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MARINE MAMMAL MANAGEMENT ACTIVITIES IN ALASKA<sup>1</sup>  
U.S. Fish and Wildlife Service  
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Introduction

It is no secret that, after passage of the Marine Mammal Protection Act in 1972, the Fish and Wildlife Service did little to initiate a management program in Alaska to continue those activities previously carried out by the State. The reason, simply stated, is that the Service expected imminent return of management to the State and, with limited resources, decided not to implement a major management program. This fact is well documented in the recent GAO report and the legislative history to the recent amendments to the Marine Mammal Protection Act. Of course, the Service continued ~~comments presented to the meeting of the Marine Mammal Commission,~~ an active research effort focused mainly on polar bears and sea otters.

In 1979 when the State returned management of the walrus to the Service, it was decided that a initiation of a management program was essential. By late 1979, we began building a marine mammal capability, ~~in~~ both biological and enforcement, in the Alaska Regional Office.

Today, I will give the Commission and its Scientific Advisors an overview of our marine mammal management activities in Alaska during the past 2 years and some insight into our future plans. My discussion will repeat much of the information sent to John Twiss in September, but may be of benefit to those of you who may not have received a copy of our letter to Mr. Twiss. In addition, I will try during the course of my discussion to answer the questions raised by Mr. Twiss in response to our letter.

<sup>1</sup> comments presented to the meeting of the Marine Mammal Commission, October 22-23, Seattle, WA.

## Walrus

During the period since early 1980 the Service has initiated a very active walrus program. The major activities include implementation of a harvest survey and population health study, patterned closely after the State's previous program and using some of the same personnel, a joint US-USSR aerial walrus survey in the Chukchi Sea and along the Bering Sea coast, beached walrus carcass surveys, formation of the ad hoc Pacific Walrus Technical Committee, participation in a joint US-USSR pinniped research cruise in the Bering Sea, and, of course, active involvement in discussions and proposed amendments to the Marine Mammal Protection Act. Following is a relatively general description of the objectives and results of the various activities.

### 1. Harvest Survey and Population Health Study

#### a. Objectives

- (1) Determine the size, age and sex composition, and distribution of the spring walrus harvest by Natives.
- (2) Monitor the health of the population by collecting and analyzing ovaries and stomachs.

#### b. Methods

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In 1980<sup>1</sup> field biologists were stationed for 1-2 months in May and June in five villages where the vast majority of the harvest is known to occur. These villages included Nome, Gambell, Savoonga, Diomede and Wales. Although some walruses are taken during most months, the spring harvest comprises at least 75-80% of the total for the year. Meetings were held with village leaders and hunters to explain the program and seek their cooperation in providing harvest information and biological specimens. A local Native assistant was hired in

each village. A contract with Kawerak, Inc., the non-profit native corporation for the Bering Straits Native Region, was established which, essentially, authorized and paid Kawerak to pay the Native hunters for the stomachs, ovaries and teeth they brought in to the FWS biologist. The biologist and his or her assistant met the boat on the beach as they returned from hunting, attempted to get a total count of walruses in the boat (generally just the heads and certain parts such as flippers), asked the hunters to provide the parts we were collecting for analysis, and attempted to gather information on crippling loss, use of the walrus parts, and a variety of other potentially useful items. In 1981 the process was similar although, rather than contracting with Kawerak to buy the parts, arrangements were made with the individual village stores to pay the hunters for the parts. Also, in 1981, only teeth were purchased based on a recommendation from Dr. Bud Fay that it should not be necessary to collect stomachs and ovaries every year. In 1981 we collected blubber, liver and kidney samples from a small number of harvested animals to be analyzed for pesticide and heavy metal contaminants.

Records were kept using a standard format and each of the biologists prepared a report. These individual reports for 1980 and 1981 are being consolidated at this time into a single report which will describe the methods and preliminary results for the two years of effort.

Tooth sectioning to determine age of harvested animals is being done by Service biologists and a Native assistant in Nome. A contract has been issued to Dr. Bud Fay, Institute of Marine Science, to conduct the analysis of the stomach contents and reproductive tracts. The contaminants analysis is being done by our Patuxent Wildlife Research Center.

A State Department of Fish and Game biologist instructed our personnel the first year in methods of gathering the data and specimens.

c. Results

Since the analysis of biological specimens is not yet complete, I can only report what we estimated for total harvest by hunters in the five villages. Our harvest estimates are as follows for 1980 and 1981:

<u>Village</u>	<u>1980</u>	<u>1981</u>
Gambell	✓556	963
Savoonga	✓456	581
Diomede	✓709	808
Nome	✓500	758
Wales	<u>68</u>	<u>128</u>
Total Estimate	2,289	3,238

Our biologists feel the apparent increase in harvest in 1981 was the result of better hunting conditions. According to information on harvest synthesized during the waiver process in the mid-1970's, the average annual Native retrieved harvest was less than 1,670 prior to 1972 but it increased after enactment of the MMPA. The State intended to limit the retrieved take under the waiver to 2,300. The quota established under the waiver was 3,000 animals. According to information provided to us by Dr. Popov of the Soviet Union, the average annual Pacific walrus harvest in Soviet territory for 1973-1979 was about 1,300.

2. Joint US-USSR Aerial Walrus Survey - Chukchi and Bering Sea.

a. Objective

(1) To obtain an estimate of the minimum population size of the Pacific walrus population during the fall on the US and Soviet sides of the Chukchi and northern Bering Sea

b. Methods

As a part of the 1972 US-USSR Environmental Agreement, Marine Mammal Project, it was decided that a joint aerial survey of walruses should be undertaken in the fall of 1980, <sup>with</sup> ~~will~~ each nation surveying its own areas of the Chukchi and northern Bering Seas. Although plans for the U.S. survey were scrapped initially because the Soviets did not respond to requests for information on dates, locations and methods, a meeting was held with Soviet Marine Mammal Research Chief Dr. Lev Popov in Anchorage in July 1980 and plans were resurrected for the survey. The U.S. portion covered the ice edge zone from approximately 172° 30'W to 153° 00' W and to the north and south of 72° N latitude, depending on the configuration of the ice edge. Forty north-south transects, each 1 mile wide, were selected and flown during the period September 10-20. The survey was flown at an average altitude of 500 feet using a high performance twin-engine aircraft. The project was a cooperative venture between the Service's Research and Management organizations and John Burns of Alaska Department of Fish and Game. An approximate 10% sample of the ice edge area was covered by the transects.

We understand from the Soviets that their aerial survey was not done using systematic transects, but primarily by attempting to locate and count all walruses hauled out on the ice and along the coast. It was conducted during the period October 1-20 I believe.

In addition to the ice edge transects, we attempted to survey all walrus haulouts along the coast from Barrow to Bristol Bay, including the large islands of the Bering Sea.

c. Results

Computer analysis of the data is continuing; however, preliminary results indicate a minimum estimate of 101,000 walruses occurred in the ice edge zone of the US survey area in September of 1980. This figure, combined with the numbers observed on haulouts along the coast of about 20,000, and the Soviet estimate of "more than 180,000" in their survey area, would indicate a minimum population estimate of at least 300,000.

3. Beached Walrus Surveys.

a. Objective

(1) To provide an indicator to walrus mortality over time

b. Methods

Low level aerial surveys were flown along the beaches from the Alaska Peninsula to Cape Lisburne in June, July and August, 1980, to count walrus carcasses and note their distribution.

c. Results

The number increased from 108 in June to at least 639 in August (including carcasses known to exist on unsurveyed islands). It is difficult to interpret the meaning of these numbers but if conducted over time they may provide an indicator of large changes in mortality. The surveys also help locate and determine numbers of walruses on known and new haulouts.

4. Joint US-USSR Pinniped Research Aboard the Soviet Vessel Zvyagino

During the period February 21 - March 18, 1981, a Service representative took part in the joint US-USSR research cruise in the Bering Sea. A primary objective was to gather information on reproductive biology of walruses, mainly to settle differences of opinion between Soviet and U.S. scientists on timing and location of mating, spatial and social organization during the mating season. 200 walruses were collected during the cruise.

10% were unretrieved. The analysis confirmed the U.S. position that mating occurs during winter and that walruses are polygamous as well as many other ancillary facts about breeding biology, feeding habits, distribution, physical condition and behavior. This was another project conducted under the auspices of the 1972 US-USSR Environmental Agreement. State and University of Alaska personnel were the principal U.S. scientists on board.

#### 5. Pacific Walrus Technical Committee

The Service had interacted with the Eskimo Walrus Commission (EWC) for several years. At its February 1980 meeting the EWC, State and Regional Director Schreiner agreed that a better mechanism was needed for discussing State, Native and Federal concerns about problems and needs of the walrus and its management. It was agreed that a technical committee might serve this purpose.

The Service took the initiative and, in October of 1980, the ad hoc Pacific Walrus Technical Committee was formed and held its first meeting. Two additional meetings and several subcommittee meetings have been held since that time. The make-up of the committee includes two regular members from each of the three organizations - FWS, ADF&G, and Eskimo Walrus Commission. A goal was developed at the first meeting, objectives of the committee have been developed and a set of walrus management recommendations were formulated and presented to the EWC. Although the Committee is really just getting organized, it seems to be a fairly good forum for objective discussions among the three member groups about walrus management and use as well as a mechanism for communicating with each other and keeping each informed about our respective walrus related activities.

#### c. Polar Bear

##### 1. Harvest Survey and Sealing Effort

In 1981, ~~a~~ comprehensive effort <sup>was initiated</sup> to determine the numbers, location,

chronology, sex and age of polar bears taken by Native hunters in coastal villages of Alaska and to seal hides and skulls. Ten villages were surveyed including Savoonga, Gambell, Wales, Diomede, Shishmaref, Wainwright, Pt. Hope, Barrow, Pt. Lay and Kaktovik. Local Native assistants were hired to do the actual sealing in seven of the villages. A Service biologist made monthly visits to most villages to collect sealing records, take measurements of hides and skulls, and try to confirm kills. Teeth were extracted from most skulls for aging.

As of June 1981, a total of 102 bears had been harvested and reports received in the following locations:

Gambell	6	Pt. Lay	1
Savoonga	13	Wainwright	8
Wales	6	Barrow	7
Diomede	1	Kaktovik	22
Pt. Hope	9	Shishmaref	<u>29</u>
		Total	102

The breakdown of sex/age is as follows: 33 adult ♂, 20 adult ♀, 6 cut , 1 cub , 14 adult sex unknown, 8 cub sex unknown and 20 sex and age unknown. Polar bear<sup>f</sup> believed to have been harvested last summer which are not included in the above<sup>s</sup> Calculation<sup>s</sup> include Pt. Hope 1, Wainwright 1, and Barrow 2. These animals will be sealed and data collected this fall.

Tooth samples collected during the 1980-81 season have not been sectioned or aged. A contract to ADF&G will be proposed in the near future. Quality of data provided by local <sup>Native</sup> assistants varied from excellent to poor. In areas where data were poor the Service biologist reconstructed the harvest and collected available data. (Wainwright and Barrow). All other data is expected to have +90% confidence limits.



## 2. International<sup>a/</sup> Activities

- a. Polar Bear Specialist Group Meeting, January 15-19, 1981, Oslo, Norway
- b. Consultative Meeting of the Parties to the Agreement on Conservation of Polar Bears, January 20-22, 1981, Oslo, Norway

### C. Sea Otter

- (1) Proposed population survey
- (2) Possible conflict with subsistence and commercial fisheries

### D. Management Planning

In FY 1981 a concerted effort was made to initiate development of management plans for the walrus, polar bear and sea otter. The plans are designed to be useful regardless of which agency has management authority. While the walrus and polar bear plans are presently being drafted, the walrus plan, of which a draft currently exists, is scheduled for final completion by March of 1982 and the polar bear plan by June of 1982. A draft of the sea otter plan should be finished by October of 1982. We plan to have drafts of these plans reviewed internally and by the MMC before we seek direct input from outside the government

### E. Law Enforcement

A large-scale undercover investigation into the illegal trade in walrus ivory was culminated in February with execution of 21 search warrants in five states and the seizure of 10,000 pounds of raw walrus ivory, several polar bear and sea otter skins, and numerous sperm whale teeth. Criminal charges have been filed in U.S. District Court, Anchorage, Alaska on nine subjects. Two subjects plead guilty in U.S. District Court, one paid a \$10,000 fine, received a two year probation and agreed to testify against other subjects. The other subject agreed to pay \$2,500 civil penalty. All seized ivory, value estimated at \$10,000, was forfeited to the

government.

Additional Marine Mammal Protection Act undercover investigations resulted in:

The apprehension and arrest of two Seward, Alaska men for taking and selling sea otters. Each received a 10-day jail sentence. Eight sea otter hides were forfeited to the government.

The apprehension and arrest of one Kodiak Island resident and one Anchorage man for possessing and selling sea otters resulted in 30-day jail sentences and \$1,000 and \$500 fines. Ten sea otter hides were forfeited to the government.

One Kodiak Island man arrested for sale of sea otter hides received a \$5,000 fine and a 2-year probation. Eight sea otter hides were forfeited to the government.

Charges are pending against an Anchorage man for sale of 57 pounds of walrus ivory to undercover agents.

Total MMPA investigations in FY 1981 were 54.

Future Activities

23 October 1981 (continued)

10:45 - 11:30	On-going research and management activities related to the North Pacific fur seal	NMFS Staff, Dr. Chapman, Dr. Eberhardt
11:30 - 12:15	NMFS activities related to endangered whales (other than the bowhead whale) and marine mammals in Alaska (right whales, humpback whales, gray whales, beluga whales, ice seals, sea lions, large seals, and harbor seals)	NMFS Staff, Dr. Weeden Dr. Johnson, Dr. Chapman, Dr. Mate
12:15 - 1:30	Lunch	
1:30 - 2:15	BLM activities related to marine mammals (other than the bowhead whale) in Alaska and elsewhere	BLM Staff, Dr. Weeden, Dr. Geraci Dr. Ralls
2:15 - 2:45	On-going and planned activities related to the conservation of local <u>Tursiops</u> populations	NMFS Staff, Dr. Odell, Dr. Perrin, Mr. Eisenbud
2:45 - 3:15	Tuna-porpoise update	NMFS Staff, Dr. Chapman Dr. Eberhardt, Dr. Hofman, Mr. Eisenbud
3:15 - 3:30	Coffee Break	
3:30 - 4:00	Status report on on-going activities related to the conservation and protection of Antarctic whales and seals	Dr. Hofman, Dr. Dayton
4:00 - 4:30	Report of the last IWC meeting, future meetings, and preparations for the future	Dr. Chapman
4:30 - 5:00	Dall porpoise update	NMFS Staff, Dr. Chapman, Mr. Eisenbud

TWENTIETH MEETING OF THE  
MARINE MAMMAL COMMISSION  
AND  
SIXTEENTH MEETING OF THE  
COMMITTEE OF SCIENTIFIC ADVISORS ON MARINE MAMMALS  
22-23 OCTOBER 1981  
UNIVERSITY TOWER HOTEL  
45TH AND BROOKLYN N.E.  
SEATTLE, WASHINGTON 98105

AGENDA

22 October 1981

9:00 - 10:30	Executive Session	
10:30 - 10:40	Introduction and welcome	Dr. Chapman
10:40 - 12:00	Protection and recovery of the Hawaiian monk seal	NMFS Staff, FWS Staff, Dr. Dayton, Dr. Eberhardt
12:00 - 1:15	Lunch	
1:15 - 2:15	Protection and recovery of manatee populations under U.S. jurisdiction	FWS Staff, Dr. Odell, Dr. Eberhardt
2:15 - 3:15	Protection and recovery of the California sea otter population	FWS Staff, Dr. Dayton
3:15 - 3:30	Coffee Break	
3:30 - 4:30	Protection and recovery of the North Pacific population(s) of bowhead whales	NMFS Staff, BLM Staff, Dr. Weeden, Dr. Johnson
4:30 - 5:15	FWS activities related to marine mammals in Alaska (polar bear, walrus, sea otter)	FWS Staff, Dr. Weeden, Dr. Johnson, Dr. Eberhardt,

23 October 1981

9:00 - 9:30	Nature and potential effects of recent amendments to the MMPA	Mr. Eisenbud, FWS Staff, NMFS Staff
9:30 - 10:30	On-going and planned activities related to marine mammal-fishery interactions	Dr. Hofman, Dr. Mate, Dr. Johnson, NMFS Staff, Fishery Reps.
10:30 - 10:45	Coffee Break	

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