

CHAPTER 19: BLACK BEAR MANAGEMENT REPORT

From: 1 July 2010
To: 30 June 2013¹

LOCATION

GAME MANAGEMENT UNIT: 20D (5,637 mi²)

GEOGRAPHIC DESCRIPTION: Central Tanana Valley near Delta Junction

BACKGROUND

Black bears are widely distributed in Unit 20D. Most black bear harvest in Unit 20D occurs near the road system south of the Tanana River, in the northwestern portion of the unit along the Richardson Highway, and along major river systems.

In 2009 the Alaska Board of Game (board) passed a regulation that required black bear hunters in many units, including Unit 20D, to possess a black bear harvest ticket when hunting black bears. Beginning in regulatory year (RY) 2010 (regulatory year begins 1 July and ends 30 June, e.g., RY10 = 1 July 2010–30 June 2011), the board classified black bears as furbearers as well as big game. Although the board did not open black bear trapping seasons, this furbearer classification and other regulatory changes allowed hunters to legally sell black bear hides and parts, except gall bladders. The board subsequently amended these regulations so that sale of black bear meat remained illegal in RY10. Further RY10 regulatory changes in many units, including Unit 20D, eliminated sealing requirements, except for bears removed from Alaska or sold, and changed salvage requirement for black bears harvested during 1 June–31 December to allow hunters to salvage either the hide or meat with no requirement to salvage the skull. The board also increased the maximum number of bait stations allowed to be registered by guides from 2 to 10 and designated this regulation to take effect in spring 2011.

MANAGEMENT DIRECTION

MANAGEMENT GOALS

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

¹ At the discretion of the reporting biologist, this unit report may contain data collected outside the report period.

MANAGEMENT OBJECTIVE

- Manage for a sustained yield of black bears with harvest not to exceed 15 black bears/year south of the Tanana River and 35 black bears/year north of the Tanana River.

METHODS

Harvest of black bear by hunters during the general season was monitored by requiring hunters to acquire black bear harvest tickets and report hunting activities that included the location hunted, how long they hunted, their mode of transportation, whether they killed a bear(s), where and when they killed a bear(s), the sex of bear(s) killed, and the type of weapon used to kill a bear(s). We also collected harvest data through sealing of bears killed by hunters. Data collected during sealing of each harvested black bear included harvest date, how long they hunted, mode of transportation, sex, color phase, total skull length and zygomatic width, whether the meat was salvaged, hunter name and address, and location of harvest within Uniform Coding Units (UCU). UCUs are small, defined areas within Unit 20D bounded by watersheds or physiographic landscape features. Other mortalities of black bears, including take in defense of life or property (DLP), were monitored by sealing the hides and skulls of bears killed. Data collected from bears killed in DLP included date of kill, location of kill, and sex of the bear. In addition, anyone killing a black bear in DLP is required to complete and submit a Defense of Life or Property Report form to the Alaska Department of Fish and Game (ADF&G). Data were summarized by regulatory year. One reminder letter was sent to holders of harvest tickets who did not report.

RESULTS AND DISCUSSION

POPULATION STATUS AND TREND

Population Size

An accurate estimate of black bear population size and trend was not available for Unit 20D. However, based on Hechtel's (1991) estimate of 17.5 adult black bears/100 mi² in adjacent Unit 20A, DuBois (1993) estimated a population of approximately 750 adult black bears in Unit 20D. DuBois also estimated that approximately 525 bears were present north of the Tanana River and 225 bears lived south of the Tanana River.

Distribution and Movements

Black bears are distributed throughout the bogs, riparian areas, spruce and mixed forest, and subalpine shrub of Unit 20D. They also utilize alpine habitat but are not year-round residents. No information was available concerning movements.

MORTALITY

Harvest

Season and Bag Limit. There was no closed season on black bears in Unit 20D during RY10–RY12. The bag limit was 3 bears/year. Cubs or females accompanied by cubs were not legal to harvest. Black bear baiting was allowed from 15 April through 30 June; however, hunters using bait could not establish more than 2 bait stations at a time and were required to first obtain a permit issued by ADF&G. Guides using bait were allowed to register up to 10 stations.

Alaska Board of Game Actions and Emergency Orders. The 2010 board decision to increase the maximum number of bait stations allowed to be registered by guides from 2 to 10 went into

regulation in spring 2011. In 2012 the board passed a regulation allowing same-day-airborne take of black bears at bait stations, provided the black bear is at the bait station and that the hunter is at least 300 feet from the airplane. No emergency orders were issued during RY10–RY12.

Harvest by Hunters. Reported black bear harvest by hunters during RY10–RY12 ranged from a low of 16 in RY10 to a high of 22 in RY12 (Table 1) and did not exceed the Unit 20D combined harvest objective of 50 bears/year. Mean 3-year annual harvest by hunters was 20 bears/year. Sixty-three percent of the bears taken were males.

Twenty-nine percent of black bears killed by hunters during RY10–RY12 were taken at bait stations, ranging from 5 bears in RY10 and RY12 to 7 in RY11. A 3-year mean of 6 bears/year were taken with bait (Table 1).

Nonhunting Mortality. There were 3 DLP nonhunting mortalities reported during RY10–RY12 (Table 1).

Harvest Locations. The Unit 20D harvest objective not to exceed 15 bears/year south of the Tanana River was met during RY10–RY12 (Table 2). The southern Unit 20D harvest ranged from 4 to 10 bears/year. The 3-year mean harvest south of the Tanana River was 6 bears/year. This represented an estimated annual harvest of 3% of the estimated adult population south of the Tanana River.

Unit 20D harvest objective not to exceed 35 bears/year north of the Tanana River was met during RY10–RY12 (Table 2). The reported harvest north of the Tanana River ranged from 11 to 14 bears/year. The 3-year mean harvest north of the Tanana River was 12 bears/year. This harvest represented an annual estimated take of 2% of the estimated adult population north of the Tanana River.

Hunter Residency. Most black bears killed in Unit 20D were taken by Alaska residents (Table 3). Based on reported harvest, the average annual number of local resident successful hunters during the reporting period was 8, and the average annual number of nonlocal resident hunters was 10.

Harvest Chronology. Most bears continued to be harvested in May–June and August–September (Table 4).

Transportation Methods. The most popular modes of transportation for black bear hunters in Unit 20D were boats and highway vehicles (Table 5). This is a shift from the previous reporting period (RY07–RY09) when 3- or 4-wheelers were the most used means of transportation for successful black bear hunters. One hunter in RY11 and 1 hunter in RY12 reported using an airboat.

NONREGULATORY MANAGEMENT ISSUES

Bear Presence/Nuisance Bear Concerns

The Delta area office receives calls from the public about bear presence and nuisance bear concerns. We responded to a minimum of 6 calls. Three calls were addressed through telephone communication, and another 3 calls were addressed with site visits. During the telephone and site visit responses, we assisted with identifying attractants, suggested bear deterrent techniques,

interpreted bear behavior, and managed the presence of people to provide black bears the opportunity to leave an area.

CONCLUSIONS AND RECOMMENDATIONS

Harvest levels currently reported on black bears in Unit 20D are sustainable. This conclusion is supported by data indicating static harvest since 1994 (DuBois 2011). In addition, anecdotal information from local residents and hunters in Unit 20D during RY10–RY12 indicated that black bears were numerous throughout the area. Harvest levels during RY10–RY12 met management objectives. Based on this collective information, no changes in harvest regulations or management are recommended at this time.

During RY10–RY12, 3 black bears were killed in DLP. This is the most DLP black bear kills reported in Unit 20D since RY04–RY05. The DLP incidents are of interest, but I have no analysis of the increase in reports at this time. One of the incidents resulted in a human fatality. This incident was investigated by ADF&G biologists (R. Shideler and D. Bruning, 2014, unpublished data). All useful information about minimizing or avoiding bear-human conflicts gained from review and investigation of the DLP incidents will be provided to the public.

We continued to work to provide the public with information on reducing bear-human conflicts. This was accomplished by direct communication with concerned or interested individuals and by distribution of agency educational materials. I suggest that prompt response to calls about concerns of bear presence and showing demonstrated interest when communicating with the public about nuisance bear issues are successful methods in reducing conflicts between black bears and people. Some members of the local community have responded positively to public education and outreach and have taken action to reduce black bear attractants and to increase their understanding of bear behavior.

DNA can be used to estimate bear populations and densities. Consideration should be given to developing a coordinated effort between Region III Division of Wildlife Conservation Research and Management staff in using DNA techniques to estimate black bear populations and densities in Unit 20D.

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- DuBois, S. D. 1993. Unit 20D black bear. Pages 146–152 [In] S. M. Abbott, editor. Black bear management report of survey and inventory activities 1 July 1990–30 June 1992. Alaska Department of Fish and Game, Division of Wildlife Conservation, Federal Aid in Wildlife Restoration Project 17.0, Juneau.
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PREPARED BY:

Darren L. Bruning
Wildlife Biologist III

APPROVED BY:

Jackie J. Kephart
Assistant Management Coordinator

REVIEWED BY:

Laura A. McCarthy
Publications Technician II

Carl A. Roberts
Wildlife Technician III

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Table 1. Unit 20D black bear harvest, regulatory years^a 2007–2012.

Regulatory year	Reported									Estimated kill		Total reported and estimated kill			
	Hunter kill					Nonhunting kill ^b			Unreported	Illegal	M (%)	F (%)	Unk	Total	
	M (%)	F (%)	Unk	Total	Baited	M	F	Unk							
<i>2007</i>															
Fall 2007	1	3	0	4		0	0	0	0	0	1 (25)	3 (75)	0	4	
Spring 2008	7	3	0	10	6	0	0	0	0	0	7 (70)	3 (30)	0	10	
Total	8	6	0	14	6	0	0	0	0	0	8 (57)	6 (43)	0	14	
<i>2008</i>															
Fall 2008	6	3	0	9		0	0	0	0	0	6 (67)	3 (33)	0	9	
Spring 2009	5	7	0	12	6	0	0	0	0	0	5 (42)	7 (58)	0	12	
Total	11	10	0	21	6	0	0	0	0	0	11 (52)	10 (48)	0	21	
<i>2009</i>															
Fall 2009	4 (36)	7 (64)	0	11		0	0	0	0	0	4 (36)	7 (64)	0	11	
Spring 2010	4 (57)	3 (43)	4	11	0	0	0	0	0	0	4 (57)	3 (43)	4	11	
Total	8 (44)	10 (56)	4	22	0	0	0	0	0	0	8 (44)	10 (56)	4	22	
<i>2010</i>															
Fall 2010	3 (100)	0 (0)	0	3		0	0	0	0	0	3 (100)	0	0	3	
Spring 2011	6 (46)	5 (39)	2 ^c	13	5	0	0	0	0	0	6 (55)	5 (45)	2 ^c	13	
Total	9 (56)	5 (31)	2 ^c	16	5	0	0	0	0	0	9 (64)	5 (36)	2 ^c	16	
<i>2011</i>															
Fall 2011	3 (50)	3 (50)	0	6		0	0	0	0	0	3 (50)	3 (50)	0	6	
Spring 2012	9 (60)	6 (40)	0	15	7	1	0	1	0	0	10 (63)	6 (37)	1	17	
Total	12 (57)	9 (43)	0	21	7	1	0	1	0	0	13 (59)	9 (41)	1	23	
<i>2012</i>															
Fall 2012	6 (75)	2 (25)	0	8		1	0	0	0	0	7 (78)	2 (22)	0	9	
Spring 2013	10 (77)	3 (23)	1	14	5	0	0	0	0	0	10 (77)	3 (23)	1	14	
Total	16 (76)	5 (24)	1	22	5	1	0	0	0	0	17 (77)	5 (23)	1	23	

^a Regulatory year begins 1 July and ends 30 June (e.g., regulatory year 2007 = 1 July 2007–30 June 2008).

^b Includes defense of life or property kills, research mortalities, and other known human-caused accidental mortality.

^c Includes 1 reported bear harvest with unknown date of kill.

Table 2. Unit 20D reported black bear harvest locations, regulatory years^a 2007–2012.

Regulatory year	South of Tanana River		North of Tanana River		Unk	<i>n</i>
	<i>n</i>	(%)	<i>n</i>	(%)		
2007	5	(36)	9	(64)	0	14
2008	14	(67)	7	(33)	0	21
2009	12	(71)	5	(29)	1	18
2010	4	(27)	11	(73)	1	16
2011	4	(22)	14	(78)	3	21
2012	10	(48)	11	(52)	1	22

^a Regulatory year begins 1 July and ends 30 June (e.g., regulatory year 2007 = 1 July 2007–30 June 2008).

Table 3. Unit 20D black bear successful hunter residency, regulatory years^a 2007–2012.

Regulatory year	Local ^b resident (%)	Nonlocal resident (%)	Nonresident (%)	Unk	Total successful hunters
2007	9 (64)	4 (29)	1 (7)	0	14
2008	12 (57)	7 (33)	2 (10)	0	21
2009	7 (39)	10 (56)	1 (6)	0	18
2010	9 (56)	6 (38)	1 (6)	0	16
2011	8 (40)	12 (60)	0	1	21
2012	7 (32)	12 (54)	3 (14)	0	22

^a Regulatory year begins 1 July and ends 30 June (e.g., regulatory year 2007 = 1 July 2007–30 June 2008).

^b Local residents are residents of Unit 20D.

Table 4. Unit 20D black bear harvest chronology percent by month, regulatory years^a 2007–2012.

Regulatory year	Harvest chronology percent by month								
	Jul	Aug	Sep	Oct	Nov	Apr	May	Jun	<i>n</i>
2007	0	14	14	0	0	0	29	43	14
2008	10	14	19	0	0	0	14	43	21
2009	6	17	39	0	0	0	11	28	18
2010	7	7	13	0	0	7	33	33	16 ^b
2011	0	19	10	0	0	0	24	48	21
2012	0	5	36	5	0	0	5	50	22

^a Regulatory year begins 1 July and ends 30 June (e.g., regulatory year 2007 = 1 July 2007–30 June 2008).

^b Date of kill was unknown for 1 harvested bear.

Table 5. Unit 20D black bear harvest percent by transport method, regulatory years^a 2007–2012.

Regulatory year	Harvest percent by transport method										
	Airplane	Horse	Boat	3- or 4-wheeler	Snowmachine	ORV	Highway vehicle	Walk	Other	Unk	<i>n</i>
2007	7	7	29	36	0	0	7	7	7	0	14
2008	5	0	14	24	0	0	24	33	0	0	21
2009	17	6	22	28	0	0	11	17	0	0	18
2010	0	0	38	19	0	0	44	0	0	0	16
2011	0	0	43	14	0	0	24	14	5 ^b	0	21
2012	9	0	23	23	0	0	26	14	5 ^b	0	22

^a Regulatory year begins 1 July and ends 30 June (e.g., regulatory year 2007 = 1 July 2007–30 June 2008).

^b Airboat.