
CHAPTER 9: BROWN BEAR MANAGEMENT REPORT

From: 1 July 2012

To: 30 June 2014

LOCATION

GAME MANAGEMENT UNIT: 10 (1,536 mi²)

GEOGRAPHIC DESCRIPTION: Unimak Island

BACKGROUND

Unimak Island is the only area in Unit 10 occupied by brown bears. About 93% of the island is congressionally designated wilderness. Brown bear hunting on Unimak Island has been administered by the Alaska Department of Fish and Game (ADF&G) since 1979; prior to this, 1949–1979, it was administered by the U.S. Fish and Wildlife Service. During regulatory years (RY) 1982 (RY82 = 1 July 1982 through 30 June 1983) through RY91, annual harvests from Unimak Island averaged 5 bears (range = 1–8). From RY92 through RY01, the average annual harvest was 10 bears (range = 5–13), and from RY02 through RY11 annual harvest averaged 10 bears (range = 7–13). This increase was due to greater hunt participation by permittees and an increased success rate.

In spring 2002, Quang and Becker (1997) used a line-transect-double-count technique to estimate a population size of 293 brown bears on Unimak Island (90% confidence interval = 218–384). This equated to a density estimate of 1 bear/3.8 mi². Population composition for 315 bears was 21% adult males and 42% single bears. Average litter size was 1.9 cubs.

MANAGEMENT DIRECTION

MANAGEMENT GOAL

- Provide opportunities to hunt large brown bears under aesthetically pleasing conditions. The number of hunters is limited, and harvests are maintained below maximum sustained yield.

MANAGEMENT OBJECTIVE

- Maintain a high bear density with a sex and age structure that will sustain a harvest of at least 60% males.

METHODS

Interpretation of harvest data to reflect population status is not possible with the very low number of bears killed annually.

RESULTS AND DISCUSSION

POPULATION STATUS AND TREND

The Unimak Island brown bear population appears to be maintained by natural limiting factors at a relatively stable level.

Population Size and Composition

We visited Unimak Island twice annually during the reporting period for caribou work. The bear population appeared healthy. Informal composition counts indicated 63% single bears (not identified by sex), 15% sows, and 22% cubs in the population ($n = 42$).

MORTALITY

Harvest

Season and Bag Limit. Drawing hunts DB375 and DB376 seasons for both residents and nonresidents in RY12–RY13 were 1 October–31 December and 10–30 May, respectively. The bag limit was 1 brown bear every 4 regulatory years by drawing or special governor's permit only; 16 permits were issued annually (Table 1). There was no closed season for the RB525 near village hunt. The bag limit was 1 bear every regulatory year; there were 10 RB525 permits issued in Unit 10 during the reporting period.

Special governor's permits (SB375 and 376) were auctioned off in some years by Safari Club International, Foundation for North American Wild Sheep, and Boone and Crockett Club.

Alaska Board of Game Action and Emergency Orders. In RY13, the Board of Game changed the spring season for drawing hunts from 10–25 May to 10–31 May, extending the season by 6 days.

Hunter Harvest.

Hunters harvested a total of 19 bears (74% male) during the reporting period (Table 1).

A near-village registration brown bear hunt, RB525, was implemented in RY11 to provide increased opportunity for local residents of communities in GMUs 9 and 10 to manage bears within 2.5 to 5 miles of their communities, without the requirement to cede the hide and skull to the state. There were five RB525 bears killed during the reporting period in Unit 10 (Table 1).

Hunter Residency and Success. From RY01 through RY11 nonresidents held 45% of the permits and accounted for 52% of the brown bear harvest. The proportion of nonresidents decreased to 26%. The proportion of hunters who did not hunt increased during the reporting period (Table 1).

Harvest Chronology. Most of the bears harvested on Unimak are taken in May and October. Since RY01, 61% of the spring harvest has occurred during the first week of hunting, and 50% of the fall harvest has occurred during the first week of hunting.

Transport Methods. Since RY95 the vast majority of successful hunters have used aircraft to access Unimak Island.

CONCLUSIONS AND RECOMMENDATIONS

The brown bear population on Unimak Island appears stable, and the drawing permit hunts meets management objectives. Although harvests have increased, no changes are recommended in the permit hunts at this time.

REFERENCES CITED

Quang, P. X., and E. F. Becker. 1997. Combined line transect and double count sampling techniques for aerial surveys. *Journal of Agricultural, Biological, and Environmental Sciences* 2(2):230–242.

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Table 1. Unit 10, Unimak Island, Alaska brown bear harvest data by permit hunt, regulatory years^a 2009 through 2013.

Hunt area	Regulatory year	Permits issued	Percent		Percent		Percent		Total reported harvest	
			did not hunt	unsuccessful hunters	successful hunters	Males (%)	Females (%)			
DB375	2009	8	25	29	71	4	(80)	1	20	5
DB375	2010	8	38	40	60	3	(100)	0	0	3
DB375	2011	8	25	0	100	6	(100)	0	0	6
DB375	2012	8	63	0	100	2	(67)	1	33	3
DB375	2013	8	0	20	80	2	(50)	2	50	4
DB376	2009	8	0	25	75	6	(100)	0	0	6
DB376	2010	7	14	17	83	4	(80)	1	20	5
DB376	2011	7	43	33	67	0	(0)	2	100	2
DB376	2012	7	14	33	67	3	(75)	1	25	4
DB376	2013	7	71	0	100	2	(100)	0	0	2
RB525	2011	3	0	33	67	2	(100)	0	0	2
RB525	2012	6	0	67	33	2	(100)	0	0	2
RB525	2013	4	0	25	75	2	(67)	1	33	3
SB375	2011	1	0	100	0	0	(0)	0	0	0
SB376	2010	1	0	100	0	0	(0)	0	0	0
SB376	2012	1	0	0	100	1	(100)	0	0	1
Unit 10	2009	16	13	27	73	10	(91)	1	9	11
Unit 10	2010	15	27	27	73	7	(88)	1	13	8
Unit 10	2011	19	26	23	77	8	(80)	2	20	10
Unit 10	2012	22	27	44	56	7	(78)	2	22	9
Unit 10	2013	20	25	17	83	7	(70)	3	30	10

^a A regulatory year (RY) runs from 1 July through 30 June (e.g., RY13 = 1 July 2013–30 June 2014).