



62853
FWLB
6853
C3

UNITED STATES GOVERNMENT

memorandum

U. S. FISH AND WILDLIFE SERVICE

1011 E. TUDOR RD.
ANCHORAGE, ALASKA 99503
(907) 276-3800

TO: Robert Jones, OBS/CE

FROM: Kae S. Lourie, Refuges

SUBJECT: Walrus Project Field Report

DATE: 8/27/80

The following is a summary of the Gambell Walrus Collection Project that took place May 7 to June 7, 1980 at Gambell, St. Lawrence Island, Alaska.

Description of the Area:

St. Lawrence Island is located in the Bering Sea, 133 miles southwest of Nome and 37 miles southeast of Siberia. Gambell is located on the Northwest Cape of St. Lawrence Island. The Cape is composed entirely of ocean gravel and is flanked by a 2 mile long north beach and 3 mile long west beach.

Both the west and north beaches are eventually used by the walrus hunters for boat launching and landing. The boat activity on the west beach extends from the north point to the village end of the runway. That of the north beach extends from the west point approximately a mile to the east. Use of the two beaches is dependant on the ocean swells and the shore ice conditions. Old (late 1800's - early 1900) houses line the west beach. These for the most part are not presently lived in, but are used for storage or rented out to strangers (people not from Gambell). The BIA school, Presbyterian Church, G & E Enterprises (privately owned store), Gambell Native Store, Post Office, and Health Clinic are all located amongst or just behind this row of old houses. Bordering the north end of Troutman Lake is a group of older HUD or some other low income housing. Across from this group to the north is a new group of housing. These last two groups of houses are quite a ways away from the beach.

The People:

Gambell is a Siberian Yupik community of approximately 400 - 500 Eskimos. The only white residents are the Presbyterian minister and his wife, the Seventh-Day Adventist minister, the BIA teachers, State High School teachers, and an occasional spouse that has married into the community. The people of Gambell have, however, had a good deal of white contact. In the past, whalers

3 3755 000 44671 6

ARLIS
Alaska Resources
Library & Information Services
Anchorage, Alaska

and steamers would stop at Gambell, missionaries were active, and scientists or collectors like Otto Geist would come to call. Within the last few years a number of scientists have done studies on St. Lawrence Island, sport hunting guides have originated hunts out of Gambell, and bird watching tours come out each year (there were over 100 birders there this year).

I personally found the people in no way shy of me as a white person, and instead of the stereotyped "quiet native" were very talkative and unafraid to state their opinions. Many times when I would go to someone's home to visit, the host or hostess would ask all sorts of questions about myself and my job and especially about the politics of walrus hunting and management.

The people of Gambell are very money conscious. They know what things are worth in Anchorage, and take any opportunity to make some cash. This is very understandable when you consider the extremely high cost of living (double that of Anchorage) in Gambell. People have not, however, lost their helpfulness, friendliness, or humor. A distinction between you as a white person (source of money) and you as an individual person (whom they like) seems to be made as time goes on. This was especially apparent with the arrival of the bird watchers. The Eskimos saw them solely as a source of income whereas after awhile I lost that sole distinction and was treated also as a temporary member of the community.

Jobs are limited at Gambell. There are a few jobs through the BIA and State schools, post office, Native store, G & E (the private store), AVEC, Public Health Service, health clinic, and once and awhile with temporary construction projects. A lot of income seems to be made through ivory carving and artifact selling. I couldn't determine the degree of dependency on welfare. There are also a few people (a small minority, perhaps one or two families) that makes quite a lot of money renting out houses to the bird watchers and taking care of them. Renting houses to scientists and other visitors is also a source of income.

Gambell Eskimos are busy, hard working folks. Right after the whaling season they start walrus hunting. After that tapers off they switch to summer fish camps, root and berry gathering, and artifact digging. In the fall and winter many of them carve ivory. One conspicuous sight in Gambell is the meat drying racks. There are a lot of them scattered about and they are usually packed with meat. With high prices in the store and few jobs there is a lot of wild meat being utilized. There is perhaps more dependency on walrus and other marine mammals in Gambell than in Savoonga since Savoonga has the reindeer herd there and does not split the harvest with Gambell as they used to do in the past.

Walrus Hunting

Walrus hunting occurs incidentally during the whaling season, but only

swings into high gear after whaling is over. Gambell's walrus season starts up to a month before Savoonga's. By having access to the ocean from its west beach Gambell isn't held in during north winds that lock the ice pack up against the north shore. Dual access from the north and west also allows launching and landing from the most protected side when the swells are too high on the other side. As soon as the north beach opens up, hunters prefer to utilize the remaining snow for landing, as it is alot easier to pull the boats up across it.

Various hunters informed me that a north wind is good for hunting in that it holds the pack ice in closer to shore against the current. A south or west wind takes the ice (and therefore the walrus) away. An east wind is not too bad for hunting. South and southwest winds open up the bull walrus hunting around Savoonga and to the east and northeast of the Northwest Cape.

About a 20 mph wind is the maximum for going out. Anything over this is generally too rough. If the ice pack is broken up enough the water amongst the ice bergs is alot calmer than out in the open. If very much open water must be crossed the wind speed is more critical.

The ocean current generally goes north in the spring and south in the fall, but it also changes daily with the tide. An incoming tide creates a northerly current and an outgoing tide creates a southerly current.

Upon my arrival on May 7 the ice around Gambell was solid up against the north shore while a lead existed along the west shore running south. This heavy pack ice close to shore remained until around May 12 to May 14. On May 14th the ice had scattered and there was no ice on the horizon from the south to the west. There was a thin band visible on the northern horizon. From then on the ice pack was generally quite a distance off shore. Ice from the eastern side of the Northwest Cape started breaking up a little around this time and ice bergs from this region would float into the Gambell area. Depending on the winds ice would be close in or far off from shore. The ice started to really break up around Savoonga sometime around May 30th. The majority of hunting switched over to bull walrus hunting at that time north of Savoonga. Hunting started to decrease as fewer boats were bringing in walrus, as the distance to the ice pack to the north of Gambell increased, and as walrus hunting switched to the harvest of bulls north of Savoonga. Just a few days before termination of the collecting project (June 7) a few hunters abandoned the hunt around Gambell and made a trip to the Pujuk Islands on the south side of the island to scavenge ivory from dead walrus. See the following chart for more detailed information on weather, ice conditions, and hunting conditions.

Date	<u>Weather and Ice Conditions</u>
5-8-80	Low overcast changing to high partly cloudy, N winds 30 mph. Ice well packed on the horizon. A lead exists

along the west shore going south.

Hunting Conditions

Approximately 5 hunters went hunting.

5-9-80

Weather and Ice Conditions

High overcast, Sevuokuk Mtn. visible, NE winds 30 mph. Ice well packed on the horizon. A lead exists along the west shore going south.

Hunting Conditions

Too windy for hunting.

5-10-80

Weather and Ice Conditions

Overcast, Sevuokuk Mtn. visible, NE wind 30 mph, blowing snow. Ice well packed on the horizon. A lead exists along the west shore going south.

Hunting Conditions

Too windy for hunting.

5-11-80

Weather and Ice Conditions

Overcast, Sevuokuk Mtn. visible, NE wind 30 mph, changing in wind speed by afternoon to less than 20 mph. Ice well packed along horizon. A lead exists along the west shore going south.

Hunting Conditions

Morning too windy for hunting. Around 1300-1400 hours the wind died down. People started getting ready to go and went out. Some hunters saw approximately 300 walrus (mostly females and one year olds on up, no calves).

5-12-80

Weather and Ice Conditions

Low overcast, most of Sevuokuk Mtn. visible, intermittent fine drizzle. Morning: E-NE winds 15-20 mph (too choppy for hunting); afternoon: E wind 20 mph (OK for hunting).

Hunting Conditions

Heavy ice, good hunting. Some hunters saw approximately 250 walrus in vicinity (some males, yearlings, etc. mostly females).

5-13-80

Weather and Ice Conditions

Overcast, N-NE winds too windy for hunting.

Hunting Conditions

Too windy for hunting.

Weather and Ice Conditions

5-14-80 Low overcast. Morning: windy, gusts over 20 mph. Scattered ice at mid-day. By 2000 hours NE wind 15 mph; no ice on this side of the horizon to the S & W, thin band of ice on the horizon to the N.

Hunting Conditions

Winds died down 1430 hours or early afternoon enough to go hunting. Ice and walrus too far out, not good hunting, choppy water coming back. Wind pushing ice west. Ice was close together and water real rough. A few hunters saw up to 50 walrus (mixed males, females and calves); 200 (mixed composition); or 25 (all females), etc.

5-15-80 Weather and Ice Conditions
Morning: Overcast, Sevuokuk Mtn. visible, SE winds 20 mph; afternoon: same. Evening: partly cloudy, sun on the mountain. No ice visible to the south or west except a few ice bergs (20). Ice a few miles offshore to the N. Ice on horizon N to NE.

Hunting Conditions

Hunting to the N amongst the ice or to south or west (looking for ice, didn't find any). Some went 20 - 40 miles N-NW. Some saw 300 (males, female, etc.) up to 1,000 (mostly females).

5-16-80 Weather and Ice Conditions
Morning: sunny. Afternoon: snow flurries. Evening; foggy, alot of ice bergs close to shore, current going north, winds E-NE 15 mph gusts to 20 mph.

Hunting Conditions

Hunting to the W, NW, N 18-28 miles out. Some hunters had no luck due to bad weather. Others found the ice closed in and the wind good, or too windy and rough, or too foggy, or closed pack ice where they had to stay on the outside of the pack. Some saw 0-8 walrus total (mixed).

5-17-80 Weather and Ice Conditions
Sunny, clear, NE winds 20 mph (the wind makes a bigger difference when the water is open and not protected by ice bergs), ice on the horizon only.

Hunting Conditions

No hunting.

5-18-80 Weather and Ice Conditions
Morning: foggy. Afternoon: clear, sunny, NE winds too

windy and choppy to go hunting.

Hunting Conditions

No hunting.

5-19-80

Weather and Ice Conditions

Sunny, NE wind, early morning the ice was spread out enough to shelter the boats from the wind (good enough to go hunting). Later the wind picked up then died down to a light breeze. At 2030 - 2100 hours all the ice was close to shore from the SW all the way around to the NE (it had come around from the large bay to the SE). Ice 1/4 mile from the shore.

Hunting Conditions

Hunting to the SW 18-40 miles out. Some hunters found the ice broken up, the water calmer amongst the ice (good hunting conditions) but didn't see much game. Some saw 2 - over 100 walrus total (mixed).

5-20-80

Weather and Ice Conditions

Morning: low overcast, light snow, N wind 10-15 mph (variable). Evening: sunny, clear, slight breeze NW, ice close to shore.

Hunting Conditions

Hunting to the SW 10-40 miles out. Some hunters found good hunting conditions but hard to find game. Some saw 0-150 walrus (mostly females, a few bulls, and some yearlings and immatures).

5-21-80

Weather and Ice Conditions

Morning and evening: Sunny, NE breeze 10 mph, ice close to shore to the N, W, S, (ice came from the large bay to the SE).

Hunting Conditions

Hunting to the SW, W, NW, 10-35 miles out. Some hunters found good ice and water conditions for hunting but didn't see much game or too rough in the open water to go to the ice pack to the NW. Some saw 0 - 25 walrus total (mixed).

5-22-80

Weather and Ice Conditions

High overcast, Sevuokuk Mtn. visible, morning: wind 10-15 mph, N-NE, evening: N-NE wind gusts to 20 mph. Ice close to shore, (ice came from the large bay to the SE) ice in all directions.

Hunting Conditions

Hunting to the W, SW, S, NW 15-30 miles out or around the ice pack. Some hunters found that the water was calmer earlier but towards the end of the hunt was getting too rough on the outside of the pack ice. some saw 0-8 walrus total (mixed).

5-23-80 Weather and Ice Conditions
Morning and evening: low overcast, winds N-NE over 20 mph, too big of swells and too windy to go hunting.

Hunting Conditions
No hunting, too windy.

5-24-80 Weather and Ice Conditions
Morning and evening: overcast, rain, NE wind 15-20 mph. Alot of hunters didn't go out because of the rain.

Hunting Conditions
Two hunters went hunting to the SW and W around the edge of the pack ice approximately 30 miles. The ice was high and too consolidated to be good for hunting, had good weather and water conditions, though. Saw 2 females without calves and 2 males and 1 female with unborn calf.

5-25-80 Weather and Ice Conditions
Morning: low overcast, fog, rain, E wind over 20 mph. (too rough to hunt). Evening: high overcast, winds died down by 1630-1700 hours to 20 mph. Alot of people launched boats from the north beach.

Hunting Conditions
Hunting to the W, NW 5-30 miles out. Some saw 0-20 walrus total (mixed).

5-26-80 Weather and Ice Conditions
Low overcast, intermittent rain, NE winds 15-20 mph. Ice scattered to the west, close to the shore with a few leads to the north.

Hunting Conditions
Hunting to the W, NW, NE, N 10-greater than 30 miles out. Some hunters found good ice (lots of it and spread out) but not much game, or flat clean ice from Siberia with game on it. Some saw 0-7 walrus total (mixed).

5-27-80 Weather and Ice Conditions
Morning: high overcast, wind NE 15 mph. Evening: partly cloudy, high overcast, winds 5 mph. Ice scattered to the N, alot of open water, ice pack to the N 2 1/2 miles offshore, to the NW on the horizon, no ice to the W

except a few bergs (not even on horizon).

Hunting Conditions

Hunting to the W, NW, N NE, S 15-50 miles out. Some hunters found rotten Russian ice, the type that not much game is found on, or hunted within the pack ice, or that the ice by Savoonga was too tightly consolidated but the ice to the W of Savoonga was scattered and good. Some saw 0-20 walrus total (mixed).

5-28-80

Weather and Ice Conditions

Morning and evening: fog, visibility 1/4 mile, NW winds 5 mph, 2-5 miles of open water to NW to the ice pack.

Hunting Conditions

Hunting the N, NW, NE, W, E 15-30 miles. Some hunters didn't see anything because it was too foggy, others found it too rough (there was 15 miles of open water to the ice to the NW) or that the game had all been shot off. Some saw 0-5 walrus total (males, some females).

5-29-80

Weather and Ice Conditions

Low overcast, fog, light intermittent drizzle, variable winds, S, SE, E, W, 10 mph. No ice to the N or W.

Hunting Conditions

No hunting, waiting for new ice from the west to bring in more game. Ice too far out to the N or W to go hunting. S & SW winds will open the E and SE of the Cape for bull walrus hunting.

5-30-80

Weather and Ice Conditions

Low overcast, intermittent fog, N winds 5 mph. Ice not visible, but light on the horizon indicating ice to the N. Water calmer than 5-29-80 and weather better so people attempted hunting.

Hunting Conditions

Hunting to the E, NE, (towards Savoonga), NW, 15-40 miles. Most hunters found no game. Some saw 1 walrus total (all males). Seals, mukluks, and female walrus and their young and a few bulls are said to be swimming across the open water of the S towards the pack ice to the N.

5-31-80

Weather and Ice Conditions

Overcast, no prevailing wind, ice broken up with ice bergs floating off the N shore, no pack ice on the horizon.

Hunting Conditions

Hunting to the NE (towards Savoonga) approximately 25-30 miles. Some hunters found it too foggy but the edge of the ice near Savoonga was breaking up. Some saw 0-7 walrus total (all males).

6-1-80

Weather and Ice Conditions

Overcast, foggy.

Hunting Conditions

No hunting, too windy and/or not enough ice.

6-2-80

Weather and Ice Conditions

Weather and ice conditions the same as 6-1-80.

Hunting Conditions

No hunting, same as 6-1-80.

6-3-80

Weather and Ice Conditions

Low overcast, fog, drizzle, NE winds 10-15 mph. Pack ice around the E side of the Cape breaking up, the hunters can start getting in for bull walrus hunting.

Hunting Conditions

Hunting to the NE towards Savoonga 10-40 miles, some hunters found it too foggy and rainy, and too rough, and/or couldn't find any walrus. Some saw 0-5 walrus total (mostly males).

6-4-80

Weather and Ice Conditions

High overcast, intermittent fog, no fog by evening, SE - SW winds 10-15 mph. No ice to N, W or SW. Ice to NE and E around the corner of the Cape.

Hunting Conditions

Hunting to the NE towards Savoonga, N of Savoonga 15-50 miles. Some hunters found rotten breaking ice and poor hunting due to disturbance of walrus by the boats, that the walrus were too far to the N of Savoogna, or lots of game within the pack ice. Some saw 0 - 200 walrus total (all males).

General Attitudes Towards USFWS and the Walrus Project

The majority of people thought that I was working for ADF&G and didn't know the difference between USFWS, ADF&G and NMFS. After I explained it to them they'd go back to calling me Fish and Game. They do know that there is no longer a walrus quota. Since this is USFWS' first year with managing the walrus most people are just watching and waiting to find out what this means.

I encountered more concern for what would happen to the subsistence take of walrus than I did "hostility". A few people didn't want much to do with me (as representing USFWS) but most were very friendly. The only form "hostility" took amongst the adults may have been silence or lack of cooperation, but this was rare. After listening to the concerns people had about losing subsistence harvest of walrus I would empathize and explain that USFWS wasn't trying to take subsistence away but was only trying to obtain biological information to insure a healthy walrus population. Their response was often positive. When the conversation touched on the question of what they thought about USFWS setting up quotas if the walrus population was ever in danger I usually got a negative response. The Gambell people seem to believe that they could conserve on their own, arguing that in the past they had their own limit of around 5 walrus per boat. There were a lot of people who were very skeptical of any kind of government intervention. They stated plainly that they didn't want any form of governmental control. They point their finger at the past white commercial harvest of walrus and future outer continental shelf oil development as the past and future causes to any change in the health of the walrus population.

A few people were even skeptical of the biological data collection. One person was very concerned about questions of which direction he'd gone hunting and how far out because the Soviets started asking the Yupik people in Russia these same questions before they took complete control over their walrus hunting. Another person had worked for NOAA at one time on one of their research vessels. He was skeptical about all research and also bitter that white people even existed in North America.

A few of the teenagers started out giving me a semi-hard time. They'd come up and ask what I was doing and then tell me (in a challenging tone of voice) that they really needed the meat, etc. and that their culture was dependent on their walrus hunting, etc. then they'd say "I hope you learn about our way of life." I can understand these concerns but it seems ironic how these are usually the kids that don't know how to do things the old way (skin sewing, etc.) and don't go out in the boats. I never said anything back and after awhile they'd smile and greet me around the village. I don't know why they were more threatened than their parents. I think it is very important to do a socio-economic study of each village to determine the degree of dependency of walrus and other marine mammals for meat and income.

Suggestions

Minus a few inconveniences, I had no problems with the walrus project, logistics, the walrus hunters or people as a whole. I think everything ran extremely smoothly considering the short notice USFWS had in getting ready for such an endeavor. I do have some suggestions for next year. I'll break these into field preparation, and in-field categories.

Field Preparation:

First off it would be nice to have some training in the reproductive biology of the walrus. If some reproductive tracts could be brought in, the field biologists could see where everything is. Corpora lutea, abnormalities and any other descriptive biology would also be helpful so as to know what to expect. I kept notes on sizes of uteri and tubes and found it helpful in matching which females had calves from my beach interview notes. Also if a video tape of how the ovaries are analyzed could be shown, the biologists would know what information to watch for.

A slide show of walrus meat parts, how they are cut up, how many pieces of liver, etc. come from one animal, and how the Eskimos use it would prepare people for noting what meat is kept. Also a rundown on the other game brought in would help to avoid confusion with the walrus.

A little training in the Eskimo dialect of the area would be good. If a person knew some key words such as 'beaching, coming back, and other words relating to walrus hunting they could listen on the CB for cues that the hunters are coming in from the hunt.

I ended up spending a lot of frantic moments making up data collection packets. It would be a real advantage to have cases of packets made up with the following items:

- Ovary bags (small kitchen garbage bags work well for the whole tract or grocery vegetable produce bags for just the ovaries.)
- Ovary tags (white plastic tags to put the number of the animal on)
- Teeth bags (small sandwich zip-lock bags, good for keeping teeth together)
- Teeth tags (white plastic tags to put male or female, and the number of the animal)
- Stomach bags (large heavy duty garbage bags)
- Stomach tags (white plastic tags with a piece of string attached, to write male or female and the number of the animal)
- Extra string (to tie off the other end of the stomach)
- Blubber sticks
- Grease pencil
- Hunter name tags (white plastic tags w/string attached)
- Zip lock bag to keep it all in
- Direction card

I made up a bunch of these and then gave one out to each boat captain. A person would only need to put in 1-2 stomach bags because the hunters can put more than one stomach in each, one grease pencil, and one direction card. Then as they start getting low, have a bunch of filler items available on the beach when they get in from a hunt so they can restock. It would be good to have everything but the stomach bags, grease pencils, and direction cards pre-counted out and inside

individual bags ready to go as filler packets. Just keep the above three items separate if you need them.

I found it helpful, especially with an Eskimo representative, to have my field notebooks written up with the information/categories jotted at the top. Then Abraham (Gambell's representative) or I, only had to check or fill in the space with the applicable information. This also helps to keep from forgetting what to ask or look for. Maybe something like the following:

DATE: 5/20/80

Weather: Low overcast, fog, SW wind @ 10mph

Ice: closely consolidated, etc.

Hunter	Time Out/In			w/ or w/o Calves	Pod Composition	Meat: etc.			Comments
		Male	Female			Heart	Brisket	Liver	
Victor	0800/1800	2			1 separate	7	5	7	1 skinny
Campbell					1 in pod of 3 males				
			5	2 w/born calves	2 separate				
					1 in pod of 10 females				
					1 in pod of 50 females, males, yrigs, calves,				
					1 in pod of 5 females, and 2 males				
					Total seen ~100				

Categories for all meat parts (heart, brisket, liver, intestines, flippers, flank, mammary glands, skin/fat, etc.), empty stomachs, and tusk measurements could also be included. Perhaps the data sheets should be revamped to include categories for pod composition, meat kept, weather and ice conditions, empty stomachs, and the total number of walrus seen. Which questions are important should also be determined so as not to ask too many questions.

In Field:

Arrive at the field station a week before the walrus hunt starts. Get settled, laboratory equipment set up, walk around and talk to folks, train your Eskimo representative, obtain the boat data or whatever can be done before the hunting begins, and visit walrus boat captains and explain individually what you want, prices, sampling methods, etc. Announce the pre-hunt meeting a few days before by placing a sign in the store and post office and also over the Nome radio station.

At the pre-hunt meeting bring in a reproductive tract and pass out information sheets with sampling directions, and prices, and also what won't be bought (broken teeth, partial reproductive organs, unidentifiable as to animal came from, or organs without matching teeth). This way they can see where the ovaries attach (also include a drawing on the sheet) and will have information they can keep at home to

refer to later for clarification.

It would also be good to have either the Savoonga person or Nome person come out and get acquainted and help out during the hectic part of the season. Savoonga doesn't get started until Gambell's hunters are almost through with walrus hunting anyway.

To determine the calf harvest ask if the female was with or without a calf. Make sure to distinguish born or unborn, if born note if they brought the calf back with the rest of the meat.

If blubber measurements are important pay a little bit to get the information. If they are not that important it might be good to just ask for their cooperation so as not to instill a "pay me or I won't tell you anything" attitude. Some work needs to be done in showing the Eskimos that research is for their benefit anyway. Perhaps more PR work, etc.

As far as housing goes there are advantages and disadvantages to living with a family. The advantages are: they understand Yupik and can translate what's being said over the CB (very handy when you want to know if the boats are coming in), drunks might not hassle you, unless you live with the drunks (in Gambell the social scene doesn't appear to be a problem anyway). The disadvantages with living with a family or the advantages to living in an old house on the beach alone are: you might get more work done (kids can be awful distracting), you can schedule your meals to fit your work schedule rather than vice versa, you also know where your food goes and how much to contribute, you have more freedom and less responsibility to the house and its occupants, and you could probably keep a better eye on the beach if your house was closer.

If next year an old house is rented make sure its close to the beach and has a CB in it. The Gambell person also will need a snow-mobile and a three wheeler with a couple of plastic sleds and rope. You can't monitor both west and north beaches without transportation and keep really good tabs on what's going on.

The Eskimo representative is an excellent idea if funding is still available for it. At Gambell, Abraham Kaningok introduced me to all the boat captains (at least provided me with their names). People liked him so that also helped break the ice. He also helped me with the data recording at the beach and later when pickling specimens. Be sure to keep close tabs on how the representative records data. Abraham would get slack at times and leave things out or add stuff in, which was confusing at times. He sure came in handy when the hunters started using both the west and north beaches. I couldn't have kept track of harvest without him.

Bird and Animal Observations

5-11-80 Murres, kittiwakes, cranes, and cormorants, all migrating
5-14-80 Cormorants, fulmar, gray whale
5-15-80 King eiders, whale with black flukes
5-16-80 Spectacled eider
5-20-80 6 cranes

Library
U.S. Dept. of Wildlife Service
1011 E. Tudor Road
Anchorage, Alaska 99503

