

Black Bear Management Report and Plan, Game Management Units 20A, 20B, 20C, and 20F:

Report Period 1 July 2013–30 June 2018, and

Plan Period 1 July 2018–30 June 2023

Anthony L. Hollis



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Alaska Department of Fish and Game
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Hunters are important founders of the modern wildlife conservation movement. They, along with trappers and sport shooters, provided funding for this publication through payment of federal taxes on firearms, ammunition, and archery equipment, and through state hunting license and tag fees. These taxes and fees fund the federal Wildlife Restoration Program and the State of Alaska's Fish and Game Fund, which provided funding for the work reported on in this publication.

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 Doreen I. Parker McNeill, Management Coordinator for Region III for the Division of Wildlife Conservation, Fairbanks.

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Please cite this document as follows:

Hollis, A. L. 2021. Black bear management report and plan, Game Management Units 20A, 20B, 20C, and 20F: Report period 1 July 2013–30 June 2018, and plan period 1 July 2018–30 June 2023. Alaska Department of Fish and Game, Species Management Report and Plan ADF&G/DWC/SMR&P-2021-30, Juneau.

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Purpose of this Report

This report provides a record of survey and inventory management activities for black bear (*Ursus americanus*) in Units 20A, 20B, 20C, and 20F for the 5 regulatory years 2013–2017 and plans for survey and inventory management activities in the following 5 years, 2018–2022. A regulatory year (RY) begins 1 July and ends 30 June (e.g., RY14 = 1 July 2014–30 June 2015). 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. RY13–RY17 Management Report

Management Area

Units 20A, 20B, 20C, and 20F are a 34,079 mi² area in the central-lower Tanana and middle Yukon River drainages.

Vegetation types within these units vary and include lowland shrub and sedge meadows, mature black spruce (*Picea mariana*) and white spruce (*Picea glauca*) forest, recently burned areas dominated by shrubs and early successional forest species, deciduous forest, subalpine shrub, and alpine tundra. The climate is typical of Interior Alaska, where temperatures frequently reach 80°F in summer and –40°F in winter.

Summary of Status, Trend, Management Activities, and History of Black Bear in Units 20A, 20B, 20C, and 20F

Units 20A, 20B, 20C, and 20F all have black bear habitat and are inhabited by black bears. DWC area management staff estimates that there are 2,900–4,600 black bears in the 4 units discussed in this report; however, only a few studies of black bear ecology or population dynamics have been completed in Interior Alaska. In 2010, Gardner et al. (2012) conducted a black bear density estimate in the central Tanana Flats of Unit 20A. During 2003–2007, population estimates of black bears in Unit 19D near McGrath were part of a larger study of moose predation and predator removal (Keech et al. 2011). A population estimate was also conducted in 2010 in the Yukon Flats near Beaver (J. Caikoski, Wildlife Biologist, ADF&G, unpublished data, Fairbanks, 2010). During 1988–1991 a cooperative project conducted by the Alaska Department of Fish and Game (ADF&G) with support from the U.S. Army yielded important information about black bear reproduction, mortality, and density within the Tanana Flats (Hechtel 1991). A portion of that project involved a study of black bear habitat use and denning ecology (Smith 1994). In 1967, Hatler completed a master's thesis on Interior Alaska black bear ecology (Hatler 1967). Johnson (1982) investigated production of offspring by female black bears in Units 20A and 20B.

Black bears provide an important source of meat, hides, and recreation for hunters in some areas. Because of the size of the Fairbanks human population, interest in hunting black bears is high, especially during spring. Information we obtain about black bear ecology and population dynamics has helped ADF&G ensure that the current year-round season and 3-bear bag limit is sustainable.

Management Direction

EXISTING WILDLIFE MANAGEMENT PLANS

Direction in the Interior-Western Alaska black bear management plan (ADF&G 1976) 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 the division's management report series. The plan portion of this report contains the current management plan for black bear in Units 20A, 20B, 20C, and 20F.

GOALS

During RY13–RY17 (and since RY90), the Units 20A, 20B, 20C, and 20F black bear management goals were as follows:

- G1. Protect, maintain, and enhance the black bear population and its habitat in concert with other components of the ecosystem.
- G2. Provide the greatest sustained opportunity to participate in hunting black bears.
- G3. Protect human life and property in human-bear interactions.

CODIFIED OBJECTIVES

Amounts Reasonably Necessary for Subsistence Uses

- C1. The Unit 20 (outside the Fairbanks Nonsubsistence Area) black bear population has a positive customary and traditional use finding, as determined by Board of Game. The amount necessary for subsistence uses in Unit 20 outside of the Fairbanks Nonsubsistence Area is 20–30 bears.

Intensive Management

Not applicable.

MANAGEMENT OBJECTIVES

Sex ratio of the harvest is a key indicator of appropriate levels of harvest used for management in these units; therefore, management objectives call for a minimum percentage of males in the harvest.

M1. Maintain a black bear population that sustains a harvest of at least 55% males in the combined harvests for the most recent 3 years in all units.

M2. Maintain the defense of life or property (DLP) take of less than 10% of the total bear take in Unit 20B.

MANAGEMENT ACTIVITIES

1. Population Size, Status and Trend

Activities to assess the Units 20A, 20B, 20C, and 20F black bear population status and trend have not been needed to achieve or evaluate the management goals and objectives, or to evaluate the codified objective.

2. Mortality-Harvest Monitoring and Regulations

ACTIVITY 2.1. Monitor and analyze harvest data.

Data Needs

Harvest data are necessary to determine whether the codified and management objectives are achieved.

Methods

Harvest was estimated from mandatory harvest reporting and sealing records. If timely harvest reports were not received, hunters who provided contact information received 1 reminder email and/or letter. Additional harvest-related information (e.g., skull size, whether the bear was taken over bait, incidental take, and meat/hide salvage) was collected in Unit 20B where sealing is required; and in Units 20A, 20C, and 20F during the optional sealing process which is only required for black bears if they are to be removed from Alaska or sold.

Season and Bag Limit

During RY13–RY17, there was no closed season for black bears in Units 20A, 20B, 20C, and 20F, and the bag limit was 3 bears. Harvest of cubs (in the first year of life) or females accompanied by cubs was prohibited. Bears could be taken over bait during 15 April–30 June, and hunters were required to register all black bear bait stations with ADF&G. The minimum salvage requirements included the meat during 1 January–31 May, and either the meat or hide during 1 June–31 December. At the 2012 Board of Game meeting, the board passed a proposal to allow the harvest of black bears hunted over a bait station on the same day that a hunter is airborne. This proposal went into effect during RY13–RY17.

Results and Discussion

Harvest by Hunters

In Unit 20A, the average annual black bear harvest during RY13–RY17 was 32 bears with a range of 24–40 bears; 57% of the harvest were male bears (Table 1). This is the same as the average annual harvest during RY08–RY12 of 32 bears.

Table 1. Units 20A, 20B, 20C, and 20F black bear harvest, regulatory years 2008–2017, Interior Alaska.

Regulatory year	Area	Fall				Spring				Annual total			
		Male	Female	Unknown	Total	Male	Female	Unk	Total	Male	Female	Unk	Total
2008	20A	8	11	0	19	21	4	0	25	29	15	0	44
	20B	24	9	0	33	74	44	0	118	98	53	0	151
	20C	2	2	0	4	24	12	0	36	26	14	0	40
	20F	3	1	0	4	29	7	1	37	32	8	1	41
	Total	37	23	0	60	148	67	1	216	185	90	1	276
	(% Male)	(62)				(69)				(67)			
2009	20A	3	2	0	5	14	6	0	20	17	8	0	25
	20B	15	7	0	22	72	35	0	107	87	42	0	129
	20C	7	1	1	9	9	11	1	21	16	12	2	30
	20F	3	1	0	4	33	12	0	45	36	13	0	49
	Total	28	11	1	40	128	64	1	193	156	75	2	233
	(% Male)	(70)				(67)				(68)			
2010	20A	3	0	0	3	15	10	0	25	18	10	0	28
	20B	12	3	0	15	83	15	0	98	95	18	0	113
	20C	5	0	0	5	19	7	1	27	24	7	1	32
	20F	3	0	0	3	22	3	0	25	25	3	0	28
	Total	23	3	0	26	139	35	1	175	162	38	1	201
	(% Male)	(88)				(79)				(81)			
2011	20A	3	5	0	8	16	7	3	26	19	12	3	34
	20B	24	7	0	31	58	44	0	102	82	51	0	133
	20C	2	0	0	2	18	5	2	25	20	5	2	27
	20F	1	6	1	8	26	11	0	37	27	17	1	45
	Total	30	18	1	49	118	67	5	190	148	85	6	239
	(% Male)	(61)				(62)				(62)			
2012	20A	3	4	0	7	15	6	0	21	18	10	0	28
	20B	11	6	0	17	56	23	0	79	67	29	0	96
	20C	2	1	0	3	20	6	0	26	22	7	0	29
	20F	2	3	0	5	21	5	1	27	23	8	1	32
	Total	18	14	0	32	112	40	1	153	130	54	1	185
	(% Male)	(56)				(73)				(70)			
2013	20A	0	1	0	1	19	14	0	33	19	15	0	34
	20B	12	6	0	18	110	39	1	150	122	45	1	168
	20C	3	1	0	4	35	11	0	46	38	12	0	50
	20F	4	1	0	5	43	6	0	49	47	7	0	54
	Total	19	9	0	28	207	70	1	278	226	79	1	306
	(% Male)	(68)				(74)				(74)			

-continued-

Table 1. Page 2 of 2.

Regulatory year	Area	Fall				Spring				Annual total			
		Male	Female	Unknown	Total	Male	Female	Unk	Total	Male	Female	Unk	Total
2014	20A	2	4	0	6	11	8	0	19	13	12	0	25
	20B	13	14	0	27	61	31	1	93	74	45	1	120
	20C	5	1	0	6	20	8	0	28	25	9	0	34
	20F	8	2	0	10	27	10	0	37	35	12	0	47
	Total	28	21	0	49	119	57	1	177	147	78	1	226
	(% Male)	(57)				(67)				(65)			
2015	20A	7	2	0	9	23	8	0	31	30	10	0	40
	20B	9	5	0	14	58	37	1	96	67	42	1	110
	20C	2	1	0	3	30	10	0	40	32	11	0	43
	20F	3	1	1	5	27	11	1	39	30	12	2	44
	Total	21	9	1	31	138	66	2	206	159	75	3	237
	(% Male)	(68)				(67)				(67)			
2016	20A	2	2	0	4	14	18	0	32	16	20	0	36
	20B	6	1	0	7	49	46	0	95	55	47	0	102
	20C	1	1	0	2	26	12	0	38	27	13	0	40
	20F	4	2	0	6	32	7	0	39	36	9	0	45
	Total	13	6	0	19	121	83	0	204	134	89	0	223
	(% Male)	(68)				(59)				(60)			
2017	20A	6	1	0	7	6	11	0	17	12	12	0	24
	20B	11	7	1	19	42	30	0	72	53	37	1	91
	20C	3	1	0	4	27	5	0	32	30	6	0	36
	20F	5	1	0	6	27	9	0	36	32	10	0	42
	Total	25	10	1	36	102	55	0	157	127	65	1	193
	(% M)	(69)				(65)				(66)			

Note: Includes defense of life or property kills. Parentheses indicate the percentage of bears of known sex that were male.

In Unit 20B the average annual harvest of black bears during RY13–RY17 was 118 bears with a range of 91–168 bears; 63% of the harvest were male bears (Table 1). This is lower than the average annual harvest during RY08–RY12 of 124 bears.

In Unit 20C the average annual harvest of black bears during RY13–RY17 was 41 bears with a range of 34–50 bears; 75% of the harvest were male bears (Table 1). This is higher than the average annual harvest during RY08–RY12 of 32 bears.

In Unit 20F the average annual harvest of black bears during RY13–RY17 was 46 bears with a range of 42–54 bears; 78% of the harvest were known to be male bears (Table 1). This is higher than the average annual harvest during RY08–RY12 of 39 bears.

In all units combined, the average annual reported harvest during RY13–RY17 was 237 bears, compared to an average annual reported harvest of 227 bears during RY08–RY12 (Table 1). The

range during RY13–RY17 was 193–306 bears. The percentage of males in the harvest averaged 66%. Several factors likely contribute to the variability in harvest, including changes in military deployment, inclement weather that may have hampered hunters or use of transportation methods, and availability of alternative food sources which may have made bears less vulnerable.

Because black bears harvested in Unit 20B are required to be sealed, we examined age and skull size of bears harvested during RY89–RY17. During times of overharvest, older and larger animals are expected to become scarcer in populations, thus, skull size and average age is expected to decrease over time. In RY13–RY17 the average skull size was 15.9 inches for males and 15.0 inches for females compared to 16.1 inches for males and 15.7 inches for females during RY08–RY12 (Table 2). The average skull size during RY08–RY12 suggests that hunters continued to harvest adult bears despite sustained high harvests. Therefore, enough bears lived to

Table 2. Unit 20B harvested black bear mean skull size, regulatory years 2008–2017, Interior Alaska.

Regulatory year	Males	<i>n</i>	Females	<i>n</i>
2008	16.4	96	15.9	55
2009	15.8	88	15.0	41
2010	16.7	95	16.2	19
2011	16.6	82	15.5	51
2012	15.0	68	15.7	29
2013	16.1	122	14.7	46
2014	15.8	71	15.0	49
2015	15.2	67	15.0	43
2016	16.3	55	14.9	47
2017	16.1	53	15.5	37

Note: Skull size equals total length plus zygomatic width in inches.

adulthood for a consistent harvest of adult bears. Similarly, data from RY89 to RY09 show no decrease in mean age of harvested bears. The mean age of harvested black bears during RY89–RY97 was 4.9 (Seaton 2008) compared to 5.3 during RY13–RY17 (Table 3). This trend is contrary to the expectation that if the population is overharvested, age and skull size would decrease over time.

Table 3. Unit 20B harvested black bear mean ages, regulatory years 2008–2017, Alaska.

Regulatory year	Mean age	<i>n</i> ^a
2008	5.0	200
2009	5.0	30
2010	4.5	79
2011	6.0	101
2012	5.0	8
2013	4.9	143
2014	5.4	94
2015	5.3	95
2016	5.5	96
2017	5.5	74

^a Age data is unavailable for some bears.

Registration of Bait Stations

Black bear baiting is limited to the spring season (15 April–30 June), and hunters using bait were limited to 2 bait stations; they were required to register bait stations prior to set-up and post a sign at bait stations that included their hunting license number. Because Fairbanks lies within Unit 20B and has the most access, a large portion of the bait stations were registered in Unit 20B. The number of registered black bear bait stations in Units 20A, 20B, 20C, and 20F increased from 314 bait stations in spring of 1989, when registration became mandatory, to a peak of 1,154 bait stations in RY91 (Seaton 2008). Those numbers have steadily decreased to an average of 697 bait stations during RY08–RY12 (Table 4). During RY13–RY17 an average of 835 bait stations were registered in Units 20A, 20B, 20C, and 20F. During years of high military deployment, such as RY05 and RY10, the number of registered bait stations was noticeably lower than other years. Unit 20B continued to have the most bait stations registered during RY13–RY17, averaging 541 (range 471–649) bait stations annually. Units 20A, 20C, and 20F had an average of 102, 92, and 80 baits stations, respectively, which were registered annually during RY13–RY17 in each unit (Table 4).

Table 4. Units 20A, 20B, 20C, and 20F black bear bait station registration and harvest, regulatory years 2008–2017, Interior Alaska.

Regulatory year	Total bait stations		20B harvest		
	Units 20A, 20B, 20C, and 20F	Unit 20B	Taken over bait (%)	Not taken over bait ^a (%)	Total
2008	668	465	105 (70)	46 (30)	151
2009	788	571	95 (73)	35 (27)	130
2010	538	393	89 (78)	25 (22)	114
2011	767	520	95 (70)	40 (30)	135
2012	725	477	76 (78)	22 (22)	98
2013	795	503	135 (80)	33 (20)	168
2014	926	649	90 (75)	30 (25)	120
2015	976	594	94 (85)	16 (15)	110
2016	755	487	91 (89)	11 (11)	102
2017	721	471	69 (76)	22 (24)	91

^a Not taken over bait harvest includes bears taken outside of the baiting season.

Harvest at Bait Stations

A large proportion of the black bear harvest continues to be taken over bait stations. During RY89–RY91, 64% of black bear harvest occurred at bait stations (Seaton 2008). The average was 77% during RY05–RY09. Since RY09, when sealing was not required for all black bears taken in Units 20A, 20C, and 20F, data were not collected on whether harvested bears were taken over a bait station. Based on historical records and the number of bait stations registered, it is likely the same. In Unit 20B, 81% of the black bear harvest was taken over black bear bait stations during RY13–RY17.

Hunter Residency and Success

During RY13–RY17, most black bears (83%) were taken by residents of Alaska, with 74% by local residents of Unit 20 (Table 5).

Table 5. Units 20A, 20B, 20C, and 20F successful hunter residency, regulatory years 2008–2017, Interior Alaska.

Regulatory year	Residents			Nonresident	Unk	Total successful hunters ^b
	Local ^a (%)	Nonlocal (%)	Total (%)			
2008	208 (77)	11 (4)	219 (81)	53 (20)	0	272
2009	184 (81)	14 (6)	198 (87)	28 (12)	0	226
2010	126 (74)	14 (8)	140 (82)	26 (15)	4	170
2011	161 (78)	15 (7)	176 (85)	24 (12)	7	207
2012	118 (71)	17 (10)	135 (81)	29 (17)	3	167
2013	231 (77)	14 (5)	245 (81)	53 (18)	3	301
2014	164 (73)	34 (15)	198 (88)	26 (12)	0	224
2015	169 (77)	19 (9)	188 (85)	32 (15)	0	220
2016	141 (66)	26 (12)	167 (78)	46 (22)	0	213
2017	142 (76)	16 (9)	158 (84)	29 (16)	0	187

^a Resident of Unit 20.

^b Excludes data from defense of life or property kills that were not taken as a legal harvest.

Harvest tickets and reports were required beginning in RY09, therefore, there is no effort data from hunters prior to RY09. In RY13–RY17, the reported success rate was 19% in Units 20A, 20B, 20C, and 20F. The harvest report data showed that the success rate was 17% for hunters in Unit 20A, 14% in Unit 20B, 32% in Unit 20C, and 40% in Unit 20F. During RY13–RY17, a total of 159 hunters reported hunting in Unit 20A, 551 in Unit 20B, 203 in Unit 20C, and 232 in Unit 20F. Data from harvest ticket reports does not match sealing data in Unit 20B where both reporting methods were required. During RY13–RY17, an average of 110 black bears were reported annually on harvest ticket; however, 118 black bears were reported annually in the sealing records. This difference is likely due to some hunters not reporting their harvest on harvest tickets.

Harvest Chronology

During RY13–RY17, 85% of the harvest occurred during the spring, which coincides with emergence from dens and the baiting season. Factors that influenced harvest chronology for black bears included the opportunity to use bait, vulnerability of bears, hide quality, and seasonal activity of hunters. A majority of the fall harvest is generally incidental while hunting other species of big game.

Transport Methods

During RY13–RY17, the most common methods of transportation used by successful black bear hunters differed depending on the unit hunted in and where the most practical access was located (Table 6). In Unit 20A, boats were the most commonly used mode of transportation to harvest a black bear. In Unit 20B, 4-wheelers were the most common. Airplanes and boats were the most common in Unit 20C, and highway vehicles in Unit 20F.

Table 6. Units 20A, 20B, 20C, and 20F black bear harvest by transport method, regulatory years 2008–2017, Interior Alaska.

Unit	Regulatory year	Harvest by transport method (%)										<i>n</i>
		Airplane	Dog/ Horse	Boat	4-wheeler	Snowmachine	Other ORV	Highway vehicle	Walk	Other/Unk		
20A	2008	12 (30)	1 (3)	14 (35)	9 (23)	0 (0)	0 (0)	0 (0)	3 (8)	1 (3)	40	
	2009	6 (29)	0 (0)	8 (38)	6 (29)	0 (0)	0 (0)	1 (5)	0 (0)	0 (0)	21	
	2010	3 (11)	0 (0)	12 (43)	2 (7)	0 (0)	2 (7)	3 (11)	0 (0)	6 (21)	28	
	2011	11 (31)	0 (0)	10 (29)	8 (23)	0 (0)	1 (3)	4 (11)	0 (0)	1 (3)	35	
	2012	8 (29)	0 (0)	8 (29)	8 (29)	0 (0)	4 (14)	0 (0)	0 (0)	0 (0)	28	
	2013	7 (21)	0 (0)	16 (47)	10 (30)	0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	34	
	2014	5 (20)	0 (0)	10 (40)	5 (20)	0 (0)	3 (12)	1 (4)	1 (4)	0 (0)	25	
	2015	7 (18)	0 (0)	23 (57)	8 (20)	0 (0)	0 (0)	2 (5)	0 (0)	0 (0)	40	
	2016	10 (28)	0 (0)	11 (31)	7 (20)	0 (0)	1 (3)	5 (14)	0 (0)	2 (6)	36	
2017	5 (21)	0 (0)	9 (38)	5 (21)	0 (0)	0 (0)	3 (13)	0 (0)	1 (4)	24		
20B	2008	6 (4)	1 (1)	26 (17)	84 (56)	0 (0)	2 (2)	24 (16)	7 (5)	0 (0)	150	
	2009	16 (13)	0 (0)	23 (18)	53 (42)	0 (0)	2 (2)	17 (14)	14 (11)	0 (0)	125	
	2010	1 (1)	0 (0)	31 (27)	56 (49)	0 (0)	1 (1)	18 (16)	7 (6)	0 (0)	114	
	2011	5 (4)	0 (0)	26 (20)	63 (48)	0 (0)	2 (2)	33 (25)	2 (2)	0 (0)	131	
	2012	2 (2)	0 (0)	28 (29)	47 (49)	0 (0)	0 (0)	16 (17)	3 (3)	0 (0)	96	
	2013	3 (2)	0 (0)	42 (26)	83 (51)	0 (0)	5 (3)	22 (13)	4 (2)	4 (2)	163	
	2014	5 (4)	0 (0)	9 (8)	68 (58)	0 (0)	2 (2)	29 (25)	4 (3)	1 (1)	118	
	2015	2 (2)	0 (0)	14 (15)	50 (54)	0 (0)	2 (2)	22 (24)	2 (2)	1 (1)	93	
	2016	4 (4)	0 (0)	21 (23)	49 (53)	0 (0)	4 (4)	13 (14)	1 (1)	0 (0)	92	
2017	2 (2)	0 (0)	19 (22)	45 (53)	1 (1)	7 (8)	10 (12)	1 (1)	0 (0)	85		
20C	2008	6 (15)	0 (0)	28 (70)	0 (0)	0 (0)	0 (0)	2 (5)	4 (10)	0 (0)	40	
	2009	6 (21)	0 (0)	12 (43)	5 (18)	0 (0)	2 (7)	0 (0)	3 (11)	0 (0)	28	
	2010	14 (44)	0 (0)	14 (44)	3 (9)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	32	
	2011	13 (46)	0 (0)	11 (39)	1 (4)	0 (0)	0 (0)	0 (0)	2 (7)	1 (4)	28	
	2012	13 (39)	0 (0)	14 (42)	1 (3)	0 (0)	2 (6)	3 (9)	0 (0)	0 (0)	33	
	2013	29 (58)	0 (0)	16 (32)	1 (2)	0 (0)	0 (0)	1 (2)	3 (6)	0 (0)	50	
	2014	16 (47)	0 (0)	14 (41)	0 (0)	0 (0)	1 (3)	2 (6)	1 (3)	0 (0)	34	
	2015	19 (43)	0 (0)	18 (42)	4 (9)	0 (0)	0 (0)	1 (2)	1 (2)	0 (0)	43	
	2016	18 (45)	0 (0)	16 (40)	4 (10)	0 (0)	0 (0)	2 (5)	0 (0)	0 (0)	40	
2017	14 (39)	0 (0)	14 (39)	5 (14)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	36		

-continued-

Table 6. Page 2 of 2.

Unit	Regulatory year	Harvest by transport method (%)									<i>n</i>
		Airplane	Dog/ Horse	Boat	4-wheeler	Snowmachine	Other ORV	Highway vehicle	Walk	Other/Unk	
20F	2008	0 (0)	0 (0)	7 (17)	14 (34)	0 (0)	0 (0)	16 (39)	4 (10)	0 (0)	41
	2009	1 (2)	0 (0)	8 (16)	17 (35)	0 (0)	0 (0)	20 (41)	3 (6)	0 (0)	49
	2010	1 (4)	0 (0)	8 (29)	7 (25)	0 (0)	1 (4)	9 (32)	2 (7)	0 (0)	28
	2011	0 (0)	0 (0)	12 (26)	11 (24)	0 (0)	1 (2)	15 (33)	2 (4)	5 (11)	46
	2012	0 (0)	0 (0)	6 (19)	18 (56)	0 (0)	0 (0)	6 (19)	2 (6)	0 (0)	32
	2013	0 (0)	0 (0)	5 (9)	22 (41)	0 (0)	2 (3)	22 (41)	3 (6)	0 (0)	54
	2014	0 (0)	0 (0)	11 (23)	15 (32)	0 (0)	3 (6)	16 (34)	1 (2)	1 (2)	47
	2015	0 (0)	0 (0)	7 (16)	10 (23)	0 (0)	2 (5)	23 (52)	1 (2)	0 (0)	44
	2016	0 (0)	0 (0)	11 (24)	9 (20)	0 (0)	2 (5)	22 (49)	1 (2)	1 (2)	45
2017	0 (0)	0 (0)	7 (17)	15 (36)	0 (0)	3 (7)	16 (38)	1 (2)	0 (0)	42	

Other Mortality

Defense of life and property (DLP) black bear kills occur at low levels in Units 20A, 20B, 20C, and 20F. This is likely in part due to the liberal hunting season and bag limit, which often allows people the opportunity to harvest problem bears (except for cubs or sows with cubs) without the necessity to go through the DLP process. A total of 10 black bears were killed for DLP purposes during RY13–RY17.

Alaska Board of Game Actions and Emergency Orders

No BOG actions or emergency orders were issued that related to Units 20A, 20B, 20C, and 20F black bears during RY13–RY17.

Recommendations for Activity 2.1

Continue.

3. Habitat Assessment and Enhancement

There were no habitat assessment or enhancement activities in RY13–RY17.

NONREGULATORY MANAGEMENT PROBLEMS OR NEEDS

None.

Data Recording and Archiving

- All harvest and sealing data are stored on an internal database housed on ADF&G's Wildlife Information Network (WinfoNet) server (<http://winfonet.alaska.gov/index.cfm>).
- All other electronic files are located on the Fairbanks server (H:\Fairbanks Area\Black bear and H:\Fairbanks Area\Operational Planning).

Agreements

None.

Permitting

None.

Conclusions and Management Recommendations

The management objective to maintain at least 55% males in the combined harvest for all 4 units was met during RY13–RY17. The objective of maintaining the DLP take of less than 10% of the total bear take in Unit 20B was also met during RY13–RY17. The majority of the black bear harvest continues to be during the baiting season; the number of bait stations, particularly in Unit 20B, continue to be high. Total harvest remained consistent during RY13–RY17 in Units 20A, 20C, and 20F with some annual variation. Unit 20B did see a decline in harvest each year during

RY13–RY17. It is unknown the reason for this decline, however indicators such as skull size and average age of harvested bears do not suggest over harvest is occurring in this population. It is possible that weather conditions or other environmental factors during the spring baiting season may have led to a lower harvest. No changes are recommended to the management goals for these units, although the management objectives for both units should be aligned to reflect an analysis of harvest composition based upon a 5-year running combined harvest.

II. Project Review and RY18–RY22 Plan

Review of Management Direction

MANAGEMENT DIRECTION

There are no changes to the management direction for black bears in Units 20A, 20B, 20C, and 20F for RY18–RY22.

GOALS

The goals will remain as:

- G1. Protect, maintain, and enhance the black bear population and its habitat in concert with other components of the ecosystem.
- G2. Provide the greatest sustained opportunity to participate in hunting black bears.
- G3. Protect human life and property in human-bear interactions.

CODIFIED OBJECTIVES

Amounts Reasonably Necessary for Subsistence Uses

- C1. The Unit 20 (outside the Fairbanks Nonsubsistence Area) black bear population has a positive customary and traditional use finding, as determined by Board of Game. The amount necessary for subsistence uses in Unit 20 outside of the Fairbanks Nonsubsistence Area is 20–30 bears.

Intensive Management

Not applicable.

MANAGEMENT OBJECTIVES

The management objective for Units 20A, 20B, 20C, and 20F will be modified slightly so that harvest composition will be analyzed based upon 5-year running combined totals. Specifically, the management objective will be:

M1. Maintain a black bear population that sustains a harvest of at least 55% males in the combined harvests for the most recent 5 years in all units.

M2. Maintain the defense of life or property (DLP) take of less than 10% of the total bear take in Unit 20B.

REVIEW OF MANAGEMENT ACTIVITIES

1. Population Size, Status, and Trend

Activities to assess the Units 20A, 20B, 20C, and 20F black bear population status and trend are not currently necessary to achieve or evaluate the management goals and objectives or to evaluate the codified objective.

2. Mortality, Harvest Monitoring, and Regulations

ACTIVITY 2.1. Monitor and analyze harvest data.

Data Needs

No change from prior reporting period. Harvest data are necessary to determine whether the codified and management objectives are achieved. In addition, bear bait station registration is necessary in order to monitor bait station distribution and to disseminate bear baiting information to the public and Board of Game.

Methods

No change from prior reporting period. Harvest will be estimated from mandatory harvest report cards and from sealing records. Bear bait station distribution will be monitored via the mandatory bear bait station registration process.

3. Habitat Assessment and Enhancement

No habitat assessment or enhancement will be conducted during this period.

4. Management with Public Participation and Outreach.

ACTIVITY 4.1. Provide information to state and federal regulatory processes on management of this species.

Data Needs

In order for regulatory bodies and the public who engage in regulatory processes to understand the management and biology of black bears in Units 20A, 20B, 20C, and 20F it is important for staff to communicate and coordinate with and attend meetings of Fish and Game Advisory Committees, the Alaska Board of Game, Federal Regional Advisory Councils, and local village councils. In addition, it is important for staff to review and analyze regulation proposals to the Alaska BOG.

Methods

Fairbanks area ADF&G staff will communicate with, coordinate with, and attend meetings of Fish and Game Advisory Committees, the Alaska Board of Game, Federal Regional Advisory Councils, and local village councils about Units 20A, 20B, 20C, and 20F black bear biology and management; and review and analyze Units 20A, 20B, 20C, and 20F regulation proposals to the Alaska BOG.

ACTIVITY 4.2. Work with local residents and businesses to reduce black bear/human problems and minimize attractants that may lead to DLPs. In addition, educate the public and remote workers on black bear awareness and safety and provide education and training on methods to reduce bear/human problems as requested.

Data Needs

Black bear/human conflict is inevitably negative to the public (e.g., safety concerns) and the local black bear population (e.g., DLP take); therefore, opportunistic outreach with local residents and businesses is needed to reduce black bear/human conflict.

Methods

Opportunistic outreach with local residents, businesses, and remote workers will occur as needed to reduce black bear/human conflict in Units 12 and 20E.

NONREGULATORY MANAGEMENT PROBLEMS OR NEEDS

None.

Data Recording and Archiving

- All harvest and sealing data are stored on an internal database housed on ADF&G's Wildlife Information Network (WinfoNet) server (<http://winfonet.alaska.gov/index.cfm>).
- Electronic copies of pertinent memoranda, data sheets, and data files are stored in the WinfoNet data archive.
- All other electronic files are located on the Fairbanks server (H:\Fairbanks Area\Black bear and H:\Fairbanks Area\Operational Planning).

Agreements

None.

Permitting

None.

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