

Brown Bear Management Report and Plan, Game Management Unit 17:

Report Period 1 July 2014–30 June 2019, and

Plan Period 1 July 2019–30 June 2024

Chris Peterson



2023

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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 Todd A. Rinaldi, Management Coordinator for the Division of Wildlife Conservation.

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Purpose of this Report

This report provides a record of survey and inventory management activities for brown bears (*Ursus arctos*) in Unit 17 for the 5 regulatory years 2014–2018 and plans for survey and inventory management activities in the following 5 regulatory years 2019–2023. 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 report more efficiently on trends and to describe potential changes in data collection activities over the next 5 years. It replaces the brown bear management report of survey and inventory activities that was previously produced every 2 years.

I. RY14–RY18 Management Report

Management Area

Unit 17 (18,800 mi²) consists of the area north of Bristol Bay from Cape Newenham east to Etolin Point on the east bank at the mouth of the Nushagak River. It encompasses the Nushagak and Mulchatna River watersheds to the east, the Wood-Tikchik Lakes and Mountains, Togiak Lakes and River to the west, Hagemester Island, and the Walrus Islands offshore south of Togiak Bay (Fig. 1). Maps of current Unit 17 boundaries are located on the ADF&G website: <http://www.adfg.alaska.gov/index.cfm?adfg=maps.main>.

Unit 17 is further divided into 3 administrative units: Unit 17A is dominated by the Togiak River watershed, Unit 17B is associated with the upper Nushagak and upper Mulchatna River watersheds, and Unit 17C includes the lower Nushagak River and Wood River watersheds. Ecoregions include the Bristol Bay lowlands, Kuskokwim Mountains, Wood River Mountains, Neacola Mountains, Nushagak Hills, and Stuyahok Hills (Nowacki et al. 2001).

Brown bears are found throughout Unit 17, from the coastal waters of Bristol Bay, the riparian areas of the Wood-Tikchik Mountains, to the Nushagak and Mulchatna rivers. Brown bears are also common in Unit 17B throughout the inland areas of Lake Clark National Park.

In spring brown bears scavenge over-winter mortalities of moose and caribou, and marine carcasses on beaches, utilizing fresh growth of vegetation as it appears. Brown bears forage for clams in tidal mud flats, and sedges and roots in lowland sedge flats. During the spring brown bears also take advantage of the seasonal opportunity of moose and caribou calves. Unit 17 biologists have observed that brown bears prey on adult moose (reviewed in Ballard 1992).

In summer, brown bears occupy mid-to-low elevation habitats on tidal flats and sedge meadows. Brown bears are frequently observed along rivers, streams, and lakeshores awaiting salmon. In fall, brown bears continue pursuing salmon at low elevations, and upstream into mountainous areas. After salmon runs have passed, brown bears will forage for hunter-harvested caribou and moose carcasses, and berries in riparian woodlands and open hillsides.

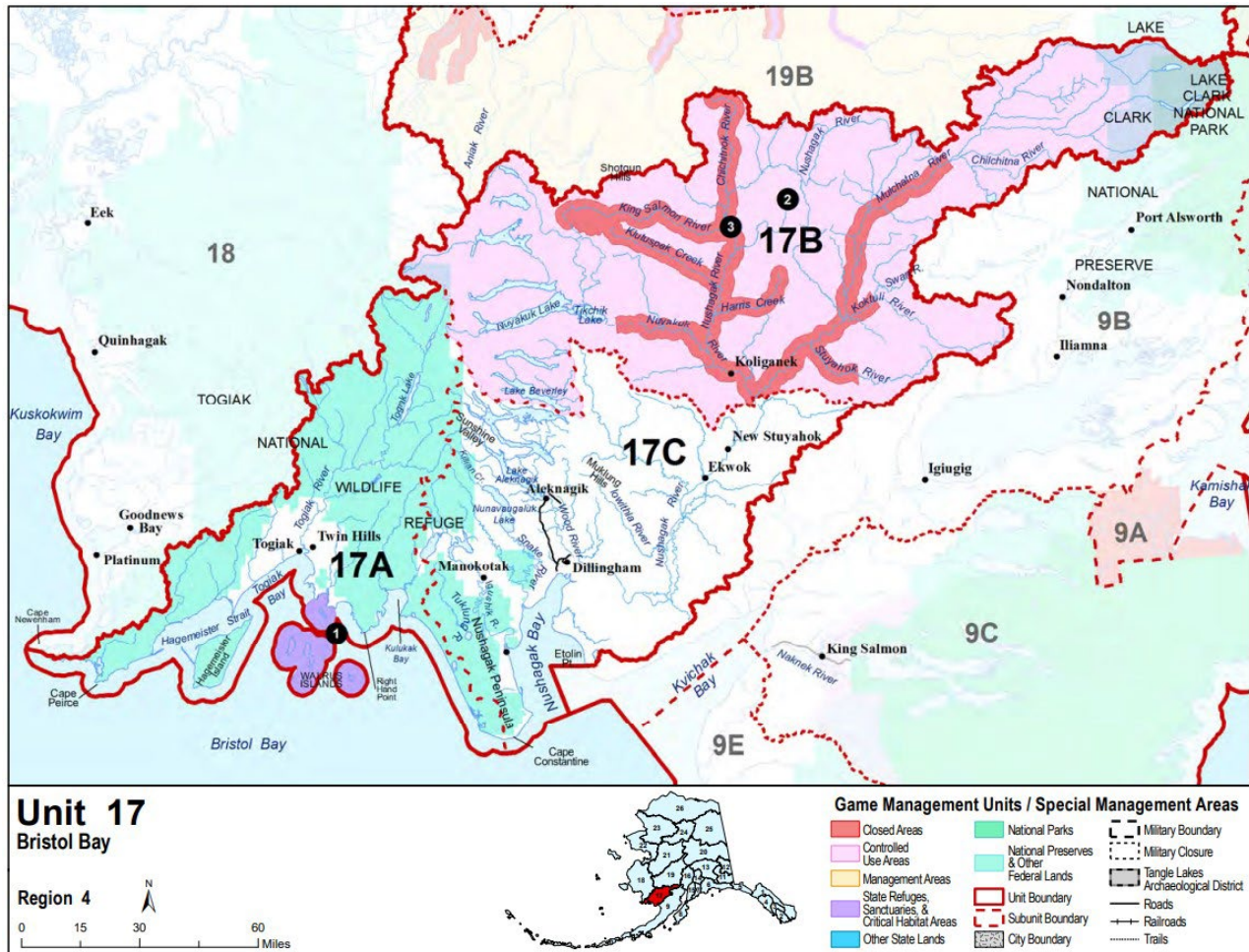


Figure 1. Map of Game Management Unit 17 boundaries in central-southwest Alaska with indicators of controlled use areas (numbered circles), administrative subunits, and federal lands as found in the Alaska Hunting Regulations,.

Brown bears begin denning in late fall, typically October through November. Denning locations are located primarily in steep rocky areas, and secondarily in low-elevation tundra. Observations indicate that bears emerge from dens from late April through mid-to-late May. Mating occurs from mid-May through mid-to-late June (Van Daele et. al. 2001).

Summary of Status, Trend, Management Activities, and History of Brown Bear in Unit 17

Most information available about Unit 17 brown bears is associated with observations incidental to other wildlife surveys (e.g., moose and caribou). In addition, prior research on density estimates (Van Daele et al. 2001), sealing data from hunter harvest and defense of life or property (DLP) bears, law enforcement investigations of illegal cases, and anecdotal observations from pilots, guides, and previous biologists contribute to the collective knowledge of brown bears in Unit 17. Kovach et al. (2006) studied a brown bear population in the southwestern Kuskokwim Mountains (Units 17A, 17B and 18) during 1993–2002 and estimated

a rate of increase (λ) of 1.04–1.05 for the first half of the period and 0.96–1.0 for the second half. Van Daele et al. (2001) used telemetry to estimate a minimum brown bear density of 47 bears per 1,000 mi^2 in a 1,113 mi^2 study area in the southwestern Kuskokwim Mountains during 1993–1997 (Units 17A, 17B, and 18). In the early 2000s, concerns were expressed during local community and resource advisory group meetings that brown bear abundance was thought to be increasing. These concerns were at odds with the subsequent paper by Kovach et al. 2006. Brown bear abundance was next estimated during spring 2003 and 2004 by Walsh et al. (2010) using aerial survey transects in an 8,281 mi^2 area consisting largely of the Togiak National Wildlife Refuge (Units 17A, 17C, and 18). This larger study area overlapped that of Van Daele et al. (2001) and resulted in an estimated 103 bears per 1,000 mi^2 (Walsh et al. 2010).

Hide sealing data obtained from hunters provides information on the area's brown bear occupancy and the demographics of age and sex classes that are legal to harvest. However, most harvest locations are driven by hunter access and are not reflective of brown bear presence or absence. Most of the Unit 17 brown bear hunt remains a general-harvest hunt; with cubs, yearlings, and associated adult females protected from harvest; and the take of brown bears over bait prohibited. The earliest recorded brown bear sealing in Unit 17 was in 1961. Data from 1961 to 1970 are too limited (e.g., reported harvests <10) to evaluate the status or trend of the population, though general observations suggest fluctuating populations and densities. Although males consistently exceed 50% of the harvest, the male portion of the harvest seldom reached the management objective (annual harvest of 50 bears comprised of at least 50% males) until the mid-1980s. Between 1991 and 2011, reported harvest increased from 45 to 168. Following this increase, harvest steadily declined over the next 4 years likely due to late spring weather and snow conditions, and the retirement of some active guides in the area. Since 2015, total harvest has increased slightly. It is notable that this increase in harvest can be attributed to an increased take of female brown bears. Since the early 1960s, area wildlife biologists have observed a relatively high proportion of brown bears being harvested as part of combination hunts in Unit 17.

In RY75, the Alaska Board of Game restricted brown bear hunting opportunity in neighboring Unit 9, only allowing bears to be harvested during alternating seasons which consisted of the fall of odd-numbered years and the spring of even-numbered years. Following this decision, the number of reported brown bears harvested in Unit 17 increased from respectively low numbers. It is possible that this increase was due to the displacement of some hunters and guiding activities from Unit 9 to Unit 17 where the bear hunting opportunity remained consistent. Increased enforcement efforts to curb illegal harvest of brown bears may have also led to better reporting of harvested bears (Barten 2015).

During RY70–RY97, annual reported harvests rarely exceeded 50 bears per year. Since 1997, annual reported bear harvests have increased substantially. In RY11 the bag limit for brown bears in Unit 17 increased from 1 to 2 bears per regulatory year, and tag fees were exempted for brown bears in Units 9 and 17. This plausibly led to a brief increase in the number of bears harvested. During RY72–RY80, the harvest was generally balanced between the spring and fall seasons. During RY92–RY97 there were higher harvests during fall seasons than during spring seasons, likely due to the increased hunting pressure on the rapidly growing Mulchatna caribou herd (Van Daele 1997, Woolington 2003). Reported moose hunting activity and harvests also increased dramatically during the same period (Woolington 2002). Beginning with the increased

spring hunting season length during RY98, spring harvests exceeded fall harvests for several years. However, during recent years, fall harvests have increased to almost twice that of the spring take. Spring harvest is almost entirely dependent on adequate snow depth and cover. This is because snow conditions determine whether hunters have access to bear denning areas via snow machine to spot and stalk bears near their den sites. In years with low snowfall such as spring RY13, few bears were taken because access was extremely limited (Barten 2015). Increased spring harvest does demonstrate a rising interest in hunting brown bears in Unit 17. Present bear harvest numbers probably reflect the popularity of bear hunting, as well as the ability for guided hunters to participate in multi-species hunts for various species such as moose, brown bear, black bear, and wolf (Barten 2015).

Reported human-bear conflicts are common throughout Unit 17 communities and at fishing and hunting camps. Many human-bear conflicts result in defense of life or property (DLP) kills and are rarely reported. Due to unknowns associated with unreported brown bear mortalities, inferences based on harvest data must be approached with caution. Reported harvests reflect only a portion of the brown bears killed in Unit 17. During RY14–RY18, 6 bears were removed in DLP situations.

Management Direction

Direction, goals, and guidelines from *Alaska Wildlife Management Plans: Southwestern Alaska* (ADF&G 1976) have been used by the department over the years to provide guidance when informing the Alaska Board of Game (BOG, board).

EXISTING WILDLIFE MANAGEMENT PLANS

- *Alaska Wildlife Management Plans: Southwestern Alaska* (ADF&G 1976).
- *Strategic Plan* (ADF&G 2002).

GOALS

- Provide the greatest opportunity to participate in hunting brown bears.
- Provide an opportunity to hunt under aesthetically pleasing conditions.

CODIFIED OBJECTIVES

Amounts Reasonably Necessary for Subsistence Uses

The Alaska Board of Game has made a positive finding for customary and traditional use of brown bears in Unit 17. The amount necessary for subsistence (ANS; 5 AAC 99.025) is 5 brown bears in Unit 17A and the Nuyakuk and Tikchik Lake portions of Unit 17B, and 10–15 brown bears in Unit 17B and 17C.

Intensive Management

Not applicable.

MANAGEMENT OBJECTIVES

- Maintain a brown bear population that will sustain an annual harvest of 50 bears composed of at least 50% males.
- Decrease human-bear conflicts by utilizing educational outreach programs with local communities and residents.

MANAGEMENT ACTIVITIES

1. Population Status and Trend

Department biologists record observations of brown bears by staff working in the unit, pilots, hunters, and other users of the backcountry.

2. Mortality-Harvest Monitoring and Regulations

ACTIVITY 2.1. Monitor brown bear harvest through sealing records.

Data Needs

Since 1961 all brown bears harvested in Unit 17 have been legally required to be sealed. These data are used to monitor trends in bear harvest and evaluate potential impacts to the brown bear population. Harvest data can provide an index of abundance and trend, sometimes revealing abrupt increases, peaks, or declines in harvest over several years of similar hunting pressure.

Methods

Data collected during the sealing process includes location of harvest, sex, age, hide and skull measurement, commercial services or guides used, method of transportation, and method of take. Sealing is required to be conducted by an authorized ADF&G staff member, or a state-appointed sealer within 30 days of the kill. These data will be entered and stored in WinfoNet.

Season and Bag Limit

During the current 5-year reporting period, the season and bag limit were consistent. Both resident and nonresident seasons were 20 August–31 May, with a bag limit of 2 bears per year. This has been consistent for the past 8 years (RY11–RY18).

Results and Discussion

Harvest by Hunters

There was a continued decrease in reported harvest from RY11 to the RY14–RY18 period, with a concurrent increase in percent of females reported in the harvest. There were 316 brown bears

reported harvested and sealed in Unit 17 during RY14–RY18 (Table 1). Eight hunters took advantage of the 2-bear bag limit implemented RY11, accounting for 17 (1 hunter harvested 3 bears) harvested brown bears. The reported female harvest increased slowly from RY98 through RY18 (e.g., from 28% in 1998 to 50% in 2018), although harvest of both sexes declined (Table 1). This decline was due to the lack of adequate travel conditions during the spring seasons from 2013–2015 coupled with the retirement of a couple prominent guides in the area. The total number of brown bears reported harvested decreased 64% from 2011 ($n = 167$) to 2018 ($n = 60$), particularly the percentage of females. These declines are not reflective of the population but are more associated with access issues due to too much snow or lack of snow, and variability in guiding interest across the years. The RY14–RY18 reported harvest is near the Unit 17 management objective to annually harvest 50 bears composed of at least 50% males.

Hunter Residency and Success

From RY91–RY04, annual harvest gradually increased from 40 to 85 bears (Fig. 2). Annual harvest increased from 120 in RY05 to 168 in RY11. This was followed by a steep decrease to roughly 50 bears annually during RY16–RY18. During RY14–RY18, resident hunters accounted for 17% of the harvest and averaged 11 bears per year, with the percent of successful residents accounting for 13–24% of the harvest. Nonresident hunters harvested an average of 54 bears per year and accounted for 82% of the average annual harvest.

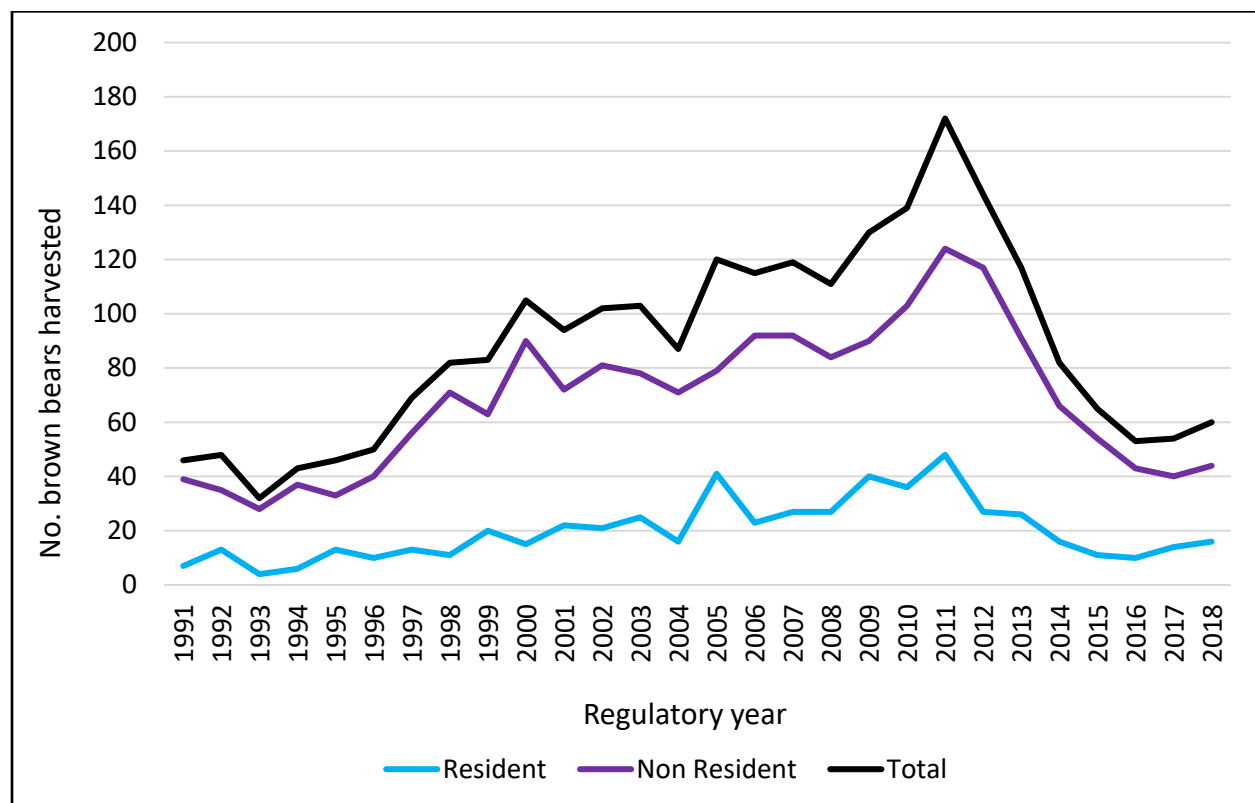


Figure 2. Unit 17 annual brown bear harvest by residency, regulatory years 1991–2018, Alaska.

Table 1. Unit 17 brown bear harvest by unit, Alaska, regulatory years (RY) 2009–2018.

Regulatory year	Unit 17A				Unit 17B				Unit 17C				Unit 17 Total			
	Male	Female	Unknown	Total	Male	Female	Unknown	Total	Male	Female	Unknown	Total	Male	Female	Unknown	Total ^a
2009	13	9	0	22	40	31	1	72	26	7	0	33	79	47	1	127
2010	12	6	0	18	39	41	0	80	26	13	0	39	77	60	0	137
2011	18	7	1	26	58	41	0	99	28	14	0	42	104	62	1	167
2012	9	13	0	22	47	41	0	88	21	11	0	32	77	65	2	144
2013	14	7	2	23	29	30	0	59	20	12	0	32	63	49	1	115
2014	8	6	0	14	27	19	0	46	12	8	1	21	47	33	0	81
2015	3	3	0	6	28	21	0	49	4	6	0	10	35	30	0	65
2016	3	2	1	6	19	18	0	37	8	3	0	11	30	23	0	54
2017	1	5	0	6	15	19	0	34	14	1	0	15	30	25	1	56
2018	1	6	0	7	21	17	0	38	8	7	0	15	30	30	0	60

^a Total harvest may include bears taken in an unspecified subunit of Unit 17.

There is a decreasing trend in mean skull size in both sexes from RY09–RY18, but stable mean age of females and males (Table 2, Figs. 3 and 4).

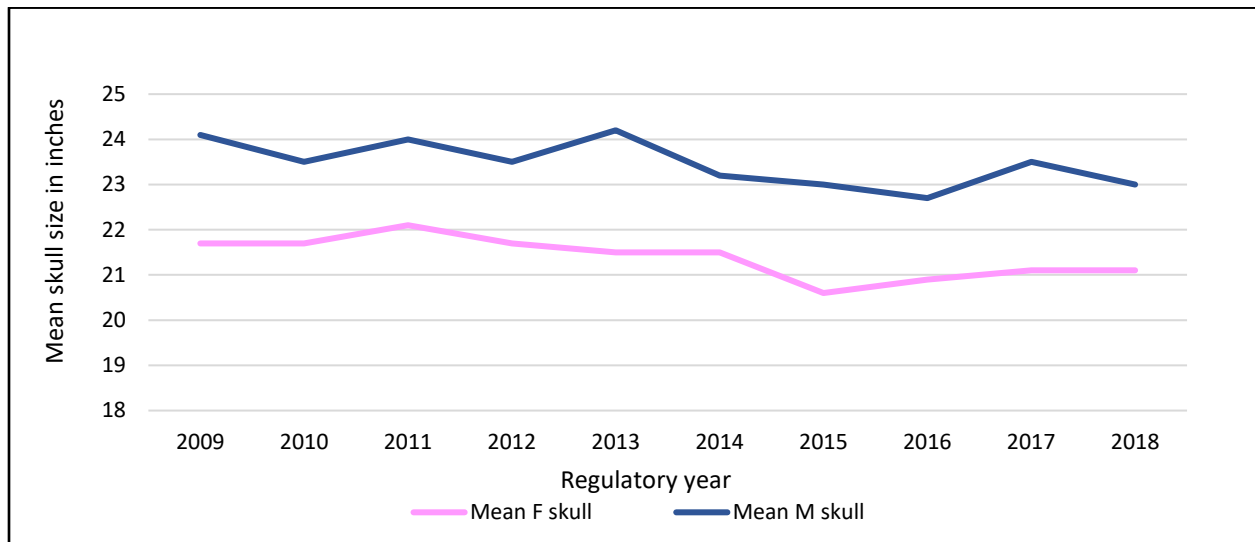


Figure 3. Mean total skull size of harvested female (F) and male (M) brown bears, regulatory years 2009–2018, Unit 17, Alaska.

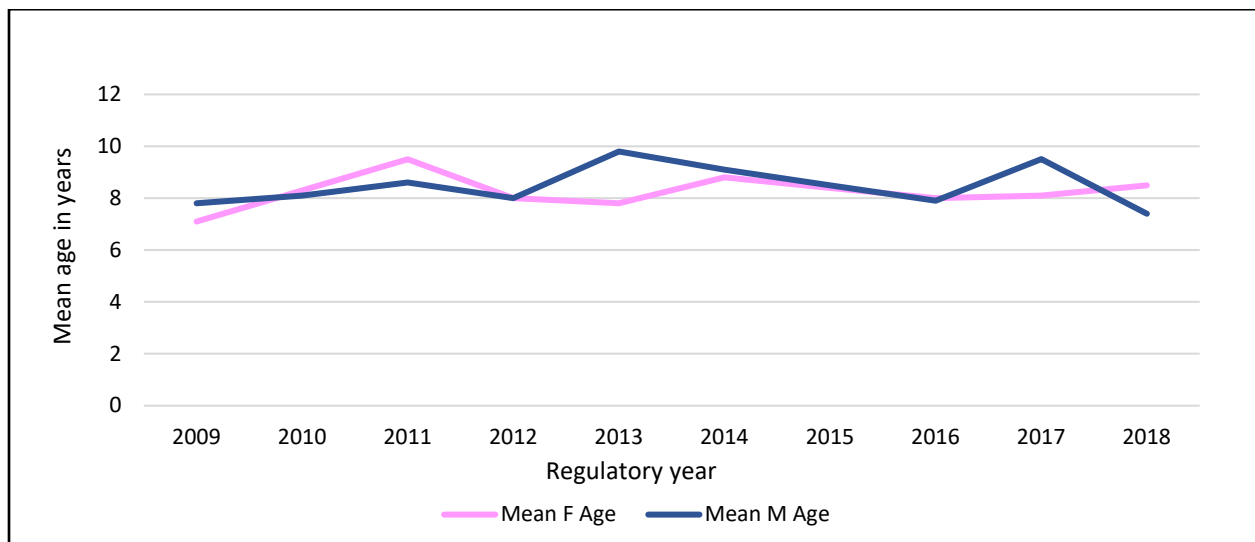


Figure 4. Mean age of female (F) and male (M) brown bears in the harvest, regulatory years 2009–2018, Unit 17, Alaska.

Table 2. Mean skull size of harvested brown bears in Unit 17, regulatory years 2009–2018, Alaska.

Regulatory year	Female				Male			
	Mean skull	<i>n</i> skull	Mean age	<i>n</i> age	Mean skull	<i>n</i> skull	Mean age	<i>n</i> age
2009	21.7	43	7.1	39	24.1	79	7.8	77
2010	21.7	59	8.3	58	23.5	76	8.1	73
2011	22.1	59	9.5	57	24.0	100	8.6	100
2012	21.7	60	8.0	55	23.5	76	8.0	73
2013	21.5	49	7.8	43	24.2	63	9.8	61
2014	21.5	32	8.8	28	23.2	41	9.1	38
2015	20.6	29	8.4	30	23.0	34	8.5	34
2016	20.9	23	8.0	21	22.7	26	7.9	25
2017	21.1	24	8.1	24	23.5	24	9.5	23
2018	21.1	29	8.5	26	23.0	26	7.4	25

Harvest Chronology

Most RY14–RY18 brown bear harvest in Unit 17 occurred in fall during August or September (Fig. 5).

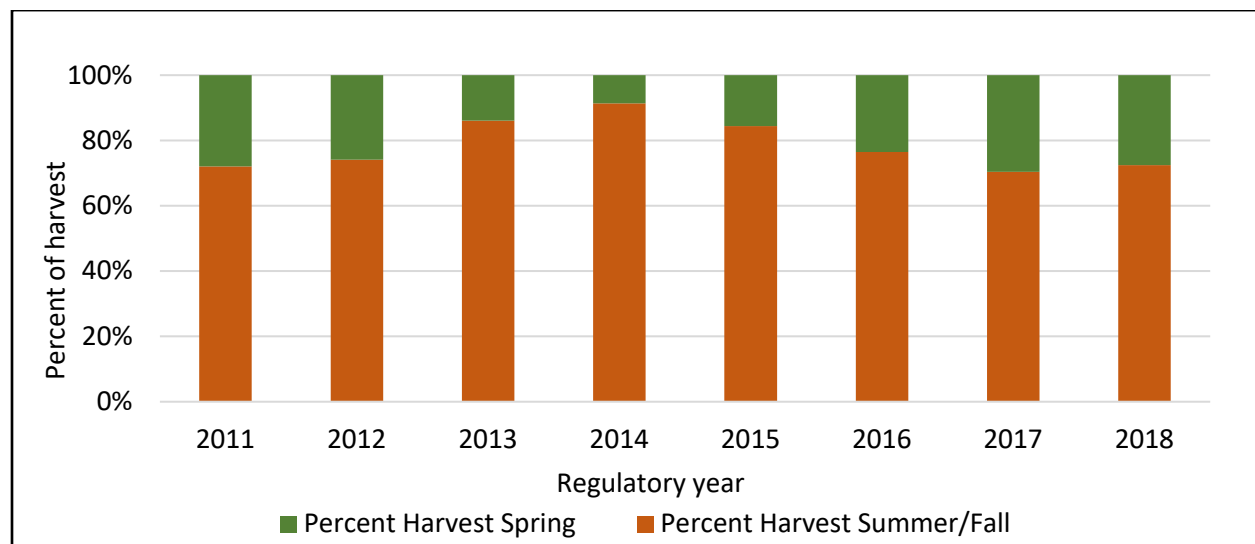


Figure 5. Brown bear harvest chronology, percentage of brown bears harvested by season, Unit 17, Alaska.

Transport Methods

The most common mode of transportation used to harvest brown bears in Unit 17 was airplane, followed by boat, then snow machine. Hunters occasionally walked or used an all-terrain vehicle (ATV; Table 3).

Table 3. Unit 17 brown bear harvest percent by transport method, Alaska, regulatory years 2009–2018.

Regulatory year	Airplane	Boat	ATV ^a	Snow-machine	Walk, ski, snowshoe	Unknown	Total no. harvested
2009	65	18	1	12	—	3	127
2010	55	26	—	14	1	4	139
2011	54	23	—	16	2	4	169
2012	53	31	1	13	2	—	143
2013	59	28	—	5	6	2	116
2014	63	29	1	4	4	—	80
2015	63	31	—	6	—	—	64
2016	65	29	2	4	—	—	51
2017	64	13	—	16	2	5	55
2018	48	26	—	12	12	2	66

Note: Total number harvested may include transport by 1 or 2 other methods. En dashes represent no data.

^a ATV stands for all-terrain vehicle.

Other Mortality

There were 6 illegally harvested brown bears reported in RY14–RY18. There were 11 brown bears taken in defense of life or property.

Alaska Board of Game Actions and Emergency Orders

None during RY14–RY18. Figure 6 includes a summary of regulations with reported harvest of brown bears in Unit 17.

Recommendations for Activity 2.1

Continue sealing requirements. Evaluate the conversion to registration permit hunts. Evaluate the currency of management objectives.

3. Habitat Assessment-Enhancement

No habitat assessment or enhancement activities occurred in Unit 17 during RY14–RY18.

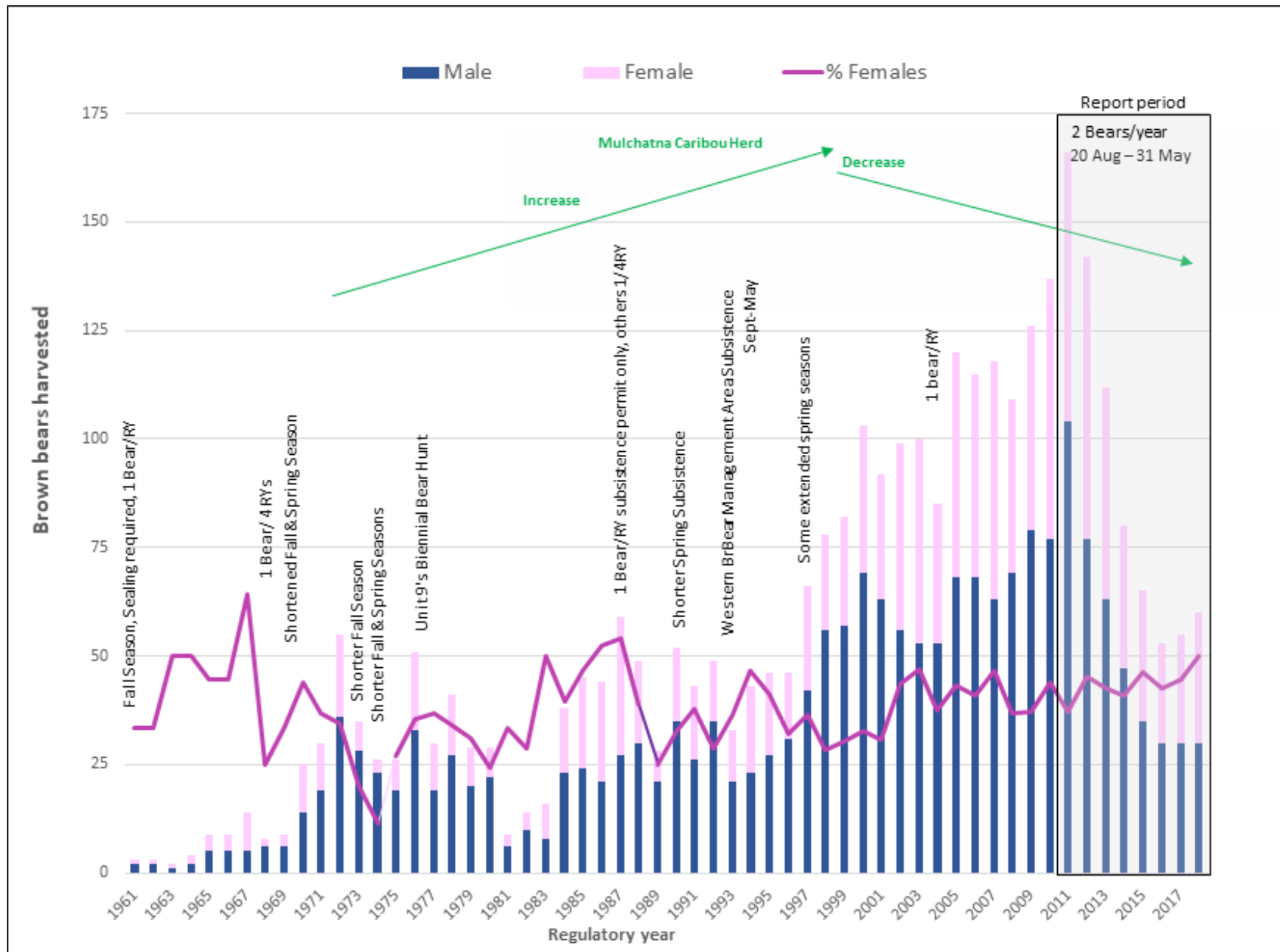


Figure 6. Unit 17 regulations history correlated to the reported harvest of brown bears, Alaska.

NONREGULATORY MANAGEMENT PROBLEMS OR NEEDS

Eleven brown bears (7 male, 2 female, 2 unknown sex) were reported killed in defense of life or property in Unit 17 during RY14–RY18.

Landfills have long been an attractant for brown bears in Unit 17 communities, including Dillingham. Over the past 8 years, ADF&G wildlife biologists have consistently provided information to landfill managers, city and village councils, and the public on how to reduce and prevent conditions that lead to nuisance bears. In Dillingham, there is usually a fish grinder available to the public at the Nushagak River to dispose of fish waste. This is helpful but not consistently functional or available. Some community landfills have made improvements in their methods and increased diligence by providing alternative means for disposing of fish waste, installing electric fencing, and/or covering and incinerating trash. However, random disposal of fish waste continues to occur by the public on landfill properties and surrounding areas. Additionally, many people continue to feed their pets outside and do not keep their property clean of pet food. These issues are addressed through city or community ordinance and education and outreach. Outreach efforts must be conducted yearly and have limited success.

In nearby Unit 9, a village brown bear hunt was implemented in part for public safety. Although many permits are issued for this hunt each year, few bears are harvested in communities. There is some benefit in removing a specific bear that is known to be a problem. However, when landfills are not excluding bears, and the public does not adhere to ordinance or follow guidance in prevention, instances of bears becoming habituated and food-conditioned will continue.

Data Recording and Archiving

Digital data are backed up daily on an inhouse server (O:\WC-DIV). Paper records are stored in in the Dillingham area wildlife biologist's office. Archived records are also stored in file cabinets and indexed in labeled boxes (O:\WC-DIV\Admin Dillingham Area Office\Filing system\archived filing system index).

Agreements

There were no agreements with other agencies pertaining to brown bear management in Unit 17 during RY14–RY18.

Permitting

No permits were required to conduct bear management in Unit 17 during RY14–RY18.

Conclusions and Management Recommendations

During this reporting period, brown bear harvest continued to occur predominantly in Unit 17B with a continuing decline in take of both sexes despite increased opportunity in recent years (2 bear bag limit, extended season). There was no trend in mean skull size or age of harvested males and females.

Efforts should be made to enumerate the brown bear populations density, abundance, and demographics to better understand and manage this population. A near-community hunt could be considered to increase public participation in brown bear harvest and to legally remove problem brown bears near settlements.

II. Project Review and RY19–RY23 Plan

Review of Management Direction

MANAGEMENT DIRECTION

Direction, goals, and guidelines from *Alaska Wildlife Management Plans: Southwestern Alaska* (ADF&G 1976) have been used by the department over the years to provide guidance when informing the Alaska Board of Game (BOG).

EXISTING WILDLIFE MANAGEMENT PLANS

- *Alaska Wildlife Management Plans: Southwestern Alaska* (ADF&G 1976).
- *Strategic Plan* (ADF&G 2002).

GOALS

- Provide the greatest opportunity to participate in hunting brown bears.
- Provide an opportunity to hunt under aesthetically pleasing conditions.

CODIFIED OBJECTIVES

Amounts Reasonably Necessary for Subsistence Uses

The Alaska Board of Game has made a positive finding for customary and traditional use of brown bears in Unit 17. The amount necessary for subsistence (ANS; 5 AAC 99.025) is 5 brown bears in Unit 17A and the Nuyakuk and Tikchik Lake portions of Unit 17B; and 10–15 brown bears in Units 17B and 17C.

Intensive Management

Not applicable.

MANAGEMENT OBJECTIVES

Current management objectives may not be appropriate for Unit 17 brown bears.

- Maintain a brown bear population that will sustain an annual harvest of 50 bears composed of at least 50% males.
- Decrease human-bear conflicts by utilizing educational outreach programs with local communities and residents.

REVIEW OF MANAGEMENT ACTIVITIES

1. Population Status and Trend

Department biologists will continue to record observations of brown bears by pilots, hunters, staff working in the unit, and other users of the backcountry.

2. Mortality-Harvest Monitoring

ACTIVITY 2.1. Monitor brown bear harvest through sealing records.

Data Needs

Since 1961 all brown bears harvested in Unit 17 have been legally required to be sealed. These data are used to monitor trends in bear harvest and evaluate potential impacts to the brown bear population. Harvest can provide an index of abundance and trend, sometimes revealing abrupt increases, peaks, or declines in harvest over several years of similar hunting pressure.

Methods

Data collected during the sealing process includes location of harvest, sex, age, hide and skull measurement, commercial services or guides used, method of transportation, and method of take. Sealing is required to be conducted by an authorized ADF&G staff member, or a state-appointed sealer within 30 days of the kill. These data will be entered and stored in WinfoNet.

3. Habitat Assessment-Enhancement

No habitat assessment or enhancement activities are planned for the RY19–RY23 period.

NONREGULATORY MANAGEMENT PROBLEMS OR NEEDS

A registration permit would provide information such as total number of hunters and total days hunted, providing an objective assessment of effort. Additionally, cumulative hunter effort can be an important indicator of population trends. Existing management and goals are not sufficient to inform the management of brown bears in Unit 17. Given the lack of hunter effort information available and no survey-inventory work in Unit 17, it is unclear if current seasons and bag limits are adequate for maintaining a viable population of brown bears.

Data Recording and Archiving

Digital data will be backed up daily on an inhouse server (O:\WC-DIV). Paper records will be stored in the Dillingham area wildlife biologist's office. Archived records will also be stored in file cabinets and indexed in labeled boxes (O:\WC-DIV\Admin Dillingham Area Office\Filing system\archived filing system index).

Agreements

There are no agreements anticipated with other agencies pertaining to brown bear management in Unit 17 during RY19–RY23.

Permitting

No permits are required to conduct planned bear management activities in Unit 17 during RY19–RY23.

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Appendix. Historical seasons and bag limits for brown bear in Unit 17, southwest Alaska.

Regulatory year (RY)	Unit	Hunter residency	Season		Bag limit ¹
Early RY60s–RY68	17	not defined	Fall	1 Sep–31 Dec	1 bear per RY
RY61 spring season, sealing required	17		Fall Spring	1 Sep–15 Dec 15 May–15 June	1 bear per RY
RY62 sealing required	17		Fall Spring	1 Sep–15 Dec 15 May–15 June	1 bear per RY
RY63 sealing required	17		Fall Spring	1 Sep–31 Dec 15 May–15 June	1 bear per RY
RY64 sealing required	17		Fall Spring	1 Sep–31 Dec 15 May–15 June	1 bear per RY
RY65 sealing required	17		Fall Spring	1 Sep–31 Dec 15 May–15 June	1 bear per RY
RY66 sealing required	17		Fall Spring	1 Sep–31 Dec 15 May–15 June	1 bear per RY
RY67 sealing required	17		Fall Spring	1 Sep–31 Dec 15 May–15 June	1 bear per RY
RY68 1 bear/4 RYs, sealing required	17		Fall Spring	1 Sep–31 Dec 15 May–15 June	1 bear per 4 RY
RY69 shortened fall and spring seasons, 1 bear/4 RYs, sealing required	17		Fall Spring	1 Sep–15 Oct 15 May–15 June	1 bear per 4 RY
RY70 shortened fall and spring season, 1 bear/4 RYs, sealing required	17		Fall Spring	1 Sep–15 Oct 15 May–10 Jun	1 bear per 4 RY
RY71 shortened fall and spring season, 1 bear/4 RYs, sealing required	17		Fall Spring	1 Sep–15 Oct 15 May–10 Jun	1 bear per 4 RY
RY72 shortened fall and spring season, 1 bear/4 RYs, sealing required	17		Fall Spring	1 Sep–15 Oct 15 May–10 Jun	1 bear per 4 RY

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Regulatory year (RY)	Unit	Hunter residency	Season	Bag limit ¹	
RY73 shorter fall season, 1 bear/4 RYs, sealing required	17		Fall Spring	7–21 Oct 15 May–10 Jun	1 bear per 4 RY
RY74 shorter spring season, 1 bear/4 RYs, sealing required	17		Fall Spring	7–21 Oct 10–25 May	1 bear per 4 RY
RY75 shorter fall and spring seasons, 1 bear/4 RYs, sealing required	17		Fall Spring	7–21 Oct 10–25 May	1 bear per 4 RY 1 bear per 4 RY
RY76 shorter fall and spring seasons, 1 bear/4 RYs, sealing required	17		Fall Spring	7–21 Oct 10–25 May	1 bear per 4 RY 1 bear per 4 RY
RY77 shorter fall and spring seasons, 1 bear/4 RYs, sealing required	17		Fall Spring	7–21 Oct 10–25 May	1 bear per 4 RY 1 bear per 4 RY
RY78 shorter fall and spring seasons, 1 bear/4 RYs, sealing required	17		Fall Spring	7–21 Oct 10–25 May	1 bear per 4 RY 1 bear per 4 RY
RY79 shorter fall and spring seasons, 1 bear/4 RYs, sealing required	17		Fall Spring	7–21 Oct 10–25 May	1 bear per 4 RY 1 bear per 4 RY
RY80 shorter fall and spring seasons, 1 bear/4 RYs, sealing required	17		Fall Spring	7–21 Oct 10–25 May	1 bear per 4 RY 1 bear per 4 RY
RY81 shorter fall and spring seasons, 1 bear/4 RYs, sealing required	17		Fall Spring	7–21 Oct 10–25 May	1 bear per 4 RY 1 bear per 4 RY
RY82 even shorter fall and spring seasons, 1 bear/4 RYs, sealing required	17		Fall Spring	7–21 Oct 10–25 May	1 bear per 4 RY 1 bear per 4 RY
RY83 even shorter fall and spring seasons, 1 bear/4 RYs, sealing required	17		Fall Spring	7–21 Oct 10–25 May	1 bear per 4 RY 1 bear per 4 RY
RY84 extended fall seasons by subunits, shorter spring season, 1 bear/4 RYs, sealing required	17A, 17C		Fall Spring	20 Sep–20 Oct 10–25 May	1 bear per 4 RY
	17B		Fall Spring	10 Sep–10 Oct 10–25 May	

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Regulatory year (RY)	Unit	Hunter residency	Season		Bag limit ¹
RY85 extended fall seasons by subunits, shorter spring season, 1 bear/4 RYs, sealing required	17A, 17C		Fall	20 Sep–20 Oct	1 bear per 4 RY
	17B		Spring	10–25 May	
RY86 subsistence permit by subunit, 1 bear/RY fall or spring, extended fall seasons by subunits, shorter spring season, 1 bear/4 RYs, sealing required	17A and 17C	Residents only	Fall 1 st subsistence	10 Sep–10 Oct	1 bear per RY by subsistence permit only
		or	Spring subsistence	10 Apr–25 May	
	17B	Residents only	Fall subsistence	10 Sep–10 Oct	
			Spring subsistence	10–25 May	
	All other hunters	Both	Fall	10 Sep–10 Oct	1 bear per 4 RY
			Spring	10–25 May	
RY87 subsistence permit by subunit, 1 bear/RY fall or spring, extended fall seasons by subunits, shorter spring season, 1 bear/4 RYs, sealing required	17A and 17C	Residents only	Fall subsistence	10 Sep–10 Oct	1 bear per RY by permit only
		or	Spring subsistence	10 Apr–25 May	
	17B	Residents only	Fall subsistence	10 Sep–10 Oct	
			Spring subsistence	10–25 May	
	All other hunters	Both	Fall	10 Sep–10 Oct	1 bear per 4 RY
			Spring	10–25 May	

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Regulatory year (RY)	Unit	Hunter residency	Season		Bag limit ¹
RY88 subsistence permit by subunit, 1 bear/R Y fall or spring, extended fall seasons by subunits, shorter spring season, 1 bear/4 R Ys, sealing required	17A, 17C	Residents only	Fall-subsistence	10 Sep–10 Oct	1 bear per R Y by permit only
		OR	Spring-subsistence	10 Apr–25 May	
	17B	Residents only	Fall subsistence	10 Sep–10 Oct	
			Spring subsistence	10–25 May	
	All other hunters	Both	Fall Spring	10 Sep–10 Oct 10–25 May	1 bear per 4 R Y
RY89 subsistence permit by subunit, 1 bear/R Y fall or spring, extended fall seasons by subunits, shorter spring season, 1 bear/4 R Ys, sealing required	17A, 17C	Residents only	Fall subsistence	10 Sep–10 Oct	1 bear per R Y by permit only
		or	Spring subsistence	10 Apr–25 May	
	17B	Residents only	Fall subsistence	20 Sep–20 Oct	
			Spring subsistence	10–25 May	
	17A, 17C	Both	Fall Spring	10 Sep–10 Oct 10–25 May	1 bear per 4 R Y
	17B	Both	Fall Spring	20 Sep–10 Oct 10–25 May	

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Regulatory year (RY)	Unit	Hunter residency	Season		Bag limit ¹
RY90 subsistence permit by subunit, 1 bear/Ry fall or spring, extended fall seasons by subunits, shorter spring season, 1 bear/4 RYs, sealing required	17A, 17C	Residents only	Fall subsistence	10 Sep–10 Oct	1 bear/Ry by permit only
		or	Spring subsistence	10–25 May	
	17B	Residents only	Fall subsistence	20 Sep–10 Oct	
		or	Spring-subsistence	10–25 May	
	17A, 17C	Both	Fall	10 Sep–10 Oct	1 bear every 4 RYs
	17B	Both	Spring	10–25 May	
RY91 subsistence permit by subunit, 1 bear/Ry fall or spring, extended fall seasons by subunits, shorter spring season, 1 bear/4 RYs, sealing required	17A, 17C	Residents only	Fall-subsistence	10 Sep–10 Oct	1 bear/Ry by permit only
		or	Spring-subsistence	10–25 May	
	17B	Residents only	Fall-subsistence	20 Sep–10 Oct	
	17A, 17C	Both	Fall	10 Sep–10 Oct	1 bear per 4 RY not additional to subsistence
	17B	Both	Spring	10–25 May	

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Regulatory year (RY)	Unit	Hunter residency	Season		Bag limit ¹
RY92 subsistence permit subunit, extended subsistence, 1 bear/Ry fall or spring, extended fall seasons by subunits, shorter spring season, 1 bear/4 RYs sealing required	17A, 17C	Both	Fall Spring	10 Sep–10 Oct 10–25 May	1 bear per 4 RY
	17A, 17B WBMA ²	Residents only	Subsistence only	1 Sep–31 May	1 bear every RY by permit only
	17B	Both	Fall Spring	20 Sep–10 Oct 10–25 May	1 bear per 4 RY not additional to subsistence
RY93 subsistence permit subunit, extended subsistence, 1 bear/Ry fall or spring, extended fall seasons by subunits, shorter spring season, 1 bear/4 RYs, sealing required	17A and 17C	Both	Fall Spring	10 Sep–10 Oct 10–25 May	1 bear per 4 RY
	17A and 17B WBMA ²	Residents only	Subsistence only	1 Sep–31 May	1 bear every RY by permit only
	17B	Both	Fall Spring	20 Sep–10 Oct 10–25 May	1 bear per 4 RY not additional to subsistence
RY94 subsistence permit subunit, extended subsistence, 1 bear/Ry fall or spring, extended fall seasons by subunits, shorter spring season, 1 bear/4 RYs, sealing required	17A and 17C	Both	Fall Spring	Sept 10–Oct 10 10–25 May	1 bear per 4 RY
	17A and 17B WBMA ²	Residents only	Subsistence only	1 Sep–31 May	1 bear per RY by permit only
	17B	Both	Fall Spring	20 Sep–10 Oct 10–25 May	1 bear per 4 RY not additional to subsistence

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Regulatory year (RY)	Unit	Hunter residency		Season	Bag limit ¹
RY95 subsistence permit subunit, extended subsistence, 1 bear/Ry fall or spring, extended fall seasons by subunits, shorter spring season, 1 bear/4 RYs, sealing required	17A, 17B WBMA ²	Residents only	Subsistence only	1 Sep–31 May	1 bear per RY by permit only
	17A WBMA ²	Residents only		10 Sep–10 Oct	1 bear per 4 RY
				or 10–25 May	
		Nonresidents		10 Sep–10 Oct	1 bear per 4 RY
				or 10–25 May	
	17B WBMA ²	Residents only		20 Sep–10 Oct	1 bear per 4 RY
				or 10–25 May	
		Nonresidents		10 Sep–10 Oct	1 bear per 4 RY
				or 10–25 May	
	17 Remainder	Both or	Fall Spring	20 Sep–10 Oct 10–25 May	1 bear per 4 RY
RY96 subsistence permit by subunit, 1 bear/RY fall or spring, extended fall seasons by subunits, shorter spring season, 1 bear/4 RYs, sealing required	17A, 17B WBMA ² Registration	Residents only	Subsistence only	1 Sep–31 May	1 bear per RY by permit only
	17A, 17C	Both		10 Sep–10 Oct	1 bear per 4 RY
				or 10–25 May	
	17B	Both		20 Sep–10 Oct	1 bear per 4 RY
				or 10–25 May	
RY97 extended some spring seasons	17A, 17B WBMA ² Registration	Residents only	Subsistence only	1 Sep–31 May	1 bear per 4 RY
	17A, 17C	Both		10 Sep–10 Oct	1 bear per 4 RY
				or 15 Apr–25 May	
	17B	Both		20 Sep–10 Oct	1 bear per 4 RY
				or 15 Apr–25 May	

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Regulatory year (RY)	Unit	Hunter residency		Season	Bag limit ¹
RY98 extended some spring seasons	17A, 17C	Both		10 Sep–10 Oct or 15 Apr–25 May	1 bear per 4 RY
	17B	Both		20 Sep–10 Oct or 15 Apr–25 May	1 bear per 4 RY
	Remainder of Unit 17 WBMA ² Registration	Residents only	Subsistence only	1 Sep–31 May	1 bear per RY by permit only
RY99 subsistence permit by subunit, 1 bear/RY fall or spring, extended fall seasons by subunits, shorter spring season, 1 bear/4 RYs, sealing required	17A, 17B WBMA ²	Residents only	Subsistence only	1 Sep–31 May	1 bear per RY by permit only
	17A, 17C	Both		10 Sep–10 Oct or 15 Apr–25 May	1 bear per 4 RY
	17B	Both		20 Sep–10 Oct or Apr 15–May 25	1 bear per 4 RY
RY00	17A, 17 B WBMA ² Registration	Residents only	Subsistence only	1 Sep–31 May	1 bear per RY by permit only
	17A, 17C	Both		10 Sep–10 Oct or 15 Apr– 25 May	1 bear per 4 RY
	17B	Both		20 Sep–10 Oct or 15 Apr– 25 May	1 bear per 4 RY
RY01	17A, 17B WBMA ² Registration	Residents only	Subsistence only	1 Sep–31 May	1 bear per RY by permit only
	17A and 17C	Both		10 Sep–10 Oct or 15 Apr– 25 May	1 bear per 4 RY
	17B	Both		20 Sep–10 Oct or 15 Apr– 25 May	1 bear per 4 RY

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Regulatory year (RY)	Unit	Hunter residency		Season	Bag limit ¹
RY02	17A, 17B WBMA ² Registration	Residents only	Subsistence only	1 Sep–31 May	1 bear per RY by permit only
	17A and 17C	Both		10 Sep–25 May or 15 Apr–25 May	1 bear per 4 RY
	17B	Both		20 Sep–25 May or 15 Apr–25 May	1 bear per 4 RY
RY03 1 bear/R Y	17A, 17B WBMA ² Registration	Residents only	Subsistence only	1 Sep–31 May	1 bear per RY by permit only
	17A, 17C	Both		10 Sep–25 May	1 bear per RY
	17B the portion in Chilchitna River drainage	Both		10 Sep–25 May	1 bear per RY
	17B Remainder	Both		20 Sep–25 May	1 bear per RY
RY04	17A, 17B WBMA ² Registration	Residents only	Subsistence only	1 Sep–31 May	1 bear per RY by permit only
	17A, 17C	Both		10 Sep–25 May	1 bear per RY
	17B the portion in Chilchitna River drainage	Both		10 Sep–25 May	1 bear per RY
	17B Remainder	Both		20 Sep–25 May	1 bear per RY
RY05 R and NR 1bear/R Y Registration subsistence, Unit 17 wide, both resident and nonresident, extended single season	17	Residents only	RB500 subsistence	1 Sep–31 May	1 bear per RY
		Both		10 Sep–25 May	1 bear per RY
RY06 Registration subsistence, unitwide, both resident and nonresident, extended single season	17	Residents only	RB500 subsistence	1 Sep–31 May	1 bear per RY
		Both		10 Sep–25 May	1 bear per RY

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Regulatory year (RY)	Unit	Hunter residency	Season	Bag limit ¹
RY07 Registration subsistence, unitwide, both resident and nonresident, extended single season	17	Residents only	RB500 subsistence 1 Sep–31 May	1 bear per RY
		Both	10 Sep–25 May	1 bear per RY
RY08 Registration subsistence, unitwide, both resident and nonresident, extended single season	17	Residents only	RB500 subsistence 1 Sep–31 May	1 bear per RY
		Both	10 Sep–25 May	1 bear per RY
RY09 Registration subsistence, unitwide, both resident and nonresident, extended single season	17	Residents only	RB500 subsistence 1 Sep–31 May	1 bear per RY
		Both	1 Sep–May 25	1 bear per RY
RY10 Registration subsistence, unitwide, both resident and nonresident, extended single season	17	Residents only	RB500 subsistence 1 Sep–31 May	1 bear per RY
		Both	1 Sep–25 May	1 bear per RY
RY11 Registration subsistence, unitwide, both resident and nonresident, extended single season	17	Residents only	RB500 subsistence 20 Aug–31 May	2 bears per RY
		Both	20 Aug–31 May	2 bears per RY
RY12 Registration subsistence, unitwide, both resident and nonresident, extended single season	17	Residents only	RB500 subsistence 20 Aug–31 May	2 bears per RY
		Both	20 Aug–31 May	2 bears per RY
RY13 Registration subsistence, unitwide, both resident and nonresident, extended single season	17	Residents only	RB500 subsistence 20 Aug–31 May	2 bears per RY
		Both	20 Aug–31 May	2 bears per RY
RY14 Registration subsistence, unitwide, both resident and nonresident, extended single season	17	Residents only	RB500 subsistence 20 Aug–31 May	2 bears per RY
		Both	20 Aug–31 May	2 bears per RY
RY15 Registration subsistence, Unit 17 wide, both resident and nonresident, extended single season	17	Residents only	RB500 subsistence 20 Aug–31 May	2 bears per RY
		Both	20 Aug–31 May	2 bears per RY

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Regulatory year (RY)	Unit	Hunter residency	Season	Bag limit ¹
RY16 Registration subsistence, unitwide, both resident and nonresident, extended single season	17	Residents only	RB500 subsistence 20 Aug–31 May	2 bears per RY
		Both	20 Aug–31 May	2 bears per RY
RY17 Registration subsistence, Unit 17 wide, both resident and nonresident, extended single season	17	Residents only	RB500 subsistence 20 Aug–31 May	2 bears per RY
		Both	20 Aug–31 May	2 bears per RY
RY18 Registration subsistence, Unit 17 wide, both resident and nonresident, extended single season	17	Residents only	RB500 subsistence 20 Aug–31 May	2 bears per RY
		Both	20 Aug–31 May	2 bears per RY

¹ Bag limit does not include cubs or sows with cubs.

² West Bear Management Area (WBMA).

