

REFUGE NARRATIVE REPORT

May to August, 1953

KODIAK NATIONAL WILDLIFE REFUGE

PAUL A. CHAPADOS

REFUGE NARRATIVE REPORT

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Kodiak, Alaska

I. GENERAL

A. Weather Conditions

The Kodiak Refuge does not operate a weather station. Weather data is furnished by the Fleet Weather Central, Naval Station, Kodiak, Alaska.

:
: Temperature - F :
:

	<u>Snowfall</u> <u>Inches</u>	<u>Precip.</u> <u>Inches</u>	<u>Mean</u>	<u>Average</u> <u>Maximum</u>	<u>Average</u> <u>Minimum</u>	<u>Extreme</u> <u>Maximum</u>	<u>Extreme</u> <u>Minimum</u>
May	Trace	4.15	5.20	46.1	38.3	55.0	31.8
June	0.0	2.15	4.25	62.3	50.5	86.1	42.1
July	0.0	2.88	4.07	61.8	50.5	76.0	46.0
August	0.0	2.40	3.59	61.5	50.7	75.0	46.0

General Remarks

May

Climatologically, data for the month of May indicates a normal weather period for this time of the year. The greatest departure was in regard to precipitation with a deficit of over one inch for the month. Temperatures were only slightly below normal, and the average wind velocity slightly above. The visibility was not restricted by fog as much as should normally be expected at this time of the year, while the number of storms with gusts of wind over thirty knots was more than double the eleven year mean. The maximum gust for the month was 46 knots from WSW direction.

June

The month of June was characterized by unusually fine weather compared to the norm for June. Thirteen of the last fourteen days of the month were without precipitation or fog, and there were almost four times as many clear days during the month as usual. Temperatures were on the average around six degrees above normal with the maximum temperature for the month equaling the highest on record. The fair weather was tempered by more than average gustiness over thirty knots, with prevailing wind direction north - west rather than east as usual. The peak gust for the month was 47 knots from WNW direction.

July

Temperatures averaged 2.1 degrees above average for the month. Minimum temperatures ranged from 46 degrees recorded on the 3rd, 8th and 9th; while maximum temperatures varied from 50 degrees on the 4th to 76 degrees on the 22nd. The bulk of the precipitation fell during the early part of the month, the total amount being only 71 per cent of the normal value. Thunderstorms, rare occurrences in this area, were observed on the 19th. Available records indicate a day with thunderstorms will occur about once in 10 years. Peak gust for the month was 27 knots from WNW direction.

August

The month was average climatically. The greatest departure from normal was the element of precipitation, which was more than an inch below the August average. Ninety three per

cent of the total fell in the first half of the month. This was the fourth consecutive month with below-average precipitation, and the deficit for the past portion of this calendar year is 2.21 inches. August is usually the warmest month of the year, but during this last June temperatures averaged slightly higher than in either July or August. Peak gust for the month was 45 knots from NW direction.

B. Water Conditions

During the past four months the precipitation was below normal and the mean temperature was above normal. The water level throughout the area was below normal during this period. The water run-off, caused by the heavy snow fall of the past winter, and timely rains during the summer kept the water level in most streams and lakes adequate to handle the current salmon runs.

C. Fires

No fires occurred on the Refuge this period.

II. WILDLIFE

A. Migratory Birds

The spring migration of waterfowl continued during the month of May. On 5 May a flock of 75 Black Brant were observed approximately 100 yards inland from the beach at Kalsin Bay. On 6 May approximately 75 Black Brant were observed along the beach at Cape Alitak. 35 Black Brant were observed on 24 May feeding on the Kalsin Bay flats.

Observations of resident duck populations around the island appeared normal.

B. Upland Game Birds

No apparent change over the report of May - August, 1952. 15 ptarmigan were observed along the Red River drainage during the latter part of July. The hunting season on ptarmigan opened 20 August but to date very few birds have been taken.

C. Song Birds

The usual composition and numbers of song birds were observed this period to conform with similar reports for comparative periods.

D. Shore Birds

Shore birds were noted in normal numbers.

During a field trip to Red River Lake during the later part of July 40 - 50 greater yellow-legs were noted in the area. Numerous least sandpipers were also seen in this area.

E. Small Game Animals

Varying Hare

The weather during the late spring months was much dryer than normal which should afford a better chance of survival for the progeny of the varying hare. From reports of residents around the Uyak Bay area hare are numerous.

Attempts are going to be made during the winter months to secure from local areas, varying hare for the stocking of the Shumagin Islands.

F. Big Game Animals

Sitkan Black-tailed Deer

(1) Population and Behavior

During the early part of this period the deer began moving out of the low beach areas to areas of higher elevations. As will be noted in the section relating to the deer hunting season, most of the bucks will be found along the higher mountain ridges during the latter part of the period.

Population - no change over previous reports.

(2) Food and Cover

No change over previous reports

The first open hunting season on deer, since the introduction of this species on the Kodiak - Afognak Island Group during the years 1924-30 was held August 20 through the 23rd with a limit of one legal buck per hunter.

The total kill, as verified by Service personnel, was 38. A checking station was maintained by the Refuge personnel at the rear gate of the U.S. Naval Station. All deer brought through the gate by hunters were weighed and other information gathered.

BREAK-DOWN OF KILL PER AREA

Broad Point 9

Cape Chiniak	7
Kalsin Bay	7
Middle Bay	
North Ridge	6
South Ridge	4
Monashka Bay	4
Kizhuyak Bay	<u>1</u>
TOTAL	38

BREAK-DOWN OF KILL PER DAY

<u>Date</u>	<u>Deer Kill</u>	<u>Percentage Total</u>
August 20	12	31.6
" 21	11	28.9
" 22	9	23.7
" 23	6	15.8

WEIGHTS OF 22 DEER AND CORRESPONDING NUMBER OF ANTLER POINTS

<u>No. of Deer</u>	<u>Weight Range</u>	<u>Average Weight</u>	<u>No. Points Right - Left</u>	
2	145 - 160	153	4	4
1	105	105	3	4
1	152	152	4	3
5	85 - 180*	121	3	3
2	95 - 120	103	3	2
2	95 - 116	105	2	3
4	90 - 145	102	2	2
5	57 - 80	68	1	1

*The 180 pound deer was weighed by the hunter and not verified by FWS personnel.

Approximately two hundred hunters were in the field during the hunt.

Most of the larger bucks were killed along the tops of the

mountain ridges. Small forked horns and spike bucks were found along the low spruce country. The majority of the deer killed had antlers that were still in the velvet stage. All deer checked were very fat and in excellent condition.

Olympic Elk

An aerial survey of Afognak Island was made on August 17 and August 19 aboard Grumman 701.

A total of 152 elk was counted by the two observers: D.L. Spencer, Refuge Supervisor and Paul A. Chapados, Refuge Manager. Russell Hoffman, Wildlife Management Biologist, was a third observer on the August 19 flight.

The survey was very incomplete for reasons of inclement weather conditions. Low fog along the coast and higher elevations of the Island prevented a complete survey.

The herd composition as found from the results of the survey is as follows:

Bulls	27
Cows	108
Calves	17
(calves of the year only)	_____
TOTAL	152

Kodiak Brown Bear

The total known and estimated bear kill this period is 107. The total recorded kill is 97 and the remainder is illegal and unrecorded kills. The following tables show the bear take this period as compared to corresponding periods since 1949 and breaks down the kill as to sex, areas of kill and as to the classification of the kills.

TABLE I.

*Actual
May → June 20*

<u>May 1 through August 31</u>	<u>1949</u>	<u>1950</u>	<u>1951</u>	<u>1952</u>	<u>1953</u>
Resident Hunters	21	43	27	30	29
Non-resident Hunters	16	20	38	35	46
Defense of life or property	7	1	6	7	10
Control	0	0	5	0	0
Scientific Collectors Permit	5	0	3	3	2
Estimated unrecorded kill	<u>16</u>	<u>10</u>	<u>10</u>	<u>20</u>	<u>20</u>
TOTAL	65	74	89	95	107

TABLE II.

May 1 through August 31

	<u>Male</u>	<u>Female</u>	<u>Unknown</u>	<u>Totals</u>
Resident Hunters	14	11	4	29
Non-resident Hunters	33	8	5	46
Other	<u>4</u>	<u>4</u>	<u>4</u>	<u>12</u>
TOTALS	51	23	13	87

TABLE III.

<u>District</u>	January-April	May-August	TOTALS
A			
Off the Refuge	0	9	9
B			
Hidden Basin	0	4	4
C			
Terror Bay	0	4	4
Uganik Bay	3	13	16
Viekoda Bay	1	2	3
D			
Little River Peninsula	0	3	3
E			
	0	0	0
F			
Deadman Bay	0	6	6
G			
Uyak Bay	10	11	21
Spiridon Bay	0	4	4
Zachar Bay	0	3	3
H			
Karluk Lake	5	11	16
Fraser Lake	1	1	2
Horse Marine Lake	0	2	2
Larsen Bay	0	5	5
I			
Akalura Lake	0	1	1
Afognak and Shuyak Islands			
Port Williams	0	1	1
Afognak Lake	0	1	1
Izhut Bay	0	3	3
Bear Kills - Area Unknown	0	3	3
		TOTAL	107

The recorded bear kill on Kodiak Island during this period was 97. This represents, as it has in the past years, the bulk of the spring bear take.

Table I shows a trend of increasing bear kills during the spring months. This year the kill is greater than in corresponding periods during the past five years. This table also shows that the non-resident take is the factor that produces this increase. In 1949, 16 bear were taken by non-resident hunters and this take generally increased to 46 in 1953. Other comparative figures represent a fairly stable kill each year.

Table II separates the bear kill of this period by sex. Again, the sex ratios show a predominance of males killed to the total harvest. This is primarily due to the activities and the attitudes of the registered guides operating on Kodiak Island.

Table III shows the bear take according to districts and areas. The three districts of the largest kills are as follows: District G, 28 or 26.2%; District C, 26 or 24.3% and District H, 25 or 23.4%. These areas showing the greatest hunting pressure do not greatly differ from other years that records have accurately been kept.

G. Fur Animals, Predators, Rodents and Other Mammals

Beaver

No change over previous periods.

Land Otter

No change over previous reports. Land otter sign is quite abundant throughout the district.

Mink

No change over previous periods.

Marten

No change over previous periods.

Alaska Red Squirrels

Reports from the Afognak Lake area indicate that the squirrels are very evident in that locality.

III. REFUGE DEVELOPMENT AND MAINTENANCE

A. Physical Developments

Patrol Vessel Shearwater II

The vessel was completely painted this period.

The bow stem was repaired by attaching iron bark strips along each side of the stem and bolting through.

The rudder design and rear edge of the keel were altered in order to improve the steering efficiency of the vessel. This alteration has improved the handling of the vessel to some extent, but there is still room for more improvement.

Four new 6 volt heavy duty marine batteries were purchased from the Navy Supply Depot to replace worn out units in the 32 volt battery system.

A new Olympic oil range was procured and installed aboard the vessel. This range replaces the old range which was worn beyond reasonable repair.

Refuge Residence

A new oil burning Coleman Blend-Aire pipe furnace was installed during this period. This furnace will replace the space heater located in one of the downstairs rooms. The furnace should heat the residence more efficiently and allow for better utilization of the space formerly occupied by the space heater.

V. FIELD INVESTIGATIONS

The following is submitted by Wildlife Management Biologist Russel R. Hoffman.

Bear-Cattle Investigations

The mortality to the number of cattle within the ranching area during this period totals 32. Of this number, 3 have been identified as the result of bear activity, 1 from natural causes and 28 are in the missing class.

With the exception of one mortality, all losses were attributed to bear by the ranchers. Fish and Wildlife representatives were not asked to investigate any of the dead cattle. Since consultation with a representative of the Refuge Branch was not considered, an honest evaluation of the cattle mortality in Table I is impossible. Therefore, no cattle are listed in the table as bear kills unless authenticated by a representative from the Fish and Wildlife Service.

Table I
Cattle Losses (May through August)

<u>Ranch</u>	<u>Bear</u>	<u>Natural</u>	<u>Missing</u>	<u>Total</u>
Felton Ranch	1		2	3
Zenter Ranch			6	6
Old Ranch			0	0
Rock Ranch			15	15
Hightower Ranch	1		5	6
Henly Ranch		1		1
Foley Ranch	1			1
Totals	<u>3</u>	<u>1</u>	<u>28</u>	<u>32</u>

*authenticated
only*

There is little doubt that the ranchers feel that the mortality this summer is due entirely to bear. For example the rancher that reported 15 head missing blamed the bear for all deaths. Only one carcass of the 15 was found and it had been mutilated by a bear. There is little doubt that some of the missing cattle were killed by bear but that number will always remain unknown. Another rancher reported a missing calf and indicated that it had been killed by a bear, later this same calf turned up in the herd.

Spring came early on Kodiak Island and the cattle picked up fast after a severe winter. By mid-July the elderberrys and salmonberries were beginning to ripen and the grass was at the proper stage for mowing. Some hay was put up during this month and August but for the most part, the ranchers waited too long and rain prohibited any further operations of this kind.

Calving was completed this period; the calves were weaned and branded on most of the ranches. The cattle were moved to the summer range where the rancher attempted to keep a vigilant watch over the herd.

Mr. Jack McCord purchased 100 head of whiteface heifers and 4 angus bulls and transported them from Yakima, Washington to his ranch on Sitkalidak Island. The cattle arrived by scow on July 13, 1953. He has a caretaker working with the herd during the winter.

Mr. Scotty Brunten has 5 head of holstein cattle on Alf Island in Uyak Bay. Three of these are bulls and the other two are cows.

Mr. Lee and Mr. Harcourt have been granted a lease in the Saltery Cove area. At the present time, they are preparing to construct buildings for future operations there.

Mr. Sid Old sold his ranch at Narrow Cape to Mr. Bebee. The new ownership took over operations after the haying season in August.

The Jake Foley ranch at Anton Larsen's Bay is up for sale but to date it has not been sold.

Mr. Bob Hightower at Portage Bay, sold his entire stock to Mr. Joe Zenter. Hightower plans to put sheep on his ranch in the spring.

Bear - Salmon Investigations

The bear - salmon work this year was concentrated in the Karluk Lake area. A small weir was described in the last periodic report was constructed on Halfway Creek. This weir allowed the fish to pass from the stream into the lake at any disturbance caused in the stream. This provided an escape for any fish residing in close proximity to the weir proper.

A total of 3564 red salmon were tallied in the stream between the period of July 12 and August 24, 1953. Of this total, 127 fish, or 3 per cent, were mutilated by bear. This figure represents spawned and unspawned fish taken. A total of 71 unspawned fish were bear-taken representing approximately 2 per cent of the total run.

This figure is significant for the bear-taken fish on all streams within the Karluk River drainage. During this period, visual estimates of bear - taken fish on other streams in the area by the investigators shows that this is comparable.

The number of bear using the streams tributary to Karluk was considerably lower this year than in previous years. However, it is strongly felt that this bear activity is wholly normal for this season. The unusually early spring and favorable growing conditions for berries and other vegetation produced a berry crop that was harvested during the early weeks of July by the animals. This is the first time that workers at the Karluk Lake area reporting on bear activities have noted that bears were not using the streams in numbers. Significant too, and in relation to the amount of bear activity on the stream, the bear droppings examined, with few exceptions, contained vegetable matter for the most part. On July 13, bear droppings were found to be composed of elderberry and cranberry. This is the earliest date that cranberry has been known to occur in the droppings. This change of food habits has been reported during the previous two years to occur during the latter part of August. As compared to other years, this season has been unusually early.

Surveys conducted within the Karluk Lake area showed that the bear were using the higher mountain slopes indicated by the many deep-cut trails in these areas. Bear would also utilize elderberry growing next to the stream. This was true on all of Kodiak Island but some river systems, those with an extremely high salmon runs, showed a comparatively larger concentration of animals at an earlier date.

This study brings out more conclusively that the amount of bear damage to salmon is in a direct relationship to the type of season and consequently to the period that the berries begin to ripen.

Mr. W.K. Clark, Biological Aid, and weir attendant at Saltery Cove stream this summer, determined the bear - taken salmon on this stream aside from his normal duties on the weir.

*while true, it appears
these abnormal berry
years occur very
infrequently.
W.K.*

Of the 88,391 fish; red, pink, coho, and chum salmon, that entered the stream, approximately 300 were taken by bear. This represents only .3 percent of the total run taken by bear. This figure includes spawned and unspawned fish.

Very little bear sign was noted along the stream during the summer as shown by Clark's observations and by the few aerial surveys conducted in the area.

Bear -- Marking Program

The first trip of a comprehensive marking program began on June 25 and continued until July 3. This trip was made on the FWS Patrol Vessel "Shearwater II".

Four bays were marked with 69 separate bottle marking stations using a different color in each bay as follows;

Hidden Basin	Red	11	Stations
Barling Bay	White	22	"
Deadman Bay	Green	18	"
Deg Salmon	Pink	18	"
	Total	69	Stations

The medium used in all stations was a conventional type automotive lacquer. All stations utilized the trip wire method as described in the last periodic report.

Two subsequent trips will be made this fall after the bear have completed the shedding of spring fur. Also, the bear should be moving from the salmon streams as the majority of fish are spent by the end of September.

No reports of marked bear have been turned into the FWS Office. It is hoped that with the extensive program this fall, results will be more encouraging.

Because of the scarcity of bear at Karluk Lake, no marking was done with the crossbow this season.

Aerial Surveys

Attempts at aerial surveys in previous years resulted in uncomparable figures. This year another attempt was made to survey the stream systems to organize a method that would produce yearly trends, if carried on at approximately the same time each year.

Fisheries Management Biologist, R. R. Lindsley, as a regular practice at this time of year, surveys all of the major stream systems on Kodiak Island. As the opportunity arose and with his cooperation, Biologist Hoffman rode along as a passenger to observe bear in each of the drainages surveyed. The survey was conducted on August 17 and 18. The total flying time for the two days was 7 hours and 15 minutes.

The following table is a list of the drainages surveyed and the number of bear seen in each area.

Table II

<u>Area</u>	<u>Numbers</u>	<u>Sex*</u>	<u>Age</u>	<u>Time</u>	<u>Location</u>
Monashka	1		Adult	1420	Ridge
Uganik River	1		"	1430	Stream
	1		"	1430	Stream
Mush Bay	1		"	1435	Stream
Little River	1		"	1441	Elderberry
Spiridon Bay	1		"	1452	Stream
Zackar Bay	7		"	1500-09	Stream
	1	F	"	1510	Stream
	2		Yearling cubs	1510	Stream
	2		Adults	1512	Stream
Sturgeon R.	2		"	1540	Stream
	1	F	"	1543	Flats
	3		Yearling cubs	1543	Flats
Red River	1	F	Adult	1600	Stream
	2		Cubs of year	1600	Stream
	2		Adult	1606	Stream
Dog Salmon R.	1	F	"	1630	Stream
	2		Cubs of year	1630	Stream
	1	F	Adult	1633	Stream
	3		Cubs of year	1633	Stream
	1	F	Adult	1634	Stream
	4		Cubs of year	1634	Stream
Deadman R.	1		Adult		Stream
Uyak Bay R.	1	F	"	1645	Stream
	2		Cubs of year	1645	Stream
	1		Adult	1648	Stream
Kiliuda R.	1		"	1505	Stream
Old Harbor R.	1		"	1520	Stream
Kauignak R.	1		"	1530	Stream

* F--Female, M--Male, No attempt was made to determine age class, if cubs were with an adult bear, it was assumed that the bear was a female.

The total number of bear seen on the survey was 49. All observations were made from the air at approximately 400 to 500 foot elevations. Of the bear seen, 36.7 percent were cubs. The ratios found are as follows:

- 1 female to 2.57 cubs (all year classes)
- 1 female to 2.5 cubs (yearling class)
- 1 female to 2.6 cubs (of the year class)

This type of program will be enlarged upon next year during the field season.

VI. PUBLIC RELATIONS

A. Refuge Visitors

4 May	D.L. Spencer	Refuge Supervisor	Kenai, Alaska
8 May	E. Chatelain	FWS	Anchorage
	Charles White	Bureau Land Mgmt	Anchorage
28 May	Dr. R. Rausch	Arctic Health Research Center	Anchorage
11-12 June	F. Meek	Bureau Land Mgmt	Anchorage
	F. Weiter		
16 June	Roger Allin	FWS	Anchorage
23 June	Dan Ralston	Law Enforcement Supv	Juneau
13 July	M. McCarthy	Commanding Officer Kodiak Marine Det.	Kodiak N.S.
14-24 July	R. Shuman	Fishery Mgmt Supv.	Juneau
20-23 July	Don Erickson	FWS	Washington, D.C.
21 July	Clyde Maycock	Division Supv., U.S. Forest Service	Cordova
23-24 July	Cliff Burner	FWS	Seattle
	Phil Nelson	FWS	" "
23 July	Clint Stockley	A.D.F.	Juneau
24 July	Don Bevan	F.R.I.	Seattle
5 August	C.L. Anderson	Director, A.D.F.	Juneau
10 August	Earl Bright	Supv. of Vessels	Juneau
12 August	Roger Allin	FWS	Anchorage
	Tom Wardleigh	FWS	Anchorage
14-15 Aug	M. McCambridge	Forest Service	Portland, Ore.
	J. Kimmery	" "	San Francisco
	Marvin Fowler	" "	Washington, D.C.
17 August	Marc Meyer	FWS	Juneau
17-19 Aug	D.L. Spencer	Refuge Supervisor	Kenai,
31 August	Don Bevan	F.R.I.	Seattle

B. Refuge Participation

None

C. Hunting

Deer season was held August 20 through August 23. Ptarmigan season commenced on August 20.

Local guides and outfitters were busy making last minute arrangements for the fall bear hunting season which starts on September 1.

D. Fishing

Fishing activity was concentrated this period within the area from the Naval Base to Cape Chiniak. Pink and silver salmon, and dolly varden trout fishing was very good.

The trout hatchery operated by the Fish and Wildlife Service and the Kodiak Conservation Club, located at the U.S. Naval Station, Kodiak, produced 1,787,200 steelhead fry this period which were planted during the period 5 August through 16 August. Messrs Fred Bittle, Fish Culturist, and Marcus Meyer, Construction Superintendent, were in charge of local distribution. The distribution was facilitated by the use of Naval and Air Force aircraft and trucks. The following is a break-down of steelhead fry distribution:

KODIAK AREA

Cliff Point Area	93,000
Kalsin Bay "	92,000
Pasagshak "	54,000
Buskin River	279,000
Narrow Cape Area	59,000
Spruce Cape "	90,000
Naval Base "	35,000
Woody Island "	42,000
Bell's Flats "	84,000
Cape Chiniak "	48,000
Anton Larsen Bay "	39,000
Portage Bay Area	63,000
Spiridon Bay "	127,000
Fraser Lake	171,000

TOTAL 1,276,000

Anchorage Area 511,200.

E. Violations

No known violations occurred on Refuge lands during this period.

VII. OTHER ITEMS

A. Items of Interest

Jim H. Branson, Enforcement Agent, of the Anchorage District, was transferred to the Kodiak District to handle enforcement matters in this area.

John E. Lutz, Wildlife Management Biologist, assigned to the Refuge since June 4, 1952, terminated his duties on 15 August. Mr. Lutz plans to return to the University of Michigan to complete his Doctorate in Zoology.

Russell R. Hoffman, Wildlife Management Biologist, was on annual leave during the period 15 July to 15 August.

Paul A. Chapados, Refuge Manager, returned to Kodiak 29 June after an absence of 17 months spent on Military Furlough with the U.S. Navy.

September 15, 1953

Submitted by

Paul A. Chapados
Paul A. Chapados
Refuge Manager

Approved

W. A. Kins
Wildlife Management Supervisor



BLACK-TAILED DEER HEAD - DEER KILLED DURING THE FIRST
OPEN HUNTING SEASON - KODIAK-AFOGNAK ISLAND GROUP



BLACK-TAILED DEER - TWO POINT BUCK BEING WEIGHED AT
THE CHECKING STATION



TWO BLACK-TAILED DEER ON CAR FENDERS APPROACHING
THE CHECKING STATION



TWO BLACK-TAILED DEER SHOWING ANTLERS IN VELVET STAGE



EIGHT FOOT FEMALE BEAR KILLED BY FISHERIES RESEARCH INSTITUTE
PERSONNEL ALONG COTTONWOOD CREEK, KARLUK LAKE. THE ANIMAL WAS
KILLED IN SELF DEFENSE AND WEIGHED 542 POUNDS.