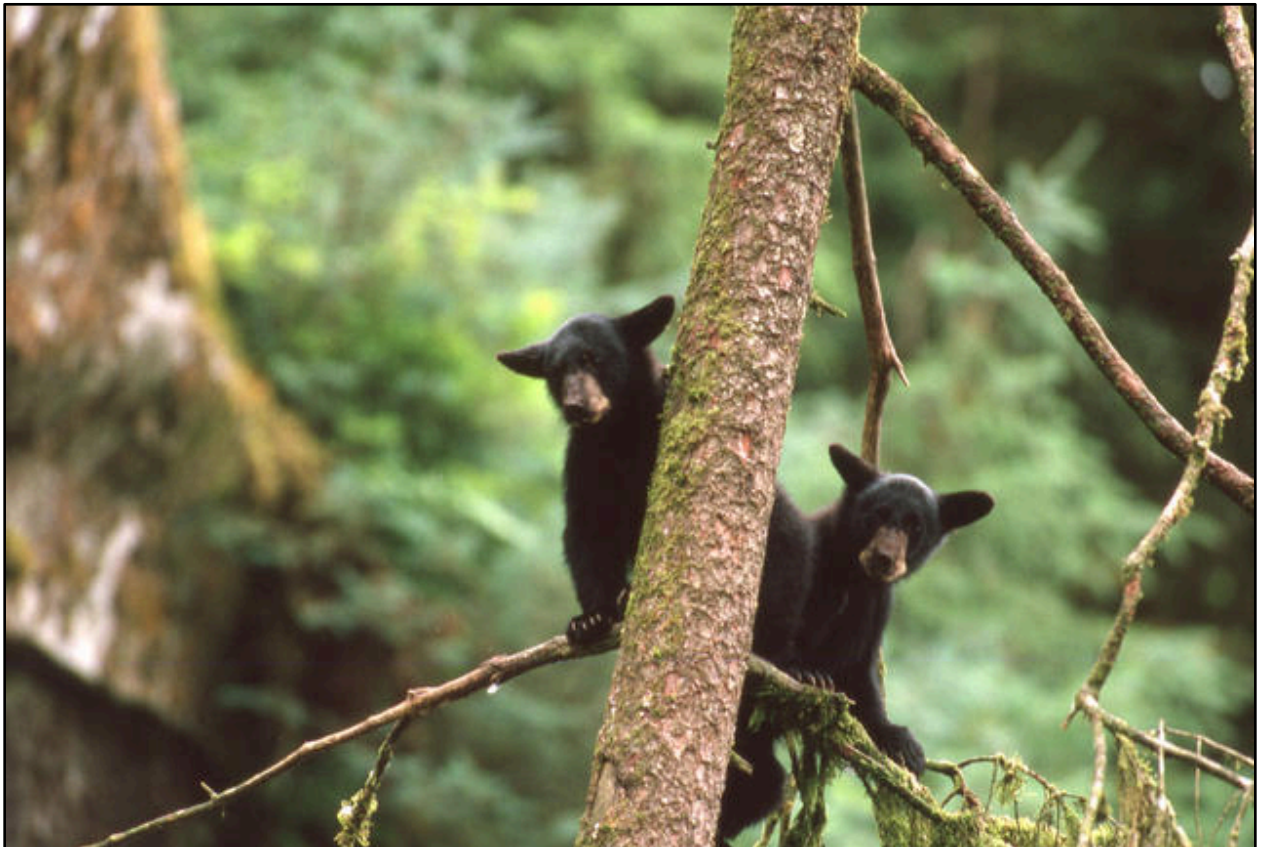


Black Bear Management Report and Plan, Game Management Unit 1A:

Report Period 1 July 2013–30 June 2018, and

Plan Period 1 July 2018–30 June 2023

Ross Dorendorf



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Report Period 1 July 2013–30 June 2018, and
Plan Period 1 July 2018–30 June 2023

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This funding provided support for Federal Aid in Wildlife Restoration Furbearer Survey and Inventory Project 17.0.

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.

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 Richard Nelson, Management Coordinator for the Division of Wildlife Conservation.

Species management reports and plans are available via the Alaska Department of Fish and Game's public website (www.adfg.alaska.gov) or by contacting Alaska Department of Fish and Game's Division of Wildlife Conservation, PO Box 115526, Juneau, AK 99811-5526; phone: (907) 465-4190; email: dfg.dwc.publications@alaska.gov. The report may also be accessed through most libraries, via interlibrary loan from the Alaska State Library or the Alaska Resources Library and Information Services (www.arlis.org).

This document, published in PDF format only, should be cited as:

Dorendorf, R. 2020. Black bear management report and plan, Game Management Unit 1A: 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-2020-27, Juneau.

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Cover Photo: Black bear cubs in tree. ©ADF&G 1990. Photo by Jon Hyde.

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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 Unit 1A for the 5 regulatory years 2013–2017 and plans for survey and inventory management activities in the following 5 regulatory 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 its own 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, department) Division of Wildlife Conservation (DWC) launched this 5-year report to more efficiently report on trends and 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

Unit 1A encompasses 5,252 mi² of the southern mainland and adjacent islands south of Lemesurier Point, including all drainages into Behm Canal, excluding all drainages into Ernest Sound, and bounded to the east and south by the Canadian border. The unit is bounded to the west by Clarence Strait. Larger islands included in the unit are Revillagigedo, Annette, and Gravina islands (Fig. 1). The Ketchikan Gateway Borough has an estimated population of 13,865 (U.S. Census Bureau 2018). Smaller outlying communities include Metlakatla (estimated population of 1,375), Hyder (est. pop. 87), and Meyers Chuck (est. pop. 25). Mean temperatures range from a low of 30°F (-1°C) in January to a high of 64°F (18°C) in August with 141 inches (358 cm) of rain annually (U.S. Climate Data 2019). The dominant habitat type in Unit 1A below 2,000 feet (600 m) elevation is temperate rain forest consisting of Sitka spruce (*Picea sitchensis*), western hemlock (*Tsuga heterophylla*), red cedar (*Thuja plicata*), and Alaska yellow cedar (*Chamaecyparis nootkatensis*). Other lower elevation habitats include muskeg and stands of red alder (*Alnus rubra*) and black cottonwood (*Populus balsamifera trichocarpa*) along major rivers and riparian areas. Old-growth forests are interspersed with a patchwork of even-aged forest stands at different successional stages resulting from extensive clear-cut logging and a few natural windthrow events. Mainland areas above 2,000 feet elevation are predominately rock, ice, and open alpine.

Most land in Unit 1A is administered by the U.S. Forest Service, including the 2.3 million-acre Misty Fjords National Monument. This monument is the largest wilderness area in Alaska’s national forests and the second largest in the nation. There are also private, state, and native lands within Unit 1A.

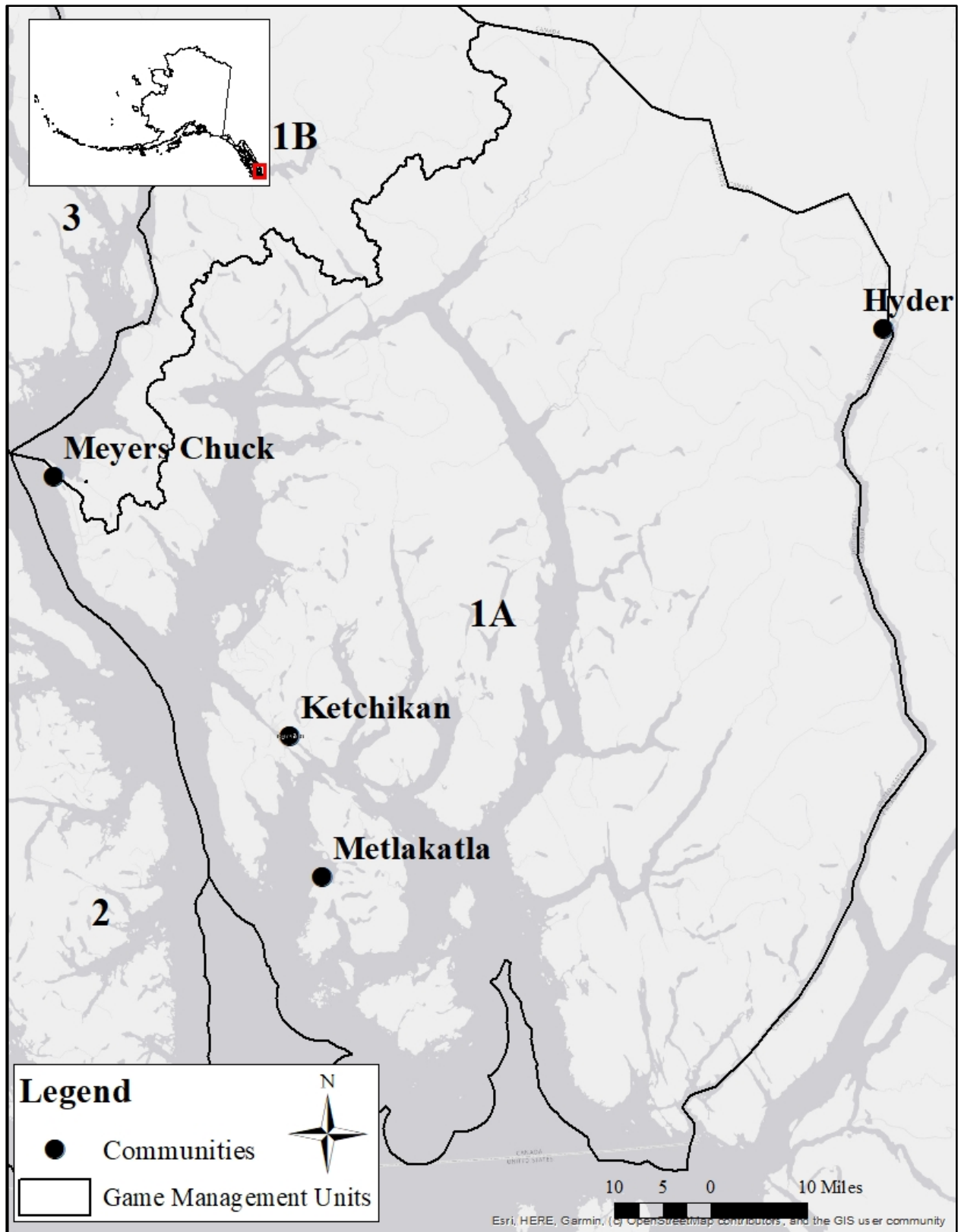


Figure 1. Map of Game Management Unit 1A boundaries, southern Southeast Alaska.

Summary of Status, Trend, Management Activities, and History of Black Bear in Unit 1A

There is a long tradition of hunting black bear in Unit 1A for food, hides, and skulls. The Alaska Department of Fish and Game (department) collects biological data through a mandatory sealing process from harvested bears. Harvest information gained from sealing records includes average skull sizes, average ages, and sex ratios that provide an indication of black bear population trends. The Board of Game (BOG) passed a proposal in 2008 that required black bear hunters to obtain a harvest ticket and report successful or unsuccessful harvest after the hunting season. Information from unsuccessful hunters could provide information for management but is not useful at this time because harvest ticket reporting by hunters is incomplete due to lack of reporting by hunters. BOG (2010) created a black bear draw hunt in Unit 1A (DL016) that was implemented in 2012 which reduced harvest in Unit 1A compared to previous regulatory years. Harvest from 2010 to 2011 averaged 80 bears per year compared to 55 bears taken in 2012 (Bethune and Porter 2014).

True black bear density in Unit 1A is unknown because density estimate studies in Southeast Alaska have not been conducted. Black bear density in Unit 1A was previously calculated based on studies that had been conducted in western Washington state, where black bear populations were estimated to be 1.4 bears/mi² (3.63/km²; Poelker and Hartwell 1973). Using information from western Washington and applying it to Unit 1A, Wood (1990) and Larsen (1995) calculated a slightly higher density of 1.5 bears/mi² for most of the forested islands, lower densities for the mainland, and less productive island habitats. However, black bear densities on nearby Kuiu Island that were estimated to be 0.58/mile² (1.51/km²; Peacock et al. 2011) may be more appropriate to use for management in the future.

Residents of Ketchikan and surrounding communities commonly call the department about human-bear conflicts. Tasks include responding to complaints, explaining proper garbage handling techniques and providing public safety precautions. Department staff work with the Alaska Wildlife Troopers (AWT), Ketchikan Police Department, and the Ketchikan Landfill Manager to reduce human-bear conflicts. Staff use public service messages and conduct local education programs for awareness and prevention of human-bear conflicts.

Management Direction

EXISTING WILDLIFE MANAGEMENT PLANS

There is no specific management plan for black bears in Unit 1A other than this 5-year species management report and plan, though general guidelines were created in 1976 and are followed for management (ADFG 1976).

GOALS

Provide opportunity for black bear hunting and viewing under the sustained yield principle using the best science available to benefit the people of Alaska and conserve black bear populations.

CODIFIED OBJECTIVES

Amounts Reasonably Necessary for Subsistence Uses

During the 2000 Board of Game meeting, there was a positive Cultural and Traditional finding for black bears in Unit 1A (5 AAC 99.025). During their 2008 meeting, the board set the amount necessary for subsistence (ANS) at 5–10 black bears for Unit 1A, outside the Ketchikan nonsubsistence area.

Intensive Management

There was no active intensive management for black bears in Unit 1A during RY13–RY17.

MANAGEMENT OBJECTIVES

1. Maintain a male to female harvest ratio of 3:1.
2. Maintain an average male spring skull size of 17.5 inches.
3. Minimize human-bear conflicts by providing information and assistance to the public and to other agencies.

MANAGEMENT ACTIVITIES

1. Population Status and Trend

No additional management activities other than harvest monitoring occurred during this reporting period.

2. Mortality-Harvest Monitoring and Regulations

ACTIVITY 2.1. Black bear sealing.

Data Needs

Black bear sealing data helps determine if management goals are being met. Determination of sex and skull size help monitor substantial change within the population.

Methods

Sealing refers to the process where hunters present the skull, hide, and/or meat of harvested black bears to an authorized ADF&G or appointed sealer where a locking tag is placed on the skull and hide, and biological information is collected at that time. During RY13–RY17, hunters were required to salvage the skull, hide, and meat from 1 January–31 May. They were also required to salvage the skull and meat, or the skull and hide from 1 June–31 December. Bears were required to be sealed within 30 days of kill. Biological and hunt information collected at the time of sealing included sex, skull size (length plus width), pelage color, date and location of kill, number of days hunted, transportation method, guide use, use of bait station, percent of meat salvaged, hunter use of commercial services, and nonhunting kill information. A premolar was

collected from bears and sent to Matson’s Laboratory in Manhattan, Montana for cementum annuli age determination.

Season and Bag Limit

Resident and nonresident hunting seasons and bag limits in Unit 1A, Southeast Alaska during regulatory years 2013 through 2017.

Hunter residency	Bag limit	Season
Resident	2 bears by harvest ticket, not more than 1 may be a blue or glacier bear	1 Sep–30 Jun
Nonresident	1 bear by harvest ticket with registered guide	1 Sep–30 Jun
Nonresident	1 bear, if not using a registered guide, hunting is by drawing permit only (DL016)	1 Sep–30 Jun

Results and Discussion

Harvest by Hunters

Annual black bear harvest was stable during the 5-year reporting period and averaged 68 black bears per year (range 56–76 black bears; Table 1; Fig. 2). Harvest during RY13–RY17 was lower than the previous reporting period (average 79, Bethune 2014). This decrease in harvest was due to a draw hunt (DL016) created in 2010 by BOG which went into effect in 2012.

The management goal of harvesting 3 males per female was met during this reporting period, except in RY14 (Table 1; Fig. 2). Black bear hunters targeted larger size bears which are mostly males, and regulations prohibit the harvest of cubs, or females with cubs (5 AAC 92.260). The skull size from RY13 to RY17 of spring male bears averaged 17.5 inches meeting the management objective (Table 2; Fig. 3). These management goals provide baseline information on harvested bears.

Hunter selectivity and harvest restrictions prevent the department from using harvest information to characterize the overall population (Gilbert et al. 1978; Bunnell and Tait 1980; Fraser et al. 1982). However, there has been a stable or increasing annual harvest, the targeted average male spring skull size of at least 17.5 inches has been maintained, and the harvest has been comprised of more males than females; this suggests that the black bear population in Unit 1A is healthy.

Black bear harvest was centered around access points near developed areas. A large percentage (86%) of the harvest occurred in WAAs 400–599, near Ketchikan on Revillagigedo Island (Table 3; Fig. 4). WAAs on the mainland can be difficult to access due to distance and weather, which impede travel.

Table 1. Unit 1A black bear mortality by sex, Southeast Alaska, regulatory years 2008–2017.

Regulatory year	Hunter kill				Nonhunting kill ^a			Total estimated kill				
	Male	Female	Total	Baited ^b	Male	Female	Total	# Male	% M	# Female	% F	Total
2008												
Fall 08	16	5	21	0	2	1	3	18	75.0	6	25.0	24
Spring 09	59	5	64	0	1	0	1	60	92.0	5	7.7	65
Total	75	10	85	0	3	1	4	78	88.0	11	12.0	89
2009												
Fall 09	12	6	18	0	0	0	0	12	67.0	6	33.0	18
Spring 10	52	7	59	0	1	0	1	53	88.0	7	12.0	60
Total	64	13	77	0	1	0	1	65	83.0	13	17.0	78
2010												
Fall 10	17	6	23	0	0	0	0	17	74.0	6	26.0	23
Spring 11	49	6	55	1	0	0	0	49	89.0	6	11.0	55
Total	66	12	78	1	0	0	0	66	85.0	12	15.0	78
2011												
Fall 11	14	5	19	0	0	5	5	14	58.0	10	42.0	24
Spring 12	54	12	66	4	1	0	1	55	82.0	12	18.0	67
Total	68	17	85	4	1	5	6	69	76.0	22	24.0	91
2012												
Fall 12	11	4	15	0	3	2	5	14	70.0	6	30.0	20
Spring 13	35	5	40	1	0	0	0	35	88.0	5	13.0	40
Total	46	9	55	1	3	2	5	49	82.0	11	18.0	60
2013												
Fall 13	13	7	20	0	0	0	0	13	65.0	7	35.0	20
Spring 14	40	4	44	0	1	0	1	41	91.0	4	8.9	45
Total	53	11	64	0	1	0	1	54	83.0	11	17.0	65

-continued-

Table 1. Page 2 of 2.

Regulatory year	Hunter Kill				Nonhunting kill ^a			Total estimated kill				
	Male	Female	Total	Baited ^b	Male	Female	Total	# Male	% M	# Female	% F	Total
2014												
Fall 14	9	10	19	0	0	0	0	9	47.0	10	53.0	19
Spring 15	31	6	37	1	0	0	0	31	84.0	6	16.0	37
Total	40	16	56	1	0	0	0	40	71.0	16	29.0	56
2015												
Fall 15	12	2	14	0	0	0	0	12	86.0	2	14.0	14
Spring 16	45	9	54	3	1	0	1	46	84.0	9	16.0	55
Total	57	11	68	3	1	0	1	58	84.0	11	16.0	69
2016												
Fall 16	9	8	17	0	5	2	7	14	58.0	10	42.0	24
Spring 17	42	6	48	2	0	0	0	42	88.0	6	13.0	48
Total	51	14	65	2	5	2	7	56	78.0	16	22.0	72
2017												
Fall 17	25	9	34	0	1	1	2	26	72.0	10	28.0	36
Spring 18	34	6	40	0	0	0	0	34	85.0	6	15.0	40
Total	59	15	74	0	1	1	2	60	79.0	16	21.0	76

^a Includes defense of life and property (DLP) kills, research mortalities, and other known human-caused mortality.

^b Bears reported harvested over bait.

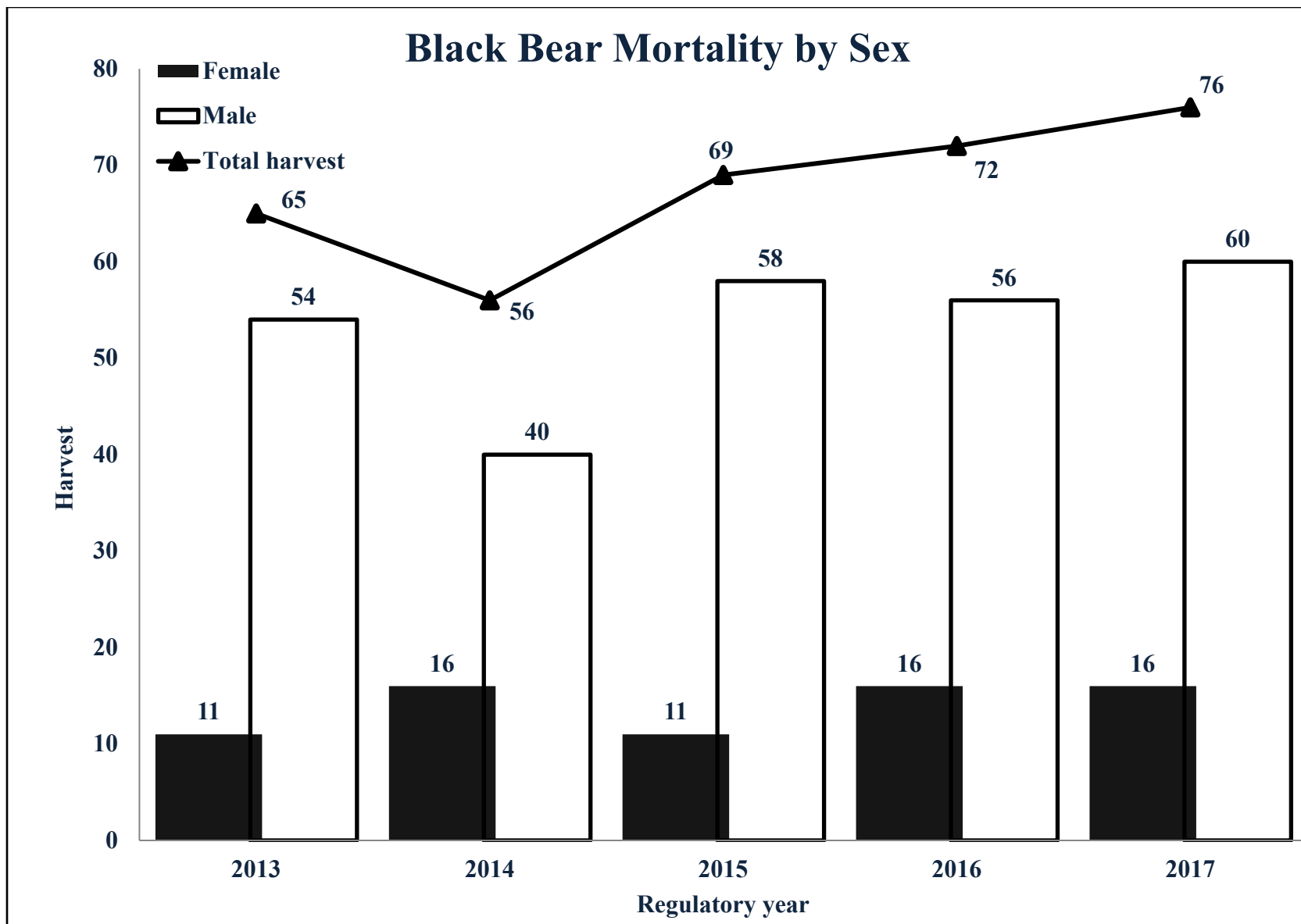


Figure 2. Unit 1A black bear harvest and other mortality by sex, Southeast Alaska, regulatory years 2013–2017.

Table 2. Hunting effort, average skull size, and average age of harvested black bears from Unit 1A, Southeast Alaska, regulatory years 2013–2017.

	Hunter effort ^a			Average skull size (inches)				Average age (years)			
	Days hunted	# Hunters	Avg days/hunter	Male	<i>n</i> ^b	Female	<i>n</i> ^b	Male	<i>n</i> ^b	Female	<i>n</i> ^b
2013											
Fall 13	34	20	1.7	16.7	13	14.3	7	8.8	11	12.5	5
Spring 14	114	43	2.7	18.1	40	16.2	4	9.4	36	11.3	4
Average	74	32	2.3	17.4	27	15.2	6	9.3	24	12.0	5
2014											
Fall 14	41	19	2.2	16.4	9	16.1	10	10.8	9	8.7	10
Spring 15	97	38	2.6	17.9	31	14.8	6	8.4	29	4.3	6
Average	69	29	2.4	17.1	20	15.5	8	8.9	19	7.1	8
2015											
Fall 15	41	14	2.9	16.7	12	15.7	2	6.4	11	8.5	2
Spring 16	200	54	3.7	17.3	45	15.8	9	7.9	44	10.8	9
Average	121	34	3.6	17.0	29	15.7	6	7.6	28	10.4	6
2016											
Fall 16	42	16	2.6	15.7	9	17.5	8	7.3	9	11.7	7
Spring 17	142	49	2.9	16.4	42	16.3	6	8.4	40	9.7	6
Average	92	33	2.8	16.1	26	16.9	7	8.2	25	10.8	7
2017											
Fall 17	83	33	2.5	15.9	24	13.3	9	5.4	22	8.4	9
Spring 18	110	41	2.7	18.0	34	15.5	6	9.1	34	10.2	6
Average	97	37	2.6	16.9	29	14.4	8	7.6	28	9.1	8

^a Hunting effort represents successful hunters only.

^b Sample size (*n*) does not represent all bears harvested. If skull size, or age of bears were missing, they were omitted from this table.

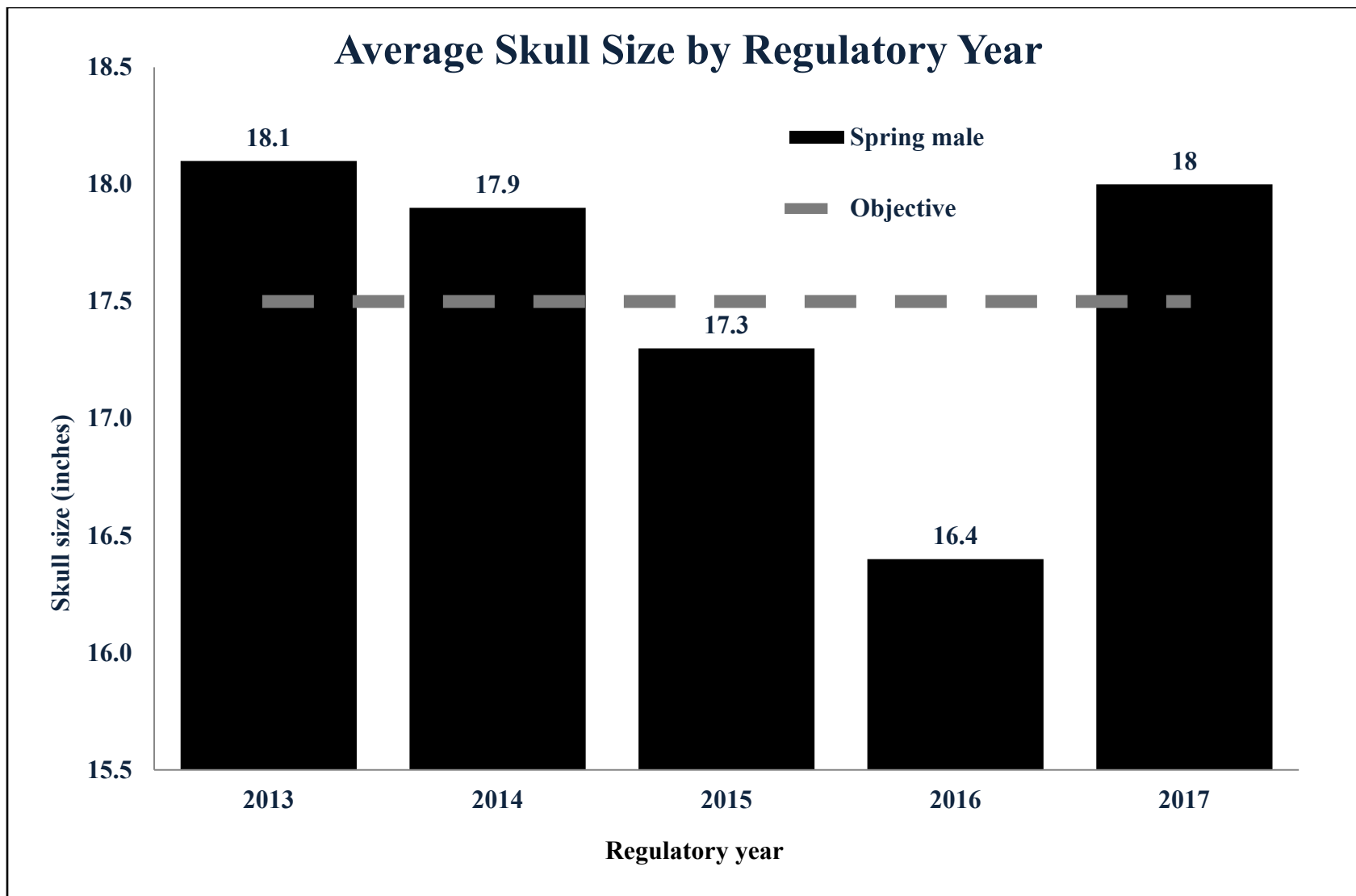


Figure 3. Average spring male black bear skull size (length plus width) in Unit 1A, Southeast Alaska, regulatory years 2013–2017. The management objective for skull size is 17.5 inches for spring male black bears.

Table 3. Black bear harvest by major harvest unit (MHU) and Wildlife Analysis Area (WAA) in Unit 1A, Southeast Alaska, regulatory years 2013–2017.

MHU	WAA	2013	2014	2015	2016	2017	Total
X01		4	1	0	1	1	7
	101	4	1	0	1	1	7
X04		28	46	48	38	42	202
	404	2	3	2	2	5	14
	405	0	1	4	5	0	10
	406	16	25	23	9	24	97
	407	9	16	18	19	9	66
	408	1	1	1	3	4	12
		18	6	11	19	24	78
X05	509	4	0	3	6	6	18
	510	13	6	8	13	18	58
	511	1	0	0	0	0	1
		2	0	1	0	0	3
X06	613	1	0	1	0	0	2
	614	1	0	0	0	0	1
		3	2	1	2	1	9
X07	715	1	1	0	0	0	2
	716	0	0	0	1	0	1
	717	1	0	1	1	0	3
	719	1	1	0	0	1	2
		8	1	6	5	6	26
	820	2	1	0	0	0	3
X08	821	0	0	1	0	0	1
	822	2	0	2	3	0	7
	823	4	0	3	1	2	10
	824	0	0	0	0	2	2
	825	0	0	0	1	1	2
	826	0	0	0	0	1	1
		63	56	67	65	74	325
	MHU Total						

Note: WAAs not shown received no harvest. Each major is comprised of multiple WAAs. For example, MHU X04 is comprised of all WAAs starting with 4.

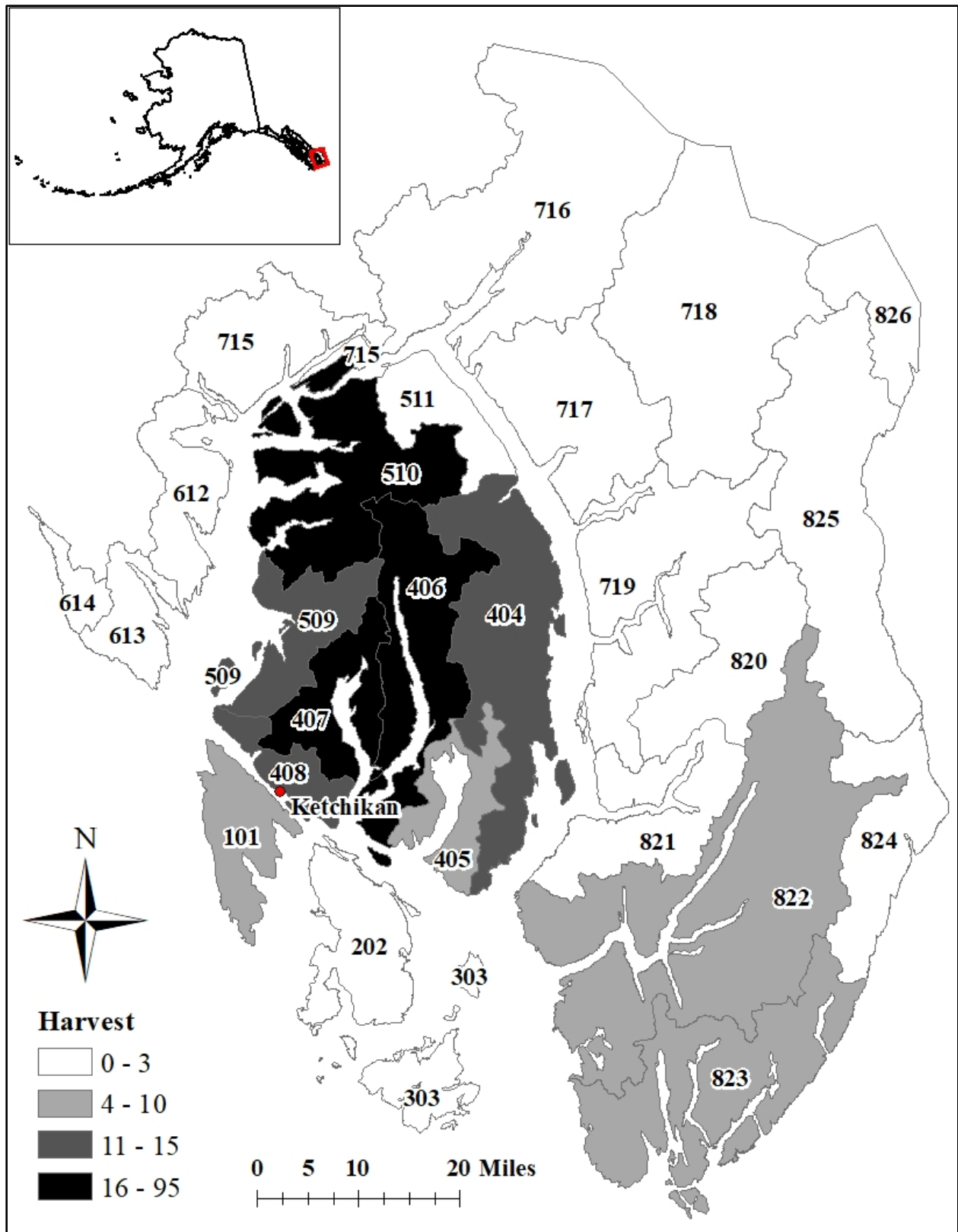


Figure 4. Black bear harvest by major harvest unit in Unit 1A, Southeast Alaska, regulatory years 2013–2017.

Permit Hunts

Draw permit hunt DL016 was issued to nonresidents without guides. The total permit allocation of 75 was not reached during RY13–RY17 which allowed distribution of undersubscribed permits over the counter (Table 4). The draw hunt in Unit 1A was intended to restrict the number of hunters that were anticipated to move to adjacent units when Unit 2 draw hunts were established, but no increase in hunters occurred.

Hunting black bears with dogs, or with the use of bait, required a permit in Unit 1A. No permits were issued to hunt bears with dogs, and 39 permits were issued to hunt over bait in Unit 1A during RY13–RY17.

Table 4. Black bear harvest from successful draw hunt DL016 permit holders, Unit 1A, Southeast Alaska, regulatory years 2013–2017.

Regulatory year	Season	Male	Female	Total	Baited
2013	Fall	5	3	8	0
	Spring	8	0	8	0
2014	Fall	6	5	11	0
	Spring	10	2	12	1
2015	Fall	9	0	9	0
	Spring	17	4	21	2
2016	Fall	4	3	7	0
	Spring	12	0	12	0
2017	Fall	16	4	20	0
	Spring	15	2	17	0

Hunter Residency and Success

Local residents and nonresidents harvested the majority of black bears (Table 5). Local residents took the opportunity to hunt black bears in proximity to access points from Ketchikan where bears are abundant. Other Southeast Alaska locations with larger and more abundant bears are attractive to nonresidents and nonlocals to hunt (Bethune 2014). Nonlocal residents have access to black bear hunting opportunities near the community that they reside in making travel to and hunting in Unit 1A less likely.

Table 5. Residency of successful black bear hunters in Unit 1A, Southeast Alaska, regulatory years 2013–2017.

Regulatory year	Local residents		Nonlocal resident		Nonresident		Total
	#	%	#	%	#	%	
2013	39	62	4	6	20	32	63
2014	31	54	2	4	24	42	57
2015	34	50	2	3	32	47	68
2016	38	58	2	3	25	38	65
2017	32	43	1	1	41	55	74
Average	35	54	2	3	28	43	65

Harvest Chronology

Most black bear harvest occurred in May and June in Unit 1A with 64% of reported harvest occurring during these 2 months (Table 6). The month of May was the most popular month to harvest bears as most bears have awoken from hibernation. Bears become less available for harvest in October as they initiate denning activity. The chronology of harvest was similar during RY13–RY17 (Table 6).

Table 6. Unit 1A number of black bears harvested, and percent harvested by month, Southeast Alaska, regulatory years 2013–2017.

Regulatory year	Sept		Oct		Nov		Apr		May		Jun		Total
	#	%	#	%	#	%	#	%	#	%	#	%	
2013	14	22	5	8	0	0	3	5	31	49	10	16	63
2014	14	25	3	5	0	0	5	9	27	42	8	14	57
2015	11	16	3	4	0	0	6	9	34	50	14	21	68
2016	12	18	3	5	1	2	5	8	29	45	15	23	65
2017	27	36	5	7	1	1	1	1	32	43	8	11	74
Average	16	24	4	6	0.4	1	4	6	31	47	11	17	65

Transport Methods

Most hunters accessed areas to hunt black bears by boat (average 82%) and highway vehicle (average 13%; Table 7). The vast amount of shoreline in Unit 1A made using a boat in spring an efficient method for locating bears. Hunting by boat in the spring allows hunters to access grass flats at river mouths which empty into the ocean; these areas are commonly used by bears that are emerging from their dens. Ketchikan’s limited road system offered some highway and off-highway vehicle access for bear hunting.

Table 7. Transportation methods for successful black bear hunters in Unit 1A, Southeast Alaska, regulatory years 2013–2017.

Regulatory year	Airplane		Boat		Off-road vehicle		Highway vehicle		Walked		Total
	#	%	#	%	#	%	#	%	#	%	
2013	2	3	51	81	0	0	7	11	3	5	63
2014	0	0	50	88	1	2	5	9	1	2	57
2015	1	1	53	78	1	1	11	16	2	3	68
2016	2	3	50	77	0	0	12	18	1	2	65
2017	0	0	63	85	0	0	8	11	3	4	74
Average	1	2	53	82	0	1	9	13	2	3	65

Other Mortality

Communities in Unit 1A, especially Ketchikan, had issues with bears getting into trash and other attractants. This led to bears being humanely killed by department staff, other agencies, or in defense of life and property (DLP) by members of the public. A total of 7 bears were killed and reported with DLP, however documentation of DLP is incomplete for Unit 1A.

Natural mortality factors including predation, intraspecies competition, disease, and accidents are not quantified. It is unknown what the hunting mortality is for black bears that have not been recovered. Forest understory is dense, and frequent rainfall complicates the task of tracking and recovering wounded animals. A black bear study in Unit 2 using limited data reported an estimated 25% nonrecovery rate by hunters (Bethune 2014) which may be similar for Unit 1A. Each year 1–5 bears were killed by motorists on the Ketchikan road system from RY13–RY17.

Alaska Board of Game Actions and Emergency Orders

There were no Board of Game actions altering bear management in Unit 1A during RY13–RY17. The department did not issue any emergency orders affecting black bear in Unit 1A during this reporting period.

Recommendations for Activity 2.1

Continue sealing black bears in Unit 1A for critical data to help make informed management decisions. These data enable the department to monitor changes in and characteristics of the harvested black bear population in Unit 1A.

3. Habitat Assessment-Enhancement

Although ADF&G is not currently conducting habitat-related activities, there are important changes occurring to black bear habitat in Unit 1A outside of the department that are worth noting in this report. The United States Forest Service (USFS), State of Alaska (SOA), and other private landowners provided access to timber for logging companies from RY13–RY17.

- USFS started planning for the South Revillagigedo Integrated Resource Project which is projected to provide 60 million board feet of timber from up to 6,000 acres over the course of 15 years.
- SOA was preparing to offer 481 acres (195 hectares) on Gravina Island for a future timber sale.
- The Sealaska Corporation finished logging 6,931 acres from the southern portion of the Cleveland Peninsula.

The loss of old growth, which is typically targeted for timber harvests, reduces denning habitat for black bears. Black bears in Southeast Alaska rely on large diameter trees in old growth stands for dens (Porter et al. 2020). Large diameter stumps left behind after logging still provide denning habitat, however the life of those structures is limited. Leaving a minimum of a 100-foot (30.5-meter) no-activity buffer around known denning trees would aid in conserving crucial habitat for black bears which would necessitate identifying the location of dens prior to allowing timber harvest.

NONREGULATORY MANAGEMENT PROBLEMS OR NEEDS

Human-bear conflicts

Access to trash, livestock, and bird feeders continued to create human-bear conflicts in Unit 1A communities. The city of Ketchikan enacted ordinances to control when trash may be placed for pickup, but these ordinances are rarely enforced (Bethune and Porter 2014). There is a significant reduction of bear incidents when trash cans are replaced with the bear-resistant types (Barrett et al. 2014; Johnson et al. 2018). However, the city of Ketchikan did not change to using bear resistant trash receptacles during the reporting period.

Department staff provided information on ways to reduce human-bear conflicts through news releases, radio communication, television ads, phone calls, and public presentations. Efforts to reduce conflicts were supported by the Alaska Wildlife Troopers, U.S. Forest Service, Ketchikan Police Department, Ketchikan Indian Community, Ketchikan Landfill staff, and other organizations.

Providing a loaner system for electric fences, motion-activated noise makers, and other tools would give the public more options to prevent human-bear conflicts.

Data Recording and Archiving

- Sealing information is scanned and data uploaded into the WinfoNet database.
- Teeth are sent to Matson's Laboratory in Manhattan, Montana for aging and data are then recorded in WinfoNet.
- Historical survey notes and data sheets are stored in the Ketchikan area office files.

- Species management reports and plans and the management operational plan for black bear are available online at <http://www.wildlifepublications.adfg.alaska.gov>.
- Memos, data forms, and other information will be stored in the Ketchikan Area Office shared hard drive in Ketchikan.

Agreements

There were no formal agreements during RY13–RY17.

Permitting

Permits for the use of hounds and baiting were both available during RY13–RY17. No problems occurred with issuing these permits.

Conclusions and Management Recommendations

Harvest of black bears in Unit 1A was stable and the department meet management objectives. The combination of male-to-female harvest ratios, skull-size data, and harvest information provides insight to the status of the population. All harvest objectives were met for RY13–RY17 suggesting black bear populations were stable.

Department staff continued to educate the public and provide solutions to human-bear conflicts within communities of Unit 1A. Its critical to continue educating the public on ways to avoid and reduce human-bear conflicts. Managers should continue to search for new information and methods to reduce human-bear conflicts.

No changes to the current management strategy are recommended. However, striving for better indices of abundance and meaningful metrics to determine the status of the population should be considered along with new technology and methods. Monitoring harvest through sealing certificates provides crucial data for management and should continue. Harvest ticket data could add a meaningful measure of hunter effort, however unsuccessful hunters commonly forget to submit hunt reports. Combining sealing certificate information along with hunt report information into one form could simplify the process. Additional efforts to encourage unsuccessful hunters to report their hunting effort could benefit black bear management.

II. Project Review and RY18–RY22 Plan

Review of Management Direction

MANAGEMENT DIRECTION

No change in management direction from report section.

GOALS

No change in goals from report section.

CODIFIED OBJECTIVES

Amounts Reasonably Necessary for Subsistence Uses

The Board of Game made a positive Cultural and Traditional finding for black bears (5 AAC 99.025) for Unit 1A during their 2000 meeting. They then set the amount necessary for subsistence during their 2008 meeting at 5–10 black bears for Unit 1A outside the Ketchikan nonsubsistence area.

Intensive Management

No intensive management is anticipated for the planning period.

MANAGEMENT OBJECTIVES

1. Maintain a male-to-female harvest ratio of 3:1.
2. Maintain an average male spring skull size of 17.5 inches.
3. Minimize human-bear conflicts by providing information and assistance to the public and to other agencies.

REVIEW OF MANAGEMENT ACTIVITIES

1. Population Status and Trend

No change in monitoring population status and trend from the report section.

2. Mortality-Harvest Monitoring

ACTIVITY 2.1. Black bear sealing.

Data Needs

Black bear sealing data helps determine if management goals are being met.

Methods

Hunters present harvested black bears to DWC or an appointed sealer with the skull, hide, and/or meat. Hunters are required to salvage the skull, hide, and meat from 1 January–31 May. Hunters are required to salvage the skull and meat, or the skull and hide from 1 June–31 December. Bears are required to be sealed within 30 days of kill. Biological and hunt information collected at the time of sealing includes sex, skull size (length and width), pelage color, date and location of kill, number of days hunted, transportation method, guide use, use of bait station, percent of meat salvaged, hunter use of commercial services, and nonhunting mortality information. A premolar is collected from bears and sent to Matson's Laboratory in Manhattan, Montana for cementum annuli age determination.

3. Habitat Assessment-Enhancement

The department will continue to report on general land management alterations related to black bear habitat in future reports. No habitat enhancement is anticipated.

NONREGULATORY MANAGEMENT PROBLEMS OR NEEDS

Human-bear conflicts

Department staff will continue to provide education, consultation, and aid other agencies and the public in managing human-bear conflicts. The department will also create a loaner program to allow the public to rent electric fences, motion-activated noise makers, and other products to reduce conflicts. This program will be available to the public RY18.

Data Recording and Archiving

Historical survey notes, data sheets, and sealing certificates are being digitized and scanned for permanent storage on the Ketchikan Area shared drive (S:). Hard copies will no longer be stored in the Ketchikan area office. All harvest and sealing data are stored on WinfoNet.

Agreements

No new agreements anticipated.

Permitting

We will continue to offer permits to hunt bears with hounds and baiting stations in Unit 1A as requested by hunters.

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