Black Bear Management Report and Plan, Game Management Unit 14C:

Report Period 1 July 2018–30 June 2023, and Plan Period 1 July 2023–30 June 2028

Cory Stantorf



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Species management reports and plans provide information about species that are hunted or trapped and management actions, goals, recommendations for those species, and plans for data collection. Detailed information is prepared for each species every 5 years by the area management biologist for game management units in their areas, who also develops a plan for data collection and species management for the next 5 years. This type of report is not produced for species that are not managed for hunting or trapping or for areas where there is no current or anticipated activity. Unit reports are reviewed and approved for publication by regional management coordinators and are available to the public via the Alaska Department of Fish and Game's public website.

This species management report and plan was reviewed and approved for publication by Jeff Selinger, Management Coordinator for Region II for the Division of Wildlife Conservation.

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Cover Photo: Black bear cub in a tree in Southcentral Alaska. ©2017 ADF&G. Photo by David Saalfeld.

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Purpose of this Report

This report provides a record of survey and inventory management activities for black bear (Urus americanus) in Game Management Unit 14C for the 5 regulatory years 2018–2022 and plans for survey and inventory management activities in the next 5 regulatory years, 2023–2027. A regulatory year (RY) begins 1 July and ends 30 June (e.g., RY15 = 1 July 2015–30 June 2016). This report is produced primarily to provide agency staff with data and analysis to help guide and record agency efforts but is also provided to the public to inform it of wildlife management activities. In 2016, the Alaska Department of Fish and Game's (ADF&G, the department) Division of Wildlife Conservation (DWC) launched this 5-year report to more efficiently report on trends and to describe potential changes in data collection activities over the next 5 years. It replaces the black bear management report of survey and inventory activities that was previously produced every 3 years.

I. RY18-RY22 Management Report

Management Area

Unit 14C is in Southcentral Alaska and encompasses approximately 1,961 mi². The boundaries of Unit 14C closely approximate those of the Municipality of Anchorage (MOA). MOA is a mosaic of wildlife habitat and human development. Most of MOA is characterized by large tracts of natural lands including Chugach State Park, Chugach National Forest, the Anchorage Coastal Wildlife Refuge, and Joint Base Elmendorf-Richardson (JBER), a 131 mi² military base.

Summary of Status, Trend, Management Activities, and History of Black Bear in Unit 14C

Despite the relatively small amount of developed habitat in Unit 14C, black bear population the unit is affected by habitat fragmentation, urbanization, and associated human activities. These factors have contributed to human-bear conflicts and other interactions with humans. Most of these conflicts are caused by negligent storage of garbage, birdseed, and pet or livestock food. Consequently, ADF&G management staff and enforcement agency personnel devote a large portion of the summer and fall toward mitigating these conflicts.

Since most black bear hunting opportunities in the unit exist outside of the Anchorage Management Area and Chugach State Park, and a limited trail network provides access to more remote portions of the unit, hunter harvest has been stable across years. However, since Unit 14C has the highest human population in the entire state (approximately 40% of the Alaskan population), hunter harvest must be carefully monitored to ensure sustainable thresholds are not exceeded.

Management of black bears in Unit 14C involves a combination of population management through regulated hunting, public education on responsible living and recreating in bear country, participation in land management decisions affecting bear habitat, and responses to human-bear conflicts.

Management Direction

EXISTING WILDLIFE MANAGEMENT PLANS

Direction for the management of Unit 14C black bear was outlined in Alaska wildlife management plans: A public proposal for the management of Alaska's wildlife: Southcentral Alaska (ADF&G 1976) and has been reviewed and modified through public comments, staff recommendations, and Board of Game (BOG) actions over the years. A record of these changes can be found in DWC's management report series. The plan portion of this report contains the current management plan for black bear in Unit 14C.

GOALS

The management goals in Unit 14C are to provide an opportunity to hunt black bears under aesthetically pleasing conditions and to provide an opportunity to enjoy black bears through viewing and photography.

CODIFIED OBJECTIVES

None.

Amounts Reasonably Necessary for Subsistence Uses

Not applicable.

Intensive Management

Not applicable.

MANAGEMENT OBJECTIVES

Mitigate human-bear conflicts in urban areas through education, research, and management activities to promote public safety.

Maintain a black bear population which is large enough to provide opportunities to hunt, with an annual harvest comprised of no more than 40% females.

MANAGEMENT ACTIVITIES

1. Population Status and Trend

No black bear population status or trend activities occurred in Unit 14C during RY18–RY22.

Several factors preclude the use of aerial survey techniques to determine population status and trend. These factors include but are not limited to terrain, foliage density, canopy density, and air space classification. Given these factors, Unit 14C will likely never be suitable for aerial based population survey techniques. Until new ground or aerial techniques are developed, the

monitoring of hunter harvest and other mortality (including roadkill, agency kills, and defense of life or property kills [DLP]) will continue to be used as an index of the population status of black bears in Unit 14C.

2. Mortality-Harvest Monitoring and Regulations

ACTIVITY 2.1. Monitor mortality and harvest in Unit 14C annually.

Data Needs

Monitoring harvest data provides department biologists with a rough index of population status and a method to determine if we are meeting management objectives.

Methods

The department monitored black bear mortality through hunter harvest reports and sealing information such as skull measurements, age, and location data. We monitored all nonhunting mortality (such as vehicle, railroad strikes, DLPs, and agency kills) using department reporting requirements in concert with records from the Alaska Department of Public Safety and the Alaska Railroad.

Hunter Residency and Success

Table 1 depicts the Unit 14C black bear hunter success by residency for RY18–RY22.

Table 1. Hunter residency for all Unit 14C black bear hunts, regulatory years 2018–2022, Southcentral Alaska.

	Successful			Unsuccessful			
Regulatory		Non-			Non-		Total
year	Resident	resident	Total (%)	Resident	resident	Total (%)	hunters
2018	32	4	36 (15)	176	22	198 (85)	234
2019	55	2	57 (16)	226	12	238 (84)	283
2020	63	7	70 (22)	231	20	251 (78)	321
2021	53	6	59 (18)	236	35	271 (82)	330
2022	62	18	80 (24)	231	28	259 (76)	339
Total	265	37	302 (20)	1,100	117	1,217 (80)	1,507

Results and Discussion

There were several changes to the black bear hunting regulations during RY18–RY22. In RY19, the season dates for the drawing black bear hunt on JBER were extended. Then in RY20, a black bear hunt was opened in the McHugh Creek portion of the Anchorage Management Area (see season and bag limit table below).

Season and Bag Limit Season dates and bag limits for black bear in Unit 14C, RY18-RY22, as shown in Figure 1.

Regulatory year	Area	Season date	Bag limit
2018	Lower Eagle River Valley	Day after Labor Day–31 May	1 bear
	Upper Eagle River Valley	Day after Labor Day–15 Jun	1 bear
	Remainder of Eagle River, JBER, Anchorage, and Birchwood management areas	No open season	Not applicable
	JBER	15 Apr-15 Jun	1 bear
	Chugach State Park Management Area	Day after Labor Day–31 May	1 bear
	Eklutna Management Area	Day after Labor Day-31 May	1 bear
	Remainder of Unit 14C	No closed season	1 bear
2019	Lower Eagle River Valley	Day after Labor Day-31 May	1 bear
	Upper Eagle River Valley	Day after Labor Day-15 Jun	1 bear
	Remainder of Eagle River, JBER, Anchorage, and Birchwood management areas	No open season	Not applicable
	JBER	1 Sep-15 Jun	1 bear
	Chugach State Park Management Area	Day after Labor Day–31 May	1 bear
	Eklutna Management Area	Day after Labor Day-31 May	1 bear
	Remainder of Unit 14C	No closed season	1 bear
2020–2022	Lower Eagle River Valley	Day after Labor Day-31 May	1 bear
	Upper Eagle River Valley	Day after Labor Day-15 Jun	1 bear
	Remainder of Eagle River, JBER, Anchorage, and Birchwood management areas	No open season	Not applicable
	McHugh Creek	1 Oct-31 Oct	1 bear
	JBER	1 Sep-15 Jun	1 bear
	Chugach State Park Management Area	Day after Labor Day–31 May	1 bear
	Eklutna Management Area	Day after Labor Day-31 May	1 bear
	Remainder of Unit 14C	No closed season	1 bear

Note: JBER refers to Joint Base Elmendorf-Richardson.

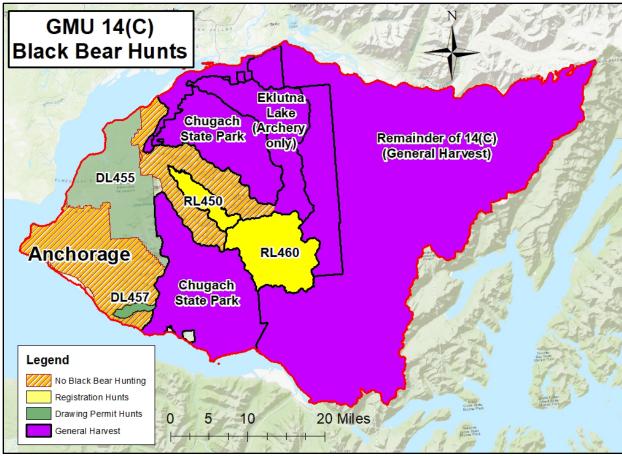


Figure 1. Unit 14C black bear hunt areas during regulatory year 2022, Southcentral Alaska.

Harvest by Hunters-Trappers

The highest level of harvest during RY18–RY22 was seen during the general season with total harvest ranging from 29 black bears in RY18 to 68 in RY22 (Table 2). The only year the department exceeded our management goal of less than 40% annual female harvest was RY20.

Permit Hunts

During RY18-RY22, a drawing hunt was created in the McHugh Creek drainage with a start date of 1 September. However, for Chugach State Park to issue the special use permit, the season dates had to be moved to 1–31 October. While these dates still provide opportunity, this change is likely the main reason this drawing hunt has been met with the limited success seen in the harvest. Between the 2 hunts, DL455 and DL457, hunters harvested 14 animals (Table 2).

Alaska Board of Game Actions and Emergency Orders

BOG's only action or emergency order during RY18-RY22 was in 2019 when they lengthened the bear hunting season for DL455, moving the start date to 1 September. BOG also created a black bear hunt in Upper Campbell and McHugh Creek drainages to start during the fall of 2020.

Table 2. Harvest and hunter participation for regulatory years 2018-2022 for black bear drawing, registration, and general season hunts in Unit 14C, Southcentral Alaska.

	Regulatory	Permits/	No. of	%	No. of females	Total
Area and hunt	year	tags issued	hunters	Success	harvested	harvesta
Lower Eagle River Valley	2018	28	5	0	0	0
RL450	2019	24	1	0	0	0
	2020	25	9	0	0	0
	2021	36	11	0	0	0
	2022	26	8	0	0	0
Upper Eagle River Valley	2018	93	42	12%	1	5
RL460	2019	108	64	17%	3	11
	2020	103	51	4%	1	2
	2021	128	44	11%	0	5
	2022	105	28	25%	3	7
Joint Base Elmendorf-	2018	25	8	13%	0	1
Richardson	2019	26	13	31%	3	4
DL455	2020	25	12	8%	1	1
	2021	25	13	23%	3	3
	2022	25	14	29%	3	4
McHugh Creek	2020	3	1	0	0	0
DL457	2021	3	2	0	0	0
	2022	3	2	50%	0	1
General season	2018	180	180	16%	9	29
Eklutna and Chugach	2019	219	219	19%	11	43
State Park mgmt. areas	2020	248	248	27%	27	67
and remainder of Unit 14C	2021	260	260	19%	17	51
8 T-4-114 d4 in-dii	2022	287	287	24%	21	68

^a Total harvest does not include illegal take or nonhunting mortality.

Other Mortality

Reported other human-caused mortality averaged 25 black bears per year during RY18-RY22, with RY22 having the highest level, at 35 black bears (Table 3).

Recommendations for Activity 2.1

Continue.

Table 3. Reported nonhunting mortality for black bear in Unit 14C, regulatory years 2018– 2022, Southcentral Alaska.

Regulatory year	DLPa	Agency kill	Vehicle	Otherb	Total
2018	10	15	4	1	30
2019	1	3	3	1	8
2020	9	17	4	1	31
2021	3	13	4	1	21
2022	7	22	4	2	35

^a DLP refers to kills in defense of life or property.

3. Habitat Assessment-Enhancement

No habitat assessment or enhancement projects for black bear were conducted in Unit 14C during RY18-RY22.

NONREGULATORY MANAGEMENT PROBLEMS OR NEEDS

As Anchorage's human population continues to grow, the department has noticed an increasing amount of available trash and other attractants for bears, coupled with a continued lack of interest from some members of the public to secure such attractants. This leads to bears being drawn to close proximity to houses, schools, and neighborhoods, which leads to increased human-bear conflicts. Department staff provide educational opportunities throughout the year on bear deterrence and safety. Many Anchorage residents are proficient at living in bear country and practice appropriate behaviors to avoid attracting the animals. Yet there are always new people moving to the area who are unaware of attractants and some longtime residents who seem unwilling to change their behavior about leaving attractants. New approaches or more creative means of delivering bear safety messages should be identified to better reach the public.

While multiple factors contribute to human-bear conflicts, the primary driver in Anchorage is the amount of unsecured trash which is available to bears. New trash ordinances have been passed for MOA, and under that umbrella, authority was given to the Anchorage Assembly to be able to enact Secure Trash Zones (STZs) in areas designated by ADF&G as being high potential for bear conflict. Within areas designated as STZ, all trash receptacles are required to be bear resistant. However, there has been reluctance to enact any STZs outside of individual communities directly requesting it, which was the case with Girdwood and Eklutna, currently the only STZs in MOA. Without help from MOA and the public, it will be difficult to make a large-scale change in the number of human-bear conflicts in MOA. It is evident through interacting with the public that they want a reduction in bear conflicts; however, that is where public effort appears to stop. The sentiment or perception that it is not the individual's problem is hampering any noticeable strides toward solving the main cause of this problem, accessible trash. There are several case studies in the contiguous U.S. which clearly demonstrate implementing a mandate or ordinance which requires bear resistant cans, and enforcing it, does reduce human-created bear conflicts (Barrett et al. 2014, Johnson et al. 2018).

^b Includes known railroad strikes, reported illegal kills, reported natural kills, and unknown causes of death.

Following the COVID-19 pandemic, MOA has been in flux on homeless shelters and determining how and where to house people. The current number of shelters does not meet the current needs of MOA. This has resulted in homeless camps appearing along anadromous streams and in city parks. Since 2020, this has resulted in an increase in bear conflicts at and on certain parks and bike paths. These camps typically do not police food left in tents and trash scattered around the ground, which attracts bears and teaches them that they can find food and trash in tents. This keeps bears near adject neighborhoods. A dialogue should be opened between ADF&G, Alaska Wildlife Troopers, and MOA to help direct better locations for camps to help mitigate bear issues within the camps and surrounding neighborhoods.

The keeping of hobby livestock has gained considerable popularity in MOA. Nevertheless, there persists a mindset that MOA is predominantly an urban area, and hence wildlife is not expected to be present or tolerated. Consequently, there continue to be reports of bears accessing unsecured livestock and instances of DLP killings. It appears that the public is either unsure or apprehensive about electric fences and their installation. To complement existing educational initiatives, implementing an electric fence loaner program or a similar strategy could potentially alleviate such fears or uncertainties surrounding electric fences.

Data Recording and Archiving

Black bear harvest reports and sealing records are stored in the ADF&G's Wildlife Information Network (WinfoNet).

Management black bear capture data is stored in WinfoNet. Field datasheets are stored in the Anchorage ADF&G building in office 2004.

Reports of black bear (and other wildlife) conflicts are recorded and stored in the Wildlife Encounter database. Members of the public can enter reports on our website and staff enter reports and record actions taken using the staff entry form on our intranet.

Agreements

None.

Permitting

ADF&G Collection Permit.

Conclusions and Management Recommendations

During RY18–RY22, the department only exceeded our management goal of less than 40% female bears in the harvest in RY20. Additionally, the total black bear harvest was almost double that of RY13-RY18 (Stantorf and Spivey 2022). Management staff will need to closely monitor harvest with the understanding that it may take 15+ years to detect a decline based solely on harvest trends (Mace and Chilton-Radandt 2011). We recommend continuation of the collection of age data of harvested individuals so that we can evaluate the type of harvest occurring in Unit 14C and possibly assess the impacts of harvest on the black bear population.

As previously mentioned, most human-bear conflicts in Unit 14C are related to improper storage of garbage, pet or livestock food, and unsecured livestock (i.e. chickens). Food conditioning of individual bears often results in DLP kills. Additionally, with more people home during the pandemic and fears of food security, it was evident that more people began raising hobby livestock (chickens, goats, ducks). This combined with an increase in the number of homeless camps across Anchorage likely contributed to the increase in nonhunting mortality in Unit 14C post-RY20. We recommend more education about securing livestock and starting an open dialogue with MOA about future changes to livestock ordinances.

Overall, education and enforcement of state wildlife regulations are critical steps toward achieving the goal of reducing human-bear conflicts in Unit 14C. We recommend that ADF&G continue to educate the public about bear safety and how to avoid human-bear conflicts in and around the Anchorage area. To better determine how many bears are engaging in conflict behavior and if seeking out anthropogenic foodstuffs is a learned behavior passed down to offspring, we suggest starting a black bear project in Anchorage. This will serve to answer several longstanding management questions while achieving a snapshot as to the gender composition of bears engaging in conflict behavior and a rough minimum count in Anchorage proper.

II. Project Review and RY23-RY27 Plan

Review of Management Direction

MANAGEMENT DIRECTION

No change from RY18-RY22.

GOALS

The management goals in Unit 14C are to provide an opportunity to hunt black bears under aesthetically pleasing conditions and to provide an opportunity to enjoy black bears through viewing and photography.

CODIFIED OBJECTIVES

None.

Amounts Reasonably Necessary for Subsistence Uses

Not applicable.

Intensive Management

Not applicable.

MANAGEMENT OBJECTIVES

Mitigate human-bear conflicts in urban areas through education, research, and management activities to promote public safety.

Maintain a population which provides opportunities to hunt black bears with an annual harvest comprised of no more than 40% females.

REVIEW OF MANAGEMENT ACTIVITIES

1. Population Status and Trend

No black bear population status or trend activities are expected in Unit 14C during RY23–RY27.

2. Mortality-Harvest Monitoring

No change from RY18-RY22.

3. Habitat Assessment-Enhancement

No change from RY18-RY22.

NONREGULATORY MANAGEMENT PROBLEMS OR NEEDS

No change from RY18–RY22.

Data Recording and Archiving

Black bear harvest reports and sealing records are stored in WinfoNet.

Management black bear capture data is stored in WinfoNet. Field datasheets are stored in the Anchorage ADF&G building in office 2004.

Reports of black bear (and other wildlife) conflicts are recorded and stored in the Wildlife Encounter database. Members of the public can enter reports on our website and staff enter reports and record actions taken using the staff entry form on our intranet.

Agreements

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Permitting

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