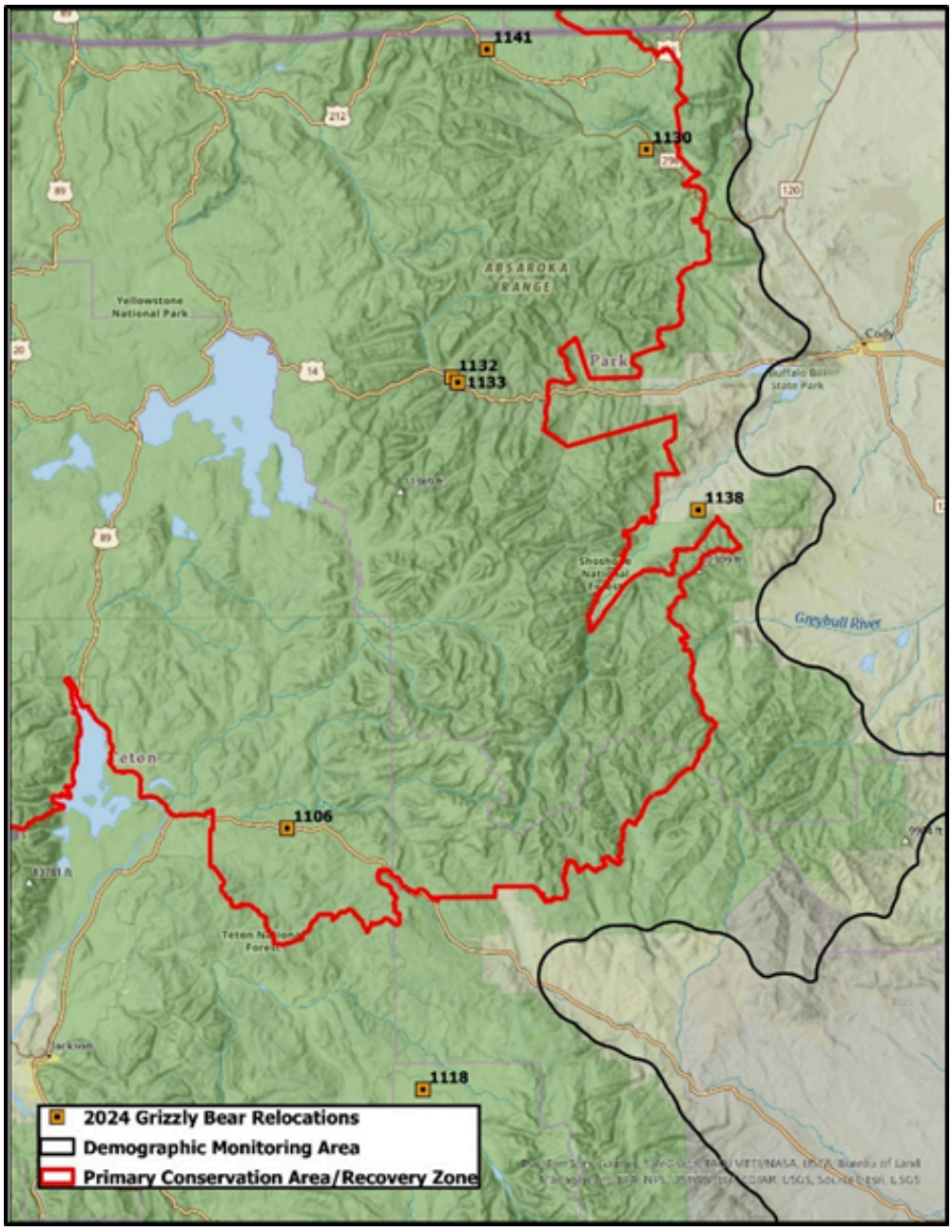


Figure 8. Release locations (n = 7) for grizzly bears captured and relocated in conflict management efforts in the Wyoming portion of the Greater Yellowstone Ecosystem, 2024. Grizzly bears 1131 and 1147 were not considered the offending bears and were released on site so they are not shown here as relocations. Bear 1118 was also not the offending bear and only moved a short distance from capture. A complete list is provided in Table 6.

Table 6. Capture date, grizzly bear identification number (ID), capture county, relocation site, release county, and reason for capture for all 2024 grizzly bear conflict management captures (n = 43) in Wyoming. Grizzly bear ID labeled as "N/A" were grizzly bears removed from the population without being given a chronological capture number.

Date	ID	Capture county	Relocation site	Release county	Reason for capture
4/15/2024	N/A	Washakie			Captured and removed for cattle depredation.
4/25/2024	N/A	Park			Captured and removed for cattle depredation.
4/27/2024	N/A	Park			Captured and removed for cattle depredation.
5/7/2024	1059	Park			Captured and removed for multiple cattle depredations.
5/9/2024	N/A	Park			Captured and removed for multiple cattle depredations.
5/24/2024	1106	Park	Blackrock Creek , BTNF	Teton	Captured and relocated for cattle depredation.
6/18/2024	N/A	Park			Captured and removed for cattle depredation.
6/24/2024	966	Park			Captured and removed for cattle depredation.
6/29/2024	993	Fremont			Captured and removed for cattle depredation and poor condition.
7/2/2024	N/A	Park			Captured and removed for cattle depredation.
7/7/2024	979	Sublette			Captured and removed for multiple cattle depredations.
7/12/2024	1118	Sublette	Pinion Ridge, BTNF	Sublette	Captured as a non-offender at a cattle depredation site and relocated a short distance.
7/18/2024	N/A	Park			Captured and removed for cattle depredation.
7/27/2024	1040	Sublette			Captured and removed for chronic cattle depredation and previous failed relocations.
7/31/2024	1130	Teton	Camp Creek, SNF	Park	Captured and relocated for frequenting residential areas and ranches.
8/6/2024	N/A	Sublette			Captured and removed for multiple cattle depredations.
8/10/2024	N/A	Fremont			Captured and removed for cattle depredation
8/13/2024	N/A	Park			Captured and removed for cattle depredation.
8/15/2024	1131	Hot Springs	Capture Site		Captured as a non-offender at a sheep depredation site.
8/16/2024	1047	Hot Springs	Capture Site		Captured as a non-offender at a sheep depredation site.
8/19/2024	1132	Sublette	Five Mile Creek,SNF	Park	Captured and relocated for cattle depredation.

Table 6. Capture date, grizzly bear identification number (ID), capture county, relocation site, release county, and reason for capture for all 2024 grizzly bear conflict management captures (n = 43) in Wyoming. Grizzly bear ID labeled as "N/A" were grizzly bears removed from the population without being given a chronological capture number.

Date	ID	Capture county	Relocation site	Release county	Reason for capture
8/20/2024	1133	Fremont	Mormon Creek, SNF	Park	Captured and relocated for cattle depredation.
8/23/2024	N/A	Park			Captured and removed for frequenting agricultural areas and human safety concerns.
8/24/2024	N/A	Park			Captured and removed for cattle depredation.
8/24/2024	1041	Sublette			Captured and removed for multiple cattle depredations.
8/26/2024	1101	Park			Captured and removed for multiple cattle depredations.
8/26/2024	G282	Park			Captured and removed for multiple cattle depredations.
8/27/2024	N/A	Park			Captured and removed for crop damage, frequenting agricultural areas, and human safety concerns.
9/6/2024	1097	Park			Captured and removed for past failed relocation attempt, agricultural damage, and human safety concerns.
9/11/2024	468	Teton			Captured and removed for breaking into tack room attached to occupied dwelling and consuming large amount of horse feed.
9/15/2024	N/A	Fremont			Removed for multiple cattle depredations.
9/23/2024	N/A	Park			Captured and removed for agricultural damage and human safety concerns.
9/23/2024	N/A	Park			Captured and removed for agricultural damage and human safety concerns.
9/25/2024	1130	Park			Captured and removed after failed relocation; boldness around humans, presence in residential areas, human safety concerns and crop damage.
9/28/2024	N/A	Park			Captured and removed for frequenting agricultural areas and human safety concerns.
9/28/2024	1138	Park	South Fork Shoshone	Park	Non-offender captured in a set for a bear breaking into cargo trailer and relocated a short distance.
9/30/2024	N/A	Park			Removed for killing and eating a dog accompanied by its owner. Showed aggression/ predatory behavior towards other dogs. Aggression towards riders on horseback. Frequenting occupied camps and receiving food rewards.
10/3/2024	1099	Park			Captured and removed for cattle depredation.
10/14/2024	496	Park			Captured and removed due to very poor condition; obtaining livestock feed and silage, and frequenting agricultural areas.

Table 6. Capture date, grizzly bear identification number (ID), capture county, relocation site, release county, and reason for capture for all 2024 grizzly bear conflict management captures (*n* = 43) in Wyoming. Grizzly bear ID labeled as "N/A" were grizzly bears removed from the population without being given a chronological capture number.

Date	ID	Capture county	Relocation site	Release county	Reason for capture
10/24/2024	N/A	Park			Captured and removed for property damage, apples and duck feed.
10/28/2024	1141	Park	Fox Creek, SNF	Park	Captured and relocated for property damage, apples and duck feed.
11/2/2024	N/A	Park			Captured and removed for repeated conflicts with livestock feed, property damage, aggression toward people, and frequenting developed areas.
11/18/2024	N/A	Park			Captured and removed for obtaining grain and cracked corn and feeding with cattle in a feed lot; poor health and human safety concerns.

CONFLICT MANAGEMENT – CONFLICT VERIFICATION AND REPORTING

Department personnel investigated and recorded 242 human-grizzly bear conflicts in 2024. As a result of meticulous education and conflict prevention efforts, the general pattern of conflicts is relatively steady within currently occupied habitat. The number of annual conflicts is typically a result of abundant natural foods and localized social tolerance of grizzly bears. However, as occupied grizzly bear range has expanded, conflicts continue in areas outside the DMA, often on private lands. In areas outside suitable habitat, where grizzly bears have not been present in recent history, bears are increasingly coming into conflict with people; resulting in more conflict potential with bears causing significant damage to standing crops and sometimes making routine activities in working landscapes potentially dangerous. Although the joint efforts of the WGFD, United States Forest Service (USFS), non-governmental organizations, and particularly the public, have resulted in reducing conflicts through education and attractant storage in many areas, the distribution of grizzly bear conflicts in Wyoming continues to expand with the population. Bears frequent lower elevations and developed areas regularly during the non-denning period. Grizzly bear-cattle depredation was the most frequent type of conflict documented in 2024. This has been the trend for decades, simply because there is no effective method to reduce livestock depredation on large open-range areas. Although the annual variation in most human-bear conflicts is correlated with natural food abundance, the numbers of cattle and sheep killed annually do not follow the same pattern. As grizzly bears expand farther into human-dominated landscapes, the potential for conflict between bears and humans increases, resulting in negative outcomes for both grizzly bears and people. The WGFD continues to explore and use multiple options to reduce grizzly bear-livestock conflicts and expand our education and outreach efforts (see Bear Wise Wyoming Report, Appendix C).

Over 77% of the grizzly bear conflicts in Wyoming involved cattle (Table 7). Further, over 40% of the grizzly bear conflicts in Wyoming occurred on private lands and the majority were outside of the recovery zone and DMA (Figure 9). The increased distribution of grizzly bears is reflected in the annual documentation of conflicts farther from suitable habitat and continued expansion of verified conflicts outside the DMA. As bears expand and occupy habitats commonly used by humans, there is a greater potential for conflicts to occur. Education and conflict-prevention efforts are used anywhere bears and people coexist, and management actions will be a function of human values and effects on the grizzly bear population in those areas.

Long-term trends in the number of conflicts are simply a result of grizzly bears exceeding the carrying capacity of suitable habitat and expanding into areas used by humans, including livestock production, on public and private lands as well as increased human-use of grizzly bear habitat in recent years. This encroachment on bear habitat includes roadside bear viewing. Some people engage in unethical wildlife viewing practices, often resulting in habituated or food-conditioned grizzly bears. Bears are also anthropomorphized on social media, where some bears are elevated to celebrity status. These situations focus on individuals instead of all grizzly bears in the population and continue to present difficult challenges for bear managers and have even caused bear deaths from vehicle strikes. Based on evidence of density-dependent effects in the early 2000s (van Manen et al. 2016, Corradini et al. 2023), the GYE grizzly bear population has reached or exceeded its biological carrying capacity in portions of the ecosystem; individual bears continue to disperse into less suitable habitat beyond the DMA. Therefore, bears are more likely to encounter food sources such as garbage, pet food, livestock and livestock feed, and myriad other attractants, resulting in increased property damage and threats to human safety. In general, there is less social tolerance and biological suitability for bear occupancy in areas farther from the grizzly bear recovery zone because of development, land use patterns, and various forms of recreation. Although prevention is the preferred option to reduce conflicts, each situation is managed on a case-by-case basis. Education, securing of attractants, relocation or removal of individual bears, or a combination of methods are used for long-term conflict resolution and conservation of grizzly bears. It is important to note that human-caused mortalities resulting from conflicts and conflict management is annually analyzed and not negatively impacting the long-term viability of the grizzly bear population in Wyoming.

Table 7. Type and number of human-grizzly bear conflicts in the Wyoming portion of the Greater Yellowstone Ecosystem, 2024.		
Conflict type	**Number**	**Approx. Percent (%)**
HORSE	1	0.41%
PROPERLY STORED GAME	1	0.41%
POULTRY	1	0.41%
HUMAN INJURY	1	0.41%
BEEHIVE	1	0.41%
PET/GUARD ANIMAL	1	0.41%
FRUIT TREES	2	0.83%
GARBAGE	2	0.83%
ANIMAL INJURY	2	0.83%
AGGRESSION TOWARD HUMANS	6	2.48%
ANIMAL DEATH	6	2.48%
SHEEP	6	2.48%
PROPERTY DAMAGE	11	4.55%
PET-LIVESTOCK-BIRDFEED	13	5.37%
CATTLE	188	77.69%
Grand Total	**242**	**100.00 %**

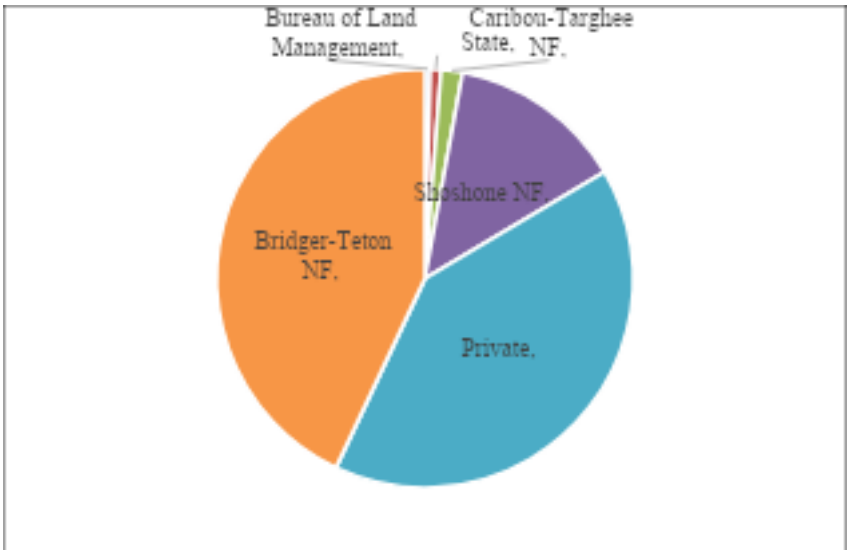


Figure 9. Percent of human-grizzly bear conflicts on private and public lands in the Wyoming portion of the Greater Yellowstone Ecosystem, 2024. Note that NF stands for National Forest and indicates lands managed by the United States Forest Service.

2024 Wyoming Bear Wise Wyoming Project Update

Introduction

The Bear Wise Community Program is a proactive initiative that seeks to minimize human-bear (black and grizzly) conflicts, minimize management-related bear mortalities associated with preventable conflicts, and to safeguard human communities in northwest Wyoming. The overall objective of Bear Wise is to promote individual and community ownership of ever-increasing human-bear conflict issues, moving toward creating a social conscience regarding responsible attractant management and behavior in bear habitat. This project seeks to raise awareness and proactively influence local waste management infrastructures with the specific intent of preventing conflicts from recurring. Strategies used to meet the campaign's objectives are: 1) minimize accessibility of unnatural attractants to bears in developed areas; 2) employ a public outreach and education campaign to increase knowledge about bears and the causes of conflicts; and 3) employ a bear resistant waste management system and promote bear-resistant waste management infrastructure.

This report provides a summary of program accomplishments in 2024. Past accomplishments are reported in the 2006 - 2023 annual reports of the Interagency Grizzly Bear Study Team (IGBST) and in the 2011-2023 Annual Job Completion Reports of the Wyoming Game and Fish Department (WGFD).

Background

In 2004, a subcommittee of the IGBST conducted an analysis of causes and spatial distribution of grizzly bear mortalities and conflicts in the Greater Yellowstone Ecosystem (GYE) for the period of 1994–2003. The analysis identified that the majority of known, human-caused grizzly bear mortalities occurred due to agency management actions in response to conflicts (34%), self-defense killings, primarily by big game hunters (20%), and vandal killings (11%). The report made 33 recommendations to reduce human-grizzly bear conflicts and mortalities with focus on three actions that could be positively influenced by agency resources and personnel: 1) reduce conflicts at developed sites; 2) reduce self-defense killings; and 3) reduce vandal killings.

To address conflicts at developed sites, the committee recommended that a demonstration area be established to focus proactive, innovative, and enhanced management strategies, where developed site conflicts and agency management actions resulting in relocation or removal of grizzly bears had historically been high. Spatial examination of conflicts identified the Wapiti area in northwest Wyoming as having one of the highest concentrations of black bear and grizzly bear conflicts in the GYE. The North Fork of the Shoshone River west of Cody was then chosen as the first area composed primarily of private land to have a multi-agency/public approach to reducing conflicts at developed sites.

In 2005, the Department began implementation of the Bear Wise Community Program. Although the program's efforts were focused primarily in the Wapiti area, the Department initiated a smaller-scale project in Teton County to address the increasing number of black and grizzly bear conflicts in the Jackson, Wyoming area. For the last 18 years, the Bear Wise Community Programs in Northwest Wyoming have deployed a multi-faceted education and outreach campaign in an effort to minimize human-bear conflicts and promote proper attractant management. Although a wide array of challenges remain and vary between communities, many accomplishments have been made and progress is expected to continue as Bear Wise efforts gain momentum. In an effort to broaden the scope of the program, this work was rebranded as the Bear Wise Wyoming Program.

Cody Area Update

The Cody Bear Wise Community Program continues to utilize radio, television and print media, mass mailings, and the use of signing on private and public land to convey the educational messages surrounding human-bear conflict prevention. Conflict prevention information is also disseminated through public workshops and presentations and by contact with local community groups, governments, the public school system, and various youth organizations. To complement educational initiatives, the program uses an extensive outreach campaign that assists the community in obtaining and utilizing bear-resistant products and implementing other practical methods of attractant management. Ongoing efforts and new accomplishments for 2024 are as follows:

- The Carcass Management Program continues to provide a domestic livestock carcass removal service for livestock producers located in occupied grizzly bear habitat within Park County, Wyoming. The program has been traditionally funded by the Park County Predator Management District and Wyoming Animal Damage Management Board. In addition to those donors, the program received contributions from the Bureau of Land Management and the National Fish and Wildlife Foundation. The program provides livestock producers and owners with an alternative to the use of on-site carcass dumps, which are a significant bear attractant and indirectly contribute to numerous human-bear conflicts.

- Large Carnivore Section personnel maintained and built many new permanent and temporary electric fences. The fences are around bee apiaries that have been in the same place long term. These projects were completed in cooperation with USDA Wildlife Services non-lethal specialists and funding for livestock conflict prevention.

- Numerous informational presentations were given that focused on human-bear conflict prevention to students at the following schools: Powell High, South Side Elementary, Cody High, Middle, and Elementary, Basin Library, the 8th grade expo for all Basin schools, Riverside Middle/High, Worland Elementary School, Meeteetse School District, Burlington Middle, and Northwest College in Powell, WY.

- A total of 700 canisters of bear spray and 300 canisters of inert training spray were purchased with funding from the Safari Club International Foundation. After a short training session with the inert spray and mechanical charging “Robobear” the cans of live bear spray were given free of charge to hunters, anglers and the general public in March and August. A total of seven giveaways were held; twice in Cody and Lander and once in Dubois and Pinedale.

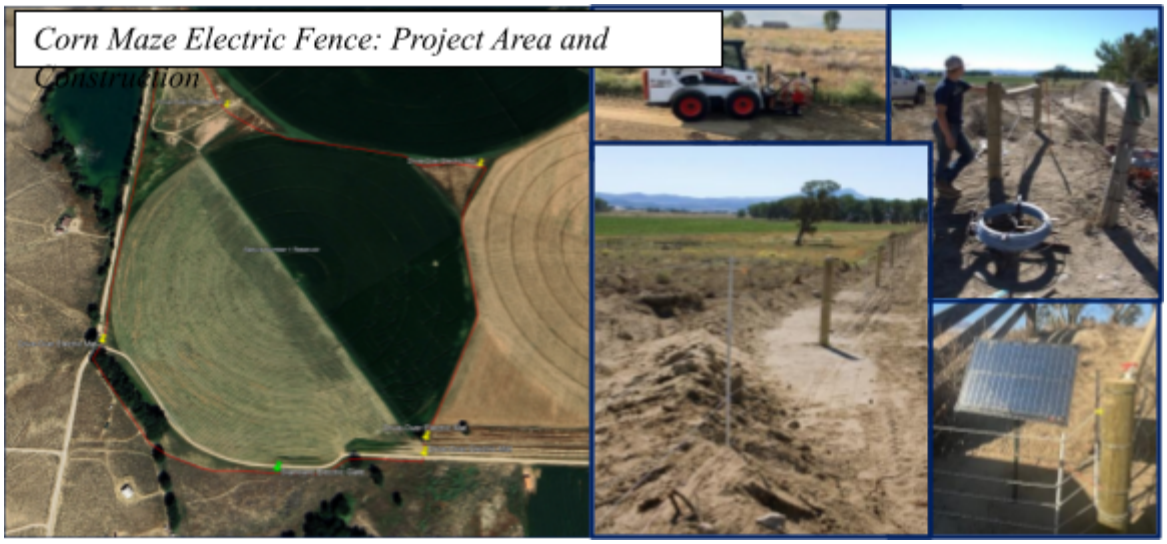
The remote-control charging "Robobear" continues to be a big hit at bear spray giveaways and other educational events throughout Wyoming.

- "Working in Large Carnivore Country" workshops were conducted for numerous organizations and venues across the county, including but not limited to Park County Weed and Pest District, Powell Recreation District Outdoor Kids Event, the Town of Dayton, Buffalo Bill State Park, Medicine Lodge Kids Outdoor Day, Park County Search and Rescue, and Rocky Mountain Power.

- A permanent electric fence was built in 2018 at the Park County Landfill. To ensure the fence is in good working order WGFD personnel spent several days repairing and maintaining the fence in 2024. The partnerships with Wyoming Outdoorsmen, BLM, Park County Commissioners, Western Bear Foundation, and Greater Yellowstone Coalition were vital in making this project a reality.

- Regional Hunter Ed classes, and numerous other public outreach events were held in Cody, Powell, Meeteetse, Thermopolis, Wapiti, and Burgess Junction, Newton Lakes, Basin, and Sunlight.

- In partnership with the Greater Yellowstone Coalition, USFWS, USDA, and Defenders of Wildlife, the permanent electric fence to the Gallagher Corn Maze and Pumpkin Patch was completed and made operational before the opening of the maze. This site had become a significant conflict hotspot and represented a unique and growing human safety concern. Over a five-week period the maze is open, it would see in excess of 9,000 visitors coincident with the peak of grizzly bear activity and conflict potential within the area. Since completion of the fence, there have been zero conflict captures in close proximity to the corn maze and the landowner reports no evidence of bear sign on the property.



- In cooperation with Safari Club International Foundation, Yellowstone Regional Airport, and Wyoming Outfitters and Guides Association, we were able to complete a successful video advertising run at the Yellowstone Regional Airport (see more details in the 2024 Accomplishments section below).

Lander Area Update

- Participated in a biannual Bear Spray Giveaway program, giving away 200 cans of bear spray and interacting with hunters, anglers, hikers, recreationists and people with general interest in grizzly bear ecology and management.

- LCS personnel provided numerous educational workshops and training events including the Lander school system, Wyoming Outdoor Wildlife Day, Teton Valley Ranch Youth Camp, Lander Child

Development Services, Washakie County Outdoor Day, a Game and Fish sponsored open house at the Lander Regional office, and *Wildlife on Tap* at the Coalter Loft in downtown Lander, WY.

- Participated in Hunter Education classes that emphasize hunting safely in bear country.

- Conducted safety training for Shoshone National Forest Trail Crew, Fremont County Weed and Pest, National Audubon Society, Wyoming Catholic College and seasonal Wyoming Game and Fish Employees.

- Conducted multiple radio and television interviews regarding bear safety and being Bear Wise in Wyoming that was timed in accordance with den emergence, spring/summer human use activities and hunting seasons. Section personnel continued to promote resources to the public such as the LCS educational video which demonstrates how to properly deploy electric fences to secure attractants.

- Provided comment and information for numerous news releases for local, statewide, national and international media outlets.

- Provided numerous large carnivore safety presentations and trainings at Whiskey Mountain Conservation Camp and in coordination with the Eastern Shoshone and Northern Arapaho tribes on the Wind River Reservation.

Pinedale Area Update

In 2011, a Bear Wise Community effort was initiated targeting residential areas north of Pinedale, Wyoming where the occurrence of human-bear conflict has increased in recent years. Accomplishments for the Pinedale area in 2024 are as follows:

- Hunting in Bear Country presentations were given to hunter safety classes throughout the region in an effort to educate future sportsmen and women to increase safety potential.
- LCS personnel provided range rider safety training to local cowboys and ranches that have a high potential of encounters with grizzly bears and livestock.
- Bear safety presentations were given to the U.S. Forest Service and other groups throughout Sublette County.
- LCS personnel provided training for local Sublette County Conservation District employees.
- LCS personnel conducted the bear spray giveaway to Pinedale for the third year and distributed 100 cans of bear spray.
- LCS personnel provided large carnivore safety training to the local Bureau of Land Management regional office.

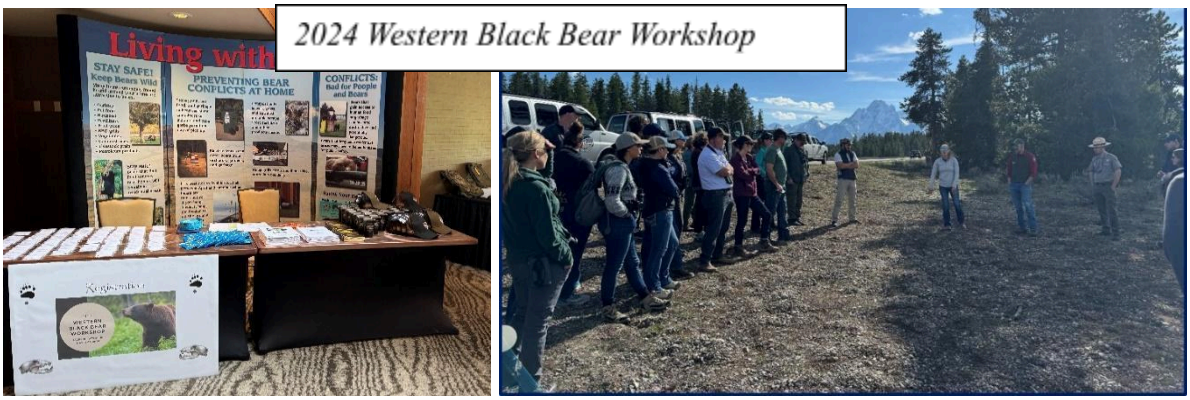
Objectives for 2025 include continued expansion of the program into the other areas of the state where human-bear conflicts continue to be a chronic issue and the continuation of current educational and outreach efforts in the Cody area with specific focus on areas that have not adopted proper attractant management methods.

The Wapiti and Pinedale area Bear Wise Community programs face the ongoing challenges of: 1) the absence of ordinances, regulations, or laws prohibiting the feeding of bears; 2) limited educational opportunities and contact with portions of the community due to a large number of summer-only residents and the lack of organized community groups and; 3) decreased public tolerance for grizzly bears due to record numbers of human-bear conflicts and continued federal legal protection. The future success of the Bear Wise program lies in continued community interest and individual participation in proper attractant management.

Jackson Area Update

The Bear Wise Jackson Hole program continues educational and outreach initiatives in an effort to minimize human-bear conflicts within the community of Jackson and surrounding areas. In 2024, the program's public outreach and educational efforts included the use of signage, public workshops and presentations, distribution of informational pamphlets, promoting awareness about bear spray, carcass and fruit tree management, and utilizing our bear education trailer.

- LCS personnel organized and conducted the Western Black Bear Workshop in Jackson Wyoming. This brought together over 100 black bear biologists and managers from the U.S., Canada, and Mexico to share research and provide insight into ongoing management challenges and successes.



2024 Western Black Bear Workshop

- Public service announcements were broadcast on local radio stations in Jackson throughout the spring, summer, and fall of 2024. The announcements focused on bear safety, conflict avoidance, and advertising for a Large Carnivore workshop conducted in Jackson.

- Numerous educational talks were presented to various groups including homeowner's associations, guest ranches, youth camps, Jackson residents, tourists, school groups, Heart Six Ranch, Jackson Gun Club and local government employees.

- An educational workshop focusing on bear ecology and situational awareness was held at the Jackson outdoor day as part of the larger Bear Spray Giveaway event in April.

- A second Bear Spray Giveaway was held in August in which 100 cans of spray were given to the public free of charge.

- A considerable amount of time was spent removing ungulate and livestock carcasses from residential areas and ranches in the Jackson Region.

- LCS personnel continued to work with Roots Kitchen & Cannery, a Jackson catering company. They have been involved in picking apples from trees that have been identified as a source of bear conflict by WGFD.

- LCS personnel assisted hunting outfitters with the installation and maintenance of electric fence systems around their field camps located in the Bridger-Teton National Forest. Annually, personnel meet with hunters and outfitters to reduce conflict potential between humans and grizzly bears.

- LCS personnel worked extensively with the apiarists in Teton County to electrify bee yards and chicken coops to secure the potential attractants.

- Signage detailing information on hunting safely in bear country, bear identification, recent bear activity, and proper attractant storage were placed at USFS trailheads and in private residential areas throughout Teton County, including extensive work on Togwotee Pass to deal with habituated roadside grizzly bears.

- LCS personnel provided a “Living in Large Carnivore Country” workshop to the residents of Thayne and Alpine WY as well as provided a short radio interview for Alpine residents pertaining to bear safety.

Objectives for the Bear Wise Jackson Hole program in 2024 were focused on supporting Teton County and local waste management companies with projects that will help disseminate information and achieve compliance with the recently adopted Teton County Bear Conflict Mitigation and Prevention Land Development Regulations (LDR). In addition, more work will be done to identify areas within the city limits of Jackson and Star Valley communities where additional attractant management and sanitation infrastructure is needed.

The recent implementation of the Teton County Bear Conflict Mitigation and Prevention LDR has greatly reduced the amount of available attractants on the landscape and is a tremendous step forward for the Bear Wise Jackson Hole program. The new challenges faced by the Department will be achieving full compliance with this regulation, even in years with low conflict, when it may appear that the conflict issues are resolved. The Bear Wise Jackson Hole Program will convey the importance of compliance and strive to maintain public support for the LDR through public outreach and education projects. In order for the Jackson program to be successful, the program must continually identify information and education needs within the community while being adaptive to changing situations across different geographic areas. This will require the Department to coordinate with other government agencies and local non-government organizations working across multiple jurisdictions to develop a uniform and consistent message. If this level of coordination is achieved, the Department will be more effective in gaining support and building enthusiasm for Bear Wise Jackson Hole, directing resources to priority areas, and reaching all demographics.

An unfortunate recurring example of people selfishly crowding a roadside grizzly bear to obtain photos and/or video.

Information and Education

2024 Accomplishments

- **Total Numbers Reached**
  - Across all outreach avenues (in person, print, video, etc.) a total of 1,138,894 people were reached by the Bear Wise Wyoming program. This is a record high for the Bear Wise program.

- **Physical/Electronic Print Media Outreach**

  - The Large Carnivore Section provided a number of interviews for a magazine series on preventing and reacting to large carnivore attacks for US Concealed Carry Association Magazine (USCCA Magazine). The series spanned multiple issues and allowed us to provide safety information and recommendations for black bear, grizzly, and mountain lion encounters directly from the Bear Wise Wyoming program to a large audience. The series was seen by at least 730,280 paid-subscribers to the magazine.

  - Large Carnivore Section personnel distributed at least 3,100 Bear Wise Wyoming informational brochures titled "Bears in Wyoming – A guide for recreating in bear country" at numerous venues and events all across the states. These contain detailed bear safety information covering a wide range of topics and scenarios.

  - As per Wyoming Statute, grizzly bear relocation from one county to another must be announced through local media and to the local sheriff of the county into which the bear was relocated (n = 7 for 2024). Each announcement is posted in a timely fashion to the web page.

  - Personnel issued multiple educational news releases throughout the season informing readers and listeners of bear safety, behavior, conflict avoidance, food storage and natural food availability.

- **Gas Pump Video Advertising**

  - In partnership with Safari Club International Foundation and Wyoming Outfitters and Guides Association, the Bear Wise Wyoming program developed a 30 second video advertisement focused on bear safety while hunting. The goal was to provide Bear Wise Wyoming safety information to traditionally hard to target demographics (short term 1–3-day visitors, out of state hunters, residents with little to no digital footprint or very little free time) that are typically unavailable or simply not visiting long enough to reach with standard outreach methods (i.e., in person presentations, workshops, and training events). The ad was scheduled to run for 84 days starting at the beginning of the fall hunting season which coincides with the peak of human-bear conflicts. This advertisement reached 327,859 people in 23 locations across Wyoming over the course of 84 days, exceeding our initial goal by more than 50,000 people.

- **Airport Terminal/Baggage Claim Video Advertising**

  - In partnership with Safari Club International Foundation, Yellowstone Regional Airport, and Wyoming Outfitters and Guides Association, the Bear Wise Wyoming program developed a different 30-second video advertisement addressing bear safety for anyone visiting Wyoming. This campaign was aimed at all of the same difficult to target demographics but with a broader message that pertained to all outdoor recreationalists. This advertisement was played year-round in the Yellowstone Regional Airport on TV screens in the main terminal and the baggage claim area and reached at least 74,732 people.

- **Western Black Bear Workshop**

  - In March 2024, the Western Black Bear Workshop was organized and carried out by WGFD Large Carnivore Section personnel. During this event, over 100 bear biologists/managers from three North American countries received bear safety training directly from the Bear Wise Wyoming program.

- **In Person Outreach (Presentations, Workshops, Training)**

  - In 2024 the Bear Wise program carried out 67 in-person presentations around the state and provided a total of 6,023 people with high quality in-depth information and training on large carnivore safety. This was a record number of presentations for the Bear Wise program in a single calendar year.

- **Grizzly Bear Management Web Page**

  - The new grizzly bear management web page and Bear Wise Wyoming have been maintained and updated on a regular basis in order to provide timely information to the public regarding grizzly bear management activities conducted by the Department. Accessibility to the Grizzly Bear Management and Bear Wise web pages has been dramatically improved. Both web pages can now be accessed in only one click from the WGFD homepage. The web pages' contents include information on bear and large carnivore safety, various interagency annual reports and updates, and links to other grizzly bear recovery web sites.

- **Hunter Education**

    - Every hunter education class in Wyoming is required to discuss how to hunt safely in bear country. To assist instructors, most have been provided inert bear spray canisters for demonstration purposes and DVDs entitled *Staying Safe in Bear Country, A Behavioral Based Approach to Reducing Risk*. A section on bear safety is included in the student manual. Approximately 5,000 students are certified each year.

- **Bear Spray Giveaways**

    - We had a successful year training recipients on how to use bear spray at our seven Bear Spray Giveaway events. Public participation continues in our community events where bear spray giveaways occur and also give our personnel an excellent opportunity to talk with the public about bear ecology and safety and other wildlife issues throughout Wyoming.

Publications

The primary link to other publications, annual reports, and peer reviewed literature for the Yellowstone population of grizzly bears is summarized on the United States Geological Service web site at https://www.usgs.gov/science/interagency-grizzly-bear-study-team.

For information specific to the Wyoming Game and Fish Department's grizzly bear management program; including links to publications, reports, updates, and plan visit: https://wgfd.wyo.gov/wyoming-wildlife/large-carnivore/grizzly-bears-wyoming.

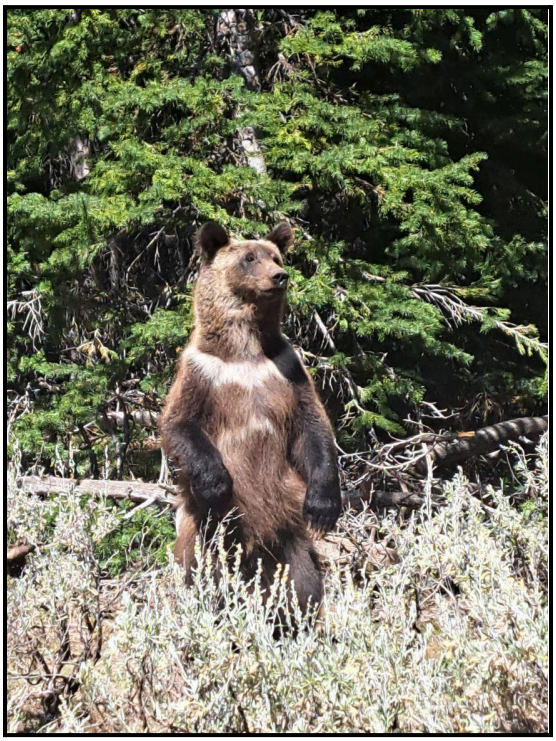
EXPENDITURES FOR GRIZZLY BEAR MANAGEMENT BY THE DEPARTMENT – FISCAL YEAR 2025

The Department's 2025 Fiscal Year (FY) occurred from July 1, 2024 – June 30, 2025. During the course of FY 2025, the Department conducted annual population monitoring, responsive conflict management, Bear Wise Wyoming programs, and other statutory and regulatory obligations in regard to damage compensation and law enforcement for grizzly bears. During FY 2025, the Department directed $ 2,419,309 of funds toward grizzly bear conservation and management. Program expenditures are reported by primary work activities conducted during FY 2025. The figures reported below do not represent all Department expenses incurred during this FY:

- Conflict Prevention: $390,167.88*
- Annual Monitoring (Population and Habitat Evaluations): $453,807.96
- Additional Information and Education including Bear Wise Wyoming: $194,520.29*
- Season Setting and Regulations: $7,276.86
- Law Enforcement and Investigations: $74,435.14
- Management Planning and Reporting: $11,553.88
- Damage Compensation for Verified Loss: $906,154.09

**Proactive Bear Wise Wyoming activities are represented both in "conflict prevention" and "additional information and education" categories.*

In addition to the direct expenditures, a total of $3,186,103 was allocated to grizzly bear management during FY 2025 through shared expenditures and overlapping activities including overhead that involve grizzly bears, other Wyoming wildlife, and Departmental responsibilities.



Literature Cited

Corradini, A., M.A. Haroldson, F. Cagnacci, C.M. Costello, D.D. Bjornlie, D.J. Thompson, J.M. Nicholson, K.A. Gunther, K.R. Wilmot, and F.T. van Manen. 2023. Evidence for density-dependent effects on body composition of a large omnivore in a changing Greater Yellowstone Ecosystem. Global Change Biology 29:4496-4510.

Clapp, J. G., M. A. Haroldson, and J. A. Dellinger. 2025. Exploring the exploitation of migratory moths by radio-marked grizzly bears in Wyoming. Journal of Wildlife Management DOI: 10.1002/jwmg.70128.

French, S.P., M.G. French, and R.R. Knight. 1994. Grizzly bear use of army cutworm moths in the Yellowstone Ecosystem. International Conference on Bear Research and Management 9:389-399.

Mattson, D.J., C.M. Gillin, S.A. Benson, and R.R. Knight. 1991. Bear feeding activity at alpine insect aggregation sites in the Yellowstone ecosystem. Canadian Journal of Zoology 69:2430-2435.

Servheen C., M. Haroldson, K. Gunther, K. Barber, M. Bruscino, M. Cherry, B. Debolt, K. Frey, L. Hanauksa-Brown, G. Losinski, C. Schwartz, and B. Summerfield. 2004. Yellowstone mortality and conflict reduction report: presented to the Yellowstone Ecosystem Subcommittee (YES) April 7, 2004.

van Manen, F.T., M.A. Haroldson, D.D. Bjornlie, M.R. Ebinger, D.J. Thompson, C.M. Costello, and G.C. White. 2016. Density dependence, whitebark pine decline, and changing vital rates of Yellowstone grizzly bears. Journal of Wildlife Management 80:300-313.