



REFUGE NARRATIVE REPORT

May to August, 1949

KODIAK NATIONAL WILDLIFE REFUGE

F. L. Beals

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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 Navy Weather Station, NAS Kodiak.

	<u>Snowfall</u>	<u>Precipitation in inches</u>	<u>Temp.</u>		<u>Wind Monthly Mean</u>	<u>Wind Monthly Max.</u>	
			<u>Mean</u>	<u>Max.</u>			
May	0	5.94	46°	38°	9.0 knots	NW	54 knots
June	0	4.72	54°	44°	7.8 "	NNE	42 "
July	0	3.72	58°	49°	6.8 "	NNW	65 "
Aug.	0	2.87	61°	50°	7.2 "	W	46 "

Snow on the higher and intermediate elevations accumulated in greater depths and remained on the ground later than last year. The spring thaw and run-off did not take place gradually, as is normal, but occurred late and was continuous after the temperature started rising. This resulted in higher water levels in the larger lakes and streams than for the comparative period last year.

The late spring and abnormal high water levels in lakes and streams did not affect wildlife adversely in this district. Small lakes and ponds favored by nesting waterfowl were not affected by the run-off from snows melting at higher elevations.

The colder, though drier, spring this year favored the deer, elk, and reindeer. Although the temperatures were lower than for the same period last year there was less cold rain and drizzle. On lower elevations and southerly exposures at sea level snow dispersed early and exposed good browse.

##### B. Fires

No fires occurred on the Refuge this quarter.

#### II WILDLIFE

##### A. Migratory Waterfowl

The spring movement of transient dabbling ducks reached its peak the first week in May. Species noted on the area were Sprig, Mallard, Green Wing Teal, and Widgeons, and their relative plentifulness was in the order named. The largest daily count of a single species was made on May 1st when 530 Sprig were counted on the tidal flats of Woman's, Middle, and Kalsin Bays at the northern end of Kodiak Island. A seventy-five percent increase in Sprigs was noted over last



#### A. Migratory Waterfowl (Cont'd)

spring. No change over last spring was noted for Mallards, Teals, or Widgeons.

Mallards and Teals were observed through the period. Nests and broods were noted, although not in sufficient numbers to be considered important, except in an over-all picture. The area is not an important nesting area.

Winter resident sea or diving ducks were present in the area until mid-May. Principal species noted were Scaups, Golden-eyes, Old Squaws, Scoters, Eiders, Buffle-heads, and Mergansers. The only significant change in numbers of any species was for Buffle-heads and Pacific Eiders. A seventy-five percent decrease over last spring was noted for Buffle-head ducks. The number of Pacific Eiders observed nesting and rearing broods increased at least fifty percent.

An increase in numbers of transient geese and brant was apparent this spring; they were not observed after May 15th. It was estimated that this increase over last spring amounted to seventy-five percent for Black brant and fifteen percent for Canada-type geese. Emperor geese were noted in numbers comparable to the same period last spring. They were the first to absent themselves from the area and were apparently winter residents.

Four White-fronted geese were observed through binoculars at close range on May 1st. This is a first observation by the Refuge Manager. No previous reports have been received of this particular species being seen in this area.

Whistling swan were observed on the Refuge in June and July and, although nests were not found, it is believed that they nest regularly in the area. Nests and downy young have been noted in past seasons. The total number of adult Whistling swans on the Refuge is estimated to be not more than twelve.

There is no record of geese or brant nesting in the Kodiak-Afognak Island Group.

#### B. Upland Game Birds

Willow and Rock ptarmigan show a pronounced increase over last year. A warm and comparatively dry season has favored nesting and brooding. Ptarmigans, our only upland game birds, are hunted extensively for food and sport. The total annual take is very small, when compared to the large numbers of ptarmigans on the Refuge.

#### C. Song Birds

The first summer-resident Savannah sparrow was observed on May 14, 1949. Last year's first record was for May 7, 1948.

For this year, the first Golden-crowned sparrow was observed on May 17, 1949, and the first Hermit thrush sp. on May 17, 1949. The Refuge Manager was off the area and did not obtain arrival date for the last two species for 1948.

#### D. Shore Birds

During this period transient shore birds were noted up to May 15th. Species observed were Golden Plover, Sandpipers, Northern Phalarope, Yellow-Legs, Ruddy Turnstone, Jack Snipe, Wandering Tattlers, and Oyster Catchers. On May 1 a single

#### D. Shore Birds (Cont'd)

Flock of sixty Golden Plovers were observed on the tide flats of Woman's Bay and smaller groups of ten to twenty each noted frequently on later dates. Excepting Golden Plovers, which exceeded the normal, the shore birds compared in numbers with past seasons.

Northern Phalaropes, Sandpipers, Wandering Tattlers, Semipalmated Plovers, and Jack Snipes were observed in the area through the period covered by the report, and it is believed that they nest here. Nests and downy young of Phalaropes, Sandpipers, and Oyster Catchers were found by the Refuge Manager. Jack Snipes remain scarce throughout the area, with no indication of population increase.

#### E. Big Game Animals

##### Sitka Black-tailed Deer

##### 1. Population and Behavior

All deer observed this period were in excellent condition. There were no personal observations or reported losses by predation and it is believed that the potential danger of predation is negligible. Losses due to careless and wanton shooting along the beach and highway areas has been reduced through seasonal movement of deer to the back country and higher elevations. A warm and dry summer has favored survival of a good fawn crop, and a substantial increase in population is indicated. The bulk of population still remains on areas off the Refuge, though an increase in amount of deer sign and fawn tracks on the Refuge side of Kizhuyak Bay indicates an increase in that area. Tracks of adult deer, but not of fawn, were observed on the Refuge side of Ugak Bay. It is believed that deer have not materially increased their range since last year at this time. A survey will be made of the marginal areas of their range next winter, when snow is on the ground and tracks are more discernible.

##### 2. Food and Cover

The deer population is at its maximum where the cover type is a permanent stand of Sitka spruce, with Black Cottonwood stands on well drained slopes and valley floors. The populations thin beyond the area of spruce cover. Cover on the areas of sparse population is predominately an alder-elder-cottonwood type. All types of cover are permanent and sufficient in quantity, but it is doubtful that the alder serves as adequate winter protection.

Important food species are elderberry (*Sambucus* sp.), willow (*Salix* sp.), blueberry (*Vaccinium* sp.), Highbush cranberry (*Viburnum Pauciflorum*), grasses and sedges. Through the period covered in this report they are abundant and sufficient.

##### 3. Disease

No post-mortems have been made. No evidence of disease noted.

Olympic Elk (Although the elk are not within the boundaries of the Refuge, they are included in this report, since the Kodiak Refuge Manager is the Service representative assigned responsibility for the management of this introduced species.)



## E. Big Game Animals

### Olympic Elk (Cont'd)

#### 1. Population and Behavior

Aerial surveys were made in conjunction with fisheries' patrols, using Service aircraft, and are as follows:

May 25 - 1:30 to 2:00 PM; 35 min. flying time over elk habitat along Raspberry Strait side of Afognak and Raspberry Islands. Eleven elk of undetermined sex were observed in groups of 3, 3, and 5, at an approximate elevation of 500 feet, between Muskomee Bay and Afognak Village.

May 27 - 4:15 to 4:21 PM, and 7:40 to 7:48 PM; 14 min. flying time, covering elk habitat on both sides of Raspberry Strait between Muskomee Bay and Afognak Village. 25 elk of undetermined sex were observed between Afognak Village and Muskomee Bay. All elk observed were feeding in open areas between clumps of spruce cover at approximately 500 feet elevation.

June 3 - 155 minutes flying time between noon and 3:00 PM, covering all the bay drainages and much of the interior of the Island of Afognak. 2 elk of undetermined sex were observed opposite Port Wakefield cannery, on the Afognak side of Raspberry Strait and at approximately 400 feet elevation.

June 19 - 11:30 to 11:45 AM; 15 min. flying time over elk habitat between Afognak Village, Litnik, Afognak Lake, Malina and Malka Bays, Paramanoff Bay, Blue Fox Bay, Kazakof Bay, and Perenosa Bay drainages. One bull elk with antlers was observed inland and approximately one and one-half mile from Perenosa Lake. The elk was lying down and partially hidden in a small clump of spruce timber at valley floor level.

On August 8 a herd of 72 elk were observed from the patrol vessel "Shearwater II". They were on Afognak Island, opposite the Raspberry Strait "Narrows" at an approximate elevation of 600 feet, feeding and moving slowly in a westerly direction away from Afognak Village. Messrs. Ball, Elkins, and Haddon went ashore and made more detailed observations and photographs at closer range. They reported noting calves, but no antlered elk in the herd.

The elk herds remain quite sedentary through the summer, as well as the winter, along the Raspberry Strait, Afognak Lake, and Kazakof Bay drainages. One elk, a mature bull with prominent antlers, was observed inland, near the northeast end of Afognak Island. It represents the only summer observation of elk at that end of the island.

There is no evidence of predation by bear or eagles. It is felt that the herd, on its present range, has few natural enemies other than man and weather.

Weather conditions this quarter favored survival of the calf crop. No reliable data is available relative to time or extent of calving. Full use will be made of the new patrol vessel "Shearwater II" in securing necessary data in the future.

## B. Big Game Animals

### Olympic Elk (Cont'd)

#### 2. Food and Cover

Cover is basically spruce and alder, which is permanent and sufficient. Summer feed is not a problem. All food species exist in luxuriant quantities through this period.

#### 3. Disease

No post-mortems have been made. No evidence of disease noted.

### Reindeer

#### 1. Population and Behavior

Field patrols have not been made for the exclusive purpose of checking reindeer population and behavior. Observations and counts have been made from Service planes engaged in commercial fisheries stream surveys and patrols which have resulted in about seventy-five percent coverage of the reindeer range at the southern end of Kodiak Island. Reindeer were noted in bands of 30 to 150 each, totaling 800 to 1000 animals along a coastal strip thirty miles long by five miles wide between Low Cape and Halibut Bay. This population was observed in the area indicated, and in no other area, on four occasions this quarter. Until a detailed and accurate aerial count, devoted entirely to counting reindeer, is made it is not prudent to quote a population figure. However, it is my personal surmise that the size of the reindeer herd on Kodiak Island has been exaggerated in the past.

#### 2. Food and Cover

Food species other than lichens are plentiful to abundant. Nothing of

Nothing of importance can be added to previous reports.

#### 3. Disease

We have no information on disease and no post-mortems have been made.

### Kodiak Brown Bear

#### 1. Population and Behavior

The following bear kill on the Kodiak-Afognak Group by residents and non-residents, in defense of life or property, taken on collector's permits, and estimated illegal kills, will provide a working index to population trends:

	1948 (Jan. 1 to Aug. 31)	1949 (Jan. 1 to Aug. 31)
Resident Hunters	22	29
Nonresident Hunters	23	22
Defense of Life or Property	0	8
Collector's Permits	0	3
Estimated Illegal Kill	<u>15</u>	<u>20</u>
	60	84



## E. Big Game Animals

### Kodiak Brown Bear

#### 1. Population and Behavior (Cont'd)

The 1948 take by resident hunters is estimated to be sixty-five percent accurate; thirty-five percent or eight bear are added, making and adjusted total of sixty-eight bear taken on the Kodiak-Afognak Island Group for the Jan. 1 to Aug. 31, 1948 season.

The same breakdown of the bear kill on the Kodiak-Afognak Island Group for the period covered in this report is as follows:

Resident Hunters	21
Nonresident Hunters	16
Defense of Life or Property	7
Collector's Permits	5
Illegal Kill (estimated)	<u>16</u>
	65

A breakdown of the bear kill, excluding the estimated illegal kill, for the season Jan. 1 to Aug. 31 is as follows:

	<u>Males</u>	<u>Females</u>	<u>Unknown Sex</u>
Resident Hunters	15	8	6
Nonresident Hunters	18	4	0
Defense of Life or Property	1	-	7
Collector's Permits	<u>4</u>	<u>1</u>	<u>-</u>
	38	13	13

The bear kill, excluding estimated illegal kill, for the season Jan. 1 to Aug. 31, 1949, broken down into districts:

<u>Number</u>	<u>Districts</u>
14	Kodiak Island "Off-the-Refuge" area between Kizhuyak and Ugak
2	Afognak Island
2	Kizhuyak Bay
10	Uganik Bay and Island, including Terror Bay
28	Uyak, Zachar, and Spiridon Bays
2	Red River and Lake drainage
1	Olga Bay and Akmalura Lake area
1	Jap Bay (Pacific Ocean side of Kodiak Island)
3	Barling Bay( " " " " " " )
1	Three Saints Bay( " " " " " " )

Of the 64 bears killed between January 1 and August 31, 1949, 16 were taken on "off the Refuge" areas. 48 were taken on the Refuge. The heaviest hunted area was on the Shelikof Strait side of the island, between Kizhuyak and Uyak Bays.

At the beginning of the quarter most of the bears were out of hibernation and were feeding and roaming the intermediate to higher elevations. The early take was

## I. Big Game Animals

### Kodiak Brown Bear

#### 1. Population and Behavior (Cont'd)

from elevations between 500 and 1000 feet. When the season closed, on June 20, they were being taken from sea level to 500 feet, though they were still observed at higher elevations. High water in the streams made trout and early salmon feeding difficult and indulged in less than in the same period last year. A dry summer resulted in a low water level which, combined with a poor run of salmon, resulted in fewer bears than last summer on the principal salmon streams and lakes. By the end of July the number of bears observed on the Karluk Lake and River drainage was fifty percent, or more, less than for the same period last year. By the end of this quarter they were on the streams in normal numbers. Excepting that fewer cubs were observed this summer, the over-all population picture remains normal for the Refuge.

## F. Fur Animals, Predators, Rodents, and other Mammals

### Fur Animals

Species native to the area are Red fox and its color phases, Land Otter, and weasel. Introduced species are muskrats and beaver. The over-all populations have not changed greatly since this time last year. Foxes are still abundant in all areas. Land otters are common in the coastal sections of most of the area. The centers of plentifulness have not shifted from the broken and rocky coast of Afognak and Shuyak Islands. The same normal number of families and signs of activity have been observed as for last spring and summer. Weasels are still not as plentiful as they were last year, but are common, and generally distributed over all the area. Muskrats are not plentiful in any section, but are found in moderate numbers on Shuyak Island and, in diminishing numbers, toward the southern end of the Kodiak-Afognak Island Group. They are numerous enough to tempt the most aggressive trappers, but I do not know of any that were trapped last winter. In spite of this, they have not increased appreciably in number or advanced their range. Beavers show an increase in numbers on their established range, particularly along the marginal areas of their southerly advance. New workings and new colonies and renewed activity was noted in Uyak Bay this quarter. An open season for trapping, with a limit of ten, has been regulated for this winter, between February 1 and March 31. This will make the first season's take since their introduction to the area.

Food and habitat conditions are ideal for all the subject species in the area, excepting for muskrats. It is apparent that a combination of both limits the establishment and spread of this introduced species.

No evidence of disease has been noted. No post-mortems have been made.

### Sea Otter

Status same as last reported. A report, submitted near the end of this report period by a resident fisherman, that six sea otter were observed in Uyak Bay was investigated immediately and found to be unfounded. A hundred or more hair seals were found. The new patrol vessel "Shearwater II" was employed on this check and proved itself more than adequate.



### G. Predacious Birds, including Crows, Ravens, and Magpies

Species present the year around on the area are Bald Eagles, Gyrfalcons, Cooper's Hawks, Sparrow Hawks, Ravens, Crows, and Magpies. Transient species are Hawk Owls, Snowy Owls, and Short-eared Owls.

Their numbers are relatively stable. A bounty of two dollars, placed on Bald Eagles by the Territorial legislature last quarter, has resulted in a perceptible decrease in population in and adjacent to areas accessible to the general public; namely, the bays and valleys touched by public roads at the north end of Kodiak Island, and in the vicinity of native villages on Kodiak, Afognak, and Spruce Islands.

There is no conclusive evidence available to indicate that predacious birds are a deterring factor in the population fluctuations of game animals or game birds in this area.

### III REFUGE DEVELOPMENT MAINTENANCE

The Refuge Headquarter's office was moved from the Refuge Manager's quarters to the Fish and Wildlife Service office building formerly occupied solely by the Fisheries Management agent. The two offices were consolidated and open for business on July 1, the beginning of the fiscal year. A large sign placed on the office building indicates to the public that it is the headquarters office of the Fish and Wildlife Service, Department of the Interior. A flagpole will be erected and the national colors will be flown daily during office hours. Consolidation of the Refuge Manager's office and the Fisheries Management Agent's office, with services of Mrs. Helen Wright, Clerk-Stenographer, will be a long stride toward increasing the efficiency of operations in this district.

The U. S. FWS patrol vessel "Shearwater II", a new vessel furnished by the Branch of Wildlife Refuges, was received at Kodiak on July 23 for permanent assignment at the Kodiak National Wildlife Refuge. Additional equipment, including a new 5 H.P. outboard motor, two tenders, and a two-way radio transceiver, will be used in conjunction with the patrol vessel to make the operation here more efficient, complete, and satisfactory to all concerned.

### IV ECONOMIC USE OF REFUGE

No permits have been issued for the Kodiak Refuge.

The following four Special Use Permits for fiscal year 1950 were issued for fur-ranching on the Aleutian Islands Refuge:

- A-1200 to John Olsen for Caton Island
- A-1201 to John Olsen for Sarana Island
- A-1202 to the Kanaga Ranching Co. for Kanaga Island
- A-1203 to the Nikolski Native Community for Tanaga Island

No new or additional information can be added relative to the status of the grazing lease for the Alaska Native Service reindeer at the south end of the Kodiak Refuge.

### V FIELD INVESTIGATIONS

None.



## VI PUBLIC RELATIONS

### A. Refuge Visitors

Following is a list of those who visited the Refuge office during the period covered by this report:

May 6	Mr. Wilcox	Bureau of Land Management, Anchorage, Alaska
7	Floyd J. Heintz, Jr.	U. S. Geological Survey, Denver, Colorado
8	Tarilton Smith	Enforcement Agent, aboard FWS "Crane"
	Capt. Jorgenson	Master, FWS "Crane"
9	Don Collette,	Naval Air Station, Com. 17, Journalist
10	Fred E. Bailey	Alaska Native Soc. teacher, Old Harbor, Alaska
18	Dick Shuman	FWS; Karluk Lake, Alaska and Seattle, Wn.
23	Don Bevin	Fisheries Research Institute, Seattle, Wn.
June 8	W. A. Elkins,	FWS, Juneau, Alaska (in Kodiak from 6/8-15)
	Frank Clarkson	FWS Game Mgt. Agent, Texas (assigned for fishery patrol, Kodiak District, for summer)
12	Mr. Milan	Archaeologist, University of Alaska
13	Von J. & Thane J. Johnson	Bureau of Land Management, Anchorage
	N. Talmadge Nelson	" " " " " (in charge)
25	Dan Ralston	FWS, Juneau, Alaska
	Theron Smith	Aircraft Supvr., FWS, Anchorage, Alaska
	Bob K. Baker	Enfomt. Agent, FWS, Anchorage, Alaska
	Mr. Wilcox	Bur. of Land Mgmt., Anchorage, Alaska
26	Jim W. Scott	Div. of Forestry, Homer, Alaska
	Charles C. White	Div. of Forestry, Anchorage, Alaska
27	Lyle F. Jones and Ole Lierme	Public Survey Office, Juneau, Alaska
July 2	N. Talmadge Nelson,	
	Von J. & Thane J. Johnson,	
	and W. T. May	Bureau of Land Management, Anchorage, Alaska
1	Fred J. Heintz, Jr.	U. S. Geological Survey, Denver, Colorado
	J. E. Mundine,	Topographical Divn., Geological Survey, Denver, Colo.
5	Fred C. Roberts	Fisheries Management Agent, FWS, Naknek, Alaska
	Walter White	FWS Pilot
	W. F. Thompson	Fisheries Research Institute, Seattle, Wn.
8	Ralph P. Silliman	Chief, Div. Anadromous Fisheries, Central Ofc., Wash. DC
13	Messrs. Michaelson and Zuboff	Dept. of Labor
14	Talmadge Nelson and Don Griffith	Public Land Office, Anchorage, Alaska
	Leonard H. Davis	Student from Augusta, Ga. hired as Stream Guard by Territorial Fisheries
17	Ralph P. Silliman	Chief, Div. Anadromous Fish., Wash., D.C.
	Raymond Breuser	Fishery Aide, Karluk Lake, Alaska
	Clarence J. Rhode	Regional Director, FWS, Juneau, Alaska
18	C. Howard Baltzo	Asst. Chief, Alaska Fisheries
20	George Riebe	Green Bay, Wisconsin (Mink rancher)
	Larry Moore	Suamico, Wisconsin ( " " )
	Jim Leekley	Supt., Experimental Fur Farm, Petersburg, Alaska
25	Messrs. Randle & Davis	Sup. Survey Ofc. Juneau, Alaska
26	Earl Bright	Sup. of Vessels, FWS, Seattle, Wash.
1	George Kelez	FWS, Juneau, Alaska



## VI PUBLIC RELATIONS

### A. Refuge Visitors (Cont'd)

Aug. 5	John Ball	Chief of Operations, Br. of Wildlife Refuges, Wash., D.C.
	W. A. Elkins	Game Management Sup., Juneau, Alaska
	E. P. Haddon	Section of Still Photos, FWS, Washington, D.C.
11	Thos. S. Parke	Dept. of Taxation, Juneau, Alaska
15	Frank Clarkson	Game Management Agent, Houston, Texas
29	Jonas R. Rapoport	Enforce. Patrol Mgt., Maryland (Baltimore)
	Graham Mower, Jr.	FWS Pilot, Anchorage, Alaska

On July 17, 1949 a "guest register" was placed in the office. The above list, although not complete, gives the name of many of those who visited the office during the report period.

### B. Refuge Participation

A talk on wildlife regulations and conservation was made by the Refuge Manager to an audience of four hundred Navy personnel at the Navy Operation Base, Kodiak. Wildlife movies were shown to an audience of seventy-five school children at the Kodiak Community Center, Kodiak. Wildlife movies, in conjunction with a discussion of game conservation and regulations, were presented before an audience of two hundred Army personnel at Fort Greely, Kodiak.

### C. Violations

A case involving taking a brown bear on the Katmai National Monument was investigated. A conviction was secured against a resident of Kodiak, which resulted in a fine of three hundred dollars and six months suspended sentence.

The case against a nonresident Alaska Native Service school teacher at Chignik, involving the taking of moose on a closed area, etc., which was investigated at Kodiak last quarter, was brought to a conclusion this quarter at Chignik by Enforcement-Management Agent Smith, who put to good use affidavits and information secured by the Refuge Manager. Fines, suspended sentences, and seizure of rifles were obtained. Additional information relative to this case is on hand at the Regional Office, Juneau.

A number of illegal deer kills occurring along the Base-Chiniak road, and one at Spruce Cape, were investigated. Insufficient evidence was obtained for the prosecution of the deer-kill cases.

A violation, involving possession of a live red fox by a crew member of a fishing boat, was investigated. The fox pup was confiscated and liberated. No further legal action was taken.

One live red fox pup was voluntarily relinquished to the Refuge Manager at Kodiak. The fox pup was liberated and no legal action taken.

Two violations involving commercial fishing for salmon in the 500 yard restricted area off the mouth of a stream, near Cape Chiniak, will be tried at Kodiak next month.

During the period four registered guide examinations were given and eighteen

## VI PUBLIC RELATIONS

### Violations (Cont'd)

exports were issued for Kodiak bear trophies. During the same period information on game, fish, and fur regulations were furnished to approximately 800 persons.

Submitted by

Frank L. Beals  
Refuge Manager

September 12, 1949

Approved

9/20/49

W. A. Watkins

Wildlife Management Supervisor



# Office Memorandum • UNITED STATES GOVERNMENT

TO : Regional Director, FWS, Juneau

DATE: November 7, 1949

FROM : Refuge Manager, FWS, Kodiak  
Attn. Game Management Supervisor

SUBJECT: Refuge Narrative Report

Referring to your subject memorandum of September 20, 1949, the following comments are offered relative to the sex ratio in the kill which showed such a preponderance of males over females.

Some additional data has been gathered relative to the sex ratio in the take of Kodiak bears for the period January 1 to August 31, 1949.

	Males	Females	Unknown sex	Totals
Resident hunters .....	18	9	2	29
Nonresident hunters .....	18	4	-	22
Defense of life or property ..	1	-	7	8
Collectors permits .....	4	1	-	5
Totals	41	14	9	64

For the same period the 51 bears taken by resident and nonresident hunters occurred in the following months.

	Resident Hunters :			Nonresident Hunters :		Totals :
	Males	Females	?	Males	Females	
March....	1	*	-	-	-	1
April ...	4	1	2	6	-	13
May .....	9	5	-	12	4	30
June ....	4	3	-	-	-	7
Totals.	18	9	2	18	4	51

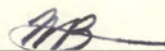
The preponderance of males over females in the spring season take as shown by data in the Refuge Narrative Report for May-August, 1949, and the above revised data has been given careful thought by the Refuge Manager. The question has been discussed with numerous experienced resident hunters as well as with all the resident guides of Kodiak. It is our consolidated opinion that the answer lies in selective hunting and that selective hunting is aided by the habits of the two sexes during the spring open season.

The average adult male bear is larger than the average adult female. The size difference is apparent in the field to the experienced guide as well as to the average resident hunter with lesser experience. The nonresident hunter backed by his guide is after a record or near record trophy and has a large field to choose from. It is not uncommon for a guided hunting party to observe a hundred or more bears on a two weeks hunting trip and while many are duplicate observations they still have a large number from which to choose the largest specimen which in turn is more often than not a male bear. The case of the resident hunter is similar except for help of an experienced registered guide. He is after a large trophy and has more time to select it.

During the spring season male bears are restless, mating, and generally on the move. In this area the popular method of hunting is by boat cruising the bays and scouring the mountain sides with glasses. Wandering males of largest sizes are picked and pursued at leisure. The method is not foolproof and a barren sow is frequently

mistaken for a male. Two of the females taken this spring were selected deliberately because the hunters, nonresident ladies, desired small trophies or nothing. When a small animal was selected and taken it turned out to be a female in both instances.

The Refuge Manager will continue to keep data on sex ratio of the seasonal take in this district.



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Frank L. Beals