KODIAK-Planning & Accomplishment Report
1973

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Subject

1973 Planning and Accomplishment Report - Kodiak NWR

INTERIOR--PORTLAND, OREGON

US FISH & WILDLIFE SERVICE--ALASKA
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Planning and Accomplishment Narrative
Kodiak National Wildlife Refuge
Kodiak, Alaska

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PART I. REFUGE HIGHLIGHT STATEMENT

Brown bear hunting pressure on the refuge increased markedly during this period. A total of 130 bears was harvested as compared to an average of 67 for the same period the previous 4 years (Appendix, Table 1). This 194% increase was generated by generally good weather coupled with more hunters afield because:

1. The Marine Mammals Act made it illegal to take polar bears and this caused guides and hunters to seek other big bears to fill the void.

2. Less liberal brown bear seasons on the Alaska Peninsula shunted some guides and hunters to Kodiak.

3. A rumor persists that the brown bear may be placed on the endangered species list.

4. Since the changeover in personnel from Navy to Coast Guard at the Kodiak Base, sufficient time has elapsed so that many Coast Guard hunters now qualify as residents. This means they may hunt brown bears without the prohibiting expenses of a guide.

If this increased pressure continues it will be necessary to reduce the length of the bear season on the Kodiak NWR.

In mid-November an unusually large number of bald eagles was attracted to Karluk Lake by late beach spawning sockeye salmon. Two counts from a skiff on successive days along the lake shores totaled 70 and 111 eagles with adult-immature ratios of 59:41 and 52:48, respectively.

The snowshoe hare population on the refuge was unusually high this fall and winter with tracks common even in quite marginal habitat. By June it was obvious that *Microtus* numbers were increasing also, probably approaching a peak.

In late January and early February the first complete waterfowl census in several years of all peripheral marine areas of the refuge was conducted from aboard the M/V Aleutian Tern. The results are presented in the accompanying appendix (page 8).

On March 8 the M/V Kodiak Bear II left for Ketchikan where it will be on loan to the Fisheries Services.

Many staff hours were devoted towards preparation of the Akalura Lake EIS which has yet to be made available to the public. This EIS involves the rehabilitation of a refuge sockeye salmon system by State Fisheries Biologists who, if the project is approved, will use sulfoxide-synergized rotenone to eliminate competitor fish species and re-establish a depleated salmon run.

The Kodiak NWR Wilderness Proposal was held in abeyance and will continue to be shelved until Kodiak's Native Regional and Village Corporations decide what refuge lands they will apply for under the Alaska Native Claims Settlement Act. The four villages abutting the refuge qualify to withdraw a total of 12 townships (432 square miles) from the refuge. Under Section 22(g) of the Act those lands selected will "remain subject to the laws and regulations governing use and development of such Refuge". The Native Corporations have until December 18, 1974 to make known the specific lands they will select. Undoubtedly, major changes in refuge management will then be in order.

In July, during aerial brown bear surveys, it was noted that about 10 square miles of willow and alders in the Karluk-Frazer Lakes flats had not foliated. This was attributed to desiccation because of severe winds accompanied by unusually low temperatures the previous winter (1971-1972). In June of this reporting period patches of willows, alders, birch, and cottonwoods over much of the Karluk River drainage exhibited a similar condition which was obviously not desiccation but defoliation. The defoliation is to be closely observed during the remaining summer months to determine the causative agent.

Brown bear composition counts were conducted from a Bureau Supercub 150 in preselected areas along salmon spawning streams and in the alpine zone. Data from 455 bears showed an unexplainable drop in the percentages of yearlings.

A 7-pound brown bear cub found dead in May at the entrance of a den was sent to the Veterinary Pathology Department at Washington State University for necropsy. The only unusual pathogen located was a Shigella organism found in the lungs and liver. This organism is most commonly associated with diarrhea and other gastro-intestinal upsets, sometimes causing intense inflammation and ulceration of the large intestine. It is possible that such a young animal was quickly dehydrated and died indirectly from the diarrhea; however, there was no conclusive evidence as to the cause of death. Tissue samples will be collected from carcasses

of hunter-shot bears during the next few hunting seasons to determine if Shigilla, or any other organism might be associated with the low yearling ratios of which reference has been previously made.

PART II. REFUGE ACCOMPLISHMENTS

Because only two permanent FWS personnel have been available for field work on this 1,815,000 acre refuge little concise documentation is available to explain the differences in output production for FY 73. Much of the information consists of coarse estimates based on a marginal knowledge of outputs; consequently, in such circumstances when a significant deviation occurs usually all that can be said is that monthly estimates were inaccurate. Sometimes there may be an explanation for the difference but this will not always be the case. Deviations should become fewer as additional experience is gained with the system.

Interpretation

Other programs - This heading includes the AH's accumulated from overflights by commercial and private aircraft coupled with talks presented by the staff to the public. Deviation from the projected 13,325 AH's was extensive (-69%) because of a consistent gross underestimate of commercial flights. The original figure of 13,325 is still realistic and will be maintained in the records. Future monthly reports will take this problem into consideration.

Professional Services Rendered

This category is 43% lower than the original estimate and reflects inadequate input although the original base figure is also slightly high.

Hunting Migratory Birds

All hunting data are rough estimates that will vary considerable from year to year with weather and economic conditions. The 58% additional effort is attributed solely to monthly estimates that were higher because of good fall and early winter weather.

Hunting Resident Game

The main item that caused a -34% deviation in this category was AH's of brown bear hunting. The 200 hunters estimated to have been afield for six 8-hr. days each (which was used as the original base) was about right; however, the days afield for guides and assistant guides entered on the monthly Public Use Reports was low. A more accurate appraisal of this particular output will raise the AH's significantly.

Fishing

This -27% deviation was caused by consistently low monthly estimates which did not concur with the total projected AH's figured on an annual basis. No one period was especially low for any particular reason, rather, as with many categories, there was a tendancy to estimate low.

Wildlife Observation

The original estimate of 2,200 AH's derived from boat fishermen, people at gillnet sites, tourists, sport fishermen, hunters, and cannery workers is considered low and will be revised. There was a +92% deviation in this output.

Wildlands Appreciation

This is another case of no actual output production documentation; only estimates were available and they were 56% less than the original annual total, figured at 1,280 AH's.

Photography

The original estimated total output is low and will be refigured. The actual estimated output is nearly 5 times the original estimate. Photography continues to increase but is still not an output with heavy AH production.

PART III. APPENDIX

Waterfowl and Seabird Census

Refuge Managers Atwell and Berns and Boat Operator Putney spent January 25 through February 8, 1973 on the M/V Aleutian Tern censusing waterfowl and sea birds in the peripheral areas of the refuge and visiting three villages. Weather conditions were generally overcast with 10-15 knots of wind and temperatures in the high 20's to low 30's. Twice gale force winds made it imprudent to leave protected harbors. All refuge shorelines were paralleled closely while still maintaining an adequate safety margin. Shoals precluded moving in adjacent to some areas. Although never extensive, except in Olga Bay, ice did prevent us from reaching the heads of a few bays.

The shoreline of Kodiak Island was divided into 39 census segments, usually on an estuary basis, and sighting records were kept for each area. Three units were not censused because of ice conditions. We began the counts upon leaving the Kodiak small boat harbor but the coastline was not approached closely until we arrived at the refuge boundary in Viekoda Bay.

A total of 862 miles was traveled in 88 hours of running time, of which 58 hours were spent actually censusing. The average speed was 9.7 knots and fuel consumption averaged 23 gallons per running hour.

Only 33 different forms of avifauna were noted; however, some species were numerous, with the result that sightings averaged 923 birds per hour. More crested auklets (15,083) were observed than any other species but two concentrations accounted for 90 percent of the total. At Whale Pass an estimated 10,300 of these birds were feeding in the tide rips; another 3,200 were seen in Portage Bay.

Old squaws (7,863) were in small, scattered groups dispersed around Kodiak Island, some being in sight almost continually.

About 9,600 scoters were counted and two-thirds were identified to species. Of these, white-winged scoters were the most common (3,059), probably because they are the more easily identified of the 3 species, especially at a distance. Scoters were spread quite randomly around the island.

Common and Steller's eiders frequented the southern and eastern shores of Kodiak Island but were almost absent from

the Shelikof Strait coast. Of the 2 species, the common eider (4,512) was by far the most numerous, the ratio being 13 to 1.

The few murres observed close at hand were thick-billed but identification to species was very seldom possible. Nearly 7,000 murres were seen flying into Uyak Bay; two days later they were leaving.

The 621 emperor geese tallied were confined to the southeast third of Kodiak Island.

Puddle ducks, such as the 700 mallards and 200 pintails, were located in ice-free areas in lagoons and at the heads of bays. Near zero temperatures for several days prior to the census produced ice that probably pushed these particular duck species back onto rivers and spring-fed creeks.

Although 5 flocks of from 35 to 75 loons were seen, keying to species was not possible. On other occasions 3 lone birds were identified as yellow-bills.

Cormorants were very common, usually occurring in 2's or 3's except when grouped on small rocks protruding above the swells or when assembled to feed. A closely confined concentration of 300 was busily feeding 200 feet off shore near Alitak Lagoon.

Of 224 bald eagles censused, 220 were aged as either adult or immature. By far the largest number were adults (83%) which is probably a function of the immature birds' plumage characteristics; however, this also might indicate a seasonal migration of young eagles from the island.

Sightings of marine mammals included 2 sea otter: one 5-1/2 miles from the head of Viekoda Bay and the other off the west side of the Aliulik Peninsula, a mile north of Hawk Point. Seal sightings were spotty and totaled 385 with 200 concentrated at Ayakulik Island. Most sea lion observations were confined to the west-southwestern shores of Kodiak Island: 75 at Cape Uyak; 50 at Cape Karluk; 84 at Sturgeon Head; and 1,300 at Cape Ikolik. Weather conditions prevented passing Twoheaded Island on the seaward side so no count of that population was possible.

Deer were dispersed and appeared to be in good condition. This is undoubtedly related to the snow line which was quite uniform at 600 to 800 feet around the island. Thirty-eight deer were counted on the south-facing slopes of the bays on the northwest side of the island.

WATERFOWL AND SEABIRD CENSUS
KODIAK NWR
JANUARY-FEBRUARY, 1973

Oldsquaw	7,863
Harlequin	691
Common Goldeneye	146
Barrow's Goldeneye	24
Goldeneye sp.	1,142
Bufflehead	36
Greater Scaup	80
American Merganser	21
Red-breasted Merganser	13
Merganser sp.	39
Mallard	700
Gadwall	30
Pintail	200
Emperor Goose	621
Steller's Eider	340
Common Eider	4,512
Eider sp.	67
White-winged Scoter	3,059
Surf Scoter	1,194
Common Scoter	2,154
Scoter sp.	3,192
Crested Auklet	15,083
Ancient Murrelet	3
Murrelet sp.	63
Thick-billed Murre	66
Murre sp.	8,420
Pigeon Guillemot	46
Baird's Cormorant	1
Cormorant sp.	1,981
Yellow-billed Loon	3
Loon sp.	421
Red-necked Grebe	1
Holboell's Grebe	1
Grebe sp.	6
Glaucous-winged Gull	32
Mew Gull	356
Gull sp.	124
Adult Bald Eagle	183
Subadult Bald Eagle	37
Bald Eagle, age unknown	4
Magpie	28
Crow	524
Raven	8

Non-avian Wildlife Forms

Sea Otter	2
Land Otter	3
Seal	365
Sea Lion	1,531
Porpoise	12
Red Fox	2
Deer	38
Reindeer	4

UNITS FOR WINTER WATERFOWL AND SEA BIRD CENSUS
KODIAK NWR

1. Kodiak - Start Whale Pass
2. Whale Pass - Outlet Cape
3. Outlet Cape - Naugolka Point
4. Naugolka Point - Start Uganik Passage
5. Uganik Passage - East Point
6. East Point - Rock Point
7. Rock Point - Mink Point
8. Mink Point - Start Village Islands
9. Village Islands - West Point
10. West Point - Bird Rock
11. Bird Rock - Clover Rock
12. Clover Rock - Carlsen Reef
13. West & NW sides Amook Is. - Larsen Bay Village (2 miles south Larsen Bay to beginning of W. side Amook Is.)
14. Larsen Bay - Bear Is.
15. Bear Is. - Bumble Bay (Including)
16. Bumble Bay - Cape Alitak
17. Cape Alitak - Olga Narrows
18. Olga Narrows - Start Dog Salmon Flats
19. Dog Salmon Flats - Olga Narrows
20. Olga Narrows - Moser Pt.
21. Moser Pt. - Cape Hepburn
22. Cape Hepburn - Shag Bluff
23. Shag Bluff - Cape Trinity
24. Cape Trinity - Cape Kaguyak
25. Cape Kaguyak - Knoll Pt.
26. Knoll Pt. - Cape Kiavak
27. Cape Kiavak - △ Wide
28. △ Wide - Cape Kasiak
29. Cape Kasiak - Cape Liakik
30. Cape Liakik - △ Barclay
31. △ Barclay - Old Harbor
32. Old Harbor - Sitkalidak Narrows (Include)
33. Sitkalidak Narrows - Left Cape
34. Left Cape - Head of Kiliuda Bay
35. Head of Kiliuda Bay - Inner Right Cape
36. Inner Right Cape - Dangerous Cape
37. Dangerous Cape - Narrow Cape (not including narrows)
38. Narrow Cape - Cape Chiniak
39. Cape Chiniak - Kodiak

Table 1. Brown bear harvest on Kodiak National Wildlife Refuge related to residency status of hunter.

Year		Number Permits Issued			Number** Permits Used			Number Bears Taken		
		R*	NR	Total	R	NR	Total	R	NR	Total
1968										
	Spring	113	74	187	93	67	160	22	39	61
	Fall	17	45	62	6	37	43	1	24	25
	Total	130	119	249	99	104	203	23	63	86
1969										
	Spring	101	89	190	81	66	147	23	36	59
	Fall	47	17	64	7	14	21	0	12	12
	Total	148	106	254	88	80	168	23	48	71
1970										
	Spring	112	40	152	78	30	108	9	22	31
	Fall	51	25	76	45	17	62	16	16	32
	Total	163	65	228	123	47	170	25	38	63
1971										
	Spring	110	60	170	58	32	90	21	20	41
	Fall	58	27	85	33	29	52	12	17	29
	Total	168	87	255	91	51	142	33	37	70
1972										
	Spring	114	62	176	66	37	103	18	21	39
	Fall	57	62	119	46	53	99	21	32	53
	Total	171	124	295	112	90	202	39	53	92
1973										
	Spring	122	95	217	84	68	152	27	46	73

R* = Resident
NR = Nonresident
** = Hunters that actually went afield after bears

Table 2. Brown bear alpine composition counts 1970-1972.

	1970*		1971		1972	
	No.	%	No.	%	No.	%
Adults	59	43	16	33	112	52
Subadults	32	23	14	29	59	28
Cubs	19	14	8	17	29	14
Yearlings	28	20	10	21	13	6
Totals	138		48		213	

*No alpine surveys were made in 1969 because of poor weather.

Table 3. Brown bear stream composition counts 1969-1972.

	1969		1970		1971		1972	
	No.	%	No.	%	No.	%	No.	%
Adults	33	36	43	36	63	32	93	39
Subadults	27	29	37	31	71	37	88	36
Cubs	5	5	14	12	44	23	39	16
Yearlings	28	30	25	21	16	8	22	9
Totals	93		119		194		242	