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> BELUGA WHALE OBSERVERS PROGRAM CANADIAN WESTERN ARCTIC SUMMER 1981

> > Inuvik Station Western Arctic

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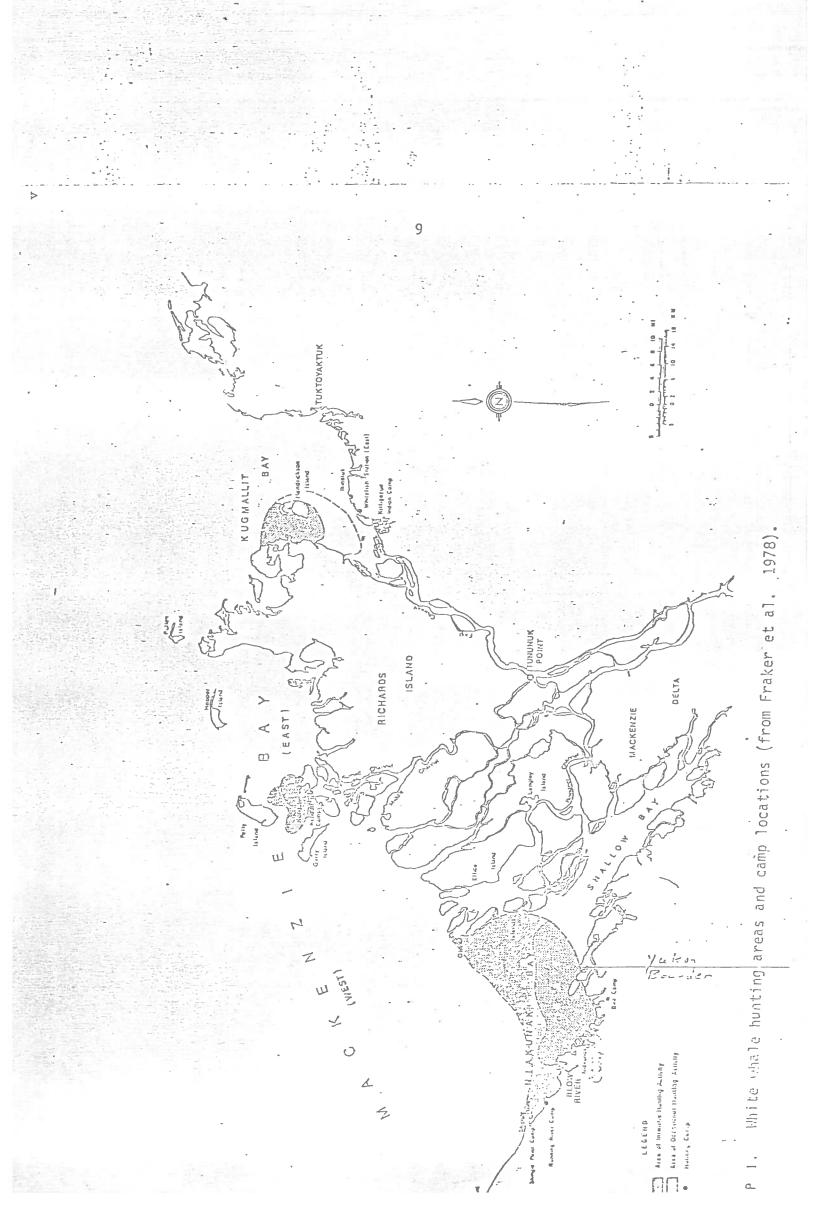


Figure 12

Péches et Océans

BELUGA WHALE STUDY - DAILY RECORD -FISH AND MARINE MAMMAL MANAGEMENT DIVISION

NO:

D WORKER/MONITOR):		
THE HUNT:			
WEATHER:	SUNNY CLOUI	DY WINDY	RAIN
WATER:	RIPPLES (1-6 INCH	HES) ROUG	SH (1-2 FEET)
	SMALL WAVES (1/2-1	FOOT) STOR	M (OVER 2 FEET)
	COMML		
TIME OUT OF CAMP	TIME	RETURNED TO CAMP	
DID SEE WHALES!	YES	NO IF YES, HOW MANY	?
HUW MANY WHALES	STRUCK (SHOT)? WOUNDED, LOST OR SUNK?	HOW MANY WHALES LANDET)?
CALIBRE OF RIFLE GENERAL COMMENTS	? =	TOTAL NUMBER OF SHOTS	FIRED?
- CHERNE CONTIENTS	•		
SAMPLE INFORMATI	ONL.		
		COLOR:	
"STRAIGHT LINE FI	ROM TIP OF SNOUT TO NOTCH	BROWN G	REV OR BILLICH
IN TAIL		WHITE WITH GR	
Тота	L LENGTH -	FLIPPERS	nder in highed
Samuel State		WHITE	YELLOW
	\sim	STOMACH:FULL	½ FULLE
•	~ { }	IF FOOD PRESENT:	MOSTLY FISH
$\leq \omega$		MOSTLY SHRIMP	
-			
	EET INCHES		
IF FEMALE	: WAS SHE WITH A NEWBORN		NO
	WAS SHE GIVING MILK?	YES	NO
	WAS SHE PREGNANT?	YES	NO
	IF PREGNANT, MEASU	RE LENGTH OF FETUS (UNBO	RN .
	CALF)	FEET	INCHES
AMPLES TAKEN:	JAW (1/2 OF LOWER JAW WIT	н теетн)	
	TESTIS		
	UTERUS AND OVARIES		
	FETUS		
4 Sept 1 -	STOMACH CONTENTS		
	OTHER:		

INTRODUCTION

This is the report of the Fishery Officers, Fisheries & Oceans, Conservation & Protection Branch, Inuvik, N.W.T. 1981 is the second consecutive year that the Conservation & Protection Branch in Inuvik has supervised an opervers' program on the belugas of the Beaufort Sea. The beluga observer program under the direction of Bob Moshenko, Head of Fish & Marine Mammal Management was expanded in scope in 1981. The number of observers was increased from 4 to 6 observers. The most important change came with the begining of the collection of biological samples & more detailed information collection. The biological samples collected were lower jaw, testis, uterius with ovaries, fetus & stomach contents. These samples will begin the analysis of age structure, fecundity rates & feeding habits of the belugas in the Mackenzie River estuary. 60% of all the belugas known to have been killed or 74% of all landed whales had some biological sampling done on them.

Overall the beluga hunt in 1981 was successful. The hunters harvested all the belugas they needed, The observers were able to cover the hunting area & collect the requested samples & information.

The problems associated with the beluga harvest in the western arctic that were surmised after the 1980 observer program have begun to be documented by the 1981 program. Possible solutions to these problems are suggested in this report.

The tables & figures are a composit of observers reports, diaries, observers final reports, Fisheries personnel's observations, information as well as information from the general public.

Reference to the Island in Observers reports is to Henderikson Island.

WHALE OBSERVING PROGRAM PREPERATION

The 1981 Beluga Whale (Delphinapterus leucas) observing program was conducted in The Mackenzie Estuary, during the summer whaling season. The combined effort of the Department of Fisheries & Oceans and local hunters hired as whale observers produced the requested information on the Beluga hunt in the Mackenzie Estuary.

There were six local hunters hired as whale observers, two each from Tuktoyaktuk, Inuvik and Aklavik.

The observers were hired on a service contract for the period of the hunt. Payment was two thousand dollars each for completion of the contract. Being divided in two parts; the initial payment was five hundred dollars, the remaing fifteen hundred dollars was to be paid upon return of the record sheets, samples, diary and final report to Fisheries & Oceans in Inuvik.

This year signing of contracts was not started until June 4th, which meant we had to locate, and have the six observers contracts signed before the week was over. We gathered names of people that may be interested in the program then began looking for them. Elijah Allan was a possible observer for Kendall Island. On June 4th myself and Leonard Harry went to his camp in the Delta with the enforcement vessel the Okevik. Elijah was interested and signed the contract. On our way back to Inuvik we stopped at numerous fish camps, at one camp Alex Elanik expressed an interest in the program. On June 5th 1981 we went to Tuktoyaktuk were we received two signed contracts; one from Joseph Avik and one from John h Carpenter. On June 6th we went to Aklavik in the Okevik and received a signed contract from Colin Harry. Colin expressed that he would like to work with Alex Elanik. Received signed contract from Alex Elanik on June 10th, when he came into Inuvik. Received signed contract from Billy Day On June 8th.

The first cheques were given to the observers on July 7th 1981 at the first meeting at Bird Camp. This was 6 days after the first two whales were landed at Running River and Tuktoyaktuk. It is important that the observers receive the initial payment before the hunt begins so that the observers can purchase the supplies needed for them to remain at the camps for the period of the hunt. An ideal time would be the middle of June when the hunters are preparing for the hunt. Perhaps if the contracts were signed in mid-May this would ensure that the first cheques was received in the middle of June.

The information on the hunt and the sampling information was recorded on daily record, sheets (figure). Each Observer was given a number to facilitate identification on these sheets.

1981 WHALE OBSERVERS

GBSERVERS SAMPLE NUMBER	OBSERVERS (name)	AREA	COMMUNITY
F			
1	JOSEPH AVIK	YUTYAYOTXUT	TUKTOYAKTUK
2	JOHNAH CARPENTER	TUKTOYAKTUK .	TUKTOYAKTUK
3	BILLY DAY	EAST WHITEFISH	INUVIK
14	ELIJAH ALLAN	KENDALL ISLAND	INUVIK/DELTA
5	ALEX ELANIK	BIRD CAMP	AKLAVIK
6	COLIN HARRY	RUNNING RIVER	AKLAVIK

The observer would place his number on the right hand side of the daily record sheet (figure), with the corresponding sample number. For example; observer 2, Johnah carpenter from Tuktoyaktuk, would place 2-1 on his first sample; 2, representing the observers number and 1, representing the first sample, 2-2 on second form, 2-3 on third form and so on.

Corresponding numbers would then be placed on the sample tag and tied to the sample bag. An easy referance was therby made from the daily record sheet to to the sample. This system was used to gather more information on the samples, if specific informatic was required from a sample, this information could be gathered from the daily record sheets, by simply matching the sample number to the daily record sheet for that whale. This system worked very well for ourselfs and the observers. A daily record sheet was completed for each hunting group which went out regardless of whether they were succes full or not. The daily record sheets were divided into two sections; section A covere information on the hunt and section B covered information on the samples taken.

Each observer was given to following equipment;

- 1) Daily record sheets
- 2) Daily Diary
- 3) 15 meter tape measure
- L) Unife and file
- 5) Notebook
- 6) Flastic gloves

- 7) Pens, pencils and marking pen
- 8) Sample Tags
- 9) Plastic pails++ lids
- 10) Plastic bags, large and small
- 11) Formalin
- 12) Cooler for tissue samples
- 13) File folder

The hunters on the Western Arctic coast use 5 gallon plastic pails to store and transpective muktuk in. The same type of pails were used to preserve the samples taken by the observers. In order to prevent anyone from confusing a pail of muktuk with a pail of preserved samples, the sample pails were marked with a bright orange skull and crossbone with POISON printed below. The lids were marked with a sticker obtained from the Environmental Health Officer in Inuvik, with simular markings as the pails. The observers were told to store the samples in a safe place away from where the children may get into them. Plastic disposable gloves were also provided to the observers to use when working with the samples.

MEETING AT BIRD CAMP

On July 7th and 8th a meeting was held at Bird Camp, Present were;

- 1) Robert Moshenko Head Fish & Marine Mammal Management DFO Winnipeg
- 2) Bill Ferguson Fishery Officer DFO Inuvik
- 3) Leonard Harry Asst Fishery Officer DFO Inuvik
- 4) Jimmsey Dick Northern Careers Trainee DFO Inuvik
- · 5) Bob Wooley Wildlife Officer GNWT Wildlife Servive Inuvik
- 6) Joseph Avik Observer
- 7) Johnah Carpenter Observer
- 8) Billy Day Cbserver
- 9) Elijah Allan Observer
- 10) Colin Harry Observers
- 11) Alex Elanik Observer

The purpose of the meeting was to summerize what was required from the whale observers.

Areas covered included, filling out daily record sheets, samples required, sample preparating importance of the diary and the role of the observer in the camp.

PROGRAM OFERATION

Throughout the hunt the observers were supervised by Conservation & Protection staff from Inuvik. At the beginning of the summer the enforcement vessel the OKEVIK was used to visit the camps. The boat travelled a distance of approx 3187 KM from break up until July 20th. On July 20th while on route to East Whitefish and Hendrickson Island, the lower unit burnt out of the motor. The motor was then shipped to Hay River for major repairs. With the OKEVIK not operational, the camps had to be visited by use of small sircrafts. In a good day of flying we could visit all the camps, this allowed us to cover greater distances in shorter time.

On the visits to the camps we would insure that the daily record sheets were being filled out properly, samples were taken and preserved properly, and assist the observers in any problems they came across in the observing program. There was a problem with the filling out of the daily record sheets, in some camps they were not filling out the forms completly. The preservation of the samples was also a problem.

This year most of the whales hunted out of Tuktoyaktuk were butchered at Hendrickson Island. In 1980 most of the whales were taken into Tuktoyaktuk to be butchered.

Next year one of the observers from Tuktoyaktuk should be camped at Hendrickson Island for the hunt. The observers could rotate once every week from Tuktoyaktuk to Hendrick Island. This would insure that all the whales taken out of Tuktoyaktuk would be recorted and sampled.

Conservation & Frotection out of Inuvik had a camp at Hendrickson Island from July 14th to August 7th 1981. This winter we plan to move in the fuel and shack tents to Hendrickson Island in order that we may get an early start in 1982

cancelled due to weather. The first attempt we were able to get to Hershel Island but were unable to land because of the fog. The second trip we were able to get into Shingle Point, however the winds were to strong to land at Hershell Island. Colin Harry the observer from Running River did make it in to Hershel and he gave us a repor With the increase activity near Hershel Island it is important that we go in at least twice next year.

Conservation & Protection from Inuvik also had a camp on Shingle Pt this summer from August 12to August 18. The camp had to be moved in by aircraft and removed by aircraft. A small boat was taken up with some supplies and was used to visit the camps in the area. On August 12th, I observed numerous whales near Shingle Pt, while on return trip from Hershel Island. The whales were out in the deep water. The majority of the activity during this time was centred on the Char run and waiting for Beluga Whales. The Char run was successful this year, the fish were gutted and hung to dry on sticks and smoked.

SERVERS MEETING IN INUVIT

The final whale observers meeting was held on September 24th and 25th in Inuvik at the Inuvik Scientific Resource Centre. The Observers from Tuktoyaktuk and Aklavik were flown in for the meeting. In Attendence:

were;	1)	Robert	Mosh	enko
-------	----	--------	------	------

- 7) Florence Avik
- 2) Gerald Yaremchuck
- 8) Johnah Carpenter
- 3) Richard Barnes
- 9) Billy Day
- 4) Bill Ferguson
- 10) Elijah Allan;
- 5) Leonard Harry
- 11) Esther Elanik

6) Joseph Avik

12) Colin Harry

For the first portion of the meeting Billy Day was appointed spokesman for the observers, allowing the observers time to meet together, to discuss problems they encountered this summer, and to suggest improvements on the program. Following this discussion Department of Fisherica Oceans staff joined the observers. The observers were then asked to give the results on the total number of animals lost, sunk, landed and any other animals that were possible losses.

Billy Day, the spokesman for the observers then opened the question period. The observers were asked to comment on the observing program-complaints they had and any improvements to the program or the hunt.

There were two complaints regarding ressels near the hunting areas this year. The first was from George Edwards of Aklavik which was relayed through Colin Harry. The second complaint came from Elijah Al and concerned a vessel which was anchored close to Kendall Island. The vessel was creating enough disturbance to prevent the whales from coming into the shallow Bay near Kendall Island. Elijah had no succes in the whale hunt while the vessel was anchored near his camp. He went over to the vessel, talked to the captain and asked him if he coumove, explaining that his presence was affecting his ability to hunt. The vessel departed a short time later and the whales moved back into the Bay.

There were two instances in sich the hunters kept the look jaws. The observers were told to explain why they were collecting the lower jaws, and if the hunters refused to give up the jaws, not to collect the sample and to make a note on the daily record form. The two isolated incidents resulted to the hunters using the teeth in crafts.

Another concern which was raised was a lack of hunting knowledge among the inexperience hunters. One suggestion that was made was that a video tape be made through cooperation with the Hunters and Trappers Associations of the communities and DFO on proper equipment and hunting techniques. This could be accomplished at our next meeting at one of the whale camps, providing we had the nessesary equipment.

The observers also expressed a concern regarding the lack of grappling hooks in the hunters boats. They felt if the hunters had hooks and made an effort to retrieve sunk whales, especially in shallow water, the number of losses would be reduced. A solution to this problem can start by making grappling hooks available to the hunters. In cooperation with the HTA's, observers and DFO, grappling hooks can be made in Inuvik and distributed to the hunters.

The contract required that the observers supply their own food, lodging and gas. In some areas the contract payment is sufficent enough to cover all these costs. This is the case in those camps were the observers remain in or near one camp, however for the observers who travel to numerous camps to get the information required, it becomes an expensive contract for the observers. A solut on to this problem would be to increase the payment for the contract or to subsidize the observers that travel to other camps with gas and oil. The areas that would require this assistance are Running River Tuktoyaktuk, East Whitefish and Bird Camp.

Area .	Amount	Justification
	(in 45 gal drums)	(Camps visited)
East Whitefish	2-3 drums	Visits 6 camps in area, travels a distance of 70 miles per visit to these camps.
Tuktoyaktuk	2 drums	Travels from Tuk. to Hendrickson Island. approx. 30 miles per visit.
Running River	2-3 drums	Visits 5 camps in area. Travels approx 40 per visit. Plus one trip to Hershel Island
Eird Camp	2 drums	Visits 3 camps in area. Travels a distance approx. 20 miles. For the second half of this observer is at Shingle Pt.

The observers also requir extra lids for their sample palls. Once the lids are on most of them have to be cut in order to get the lids off the pails. It was suggested that 6 extra lids per observer would solve the problem associated with this type of sample pails.

SUMMATION

Two observers were concerned of the need for another person to assist them during the bussiest time of the hunt. A suggestion was to hire one of the younger hunters at the camp to assist the observer. The areas that require assistance are East White and Tuktoyaktuk(Hendrickson Island). Mr Robert Moshenko addressed this question and required the candidates names by Christmas.

Communications between the camps and DFO staff is important during the hunt, in order that their is a quick responce to a problem, we must be informed of the problem immediately. The communications rat Tuktoyaktuk; Kendal IslandrandaRunning River is adequate, however there is no means of communicating with East Whitefish and Bird Camp An important improvement in the program would be to improve the communications at these two locations. A solution would be to equipe the Observers at these two camps with radios, either HF of mobile telephones.

This year the biological samples were stored in five gallon plastic pails, either fro or preserved in formalin. Two pails had to be discarded due to improper preserving. In order to avoid this type of incident from reoccurring it is important that this years sampling technique be re-examined, and the needed changes initiated before the next sampling season.

The location of the first meeting should be decided once it is established were the most whales are being hunted at that specific time. This should avoid the problem that was encountered this year when Bird Camp was choosen, the majority of the whales were near Kendal Island.

PROGRAM FINACES

The Inuvik station, Fisheries & Oceans, Conservation & Protection Branch received a total of \$25,000.00 to administer & supervise the beluga observers program for the Mackenzie River estuary. The budget was used for:

Observers contracts 6 @ \$2,000.00	\$12	,000.00
Transportation	11	,690.31
Food & accomodation (includes 2 meetings)		872,68
Misc.		496.86
Total	\$25	,059.85

If the Inuvik station is again to assist with the belugas observers program in 1982 additional funding will be needed to meet the objectives of the program & overcome the shortfalls found in the 1981 program. A suggested operations budget for the beluga observers progam in 1982 is:

Observers contracts /2 0 \$2,000.00	\$15,000.00
Observers gas :@ 27.5¢/l	600.00
Drums for observers gas @ \$50.00/drum	500.00
Transportation	12,000.00
Food & accomodation	1,000.00
Misc.	500.00.
Total	\$29,600.00

This suggested budget is at Oct 81 prices & does not include the expected increases in all prices especially fuel. & therefore transportation as well.

HUNTING PRESSURE

There was an increase in the hunting effort for belugas in the Mackenzie River estuary in 1981. There were lots of belugas in the traditional whaling areas. The weather in the month of July cooperated with the beluga hunters. The combination of whale availability & good weather. allowed any Indian, Eskimo or Metis that wanted to hunt belugas in the western arctic during 1981 to find & kill a whale. Over the past few years natives from communities that have no tradition of hunting belugas: have been coming into the Mackenzie Delta area to work in the summer for the oil companies & related industries. During their time off from. work they have joined in the whale hunt in the Mackenzie River estuary, This is particularly true for eskimos from such communities as Coppermine, Cambridge Bay, Sachs Earbour etc. This nontraditional influx of hunters into the Mackenzie Delta was compounded in 1981 when an ARDA grant was used to bring hunters from holman Island to the delta to hunt belugas. They landed 15 whales. I know that several Sachs Harbour, Cambridge Bay, Coppermine & Paulatuk have expressed their desire to receive aid & send hunters into the Mackenzie Delta to hunt belugas in 1982. There is no indication that there is any reduction in the demand for beluga whales by the traditional whaling communities of Tuktoyaktok, Aklavik & Inuvik. If the importation of hunters from traditionally norwhaling communities continues or is expanded in 1982 there must be a corresponding increase in the number of whales harvested.

Intersettlement trade is also contributing to the increased beluga harvest.

Of the 26 belugas killed during the harvest at Kendall Island 15 were killed for use in intersettlement trade. Lesser amounts were used for intersettlement trade from the East Whitefish Station area & also the North Coast of the Yukon. The 15 whales taken by the Holman Island hunters also went into intersettlement trade.

The hunting of belugas by hunters from communities that have no tradition of hunting whales in the Mackenzie Delta area combined with the sale of whale products for intersettlement trade increased the beluga kill by over 31 whales in 1981. These two practises if uncontrolled can in the

immediate future raise the kill of belugas substantially.

Although not or directly- part of this report considerations must be given to the harvest of belugas in Alaska, U.S.A.

My information is that this harvest is increasing. It is also my understanding that the belugas being hunted in Alaska are probably the same stock that is coming into the Beaufort Sea in the summer. There is an immediate need to discuss mutual conserns for beluga management with the various U.S. agencies.

HUNTING LOSSES

A serious problem with the present beluga harvest in the western arcti is the number of whales that are killed, sink & not retrieved resulting in their being wasted. There are many factors resulting in whales being killed & lost. The most common cause of losses is hunting in water that is too deep to properly follow a wounded beluga or retrieve whale if it is killed & sunk. I have observed this problem to be very common in Kugmallit Bay. Generally this problem is with some hunters who leave Tuktoyaktuk & head over to the traditional beluga hunting areas close to Henderikson Island. On the way they encounter whales in the deep water. Instead of waiting, allowing the belugas into shallow water or driving the whales into shallow water near Henderikson Island they shoot these whales. I observed this taking place myself from Henderikson Island. I was unable to get to the hunters because they were so close to Tuktoyaktuk that they finished before I could get from Henderikson Island to them. The problem is typified by the incident I observed on 29 July: At 0130 hrs two boats came Tuktoyaktuk. Through binoculars I observed them hunting in deep wa They were shooting & chasing whales for approximately 20 minutes. They returned to Tuktoyaktuk without a whale. Twenty-four hours later was another stinker washed up on the shore of Henderikson Island. We received numerous complaints about the pract/ise of hunting in deep water from conscientious beluga hunters.

The hunting in deep water problem is compounded by the relatively recent; practice of shooting the whales then harpooning them after they have a been shot. A beluga usually sinks immediately after dying. Most of the stinkers on the beaches had only one bullet hole in them. Only one had a harpoon wound in it & this particular whale was purposely cut loose for safety in windy weather. This indicates to me that these whales were, all shot & sank before they could be harpooned. Even in shallow water the silveting & sinking of belugas before they are harpooned results? In losses because a substantial number of hunters are not taking graphels with them. Without a graphel to drag for & snag the sunk whale allowing it to be brought to the surface, the beluga will remain on the bottom; it to be brought to the surface, the beluga will remain on the bottom;

The poor hunting practices that cause most of the beluga losses & wastage would stop with a change in attitude among a small number of hunters. There were lots of belugas available for hunting. The weather in July was reasonably good for whale hunting. These conditions helped create among certain whalers a "so what" attitude. They were not willing to take the time or effort to retrieve a sunk whale. There were lots more belugas to shoot. If they keep hunting belugas one of them will not sink before they have a chance to get a harpoon into it. An example of this attitude took place on 10 July when a hunter was towing a freshly killed beluga back to Tuktoyaktuk when the wind came up. He had to cut the whale loose for his safety. He attached a float to the beluga before letting it sink. He intended to come back for it when the wind went down. The next day the wind did go down but this hunter did not return for his catch. The other whalers did not use this beluga because they felt that it belonged to the original hunter who killed it. Four days later this hunter was out hunting again.

On 28 July I walked & boated around Henderikson Island. There were 8 stinkers that had been dead for a long time plus one recently willed beluga for a total of 9 stinkers. This equalled the total number of sunk whales reported to date to the beluga observers. I would conclude therefore that there were more belugas sunk & lost than were reported to the beluga observers. Half of these stinkers were females. Three were pregnant females which had aborted.

Various suggestions have been made to us about possible ways of addressing these problems. One parcel solution would be to designate hunting areas.

These areas would be the shallow water, traditional hunting areas (see map). Hunting outside these areas would be prohibited. Another suggestion was to require that all beluga hunters have a grainel in the boat when hunting belugas. These two suggestions would require changes to the Feluga Regulations & enforcement of these regulations. This would however decrease the number of sunk & lost belugas.

Combined with regulation changes & enforcement work there must be a change in some hunters' attitudes. There is an ungent need & desirability; to educate problem hunters so that they adopt a more conservationary &

responsible attitude to beluga hunting. This educational process must come from the concerned hunters themselves with the support of the Hunters & Trappers Associations & the Game Council.

FEMALE BELUGAS AND THEIR CALVES

Only 30% of the recorded beluga harvest are hown to be males. The remaining 70% therefore must be females. On this hasis 72% of the belugas killed in Kugmallit Bay were females, 77% of the belugas killed at Kendall Island were females & 59% of the belugas killed off the morth Yukon coast were females. After 12 July the overall harvest of females went up to 85% of the total number of whales killed, 82% females for Kugmallet Bay, 92% females for Kendall Island & 92% females for the north Yukon coast. These findings are confirmed by my observations among the stinkers at Henderikson Island where 66% of the stinkers observed were female. Half the female stinkers at Henderikson Island had been carrying calves. If this is an indication of the makeup of the whole beluga population then some 70 young & unborn calves were lost to the beluga population through the hunting of female whales. This assumption brings the total number of whales removed from the Beaufort Sea beluga population by the 1981 whale hunt within the sight of 290 belugas.

The percentage of females in the harvest may be low. I know that in one incident the beluga hunter told the observer that he had taken a male but when I checked the muktuk it was a female. The extent of the misinterpetation of the sex of an animal is urknown.

Eight young of the year belugas were found dead on the heach roughly
25 miles north of Tuktoyaktuk. They had not been shot. The carcasses
of these young belugas were too rotten when we found them to send them out
for an autopsy. It is very possible that they starved because they
were still nursing & their mothers had been shot.

The percentage of the beluga harvest in the Beaufort Sea that is female must be reduced; at least until the male-female ratio in the population is known. The hunters tell me that usually the males come in first followed later in the summer by the females & calles. This appears to be what happened in 1981. The harvest of belugas after 12 July was rainly females. Ferhaps there should be some regulatory mechanisms

E calves make up the bulk of the available whales. The females & calves leave the Mackenzie River estuary later in the summer & the males return. The hunt could be opened again when the males make up the majority of the heluga population in the hunting areas.

It is difficult to distinguish between nursing females, pregnant females and males in the muddy water of the Mackenzie River estuary. This however is not the only reason for the large harvest of female belugas in 1981. Some hunters attitudes are such that they do not care if they are killing pregnant females or nursing females with calves. The education of these indiscriminating hunters rests mainly with the consientious hunters & their organizations. Fisheries & Oceans, Conservation & Protection Branch in Inuvik will during the 1982 beluga hunting season, enforce section 3 (3) of the Beluga Regulations. This section prohibits the killing of a female beluga accompanied by a calf. Again boats, motors, equipments, etc could be seized & fines levied.

UTILIZATION OF RELUGA MEAT

There is a major problem with the under utilization of the meat off of the belugas hervested in the Beaufort Sea. On 28 July there were 25 carcasses on the beaches of Hernderikson Island. Only four or 16% of these dead whales had most of the usuable meat taken off the carcasses. 12% of the carcasses had the tenderloin (back straps) removed but no other part of the meat was removed from these whales. By extrapolating these percentages to the total kill of 901 whales raises the question in my mind as to why all these animals were killed when the meat was taken off of approximately 32 whales out of 201 belugas killed.

The hunters & their organizations must find a way to use the meat off of the killed belugas. A partial solution may be the use of beluga meat in intersettlement trade. The country foods store in Inuvik did purchase whale meat from the hunters that sold them muktuk.

Fisheries & Cocans, Conservation & Protection Franch in Invvik will be enforcing section 9 (c) of the Beluga Regulations during the 1982 whaling season. This section is intended to prevent the westage of any part of the beluga that is suitable for food. This section clearly states that the meat must be used. Prosecution under the Beluga Regulations could result in the seizure of boat, motour, other equipments, the muktuk & a fine.

INDUSTRIAL ACTIVITY

There were two incidents where I believe boat traffic & other industrial activity disturbed the belugas in the Beaufort Sea. The harbour at Herschel Island is from my observations & information from local people a resting area for female belugas & their calves. It is also a staging area during the fall migration of belugas out of the Feaufort Sea. This year there was renewed industrial activity in Herschel Island's harbour. There was dredging, sinking of barges & the floating off of artificial island casings, etc. Usually the seal nets in Herschel Island habour catch two or more belugas. This year the nets did not catch any whales. No belugas entered the harbour.

Belugas were going in & out of the Kendall Island area all summer. On 22 July camp 208, a selfpropelled barge carrying living quarters came in on the east side of Garry Island. It anchored in the channel that the belugas used to get in & out of the Kendall Island area. While the barge was there the hunters watched the belugas come around the north end of Garry Island, presumably encounter the barge then return out to sea. The hunters asked the barge to move. It did & the belugas returned to the Kendall Island area. This effect of shipping has been observed many times in this area.

The incident at Kendall Island was a short, easily corrected interuption. of beluga movements. The Herschel Island harbour incident however is I believe more serious. The exclusion of the belugas from a resting & staging area could possibly effect calf mortality & migration paterns. This possibility must be considered if extensive industrial activity over several consecutive years takes place.

OBSERVERS FUNCTIONS

Whaling practises have been improving since the beluga observer program started in 1980. The beluga hunters are careful in their hunting practises when watched by DFO staff or the beluga observers. They also clean all the meat off of the carcasses when being observed. The beluga observers as well as filling out data sheets & collecting biological samples improve hunting techniques & increase the utilization of the possible whale products.

In 1981 there was again a problem with incomplete data sheets, lack of information in some diaries & too brief final reports. Part of the problem is a lack of experience. The written work done in 1981 was better than in 1980. More supervision may also help. Careful consideration will have to be given to the selection of observers for the beluga observer program in its present form to ensure that the observers have the necessary skills to do the written work required to make the program a success.

CONCLUSION

The observer program in 1981 was a success. There were shortcomings with the program but these will be overcome with experience & increased resources. The program in 1981 stayed within budget but an increased budget will be needed in 1982. The problems with the Conservation & Frotection survaillence of the beluga harvest were mainly a result of a lack of equipment & little lead time to plan for the 1981 program. The equipment shortages have been promised to be filled by 1982. Planning will allow for the better use of the available manpower so that there will be a camp on Henderikson Island with a Fishery Officer on 1 July 82.

The problems shown to exist with the whale hunt & the utilization of the whale products will receive more attention from the Fishery Officers. There will be enforcement of the Beluga Regulations. Hopefully that there will be an effort on the part of the whale hunters & their organizations to address the various problems with the beluga harvest. Hunter action in conjunction with Fisheries enforcement should go a long way to making a more efficient beluga harvest.

The possible problems of the effects of industrial activity were again identified. Research is needed to clarify the interaction of the belugas & industrial development.

The basis for the success of both the 1980 & 1981 beluga observers programs was the reliance placed on local hunters to act as observers. These men's skills will develope with experience & practice. However, there will be a requirement for Fisheries & Oceans to allocate time & money to upgrade the observers skills if the program is to expand beyond its present concept.

White

White

11ft 7ins

14ft 5ins

25/7/81

25/7/81

f et

22.

* /	Tuktoy	aktuk 1981	23.
DATE	LENGTH	COLOR	SEX
4/7/83	14 faet	White	K
4/7/81	13 feet	White brown	М
4/7/81	1451	White	K
4/7/81	14 feet	White	M
4/7/81	15ft 9ins	White	M
6/7/81	14 feet	Grey	M
12/7/81	13ft lins	White with grey	$\hat{\mathbf{F}}$
10/7/81	13 ft 2ins	White with grey	F
.,10/7/81	iāft 3ins	White with grey	
12/7/81	13ft 5ins		
24/7/81	12ft Lins		
25/7/81	12ft 2ins		
25/7/81	14ft 3ins	WHite with grey	Kale

		. 0	2
Tate	Length	Color	Sex
6/7/81	11ft 10ins unborn 7ins	Yellow	Ē
10/7/81	13ft 6ins	White .	M.
10/7/81	14ft 11ins	Yellow	М
10/7/81	12 feet	White	М
10/7/81	13ft 8ins	White with grey	М
12/7/81	14ft 4ins	White	М
12/7/81	14 feet	White	M
13/7/81	11ft 5ins unborn 7ins	White with grey	Ī
. 15/7/81	16 feet	Mnite	Ŋ
16/7/81	13 feet	White	F
18/7/81	12 feet	White	F
18/7/81	11 feet	Wnite	F
18/7/81	9ft 4ins	Grey	F
18/7/81	13ft 9ins unborn 7ins	WHite with grey	F
19/7/81	15ft 2ins	Yellow	М
19/7/81	13ft 7ins	White	F
21/7/81	12ft 1ins	' White with grey	F
21/7/81	11ft 9ins	White	
21/7/81	11ft 6ins unborn 4ft 4ins	WHite	F
24/7/81	10ft 6ins	Grey	F
24/7/81	11ft 8ins	White with grey	F
24/7/81	5 feet	Grey	F
25/7/81	12ft 2ins unborn 8ins	White	F
25/7/81	11ft 11ins	White	М

-	Iste	LENGTH	COLOR	SEX
	2/7/81	15ft Bins	White with Grey	Wale
	3/7/81	12ft 10ins	White with Grey	M
	6/7/81	13ft Hins	Yellow	F ·
	8/7/81	12ft 2ins	Yellow	F
	8/7/81	11ft	Grey	F
	9/7/61	13ft 9ins	White	М
	8/7/81	14ft 10ins	White	Ŋ,
	10/7/81	14ft 3ins	White	M
	10/7/81	12ft 2ina	White with grey	1
	12/7/81	11/10ins	Yellow	F
	13/7/81	13ft 3ins	White with grey	F
	13/7/81	12ft 2ins unborn 5ins	White with grey	F
	13/7/81	13ft 3ins Baby 5ft 5ins	White with grey	F
	14/7/81	12ft 10ins	White with grey	F
	15/7/81	12ft 9ins	White	F
	15/7/61	12ft 10ins	Grey	F
	23/7/81	12ft 2ins	White with grey	F
	23/7/81	12ft 2ins unborn 6ft 9ins	White with grey	Г
	24/7/81	13ft	White with grey	М
	24/7/81	12ft 6ns	WHite	F
			17. Jan.	Female

12ft 6ins

25/7/81

DATE	LENGTH	COLOR	SEX
4/7/81	13ft bins	mhite	M
4/7/81	14ft 9ins	White	M
4/7/81	14ft 7ins	White with grey	
4/7/81	15ft 6ins	White with grey	М
5/7/81	14ft 9ins	Grey	М
10/7/81	14ft 1ins	White with grey	Ъ
10/7/81	14ft 5ins	White with grey	М
11/7/81	12ft 5ns	White with grey	F
1,1/7/81	ôft 10ins	Grey	M
14/7/81	14ft 7ins	White with grey	M
12/7/81	11feet	White with grey	F
11/7/81	12 feet	Grey	F
11/7/81	11ft 6ins	Grey	М
11/7/81	14ft 2ins	White with grey	М
27/7/81	9ft 3ins	Grey	F
27/7/81	12ft 9ins	White	F

DATE	SÉX
DATE COLOR	やアヤ
1/7/81 18 feet White	M
6/7/81 11ft 8ins White	ж
10/7/81 14ft 6ins White	М
10/7/81 14ft 3ins White	М
11/7/81 15ft 7ins White	M
11/7/81 9ft 10ins White	F
14/7/81 14 feet White	M
14/7/81 11ins White	Femal

COMPOSIT HARVEST TUKTOYAKTUK

TABLE //

TOTAL	UNKNOWN SEX	SUNK	FEMALES	MALES	DATE
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	1-7		12	0 0 0 0 5	1 2
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. OI	N	2	1-2	0	11/2
ယ	ω Ο	P	F	CJ	251
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0	0	0	0	0	27
ь	0	7	0	0	28
0	0	0	0	0	29
1 5 13 0 0 10 0 0 0	0 0 0 0	0 1/ 0 0 0	. 0	0 0 0 0 0 0	30
0	0	0	0	0	31
					1
82	16	19	18	29	TOTAL

⁵ belugas landed bex & date of landing unknown

¹ beluga landed 215ep, sex unknown

⁸ young of the year carcasses found on the beach 25 miles north of Tuktowaktuk.

TARAT

EAST WHITEFISH STATION

TOTAL	XES MMONAND	SUNK	TEMALES	MALES	DATE
0	0	0	0		<u></u>
0 10001002 4 1 2 1 0 2 0 0	0 100000000000000000000	0 0 0 0 0 0 0 0 2 0 0 0 0 0 0 0 0 0	0 0 0 0 0 1 0 0 0 0 0 0 1 0 1 0 0	0 0 0 0 0 0 0 0 0 4 1 2 0 0 1 0 0	JULY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
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17	0	0	0	P.	11 1
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#	0	1->	ω	0	21.
F	0	2	2	0	22
Ь	0	1	0	0	23
ហ	2	0	ယ	0	24 25 26 27 28
ယ	0	1 0	N		25
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0	0	0	0	0	27
0	0	_ 0	0	0	28
0	0	0	0	0	29
		. 0	0	0	30
C	0	0	0	0	<u>a</u>
c o	a a = u) ය	89 12	ي	TOTAL

* 1 beluga struck & not known if died.

LVIPPP #

COMPOSIT HARVEST KUGMALLIT BAY

TOTAL	ANCHORN SIEX	NAMS	FEMALES	NALES	DATE
1>	0	0	0	د ب	1
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	o c		0		28 2
(. 0	0		29 3
		0			30 3
(0 0	0	0	0	(A)
	ω .	1 N)))	o 2	TOTAL

* 1 beluga landed 21 Sep sex unknown

5 belugas Landed sex & date unknown

8 carcasses of young of the year belugas on the beeach 25 miles north of Tuktoyaktuk.

TABLE #

KENDALL ISLAND

TOTAL	NES MAONNED	XHUS	EEMALES	MALLES	DATE .
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0	0	0	0	0	29
0	. 0	. 0	0	0	30
0	0	0	0	0	31
N (5)	N	N	7.5	g	TOT

1 beluga struck & not known for sure if it died.

TABLE # BIRD CAMP

TOTAL	ZES NAOBYRO	SUPIX	FEMALES	NALES	DATE
0	0	0	Ç	0	j}.
0	0	0 0 0 0 0 0 0 0	0	0	2
1 0	0	0	0	0	0
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0	0	0	0	0	13
0	0	0	0	0	14
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₽	0	ъ.	0	0	17
0	0	0	0	0	18
0	0	0	0	0	19
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0	0	0	0	0	22
. 0	0	0	0	0	23
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0	0	0	0	0	25
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2	0	0	2	0	27
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0	0	o	0	0	L _O
CC CC	. 0	t-3	Ú	1 1	TOTAL

* 5 belugas landed date & sex unknown.

TABLE

TOTTOTT AT	UNKNOWN SEX	SUNK	FEMALES	STIVM	DATE
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	0 00000000 0 0 0 0 0 0 0		0 00000000 0 1 0 0 1;0 0 0 0 0 0 0 0 0 0	1 0.0001000 2 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0	JULY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
2	0	0	0	2	10
2	0	0	ب	<u>بــ</u>	1-1 1-1
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0 2 0 0	0 0 0	0 0 0 0	0 1, 0 0	0 1 0 0	JULY 12 13 14 15 16
0	0	0	0	0	17
\vdash	₽	0	0	0	18 3
0	0	0	0	0	9 2
0	0		0	0	0 2
6	+	2.	0	.0	1 2
0	0		. 0	0	2 23
0 1 0 0 6 0 0 0 0 0 0 0 0 0 0	1 0 0 4 0 0 0 0 0 0 0 0 0 0	0	0	0	18 19 20 21 22 23 24 25 26 27 28 29 30 31
0	0	0	0	0	25
,,0	0	0	0	0	26
0	0	0	0	0	27
0	0	0	9	0	28
0	0		0	0	29
0	. 0	0	0	0	30
0	0	0		0	F
12		ယ	2	Ø	TOTAL

3 belugas landed date & sex unknown.

TABLE #

COMPOSIT HARVEST NORTH YUKON COAST

TOTAI,	UNKNOWN SEX	SUNK	FLMALES	NALES	DACE
<u>↓</u>	0	0	0	حر	
0	0	0	0	0	2
Ö	0	0	0	0	3 -
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0	0	0	0	N)	6
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0	0	0	0	0	9
8	0	₽	جر	5	10
CJ	0	0	2	ω	111
حر	0	0	1	0	JULY 12 13 1
1 0 0 4 0 2 0 0 0 8 5 1 0 2 0 0 1	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 1	0 0 0 0 0 0 0 0 1 2 1 0 1 0 0 0	1 00402000 6 3 0 0 1 0 0 0	JULY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
₽	'در	0	0	0	18
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0	0	0	0	0	22
0	0	0	0	0	23
0	0	0	0	0	22 23 24 25
0	0	0	0	0	25
0	0	0	0	0	26 27
2	0	0	2	0	27
0 0 0 0	0	0	0	0	28
0	0	0	0	0	29
0		0	0	0	30
0	0	0	0	0	3
(ပ (ပ	ул	ŧ	7	17	TOTAL

* 8 belugas landed date & sex unknown

"ABLE #

TOTAL BELUGA HARVEST IN 1981

TOTAL	MUSUMM SEX	SONK	SHIVELL	MAGES	DACE
N	· ·	0	0	N	
2 6	0 3	0 0 0 4 0 6 0 1 3 2 0 1 0 0 0	0	2 2	
6 1 19 015 0 4 7 17 6 7 8 8 4 1	30 000001 1 0 1 0 4 0 0	0	10 102020 3 2 3 6 3 3 1 0	21140701311 4 2 2 1 1 0 0	JULY 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
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1 2	0	0	حم	0	16
-	٥ ،	حر ٠	0	0	. 1
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-	0 () () () (31
	177			, ~	TO
	77	26	<u>ت</u> د	л 5 р С	TOTAL

1 beluga landed 21 Sep sex unknown

13 belugas landed sex & date unknown

2 belugas struck but it is not know if they died.

8 carcasses of beluga calves found on the beach 25 miles north of Tuktoyaktuk.

TABLE # COMMUNITY HARVEST OF BELUGAS

	TUKTOYAKTUK		INUVIK	AK	LAVIK
LANDED	68		53		37 ²
SUNK	27		122		Ţi
SUETOTAL	⊆5		65		41
Estimated Losses	10 ⁴		-		74
TOTAL .	105	7	65		48

- 1. Includes 8 young of the year found dead on the Tuktoyaktuk Peninsula beach.
- 2. Includes 2 belugas struck & not known for sure if they died.
- 3. Includes 15 belugas landed in conjunction with Holman Island hunters.
- 4. Observers estimates of belugas lost & not reported.

		TUK #1	TUK #2	EAST WHITEFISH	KENDALL ISLAND	BIRD CAMP	RUNNING KIVER	TOTAL
LANDED		38	30	30	23	19 ³	18	158
SUNK		3	24	. 6	2	2	2	41)
STRUCK		_	~	133	12	-		2
SUBTOTAL	,	41	54	39	26	21	20	201
Observer Estimate		osses 10 ⁷	=	_	-		7 4	17
ESTIMATE	D TO	TAL						218

- 1. Includes 8 young of the year found dead on Tuktoyaktuk Feninsula beach.
- 2. Struck but not known for sure that they did die.
- 3. Includes 15 belugas taken inconjunction with Holman Island Hunters.
- 4. Observers estimate of belugas lost-& not reported to observers.

	38.
UNKNOWN SUNK	31
	30
は 1 日本	.29
	28
	27
選集業業業業業業業 第12222222222333333333333333333333333333	5 26
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TOTAL	17
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APPENDIX #
THE WHALING PROJECT
JOSEPH AVIK
TUKTOYAKTUK, N.W.T.

Well starting off again 1981 now were having the first whale in to town. July 1st was the lucky day for Norman Felix. Amazing first was for him. Well the peoples getting ready for whale hunting summer is here again. Guns, harpoons & rush floats are set made by mans. Their equipment like canoes & speedboats ready on the start all summer. Peoples do all sorts of work in summer. Like whaling, fishing, making dryfish out of fishes. Making drymeat, cook muktuk out of the whale. They make sure they store some for winter. But the weather keep changing like it get calm in the morning by mid day it start getting windy or rain. Before rushing out must think of filling yours canoes or speedboat with everything tents, food & lots of gas & check over with your motors before leaving cause of the weather change fast. But what I don't like is peoples is just shooting whales & cut it up & waste the meat or muktuk especially the ones who don't really know how to hunt. Or they just go out for fun & games. Like just shooting them & leaving. We try our best like talking to some. They listen much it just comes to one ear to another. I did some camping couple of times at the Island. I think they did their best this year. Only thing the weather problem nice or get bad weather all at onces. I was really surprises when Tuk got 60 whales. Even when they had weather problem but they did good. During the weather problem get to talk to some peoples. Everyone try their best as soon as the weather get good. They go out whaling. But the whales started finishing again of big ships starting go back & forth. At least the people got some whales to store for winter. Now they start on fish now like they can do anything with fish. Like dryfish, spit them in half smoked or freeze them. Fry them to with flour. Boyee you can think what to do with them. Its all there. I thank Jonah Carpenter for his help. I think that all for

my opinion. It was hard but I got used of it. Had to learn once in a while like having school. Hope next year even turn out better than this year. Some times have fun example whales just like doctors. That's all I think.

APPENDIX # REPORT FOR EAST WHITEFISH WHALING

by: Billy Day

Left my camp on the Mackenzie River on the 4th of July, the weather was beautiful. Travelled all night & then got caught in strong winds & heavy rain just before we reached Bar C & had to stay until the early morning of the 6th. Arrived at our camp about 6AM. The first hunt from E.Whitefish was made that day by Billy Cockney. He was able to get a whale but Neal Kayutuk got 1. Bill Cockney has a camp atKitty, Buster Kailik has a camp at Indian Camp, Ned Kayutuk at the mouth of E. Whitefish, Henry Chichsi at Ekinalok, Danny Sidney & Joe Leddy at Pete's Creek, David Roland at Lucus Point plus people coming from Inuvik whom I have complete list in my diary. I believe I have listed all the whales got at E. Whitefish excepting Danny Sidney & Joe Teddy's as I never saw them. It is a very difficult task for 1 person as most everyone goes out to hunt as a rule on the same day if not the same time so I missed out on a lot of samples. Another factor was gasoline. I had to buy some gas at Tuk the first time it was \$2.02 a gallon & the second time it was \$2.37% & that is without oil so at that price you want to be sure you are going to get samples or get something to report before you start travelling around.

The day I arrived at Whitefish I made visits to two camps & I got complaints from both places that there were already a number of carcases on the Island with allthe meat & sometimes the muktuk not properly taken off, & already a stinker or two floating. I brought this up with Fisheries officials when we got together at Bird Camp & was assured there would be a camp on the Island by the 10th of July which did not happen. I have since been told was due to short staff. Camp was not set up until the 14th but was not manned until the 21st unfortunately by a couple of inexperienced young men who had to ask directions to the Island when they came to my camp.Later I asked them if there were alot of hunters out butthey did not think so although there had been 4 whales

brought in at our camp alone. I may sound but I am not trying to be critical but I hope that this report will help us in future years. For example, I heard this second hand but personally believe it to betrue with experience on the Island. A hunter landed 3 whales on the Island to cut them up said in no way would he have hauled the meat but someone was watching although not wanting to he hauled them all home.

The weather was certainly not the best but everyone at East. Whitefish & surounding camps all got what they needed. We got flooded out on the third of August & had to move up the hill. Other than that the summer went really well every one got along well with no mishaps.

My diary covers most everything including weather. We left East Whitefish on the 14th of August. The only people left were Buster Kailik & his family at Indian camp but he told me he would be leaving in the next few days.

Appendix

1981 FINAL WHALE OBSERVATION REPORT KENDAL ISLAND

by Eliyjha Allen

21 Sep 81

Everything went well. For ourselves it was very good.

There were a few bouts around, not to excited about it. The boats belonged to CanMar. We went to visit the boats, to ask them if they could move. We wanted them to move so that the whales could come into the Eay.

I would like to see the final report, especially what happened to the samples. We want to do the job completely, if we make mistakes we want to know about them & you can teach us more. The whale observing program was good. I would like to do it again next year, its a good job. There were about the same amount of hunters this year on the average. We had more visitors this year. Pam Fraker was in two or three times. The weather was not that good for hunting, it was good a few days. Total of 21 whales taken-two were lost. The other people made dry meat with the meat. Edward Lennie didn't want to give me the teeth, he said he was loosing money if he gave it to the Wildlife. Two jaws were not taken.

Appendix

1981 FINAL WHALE OBSERVATION REPORT

COLLIN HARRY

Well seems like the whaling is over at Running River & Shingle Point on the 27th of July George Allon got his last two whales on the 27th of July in his whale net & every body at Running Eiver they all went back to Aklavik & Alex Gordon, Jackob Archie, Alex Elanik, Herbert Dick, Andy Kayotak, Annie C. Gordon came over to Single Point for fishing & make some dry fish.

Well we had good summer here but lots of wind once in a while I think every body got what they were after any way got there whales & fish.

Even though there was lots of wind some times when I go over & make my rounds to Shingle Point have to camp with some friends to much wind to go home. Not far to go home all right well everybody had good times hunting was lots of fun fishing & whaling.

Hope next summer be better summer.

To bad I diden make my around to much to Bird Camp & White Fish West & Billy Stronger River its kind of far from where I was at Running River & had been winding most of this summer & its about 20 miles to Bird Camp from Running R. & I was thinking Alex Elanik was making those arounds to the other whalers like at White Fish West & Billy Strongs River. He was staying at Bird Camp. He diden have to go out to open sea to go to the other camps like me.

But after he move to Single Point I go over to the Bird Camp & White Fish West 2 or 3 times see if any body hunting whales yet. But no body was hunting hope next summer we work together better.