
CHAPTER 16: BLACK BEAR MANAGEMENT REPORT

From: 1 July 2010

To: 30 June 2013

LOCATION

GAME MANAGEMENT UNIT: 17A, 17B, and 17C (18,800 mi²)

GEOGRAPHIC DESCRIPTION: Northern Bristol Bay

BACKGROUND

Black bears inhabit some of the forested areas of Unit 17 and are most visible during the fall while they forage on berries along open hillsides in Units 17B and 17C. Black bears are less common along salmon streams and near human settlements, primarily because of displacement by brown bears, which could include predatory events on black bears. No research activities have been conducted on black bears in Unit 17, so we do not have complete understanding of the density, habitat use, key denning areas, or other aspects of this bear population.

Before 1994 hunters were not required to report or seal black bears harvested in Unit 17 and the Alaska Department of Fish and Game (ADF&G) did not allocate funding specifically for black bear management. Consequently, we had no way of assessing the number of bears killed, the sex or age composition of the harvest, or the distribution of harvest. Since that time, however, the sealing process has allowed us to collect these kinds of data as seen in the tables in this report.

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.

MANAGEMENT OBJECTIVES

- Maintain existing populations of black bears with a sex and age structure that will sustain a harvest of at least 60% males.

Related Management Activities

- Monitor the hunt by interviewing hunters and sealing all harvested black bears.

METHODS

Each black bear harvested in this unit, whether taken while hunting or killed in defense of life or property (DLP) is sealed, the skull is measured, and sex is determined. At the time of sealing, we record data on hunter residency, number of days hunted, date of kill, transportation used, and location of the kill. When possible, we investigate circumstances surrounding DLP and illegal kills. We collect subjective population data on bears seen during caribou and moose surveys. Reports from fieldworkers are also used to evaluate bear population trends. All hunt data in this report is tallied by regulatory year (RY), (RY = 1 July through 30 June; e.g., RY10 = 1 July 2010 through 30 June 2011)

RESULTS AND DISCUSSION

POPULATION STATUS AND TREND

Population Size

No objective data are available on the population density of black bears in the unit.

Distribution and Movements

We know little about the overall distribution and movements of black bears in this unit. I suspect that the greatest densities are in the spruce forest habitats along the upper Mulchatna and Nushagak rivers and along the Chichitnok River. Black bears are also occasionally seen along the Kokwok and Nuyakuk rivers, and in the Muklung Hills. Black bears are most obvious when they feed along hillsides in the autumn where berries are abundant. We also occasionally see individual bears and family groups near postcalving aggregations of caribou in June and July. Areas important for denning remain unknown.

MORTALITY

Harvest

Season and Bag Limit.

Unit 17

No Closed Season	Residents:	3 bears per year
	Nonresidents:	3 bears per year

Board of Game Actions and Emergency Orders. During its spring 2013 meeting the board passed a department proposal to increase the bag limit for black bears to 3 per year with no closed season. This applied to resident and nonresident hunters alike. This season change was implemented to align the season in Unit 17 with that of adjacent areas. There were no emergency orders issued by the department associated with black bear management during this report period.

Human-Induced Mortality. Before 1994 no sealing or reporting requirements existed for black bear hunters in Unit 17. Our incidental observations indicated that black bears were subject to the same increasing hunting pressure as other big game species in Unit 17B because more hunters came into the area to harvest caribou from the Mulchatna herd. At that time, local residents

expressed concerns of overharvest by hunters and sportfishers along the upper Nushagak River drainages.

During RY10, hunters in Unit 17 reported harvesting 7 black bears, including 5 males (71%) and 2 females (29%; Table 1). All 7 were taken in Unit 17B, and were harvested by guided nonresident hunters (Tables 2 and 3). All were taken during the fall season (Table 4), very likely as part of a combination hunt with other species such as moose, caribou and brown bear. The average total skull size for males was 17.4 inches ($n = 4$) and 15.8 inches for females ($n = 2$). Successful hunters spent an average of 5.3 days afield, and all used aircraft for transportation to their hunting area (Table 5).

During RY11 hunters in Unit 17 reported harvesting 12 black bears, including 10 males (83%) and 2 females (17%). Eleven bears were taken in Unit 17B and one in 17C. Seven of the bears were taken by guided nonresident hunters, while the other 5 were taken by Alaskan residents, including 2 taken by a single hunter. One of the males was of cinnamon color, which is fairly unusual in this area. The total skull size for males was 17.7 inches ($n = 10$); it was 16.4 inches for females ($n = 2$). Successful hunters spent an average of 5.3 days afield, although 2 of the hunters accounted for 15 and 14 days afield, which inflated the average. Nine of the 12 hunters used aircraft to access their hunt area, while 3 used a boat.

During RY12 hunters in Unit 17 reported harvesting only 3 black bears, all of which were males. Two were taken in Unit 17C and 1 in 17B. Guided nonresident hunters took 2 of the bears, while 1 was taken by an unguided nonresident hunter. The total skull size was 18.8 inches ($n = 3$). Successful hunters spent an average of 3.3 days afield, and all used a different source of transportation to the field: boat, aircraft, or snowmachine. One bear was taken during the spring season, which was the only spring bear harvested this entire report period.

Hunter Residency and Success. Nonresidents typically account for most of the reported black bear harvest in Unit 17. During RY10, nonresidents took all 100% of the harvested bears reported in the unit. During RY11, nonresidents took 7 (58%) of the harvested bears reported in Unit 17, Unit 17 residents took 1, and other Alaska residents took 4. During the RY12 season, nonresidents took 100% of the bears reported harvested in the unit (Table 3).

Harvest Chronology. Twenty one of the 22 black bears reported harvested in Unit 17 during this reporting period were killed during the fall (Table 4).

Transport Methods. Seventeen of the successful black bear hunters during this reporting period used airplanes for access, 4 used boats, and 1 used a snowmachine (Table 5).

Other Mortality

We do not collect data on other causes of mortalities for black bears in Unit 17.

HABITAT

Assessment

Black bear habitat in Unit 17 is virtually unaltered and in excellent condition. Salmon stocks are carefully managed and escapements are adequate for the needs of the current bear population.

Ungulates and seasonally abundant berry crops provide an abundant food supply for bears. Human settlements are relatively small and unobtrusive.

NONREGULATORY PROBLEMS/NEEDS

Black bears rarely occur near human settlements in Unit 17, and there have been few reports of adversarial encounters between humans and black bears in the backcountry. There are no nonregulatory problems or needs in the unit at this time.

CONCLUSIONS AND RECOMMENDATIONS

Although the black bear harvest has been on a downward trend since we began sealing bears in 1994, we believe that is mostly related to a decline in hunting pressure rather than a change in bear density. During the mid-1990s the Mulchatna caribou herd was substantially higher than today, leading to high numbers of caribou hunters who, once on the landscape, chose to harvest black bears when given the opportunity. Today, the low caribou numbers attract substantially fewer hunters and the black bear harvest reflects this lower effort. The recent season and bag limit change to 3 bears and no closed season will only take effect in July of 2013, thus we will not be able to gauge the impact of that action until the next reporting period. No changes in the present hunting regulations for black bears in Game Management Unit 17 are recommended at this time.

PREPARED BY:

Neil L. Barten
Wildlife Biologist III

APPROVED BY:

Todd A. Rinaldi
Acting Management Coordinator

Please cite any information taken from this section, and reference as follows:

Barten, N.L. 2014. Unit 17 black bear management report. Pages 16-1 through 16-9 [In] P. Harper and L. A. McCarthy, editors. Black bear management report of survey and inventory activities 1 July 2010–30 June 2013. Alaska Department of Fish and Game, Species Management Report ADF&G/DWC/SMR-2014-5, Juneau.

While this unit report was actually published in 2016, it is part of the set of 2014 unit species management reports, so we suggest citing the report as a 2014 report to maintain its relationship to the other 2014 unit reports.

Product names used in this publication are included for completeness but do not constitute product endorsement.

The State of Alaska is an Affirmative Action/Equal Opportunity Employer. Contact the Division of Wildlife Conservation at (907) 465-4190 for alternative formats of this publication.

Table 1. Unit 17 black bear harvest, regulatory years^a 1994–2012.

Regulatory year	Hunter kill				Nonhunting kill				Total reported kill			
	Male	Female	Unk	Total	Male	Female	Unk	Total	Male	Female	Unk	Total
1994	6	7	0	13	0	0	0	0	6	7	0	13
1995	13	5	0	18	0	0	0	0	13	5	0	18
1996	19	6	1	26	0	0	0	0	19	6	1	26
1997	12	6	0	18	0	0	0	0	12	6	0	18
1998	17	12	0	29	0	0	0	0	17	12	0	29
1999	16	4	0	20	0	0	0	0	16	4	0	20
2000	8	2	0	10	0	0	0	0	8	2	0	10
2001	8	1	1	10	0	0	0	0	8	1	1	10
2002	4	4	0	8	0	0	0	0	4	4	0	8
2003	7	6	0	13	0	0	0	0	7	6	0	13
2004	13	8	0	21	0	0	0	0	13	8	0	21
2005	6	1	0	7	0	0	0	0	6	1	0	7
2006	9	5	0	14	0	0	0	0	9	5	0	14
2007	4	1	0	5	0	0	0	0	4	1	0	5
2008	1	4	1	6	0	0	0	0	1	4	1	6
2009	2	3	0	5	0	0	0	0	2	3	0	5
2010	5	2	0	7	0	0	0	0	5	2	0	7
2011	10	2	0	12	0	0	0	0	10	2	0	12
2012	3	0	0	3	0	0	0	0	3	0	0	3

^a Regulatory year begins 1 July and ends 30 June, e.g., regulatory year 2012 = 1 July 2012–30 June 2013.

Table 2. Unit 17 black bear harvest by subunit, regulatory years^a 1994–2012.

Regulatory year	Subunit												Unit 17 total			
	17A				17B				17C				M	F	Unk	Total
	M	F	Unk	Total	M	F	Unk	Total	M	F	Unk	Total				
1994	0	0	0	0	6	7	0	13	0	0	0	0	6	7	0	13
1995	0	0	0	0	12	4	0	16	1	1	0	2	13	5	0	18
1996	0	0	0	0	18	6	1	25	1	0	0	1	19	6	1	26
1997	0	0	0	0	10	5	0	15	2	1	0	3	12	6	0	18
1998	0	0	0	0	16	12	0	28	1	0	0	1	17	12	0	29
1999	0	0	0	0	14	4	0	18	2	0	0	2	16	4	0	20
2000	0	0	0	0	8	2	0	10	0	0	0	0	8	2	0	10
2001	0	0	0	0	7	1	1	9	1	0	0	1	8	1	1	10
2002	0	0	0	0	4	4	0	8	0	0	0	0	4	4	0	8
2003	0	0	0	0	7	6	0	13	0	0	0	0	7	6	0	13
2004	0	0	0	0	11	8	0	19	0	0	0	0	13 ^b	8	0	21 ^b
2005	0	0	0	0	5	1	0	6	1	0	0	1	6	1	0	7
2006	0	0	0	0	7	4	0	11	2	1	0	3	9	5	0	14
2007	0	0	0	0	2	1	0	3	2	0	0	2	4	1	0	5
2008	0	0	0	0	1	4	1	6	0	0	0	0	1	4	1	6
2009	0	0	0	0	2	3	0	5	0	0	0	0	2	3	0	5
2010	0	0	0	0	5	2	0	7	0	0	0	0	5	2	0	7
2011	0	0	0	0	9	2	0	11	1	0	0	1	10	2	0	12
2012	0	0	0	0	1	0	0	1	2	0	0	2	3	0	0	3

^a Regulatory year begins 1 July and ends 30 June, e.g., regulatory year 2012 = 1 July 2012–30 June 2013.

^b Includes 2 male bears, location unknown.

Table 3. Unit 17 black bear successful hunter residency, regulatory years^a 1994–2012.

Regulatory year	Residents				Nonresident	Total successful hunters ^c	
	Local ^b	(%)	Nonlocal	(%)			
1994	0	(0)	2	(15)	11	(85)	13
1995	1	(6)	4	(22)	13	(72)	18
1996	0	(0)	4	(15)	22	(85)	26
1997	0	(0)	2	(11)	16	(89)	18
1998	0	(0)	3	(10)	26	(90)	29
1999	0	(0)	0	(0)	20	(100)	20
2000	0	(0)	2	(20)	8	(80)	10
2001	0	(0)	3	(30)	7	(70)	10
2002	0	(0)	1	(13)	7	(87)	8
2003	0	(0)	2	(15)	11	(85)	13
2004	0	(0)	1	(5)	20	(95)	21
2005	1	(14)	0	(0)	6	(86)	7
2006	1	(7)	1	(7)	12	(86)	14
2007	2	(40)	1	(20)	2	(40)	5
2008	0	(0)	0	(0)	6	(100)	6
2009	0	(0)	1	(20)	4	(80)	5
2010	0	(0)	0	(0)	7	(100)	7
2011	1	(8)	4	(33)	7	(58)	12
2012	0	(0)	0	(0)	3	(100)	3

^a Regulatory year begins 1 July and ends 30 June, e.g., regulatory year 2012 = 1 July 2012–30 June 2013.

^b Residents of Unit 17.

^c Total may be higher than the sum of the columns due to hunters of unknown residency.

Table 4. Unit 17 black bear harvest chronology percentage by month, regulatory years^a 1994–2012.

Regulatory year	Month of harvest (%)										<i>n</i>	
	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May		
1994 ^b	46	39	15	0	0	0	0	0	0	0	0	13
1995 ^b	33	67	0	0	0	0	0	0	0	0	0	18
1996 ^b	42	58	0	0	0	0	0	0	0	0	0	26
1997 ^b	33	67	0	0	0	0	0	0	0	0	0	18
1998	10	90	0	0	0	0	0	0	0	0	0	29
1999	15	85	0	0	0	0	0	0	0	0	0	20
2000	20	70	10	0	0	0	0	0	0	0	0	10
2001	30	70	0	0	0	0	0	0	0	0	0	10
2002	38	62	0	0	0	0	0	0	0	0	0	8
2003	31	69	0	0	0	0	0	0	0	0	0	13
2004	19	81	0	0	0	0	0	0	0	0	0	21
2005	29	57	0	0	0	0	0	0	0	0	14	7
2006	14	86	0	0	0	0	0	0	0	0	0	14
2007	20	60	20	0	0	0	0	0	0	0	0	5
2008	0	100	0	0	0	0	0	0	0	0	0	6
2009	0	100	0	0	0	0	0	0	0	0	0	5
2010	0	100	0	0	0	0	0	0	0	0	0	7
2011	17	83	0	0	0	0	0	0	0	0	0	12
2012	0	67	0	0	0	0	0	0	33	0	0	3

^a Regulatory year begins 1 July and ends 30 June, e.g., regulatory year 2012 = 1 July 2012–30 June 2013.

^b Season dates: August 1–May 31; 2 bears for residents, 1 bear for nonresidents.

Table 5. Unit 17 black bear harvest percentage by transport method, regulatory years^a 1994–95 through 2012–13.

Regulatory year	Percent (%) of harvest									(n)
	Airplane	Horse	Boat	ATV	Snowmachine	ORV	Highway vehicle	Walk	Unknown	
1994	39	0	54	0	0	0	0	8	0	13
1995	78	22	0	0	0	0	0	0	0	18
1996	81	19	0	0	0	0	0	0	0	26
1997	89	0	0	0	0	0	0	11	0	18
1998	72	0	28	0	0	0	0	0	0	29
1999	85	0	10	5	0	0	0	0	0	20
2000	70	0	30	0	0	0	0	0	0	10
2001	100	0	0	0	0	0	0	0	0	10
2002	100	0	0	0	0	0	0	0	0	8
2003	100	0	0	0	0	0	0	0	0	13
2004	95	0	5	0	0	0	0	0	0	21
2005	86	0	0	0	0	0	14	0	0	7
2006	93	0	0	0	0	0	7	0	0	14
2007	40	0	40	20	0	0	0	0	0	5
2008	100	0	0	0	0	0	0	0	0	6
2009	80	0	20	0	0	0	0	0	0	5
2010	100	0	0	0	0	0	0	0	0	7
2011	75	0	25	0	0	0	0	0	0	12
2012	33	0	33	0	33	0	0	0	0	3

^a Regulatory year begins 1 July and ends 30 June, e.g., regulatory year 2012 = 1 July 2012–30 June 2013.