

SPECIES
MANAGEMENT REPORT

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CHAPTER 7: DEER MANAGEMENT REPORT

From: 1 July 2012
To: 30 June 2014

LOCATION

GAME MANAGEMENT UNIT: 5 (5,800 mi²)

GEOGRAPHIC DESCRIPTION: Cape Fairweather to Icy Bay, Eastern Gulf Coast

BACKGROUND

Deer were introduced to Yakutat Bay islands in 1934, when 7 does and 5 bucks were released (Paul 2009). These animals established a small population that persists on islands and along the eastern mainland of Yakutat Bay. Heavy snowfall and predators limit deer densities, but the population has supported small harvests over the years. Most deer are taken incidentally. There is little potential for this herd to increase because of the extreme climatic conditions and limited habitat.

Due to deer declines in the 1970s and a virtual cessation of harvest, the Unit 5 season was closed in July 1980. By the end of the 1980s, deer had recovered to some degree, and public requests for an open season were heard. In 1991 the Board of Game instituted a limited hunt in Unit 5A, with a 1-month bucks-only season. Since then, small numbers of deer have been taken in most years, including some reports of illegal harvest.

MANAGEMENT DIRECTION

MANAGEMENT OBJECTIVES

- Maintain a population capable of sustaining a 1-month season and a bag limit of 1 buck.

METHODS

Historically, the department collected deer harvest data by mailing deer harvest surveys to a randomly selected group of hunters (approx. 33%). The survey was designed to collect information on hunter effort, hunt location, hunt timing, number of days hunted, transportation used, and the number of deer harvested. Survey results for hunter effort, success, and kill location were expanded to estimate results for all harvest ticket holders. Beginning in fall 2011, every hunter who received deer harvest tickets was provided a report card; individual reporting has replaced the random survey. Since 1984, pellet-group surveys have been conducted in Unit 5A to gauge deer population trends. U.S. Forest Service (USFS) crews usually perform this work. Pellet transect surveys were conducted in Unit 5 in May of 2014 (Table 1).

Data in this report are compiled by regulatory year (RY), with the current report period pertaining to RY12 and RY13. A regulatory year begins on July 1 and ends on June 30 of the following calendar year (e.g. RY12=July 1, 2012–June 30, 2013).

RESULTS AND DISCUSSION

POPULATION STATUS AND TREND

Population Size

Based on our 2 indirect measures of deer numbers (i.e. pellet-group densities and deer harvest) Deer numbers remain relatively low in the Yakutat area. It was always thought that limited habitat and heavy snow accumulations on the mainland would prevent deer numbers from increasing significantly; however, anecdotal information and staff observations during the report period suggested that deer were much more abundant than ever before, and had expanded their range as far inland as the Dangerous River. In recent years, deer are routinely seen along the road system near the community of Yakutat and the areas adjacent to Highway 10. In the past it had been almost unheard of to see a deer more than a few miles inland of the beach and any deer sightings on the mainland was considered a novelty. In spring of 2008, 4 islands (Krutoi, Kriwoi, Khantaak, and Dolgi) adjacent to Yakutat in Yakutat Bay were surveyed for deer pellet densities. The survey yielded the highest documented pellet-group densities in the area, and indicates an increasing number of deer on the islands (McCoy 2008). Future surveys should give us a good indication as to whether a higher deer population is being maintained, or if the high pellet-group densities documented in spring 2008 were an anomaly. In May of 2014, with collaboration from the US Forest Service we conducted deer pellet transect surveys on Khantaak, Doggie, and Kriwoi Islands. Surveys on Khantaak Island showed some sign from moose (pellets and tracks) and areas of heavy browsing on vaccinium; some of which had killed the plant. Pellet groups decreased by 34% since the last survey in 2008, however with the recent mild winters it is possible the deer were able to move all over the island and pellet groups were more dispersed than normal. It is difficult to say whether the decline in the number of deer harvested and increase in the days of effort per deer harvested during this report period is an artifact of the small number of hunters participating in this hunt or whether it indicates a decline in the deer population.

MORTALITY

Harvest

Season and Bag Limit

Resident and Nonresident Hunters

Unit 5A

1 November–30 November: 1 antlered deer

Unit 5B

No open season

Board of Game Actions and Emergency Orders. The board made no changes to deer hunting regulations during the report period and no emergency orders were issued.

Hunter Harvest. Expanded harvest estimates based on deer hunter reports indicated that 19 deer were harvested in the unit during RY12 and 23 were taken in RY13. Despite harvest being limited to bucks, our expanded harvest estimate indicated 5 does were also harvested (Table 2). We suspect the apparent illegal harvest of female deer was the result of reporting or data entry

errors, but cannot be certain. Hunter effort decreased during the report period with 70 hunters expending 254 days of effort in RY12, and 62 hunters spending 225 days afield in RY13. The average number of days hunters took to harvest a deer varied from 13.4 days/deer in RY12 to 9.8 days/deer in RY13 (Table 3). The factors contributing to variability in the number of days of effort per deer harvested are not known, but mild weather with little snow during fall 2012 and 2013 could have made it difficult to track and find deer.

Hunter Residency and Success. Since 1991, nearly all Unit 5A deer hunters have been local residents of Yakutat. During the report period, Alaska residents took 100% of the deer harvested in the unit. Of these, local residents of Unit 5A took all 19 deer harvested in RY12 and 14 of the 18 deer harvested in RY13. Of the remaining 4 deer harvested in RY13, 3 were taken by non-local Alaska residents, and 1 was taken by a hunter whose residency is unknown (Table 4).

Transport Methods. Since nearly all deer are taken from small offshore islands, boats are typically the primary means of transportation used by deer hunters in Unit 5A. During the report period, hunters reported using boats, highway vehicles and walking, in descending order, to access deer hunting areas. Hunters are often confused regarding which mode of transportation to submit on a hunt report. This confusion comes from using various modes of transportation prior to setting out on foot in search of deer (e.g. towing a boat to harbor with highway vehicle).

CONCLUSIONS AND RECOMMENDATIONS

The only management objective for this area (maintain a population capable of sustaining a 1-month season and a 1 buck bag limit) was met during the report period. The Unit 5A deer hunt provides Yakutat residents an opportunity to legally harvest a small number of deer. During the report period the number of deer taken in Unit 5 decreased considerably compared to the preceding report period. The harvest of 19 deer in RY12, and 23 deer in RY13, were each well below the preceding 10-year average (RY02–RY11) of 32 deer per year. During the report period both the number of hunters and days hunted decreased from the preceding report period. The number of hunters participating was about the same as the 10-year average of 65 hunters, however total days hunted was substantially lower than the 10-year average of 291 days. We suspect the decrease in hunter effort during this report period resulted from a decline in the deer population following the deep snow winter of 2011–12. This hypothesis is supported by the significant drop in days hunted between RY11 and RY12.

Although deer now seem to be more widespread than in the past, we believe habitat conditions, competition with moose, predation, and deep snow winters will prevent this population from ever growing significantly. The Yakutat airport received below average snowfall in both RY12 and RY13 (180 and 106 inches, respectively) (Western Regional Climate Summary 1949–2013), with the long term average being 185.1 inches. During this report period snowfall was down significantly from the extreme winter in 2011 when 331.1 inches of snowfall was measured by the National Weather Service (<http://www.arh.noaa.gov/clim/akcoopclim.php?wfo=pajk>) at Yakutat airport. The impact of extreme winter weather will likely remain the most important force regulating deer numbers in the unit. Mortality transects should be established in the Yakutat area to monitor effects of severe winter weather on the unit's deer population. Pellet transect data should continue to be collected to monitor deer population trends.

As a subsistence food item to the community of Yakutat, deer appear to rank a distant second to moose. However, in recent years deer appear to have surpassed mountain goats as a locally available source of red meat. In the past, most deer were taken incidentally by people engaged in other outdoor activities who happened to detect an animal on the beach. More recently, the increased abundance of deer and improved chances of success have led to a more concerted effort by hunters to target a deer. The relatively low harvest probably has little effect on the population because hunting mortality is likely compensatory to predation or winter kill. Barring some change in habitat conditions or predation, it seems likely that deer will continue to persist at low densities and provide only limited hunting opportunity in Unit 5.

LITERATURE CITED

McCoy K. 2008. Sitka black-tailed deer pellet-group surveys in Southeast Alaska, 2008 Report. Alaska Department of Fish and Game. Division of Wildlife Conservation. Juneau.

Paul T. 2009. Game transplants in Alaska. Alaska Department of Fish and Game, Technical Bulletin 4, 2nd edition, Juneau.

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Table 1. Unit 5A deer population trends as indicated by pellet group surveys, regulatory years 1990–2013.

Area	Regulatory year	Mean pellet groups/plot	Number of plots	95 % CI
Knight Island (VCU 361)	1990	0.81	100	0.61–1.01
	1991	0.95	100	0.74–1.16
	1993	0.44	90	0.25–0.64
	1995	0.00	153	0.00–0.00
	1996	0.03	192	0.01–0.05
	2002	0.22	117	NA
Humpback (VCU 363)	1990	0.01	118	0.00–0.03
Yakutat Islands (VCU 368)	1990	0.32	415	0.24–0.39
	1991	0.48	243	0.37–0.58
	1992	1.07	106	0.81–1.32
	1993	0.66	251	0.52–0.80
	1995	0.59	379	0.48–0.69
	1996	0.59	344	0.48–0.70
	1999	0.90	145	0.85–0.95
	2001	0.66	200	NA
	2002	0.58	325	NA
	2003	0.86	274	NA
	2007	1.97	421	1.76–2.18
	2014	1.30	462	1.14–1.46
Ankau (VCU 369)	1990	0.03	116	0.00–0.05

Table 2. Unit 5A annual deer harvest^a, regulatory years 2002–2013.

Regulatory year	Males	Females	Estimated total
2002	15	0	15
2003	28	0	28
2004	31	8	39
2005	38	0	38
2006	42	0	42
2007	19	0	19
2008	37	0	37
2009	21	0	21
2010 ^a	30	0	30
2011 ^b	51	0	51
2012	19	0	19
2013	18	5	23

^a Data from RY2010 and earlier are from expanded results of hunter surveys.

^b Data from RY2011 forward are expanded results from a report card issued with deer tags.

Table 3. Unit 5A hunter effort and success, regulatory years 2002–2013.

Regulatory year	Number of hunters	Number of days hunted	Number of deer killed	Number of deer/hunter	Number of days/deer
2002	54	277	15	.3	18.5
2003	64	228	28	.4	8.1
2004	80	343	39	.5	8.8
2005	79	373	38	.5	9.8
2006	89	317	27	.5	7.5
2007	55	272	19	.3	14.3
2008	76	298	37	.5	8.1
2009	55	170	21	.4	8.1
2010	75	308	30	.4	10.3
2011	91	324	51	.6	6.4
2012	70	254	19	.3	13.4
2013	62	225	23	.4	9.8

Table 4. Unit 5A deer hunter residency and success, regulatory years 2002–2013.

Regulatory year	Successful					Unsuccessful					Total hunters
	Local ^a resident	Nonlocal resident	Nonresident	Unk	Total (%)	Local ^a resident	Nonlocal resident	Nonresident	Unk	Total (%)	
2002	15	0	0	0	15 (28)	39	0	0	0	39 (72)	54
2003	28	0	0	0	28 (43)	32	5	0	0	37 (67)	65
2004	21	17	0	0	38 (48)	36	5	0	0	41 (52)	79
2005	21	5	0	1	27 (39)	42	0	0	0	42 (61)	69
2006	12	0	0	0	12 (19)	52	0	0	0	52 (81)	64
2007	13	6	0	0	19 (35)	30	5	0	0	35 (65)	54
2008	32	0	5	0	37 (49)	39	0	0	0	39 (51)	76
2009	21	0	0	0	21 (38)	34	0	0	0	33 (62)	55
2010	24	6	0	0	30 (40)	33	12	0	0	45 (60)	75
2011	48	4	0	0	52 (57)	31	9	0	0	40 (43)	92
2012	19	0	0	0	19 (28)	48	1	0	1	50 (72)	69
2013	14	3	0	1	18 (30)	35	2	2	4	43 (70)	61

^a Local means residents of Unit 5A.