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U.S. FISH AND WILDLIFE SERVICE
ANNUAL ALASKA MARINE MAMMAL ACTIVITY REPORT

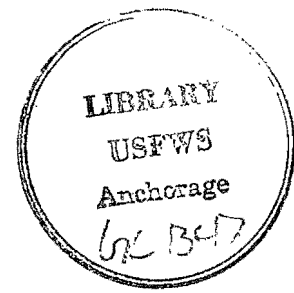
REPORTING PERIOD

January 1, 1982 to December 31, 1982

U.S. Fish and Wildlife Service
Wildlife Operations
Marine Mammal Project
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ADMINISTRATION



During the report period draft management plans were prepared for Alaskan stocks of walruses, sea otters, and polar bears. The draft management plans define problems and lay out strategies to resolve them. In the event the Alaska Department of Fish and Game resumes management of Alaskan stocks of marine mammals the plans will be useful to the Service in guiding any federal oversight function implemented by the conditions of a waiver action.

STATUS REPORTS

Polar Bear

Harvest surveys continued in the fall of 1981 and winter of 1982 on polar bears taken by natives off the Alaskan coast for subsistence purposes. The primary objectives of the survey were to determine the numbers, sex and age composition of the polar bear harvest. Alaska Department of Fish and Game (ADF&G) sealing certificates were utilized as were ADF&G metal interlocking tags for affixing to the skull and hide. Cranial measurements were used to correlate age by sex as an additional check to hunter provided information. Two vestigial post canine teeth are extracted for later sectioning and age determination through microscopic reading of annual rings (annuli). Date of harvest, location of harvest, name of hunter, caliber of rifle, meat utilization, and any incidental observations were recorded.

The documented minimum polar bear harvest for 1980/81 and 1981/82 hunting seasons were 106 and 90, respectively (Table 1). A minimum of 21 bears were harvested from January 1 to July 30, 1980, ADF&G records, and have been included in the pooled sample of 217 killed bears. Of this total 134 (61.8%) represent bears for which complete sex and age information was obtained; 52 (23.9%) represent bears for which adequate sex and/or age class information was obtained; and 31 (14.3%) represent bears known to have been killed for which sex and age information is unknown.

The sample of 134 known sex and age bears consisted of 27 percent young (cubs, yearlings, and 2-year olds), 31 percent females greater than 3 years of age and 42 percent males greater than 3 years of age. The sex ratio was 81 (60.4%) males to 53 (39.6%) females. Table 2 shows the age and sex composition of the harvest during the 1980-81 and 1981-82 hunting years.

From January 1980 to April 1982 a minimum average annual removal of 38 females occurred. This figure excluded 31 bears of unknown sex and age. If the percent of adult females of known sex and age bears is applied to the 31 excluded bears then the average annual female harvest is 44 bears. Polar bear were harvested during each month of the year except no harvest was known during September (Figure 1). Of 197 bears sampled, 123 (62.4%) were harvested during November, December, and January. Forty-five bears (22.8%) were harvested in October and November, primarily in North Slope villages. The chronology differs markedly from that of the sports hunting era during which the harvest was concentrated during February through April.

Table 1. Alaskan Polar Bear Harvest by Village, 1980-82.

Village	Jan. 1980 to July 1980 ADF&G Data	July 1980 to May 1981 USFWS	May 1981 to March 1982 USFWS
Kaktovik	-	23	1
Barrow	3	7	4
Nuiqsut	1	-	-
Wainwright	3	8	13
Pt. Lay	-	1	4
Pt. Hope	-	9	7
Kivalina	-	-	1
Shishmaref	-	29	22
Wales	5	6	11
Little Diomede	-	1	3
Gambell	2	6	1
Savoonga	7	16	21
Nome	-	-	1
Emmonak	-	-	1
TOTAL	21	106	90

Table 2. Sex and Age Composition of Alaskan Polar Bears Harvested during 1980-82.

AGE	MALE		FEMALE		TOTAL	
	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT
1	1	.7	0	0.0	1	.7
2	10	7.5	4	3.0	14	10.5
3	14	10.4	7	5.3	21	15.7
4	13	9.8	1	.7	14	10.5
5	7	5.3	1	.7	8	6.0
6	8	6.0	4	3.0	12	9.0
7	4	3.0	5	3.7	9	6.7
8	8	6.0	3	2.2	11	8.2
9	6	4.5	5	3.7	11	8.2
10	1	.7	2	1.5	3	2.2
11	0	0.0	3	2.2	3	2.2
12	2	1.5	5	3.7	7	5.2
13	1	.7	1	.7	2	1.5
14	1	.7	3	2.3	4	3.0
15	2	1.5	1	.7	3	2.2
16+	3	2.2	8	6.0	11	8.2

Total Males: 81
x Age: 5.8

Total Females: 53
x Age: 9.0

Walrus

Walrus management activities in 1982 included a continuation of the health and harvest study including collection of harvest data in four villages, collection of body parts for heavy metals and pesticides analyses, continued coordination and planning with the Eskimo Walrus Commission and Pacific Walrus Technical Committee, and providing walrus distribution and abundance information for the Bristol Bay Cooperative Management Plan (mandated by provisions of the Alaska National Interest Lands Conservation Act).

This year the Fish and Wildlife Service entered into a cooperative walrus harvest monitoring agreement with the Eskimo Walrus Commission (EWC). Service biologists were placed in four primary walrus hunting villages (Gambell, Savoonga, Nome and Little Diomedé) to collect harvest information on numbers, sex, age and timing of harvested walruses. The EWC agreed to pay for stomach samples and reproductive tracts. The intent of acquiring reproductive tracts and stomach contents was to substantiate the changes in productivity and food availability detected in the 1980 series of samples.

According to Alaska Department of Fish and Game studies conducted in 1978 approximately 70-80 percent of walruses harvested are taken by residents of five northwest Alaska villages. A summary of the walrus harvested in these five villages during the spring is presented in Table 3. This percentage may have changed in response to walrus availability in other villages due to the increasing population expanding its habitat range. During the last 2 years

(summer and fall), opportunities have increased to harvest greater numbers of walrus on the North Slope. In addition, hunting activity in Shishmaref, Pt. Hope and at the Pt. Spencer camp for the hunters from Teller and Brevig Mission increased. Approximately 200 walrus were taken in Shishmaref in 1981 while only a small undetermined number were taken in 1982. In Pt. Hope approximately 250 animals annually were harvested in each of the last 2 years.

Intense walrus hunting activity in the Pt. Spencer area has been observed from the air, but no ground reconnaissance has taken place to verify the number of walrus taken. Wainwright hunters harvested 60-80 walrus this year and an estimated 50 in 1981. Barrow residents harvested an undetermined number of walrus in the last 3 years. The Barrow harvest is believed to be greater than Wainwright and may be significantly higher.

A total of six stranded abandoned walrus calves were transported from Prudhoe Bay in August. Two were sent to Point Defiance Zoo in Tacoma, two went to the New York Aquarium and two were taken to Sea World in San Diego. The first four were captured by Service personnel and were temporarily housed at the Anchorage Zoo, then sent to the Lower 48. The appearance of these calves in Prudhoe Bay, which is several hundred miles east of their normal range, was probably due to the combined factors of increased use of the Bering Sea from Barrow to Prudhoe Bay by an increasing walrus population and the prevailing condition of pack ice holding the walrus close to the coastline. In addition, three calves were rescued in Barrow by a North Slope Borough public health officer and were taken to Sea World.

A video-tape presentation was completed explaining the process and reasons why the Service is collecting walrus samples and monitoring the walrus harvest. The tape was aired to villages via satellite television and copies were sent to each walrus harvesting village. The village schools have the necessary equipment to show videotapes.

In March the Service received the final report "Analysis of Reproductive Organs and Stomach Contents from Walruses Taken in the Alaskan Native Harvest, Spring 1980". This report prepared by F.H. Faye and S.W. Stoker of the Institute of Marine Science, University of Alaska, Fairbanks, and their 1982 report "Reproductive Success and Feeding Habits of Walruses Taken in the 1982 Spring Harvest with Comparisons from Previous Years," suggests that Pacific walrus productivity has declined from 1975 levels as indicated by a higher proportion of less productive females in the population and a depleted food supply. The unit weights of prey (primarily bivalve mollusks) were about the same for 1980 and 1982 but were considerably smaller in size than in 1975. Stomach contents in 1980 and 1982 were very similar but differed markedly from 1975 showing a lower incidence of clams and a higher proportion of other invertebrates and fishes in 1980 and 1982.

Sea Otter

Increases in subpopulations of sea otters, range expansions into areas also used by humans, and their ability to greatly reduce the abundance of sea urchins, mussels, clams, abalones, and dungeness crabs are causing a growing concern among recreational, commercial, and subsistence users of shellfish in some areas of Alaska. Areas where otters are probably overpopulated and competing with humans for the same shellfish resources are Atka, southern Kenai Peninsula and parts of Prince William Sound. Other areas where the increase of sea otters is eventually expected to cause similar conflicts are the Kodiak Archipelago, the south side of the Alaska Peninsula, north Gulf of Alaska coast and southeast Alaska. These are all areas where human populations are utilizing shellfish resources that otters prey upon. Unless some remedial actions are taken to keep some subpopulations within the carrying capacity of their habitat competition between otters and humans will intensify. This in turn will heighten animosity toward sea otters and lead to increased illegal killing. Other ecological impacts of sea otters are expected but few have been documented. In some areas predation by sea otters has reduced invertebrate grazers and kelps have increased. Obviously, changes in primary production and the assemblage of primary producers is likely to have pronounced effects on other marine community components.

A preliminary survey of sea otter distribution along the outer Kenai Peninsula

was accomplished during 1982. The primary objective of this effort was to determine distribution of sea otters and the ratio of dependent young to adults.

The survey covered the coastline from Seldovia to Resurrection Bay. The Service vessel R/V Sea Otter, a 7-ton, 32-ft. motor vessel served as the survey platform.

In the study area 880 adult sea otters with 156 dependent young were recorded. Observations were recorded at 223 locations. Twenty of these localities accounted for 469 adults, or 53% of all adults sighted. Groups of sightings are considered to be local population centers. The area from Point Adam to Chugach Bay, including the Chugach Islands, supports a large population, in all accounting for about 50% of the adults observed.

During the last quarter of the report period background data concerning the sea otter/shellfish conflict in the Cordova area was collected and a study plan initiated to address this problem. The objective of this proposed study is to determine distribution and monitor movements of sea otters from Orca Inlet near Cordova and waters of Hinchinbrook Island eastward into the Copper River Flats and Controller Bay.

The Alaska Department of Fish and Game in Cordova is concerned over increased sightings of sea otters in the Cordova Flats. This eastward movement may result in the establishment of a new population of otters in Controller Bay. This bay is presently utilized as an important commercial dungeness fishery by the Cordova fleet.

ENFORCEMENT

Undercover investigations of the illegal trade in marine mammal parts continued but at a much reduced scale, during 1982.

A resident of Nome was arrested in Juneau after he sold polar bear paws, a complete polar bear hide, and walrus ivory to an undercover agent. He was sentenced to sixty (60) days in jail and placed on two (2) years' probation by the U.S. Magistrate in Juneau.

Charges against a Kodiak Island man are pending in U.S. District Court as a result of a buy/bust situation when he offered to sell (3) sea otter hides to an Undercover Agent.

An Anchorage pawn shop owner was convicted of selling raw walrus ivory by a jury in U.S. District Court, Anchorage. She was fined \$2000 and placed on two years' probation.

U.S. District Court, Anchorage upheld a \$7000 civil penalty assessment against a Nome man for illegal possession of a polar bear hide. Defendant appealed to Ninth Circuit Court of Appeals. The Appellate Court affirmed the U.S. District Court decision.

The U.S. District Court forfeited thirty-six (36) walrus tusks to the Service

in a civil proceeding. Three (3) other forfeiture proceedings involving seventy-nine (79) walrus tusks and fourteen (14) Sperm whale teeth and an \$8000 civil penalty, are pending.

Civil penalty proceedings have been initiated against a non-native man in Sitka accused of buying raw walrus ivory, carving it, and selling it to local gift shops. Search warrants were served on six (6) Sitka gift shops and numerous carvings were seized. Civil penalty proceedings to obtain forfeiture of the items have been initiated.

ALASKA ENFORCEMENT SUMMARY:

ACTIVE INVESTIGATIONS:

Walrus	Fifty-three (53)
Polar Bear	Thirteen (13)
Sea Otter	Ten (10)

CLOSED INVESTIGATIONS:

Walrus	Twenty-seven (27)
Polar Bear	Three (3)
Sea Otter	Three (3)

CASES SUBMITTED FOR CIVIL PENALTY:

Walrus	Twenty-four (24)
Polar Bear	Three (3)
Sea Otter	One (1)

CIVIL PENALTIES:

Fourteen people involved in \$4200 civil penalties, \$5200 forfeiture value

CRIMINAL PENALTIES:

Seven people involved in \$41,500 penalties, 1395 days of jail, 1285 days jail suspended, 110 days served, thirteen years, eleven months probation

DOCUMENTED RETRIEVED SPRING WALRUS HARVEST 1980-82

M--males
F--females
C--calves

U--unknown adults

	1980				1981				1982			
	M	F	C	U	M	F	C	U	M	F	C	U
Gambell (Total)	-	-	-	556	345	373	243	0	211	404	298	29
		(556)				(961)				(942)		
Savoonga (Total)	417	34	5	0	302	258	81	21	79	63	19	6
		(456)				(662)				(167)		
Nome/King Island (Total)	-	-	-	500*	379	367	9	0	567	87	7	46
		(500)				(755)				(707)		
Little Diomede (Total)	229	437	16	27	458	304	36	10	162	315	35	46
		(709)				(808)				(558)		
Wales (Total)	37	31	0	0	94	34	0	0	43	58	3	15
		(68)				(128)				(119)		
Subtotals	683	502	21	1083	1578	1336	369	31	1062	927	362	142
Grand Totals		2289				3314				2493		

* Alaska Dept. of Fish and Game estimate

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