BLUENOSE CARIBOU MANAGEMENT PLAN

COMMUNITY CONSULTATIONS

4 - 19 March 1996

Department of Renewable Resources

Inuvik\Sahtu\Kitikmeot Regions

April 1996

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1.0 INTRODUCTION

This report details presentations made by the Department of Renewable Resources to each of the 12 communities that harvest the Bluenose caribou herd. A summary of the review of information about the herd and concerns and issues raised during the March/April 1995 community consultation tour was presented. Questions and comments raised during the March 1996 community consultation tour are documented.

2.0 WORKING GROUP

Frank Pokiak	Member, Wildlife Management Advisory Council (NWT), Tuktoyaktuk, NT
Wilbert Kochon	Representative, Sahtu Renewable Resource Board, Colville Lake, NT
Joseph Niptanatiak	Representative, Nunavut Wildlife Management Board, Kugluktuk, NT
Roger Binne	Member, Gwich'in Renewable Resource Board, Swan River, Man
Ed Henderson	Superintendent, Department of Renewable Resources, Inuvik Region, Inuvik, NT
Ron Morrison	Assistant Superintendent, Department of Renewable Resources, Inuvik Region, Inuvik, NT
John Stevenson	Superintendent, Department of Renewable Resources, Kitikmeot Region, Kugluktuk, NT
John Nagy	Supervisor Wildlife Management, Department of Renewable Resources, Inuvik Region, Inuvik, NT
Alasdair Veitch	Regional Biologist, Department of Renewable Resources, Sahtu Region, Norman Wells, NT

3.0 COMMUNITY PARTICIPANTS

3.1 Inuvik (4 March 1996)

RRC
- Tom Wright
- James Firth
- Wilbert Firth
- Roger Allen
- Neil Firth

HTC
- Duane Smith
- William Day
- Joey Amos
- Hank Rogers
- Hans Lennie
- Harry Elias

GRRB
- Joe Benoit

Parks Canada
- Bill Fox
- Tyson Perche

Public
- Nick Larter
- Dave Jones
- Roger Connelly
- Peter Clarkson
- Bruce Hanbidge
- Others

3.2 Tuktoyaktuk (5 March 1996)

HTC
- Herbert Felix
- Jim Elias
- Fred Wolki
- Peter Nogasak
- Lloyd Gruben
- Randal Pokiak
- Roger Gruben
- Max Kotokak
- James Pokiak

3.3 Aklavik (6 March 1996)

HTC
- Jacob Archie
- Titus Allen

Renie Arey
Danny A. Gordon
Marianne Stewart

RRC
Eddie Greenland
Fred Kendi
Frank Edwards
Melba Mitchell
Sheldon Bernard

Public
Mary Kendi
Evelyn Storr
Approximately 10 others

3.4 Fort McPherson (7 March 1996)

RRC
Mariah Ittsi (coordinator)
Effie Snowshoe
Johnny Charlie

Public
William Tehya
Woody Elias
Joe Vittrekwa
Bryan Alexie
Archie Jerome
Neil Collin
John A. Snowshoe
Norm Warvillle

3.5 Tsiigehtchic (8 March 1996)

RRC
Beverly Moore
John Norbert
Peter Ross
James Garland (coordinator)

Public
Wayne Cardinal
Gabe Andre
John Kerdo
David Kerdo
Lorraine Andre
Cecil Andre
Grace Blake
Nap Norbert
Annie Norbert
Rose Clark

3.6 Norman Wells (11 March 1996)

RRC
- Winter Lennie
- Johnny Lennie
- Norm Hodgson (president)
- Norm McDonald
- Deedee LaBrue

Public
- Keith Hickling
- Approximately 5 others

3.7 Tulita (12 March 1996)

RRC
- Alfred Lennie (VP)
- Boniface Ayah
- Laurence Menacho
- Frederick Andrew
- Carl Yakeleya (interim President)
- Valerie Yakeleya (secretary)

Public
- Peter Andrew
- Edward Yakeleya
- Gabe Horassi
- John Hotti
- Blue Clement
- Antoine Horassi
- Debbie Yallee
- Darrly Menacho
- William Horassi
- Agnes Neadzo (translator)

3.8 Fort Good Hope (13 March 1996)

RRC
- Wilfred Jackson
- Wilbert Cook
- Cam Gully
- Cam Rabisca
- Fred John Barnaby

Public
- Bruno Ritias
- Isadore Manual
- David Cook
- Enos Elton
- Peter Mountain
- Frank Pierrot

Edward Gardebois
Brian McNeely
Barney Masuzumi
Baptise Shae
Micheal Jackson

3.9 Deline (14 March 1996)

RRC

Joe Joe Blondin (Vice president)
Peter Baton
Alfred Taniton
David Taniton
Sarah Cleary (translator)

Public

Dolphus Tutcho
Raymond Taniton
Glen Tutcho
Andrew John Kenny
John Tutcho
David Speakman

3.10 Colville Lake (15 March 1996)

RRC

Alexi Blancho
Joe Martin
Marie Kochon
Phillip Codzi

Public

J.B. Gully
John Blancho Sr.
Madeline Blancho
Joseph Kochon
Antoine Kochon

3.11 Paulatuk (18 March 1996)

HTC

David Ruben (president)
Garrett Ruben (vice-president)
Nelson Green
Fred Thrasher
Jonah Nakimayak
Peter Green (secretary-manager)
Noel Green (resource person)
Fred Bennett

Public
Gilbert Thrasher
James Ruben

3.12 Kugluktuk (19 March 1996)

HTO
Jack Ayaligak (translator, vice president)
George Haihok
Peter Takogon
Millie Kulitana

Public
Bernice Lyall
Abe Tuptuna
Sandy Buchan
approximately 15 others

4.0 AGENDA

i review of information used to draft Bluenose Caribou Management Plan

ii review of community issues and concerns raised during community consultation tour conducted in March/April 1995

iii review research required to address immediate management concerns

iv some elements of a caribou herd management plan

5.0 REVIEW OF INFORMATION USED TO PREPARE A DRAFT BLUENOSE CARIBOU MANAGEMENT PLAN

5.1 Population Surveys

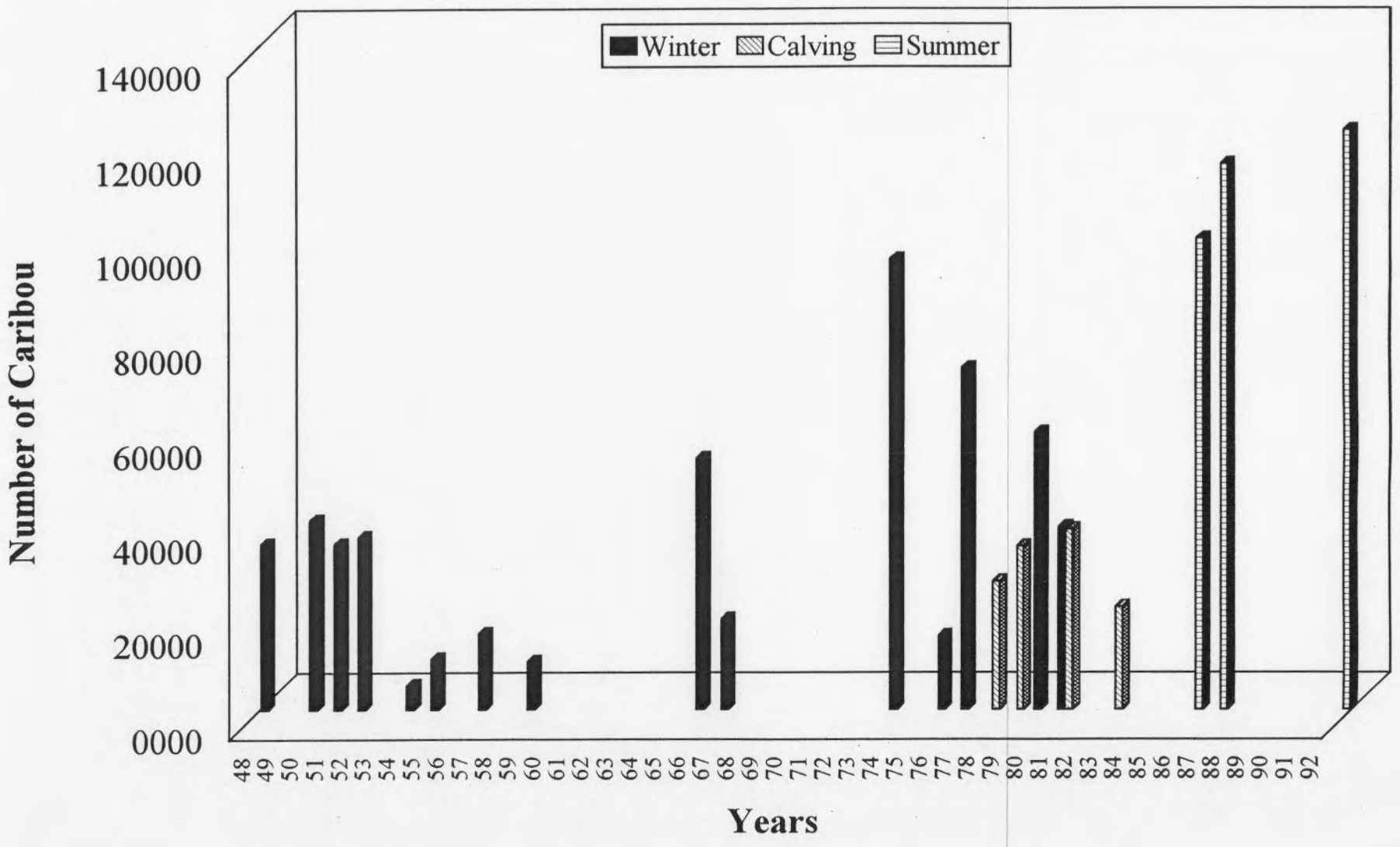
Twenty-three surveys were completed to determine herd size between 1948-49 and 1992 (Figure 1).

1948-49 to 1981:

- 16 aerial transect surveys completed on winter range (Figure 1)

Bluenose Caribou

Figure 1. Population Estimates, 1948 to 1992



1978 to 1983:

- 4 aerial transect surveys completed on calving grounds (Figure 1)

1986 to 1992:

- 3 photocensuses completed on early summer range (Figure 1)

5.2 Population Trend

The most recent population estimate of 122,289 caribou was obtained in July 1992 by photocensus.

The number of caribou in the Bluenose herd has undoubtedly increased since the 1940's.

We currently do not know if the herd is increasing, decreasing, or stable.

5.3 Productivity

Productivity is defined as the number of calves that are produced in the spring.

The most recent estimate of productivity was obtained in 1981 or 15 years ago (Figure 2).

- the productivity rate was 75 calves per 100 cows.

- that productivity rate was good and is comparable to other herds.

Current productivity is unknown.

5.4 Recruitment

Recruitment is defined as the number of calves born in the spring that survive to be one year old. Composition surveys are conducted in March to estimate recruitment although calves are not actually "recruited" to the population until June when they reach one year old.

Eight composition surveys were completed between 1983 and 1994 (Figure 3). It appears that recruitment rates have declined in recent years. However, surveys were not conducted range wide and in some years insufficient caribou were classified to give an accurate estimate of recruitment.

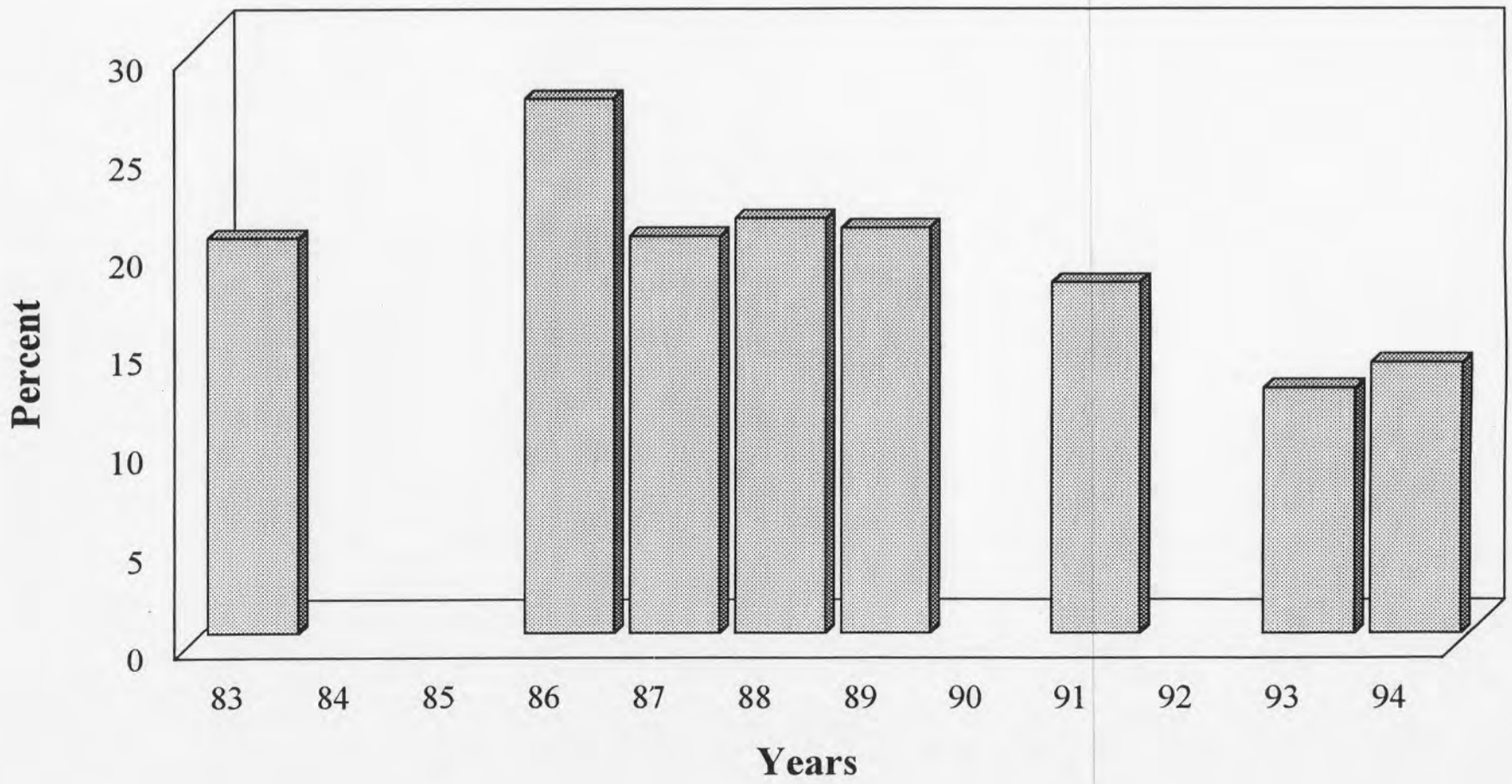
Bluenose Caribou

Figure 2. Productivity: Calves Per 100 Females (June)

Year	Date	Calves Per 100 Females
1975	June	73.6
1976	June 6-17	75.8
1981	June 11-13	75.3

Bluenose Caribou

Figure 3. Estimates of Maximum March Recruitment, 1983 to 1994



In some populations, calf mortality has been estimated as high as 80%. The main cause of mortality in some herds is predation by wolves, bears, eagles, and other predators. Disease and poor calving conditions also contribute to calf mortality. Herds with recruitment rates of over 15-20% tend to be increasing, although this does not factor in adult mortality.

5.5 Harvest

The average known annual harvest of Bluenose caribou between licence years 1987-88 and 1992-93 was 5553 caribou (Figure 4).

Approximately 90% of the caribou harvested annually were taken by subsistence hunters, 4% by resident hunters, 6.1% by commercial hunters and 0.5% by non resident hunters (Figure 5).

Approximately 43% of the average annual subsistence harvest of Bluenose caribou occurs in the Inuvialuit Settlement Region, 30% in Nunavut (Kugluktuk), 20.1% in the Sahtu Settlement Area and 6.5% in the Gwich'in Settlement Area (Figure 6).

Most of average annual subsistence harvest of Bluenose caribou is taken by hunters in Kugluktuk (30%), Tuktoyaktuk (20.5%), Inuvik (14.7%), Fort Good Hope (11.7%), and Paulatuk (11.1%) (Figure 7). Fort McPherson, Tsiigehtchic and Aklavik generally harvest the Porcupine caribou herd. Bluenose caribou are harvested by these communities when they cannot access the Porcupine caribou herd.

5.6 Problems With Harvest Data

Harvest data are best obtained through formal harvest studies when hunters are interviewed on a regular basis to determine what species and the number of each species they have harvested.

Harvest data reported here were obtained from the Inuvialuit Harvest Study (communities in Inuvialuit Settlement Region) and Kitikmeot Harvest Study (Kugluktuk). Estimates of the number of caribou harvested by communities in the Gwich'in and Sahtu Settlement Areas were obtained by interviewing officers and people in the communities.

Accurate estimates are required of the number of Bluenose caribou harvested by all communities. None of the current harvest estimates include wounding loss.

5.7 Wounding Loss

Wounding loss is defined as animals that have been shot but not retrieved. A wounding loss rate of 25% is used for the Beverly-Qaminiriaq herd; that is, one caribou is not retrieved for every 4 that are retrieved.

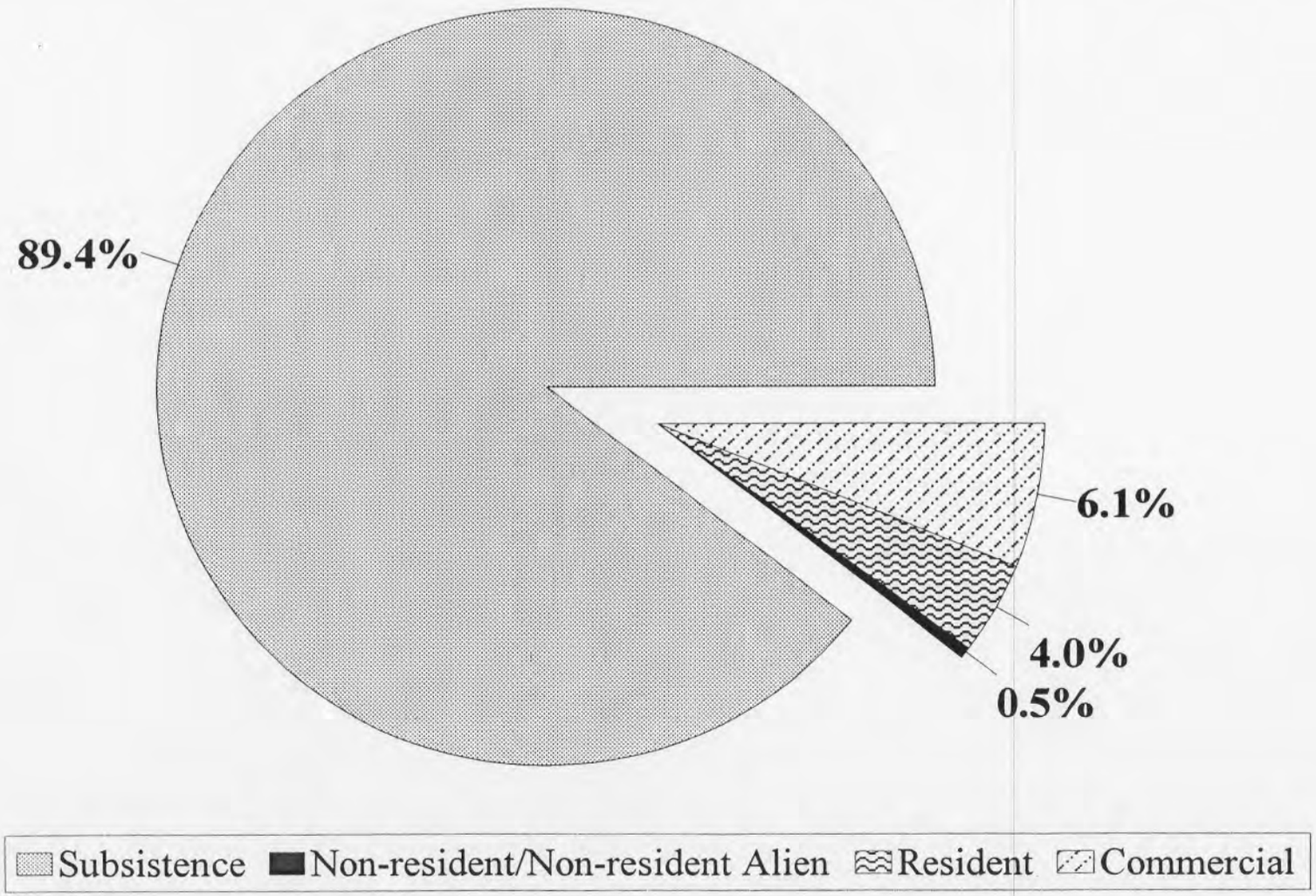
Bluenose Caribou

Figure 4. Average Annual Harvest by Licence Year, 1987-88 to 1992-93

Type of Harvest	Average	Range (Km2)
Subsistence	4989	4542 - 5638
Resident	202	101 - 296
Non-Resident	30	13 - 55
Commercial	331	180 - 700
TOTAL	**5553**	**5076 - 6153**

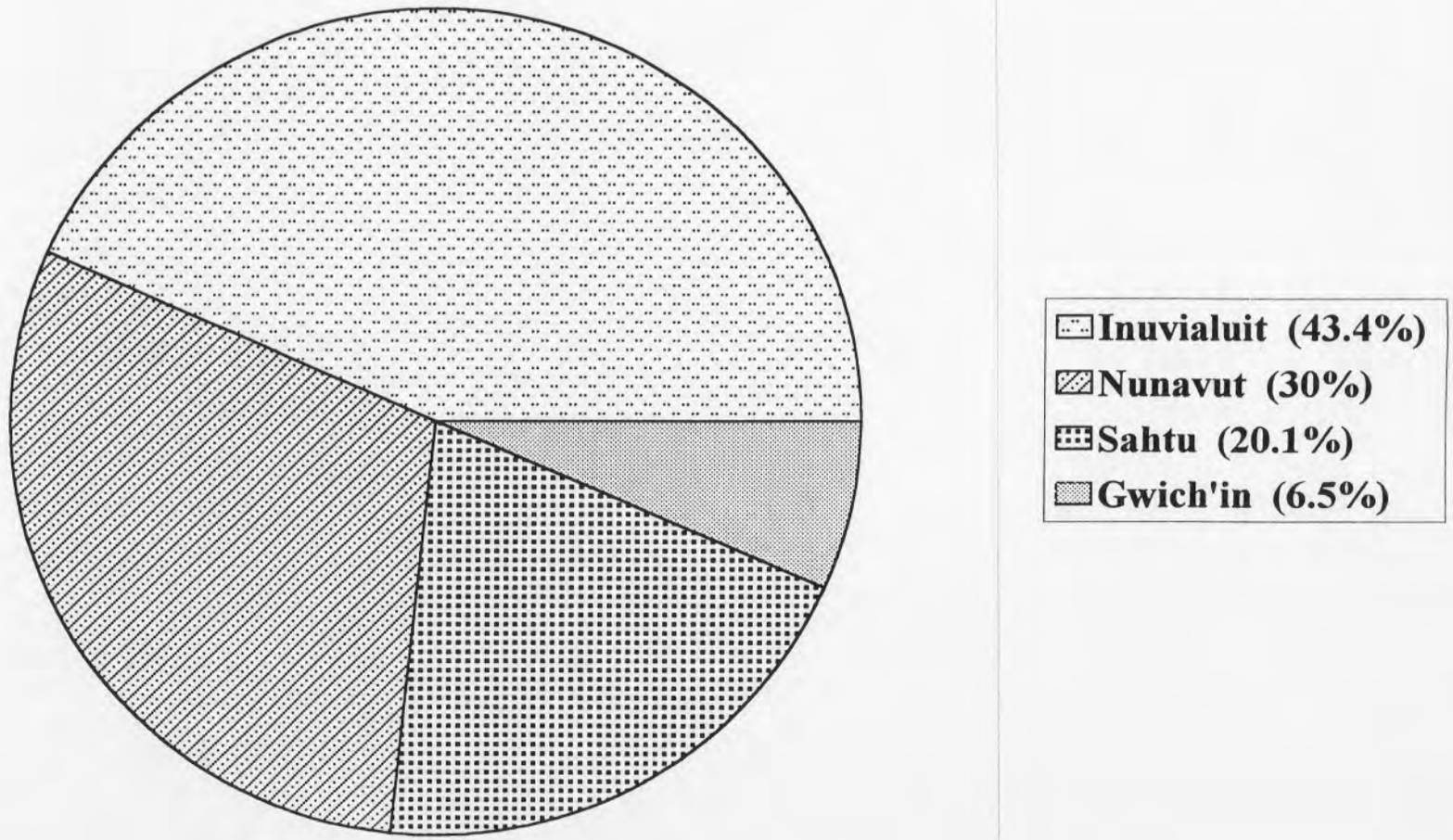
Bluenose Caribou

Figure 5. Average Annual Harvest, 1987-1993



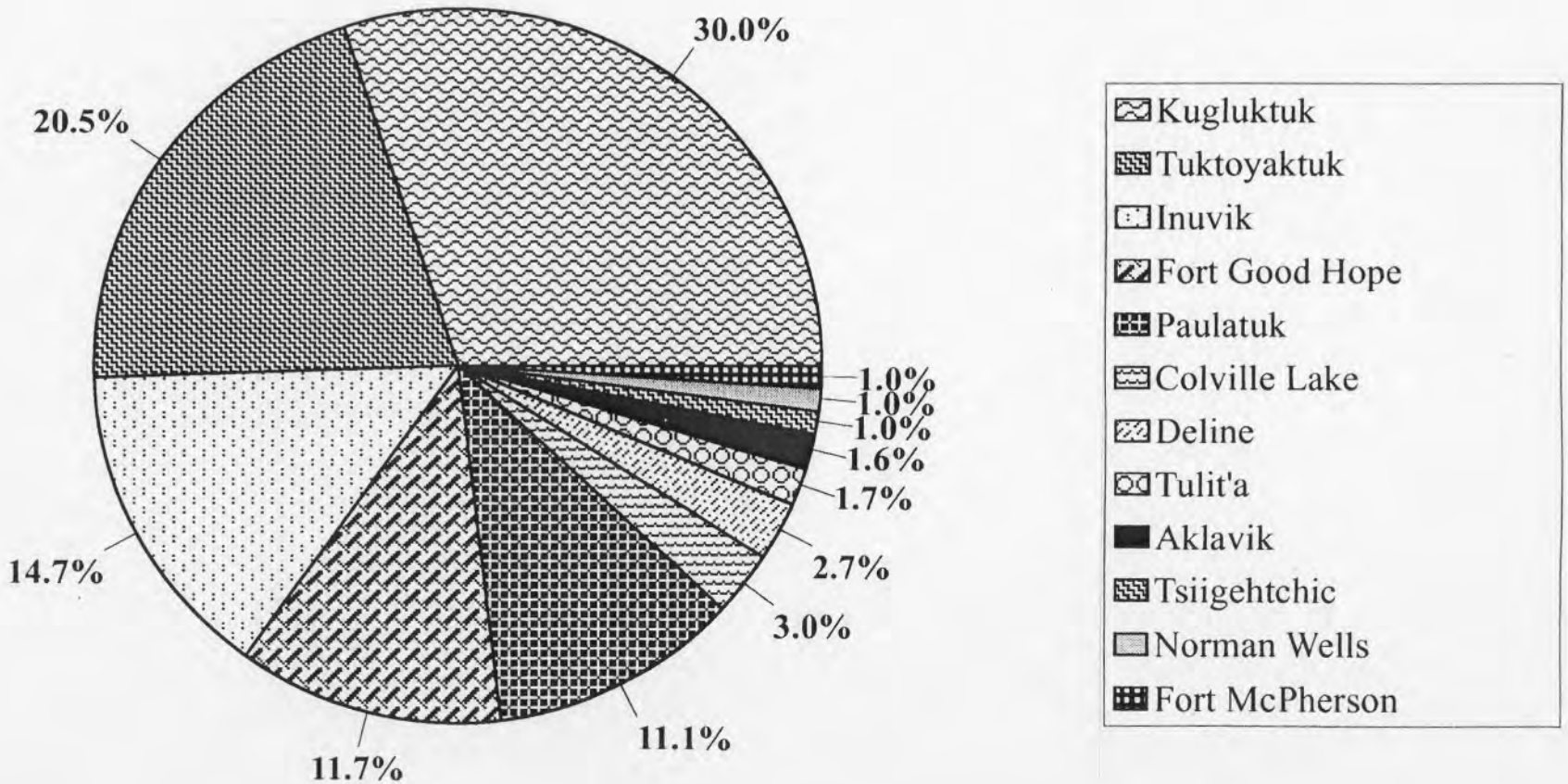
Bluenose Caribou

Figure 6. Average Annual Subsistence Harvest by Settlement Area, 1987-1993



Bluenose Caribou

Figure 7. Average Annual Subsistence Harvest Mainland Communities, 1987-1993



Most communities agree that wounding loss occurs.

Communities estimate that wounding loss ranges from near 0 to 25%.

Wounding loss varies with:

- hunting conditions (weather conditions, forest cover, road access, accessibility of caribou),

- terrain (hilly vs flat), and

- experience of the hunters (young inexperienced hunter more likely to loose wounded animals than older more experienced hunters).

The actual number of caribou removed from a population by hunting activities is calculated by adding an estimate of wounding loss to the harvest. We need to agree on the wounding loss rate that will be used to estimate the total harvest of the herd.

5.8 Sex Composition of Harvest

The harvest data for the Inuvialuit Settlement Region (1987-88 to 1993-94) were summarized for 5 caribou seasons including calving (June), summer (July to end September), rut/fall (October and November), winter (December to end March) and spring (April and May). We calculated:

- the sex ratio (percent males and females) of the harvest for each season (Figure 8), and

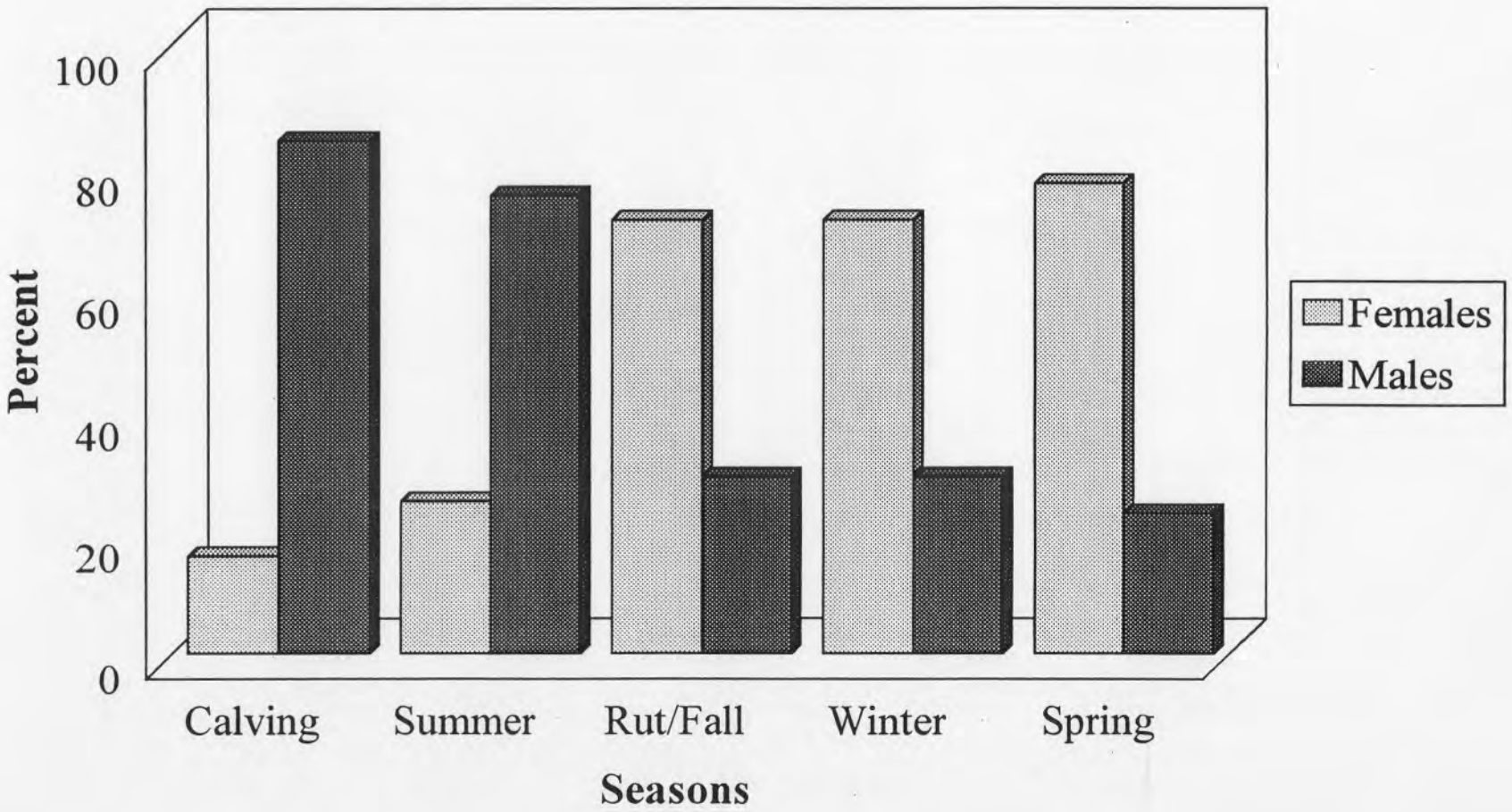
- the male and female harvest for each time period as a percent of the total annual harvest (Figure 9).

Mostly males are harvested during calving and summer (Figure 8) but only a small proportion of the total annual harvest occurs during those seasons (Figure 9). The harvest is predominantly females during the rut/fall, winter, and spring (Figure 8) and most of the annual harvest occurs during those seasons (Figure 9).

This seasonal pattern of harvesting males and females is similar to that observed in other areas of the NWT. We have no information at this time to suggest that this is a problem. However, it is important to note that if the herd declines in the future, this pattern of harvest may escalate the rate of decline. As a result, management actions may be required to reduce the harvest of females.

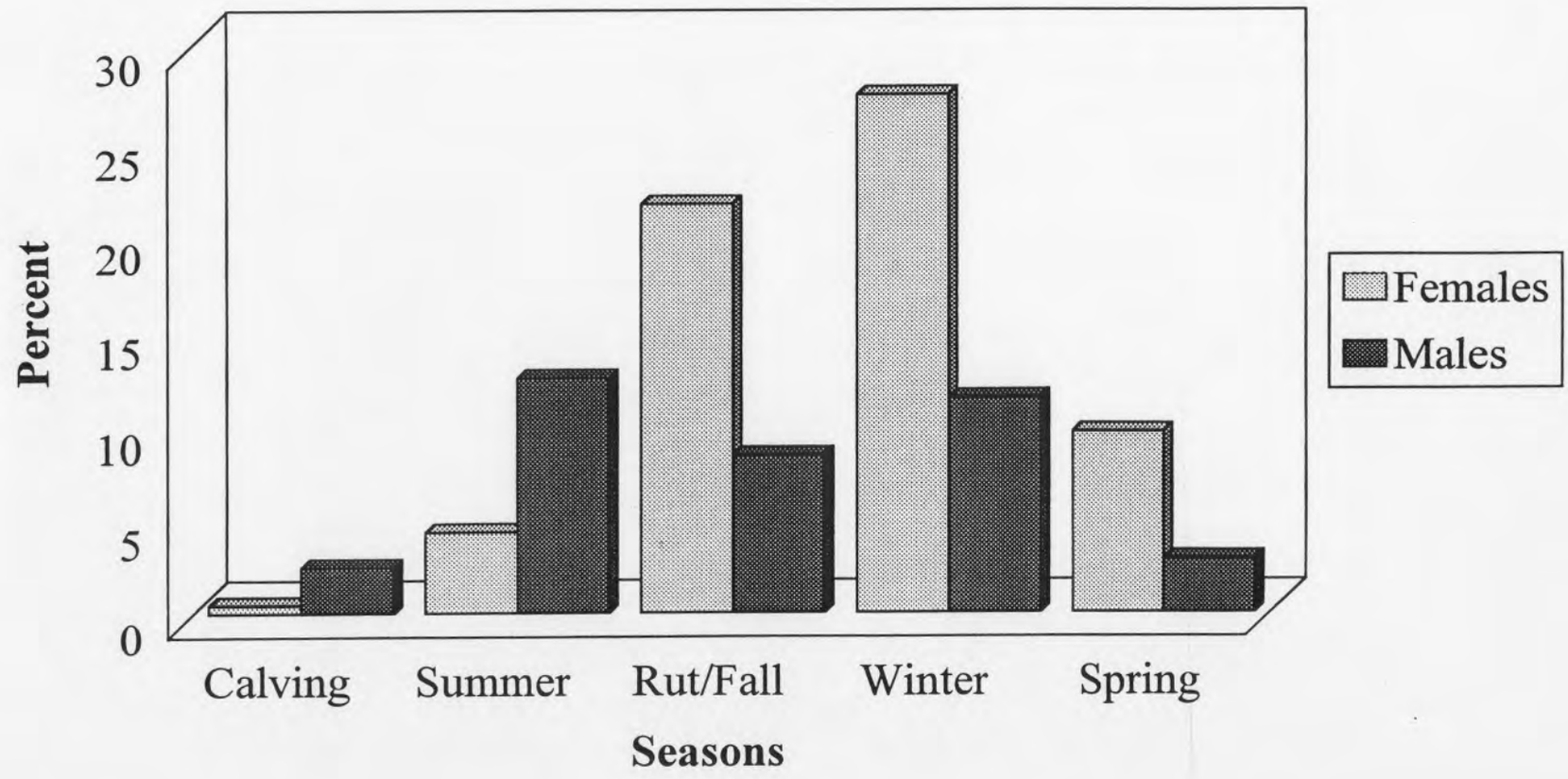
Bluenose Caribou

Figure 8. Sex Composition of Subsistence Harvest, ISR, 1987-88 to 1993-94



Bluenose Caribou

Figure 9. Percent of Total Annual Subsistence Harvest, ISR, 1987-88 to 1993-94



5.9 Commercial Tag Allocation

A total of 950 commercial tags are allocated annually among 11 communities (Figure 10). These tags are normally distributed by the local HTC/RRC/HTO or through the offices of the Department of Renewable Resources. In some communities hunters were not retrieving the entire caribou harvested for commercial sale. To prevent wastage of meat, these communities now require hunters to bring the entire carcass to the office of the Department of Renewable Resources for inspection before a commercial tag is issued.

Some communities have allocated a portion of their tags for sport hunts (e.g. Tuktoyaktuk).

5.10 Physical Condition

At the present time we do not have much information on the physical condition of the herd or the incidents of diseases in the herd. We are not aware of any major health problems with the herd.

Information on *Brucellosis* has been obtained in recent years. *Brucellosis* occurs in caribou, reindeer, elk, and bison, but can be found in other species. The disease is caused by bacteria. The most common visible symptom is swollen joints, although infected animals do not always have swollen joints. When an infected animals is harvested and butchered you may find pockets of greenish puss between muscles or between muscles and bone. It affects calf survival as the cow will often abort or the calf may die after birth as a result of the disease. The meat must be well cooked if eaten because people can contract *Brucellosis* from eating raw or undercooked infected meat. Drying, smoking, and freezing do not kill the bacteria that causes *Brucellosis*.

Figure 11 shows the incidence of *Brucellosis* in Bluenose caribou sampled in Inuvik/Tuktoyaktuk/Rendezvous Lake areas. Figure 12 show incidence of *Brucellosis* in other caribou and reindeer herds. The Bluenose caribou herd has a low incidence rate of *Brucellosis*.

If a hunters suspects that at an animal they have harvested has *Brucellosis* they should bring a sample of meat in to the office of the Department of Renewable Resources. The Department will send a sample of the meat to University of Saskatchewan for diagnosis. A diagnosis is normally received within a day or two. The Department will pass this information on to the hunter immediately after it is received.

Bluenose Caribou

Figure 10. Commercial Tag Allocation

Settlement Areas	HTO's	HTC's	RRC's	Total By Community
Kugluktuk	50			50
Tuktoyaktuk		175		175
Paulatuk		175		175
Inuvik		87.5	87.5	175
Aklavik		87.5	87.5	175
Fort Good Hope	*			
Deline	*			
Tulit'a	Shared		200	200
Colville Lake	*			
Norman Wells	*			
Tsiigehtchic	*			
TOTAL	50	525	375	950

Bluenose Caribou

Figure 11. Brucellosis

Location	Prevalence (%)	Sample Size	Year
Rendezvous Lake, NWT	1.5	68	1991
Inuvik, NWT	12.5	16	1994
Tuktoyaktuk, NWT	4.8	42	1995

5.11 Range Use

Distribution information published in reports over the last 30 years were summarized and mapped to show the seasonal ranges used by the herd. Distribution data were mapped for 7 caribou life cycle periods (Figure 13).

The Porcupine Caribou Technical Committee used 6 criteria to assess and rate the importance of seasonal ranges used by the Porcupine caribou herd using the following factors:

- energy balance,
- reproductive contribution,
- tolerance to disturbance,
- escape requirements,
- intensity of use, and
- availability of alternative ranges.

We used the same importance ratings for seasonal ranges used by the Bluenose caribou herd as those defined by the Porcupine Technical Committee for the Porcupine caribou herd (Figure 14). Ranges used during the pre-calving, calving and post-calving period were rated as most important ranges used by the Bluenose caribou herd during the year. Ranges used during early and mid summer were rated as the second most important.

5.11.1 Pre-calving, calving and post-calving range

The main calving areas are in the western portion of the Melville hills east of Paulatuk and east of Bluenose Lake (Figure 15). Distribution is based 10 years of survey data. In some years conditions on the main calving areas may not be suitable for calving caribou, or, deep snow conditions on migration routes to the calving areas may delay or slow the spring migration. As a result, in some years caribou calve outside of the main calving areas.

Note calving distribution in the western Melville Hills and area east of Bluenose Lake (Figure 15).

5.11.2 Early summer range

The early summer range of the herd is around Paulatuk (Figure 16). Distribution is based 9 years of survey data. This is the time of year that caribou group up for insect relief. The largest groups we have photographed included as many as 10,000 animals.

5.11.3 Mid summer range

We do not have much information on distribution for this period (Figure 17). Distribution is based on 4 years of survey data.

Other Caribou/Reindeer Herds

Figure 12. Brucellosis

Herd	Location	Prevalence (%)	Sample Size	Year
Reindeer	Tuktoyaktuk NWT	8.7	1692	1960-1969
Qamanurjuaq	Not Reported	4.4	320	1966-1968
Boothnia	Pelly Bay, NWT	35.3	17	1987

Bluenose Caribou

Figure 13. Life Cycle Periods

	Period	Dates
1	Pre-calving, Calving, Post-calving	26 May - 25 June
2	Early Summer	26 June - 15 July
3	Mid Summer	16 July - 7 August
4	Late Summer, Fall Migration	8 August - 7 October
5	Rut, Late Fall	8 October - 30 November
6	Winter	1 December - 31 March
7	Spring, Spring Migration	1 April - 25 May

Bluenose Caribou

Figure 14. Importance of Ranges Used During Life Cycle Periods

Period	Ranking (1 = Most Important)
1 Pre-calving, Calving, Post-calving	1
2 Early Summer	2
3 Mid Summer	2
4 Late Summer, Fall Migration	3
5 Rut, Late Fall	4
6 Winter	4
7 Spring, Spring Migration	3

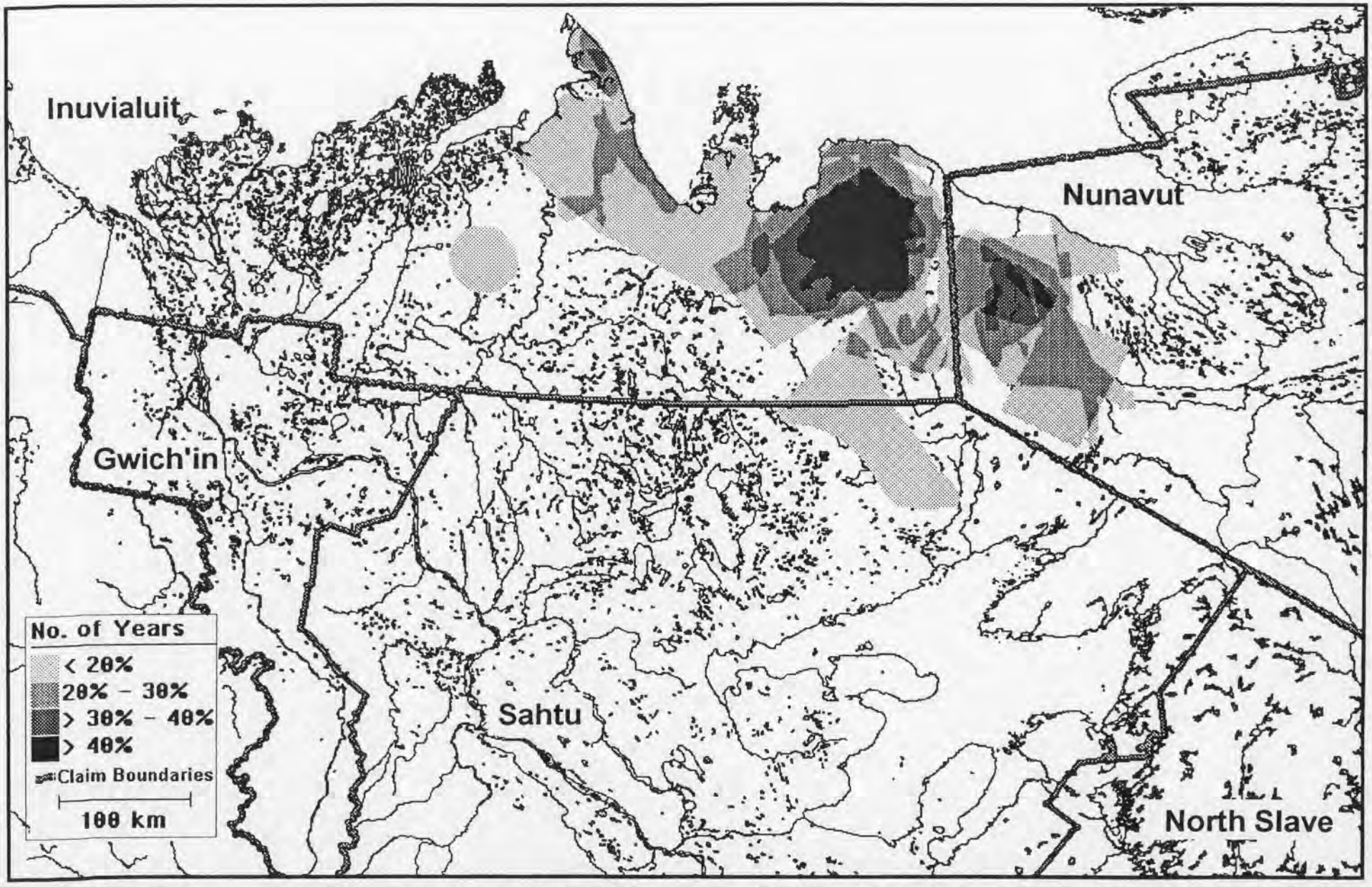


Figure 15: Documented Distribution of the Bluenose Caribou Herd during the PreCalving, Calving and Post Calving Period (26 May to 25 June). Map analysis for 10 years of survey data.

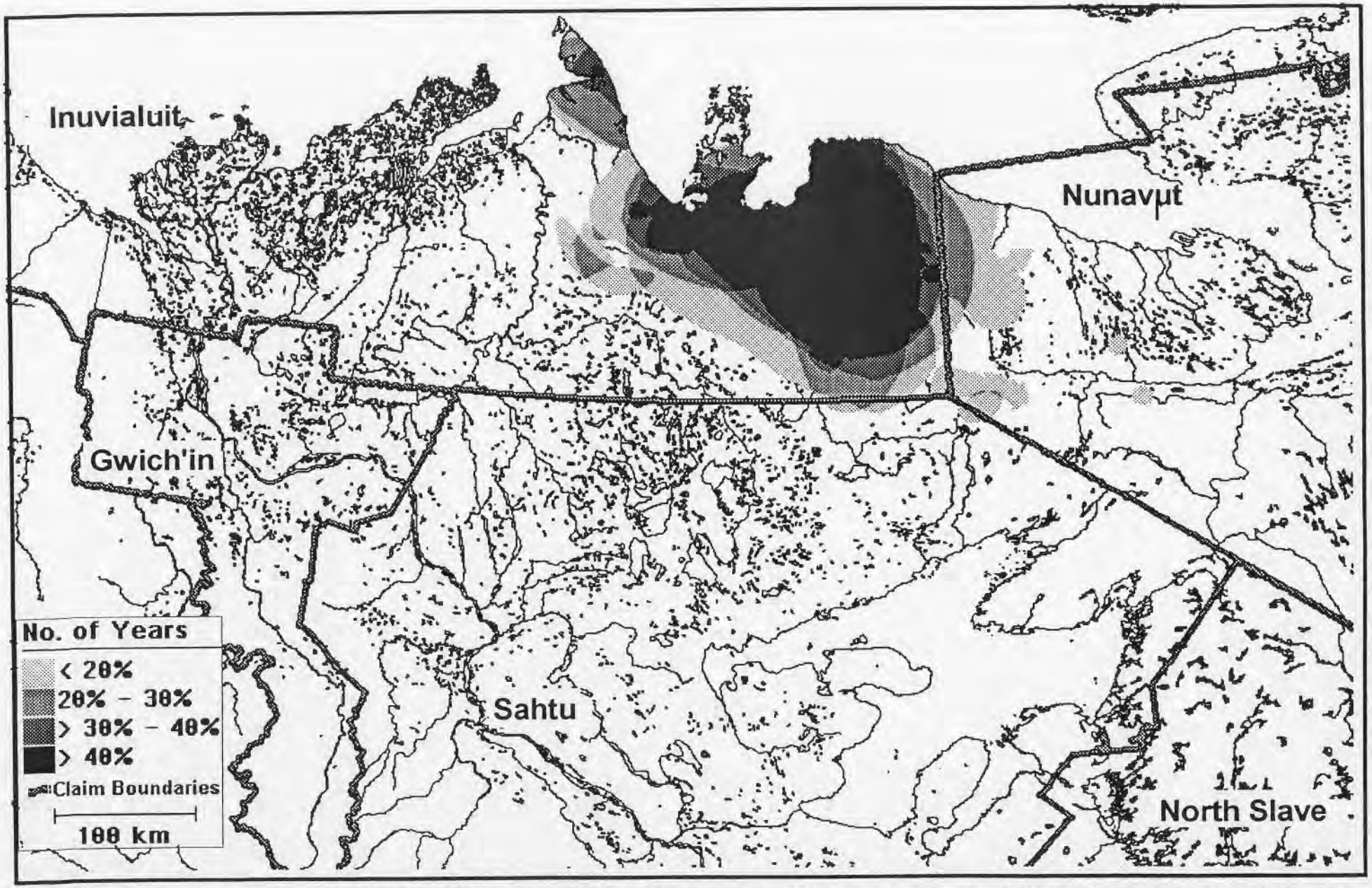


Figure 16: Documented Distribution of the Bluenose Caribou Herd during the Early Summer Period (26 June to 15 July). Map analysis for 9 years of survey data.

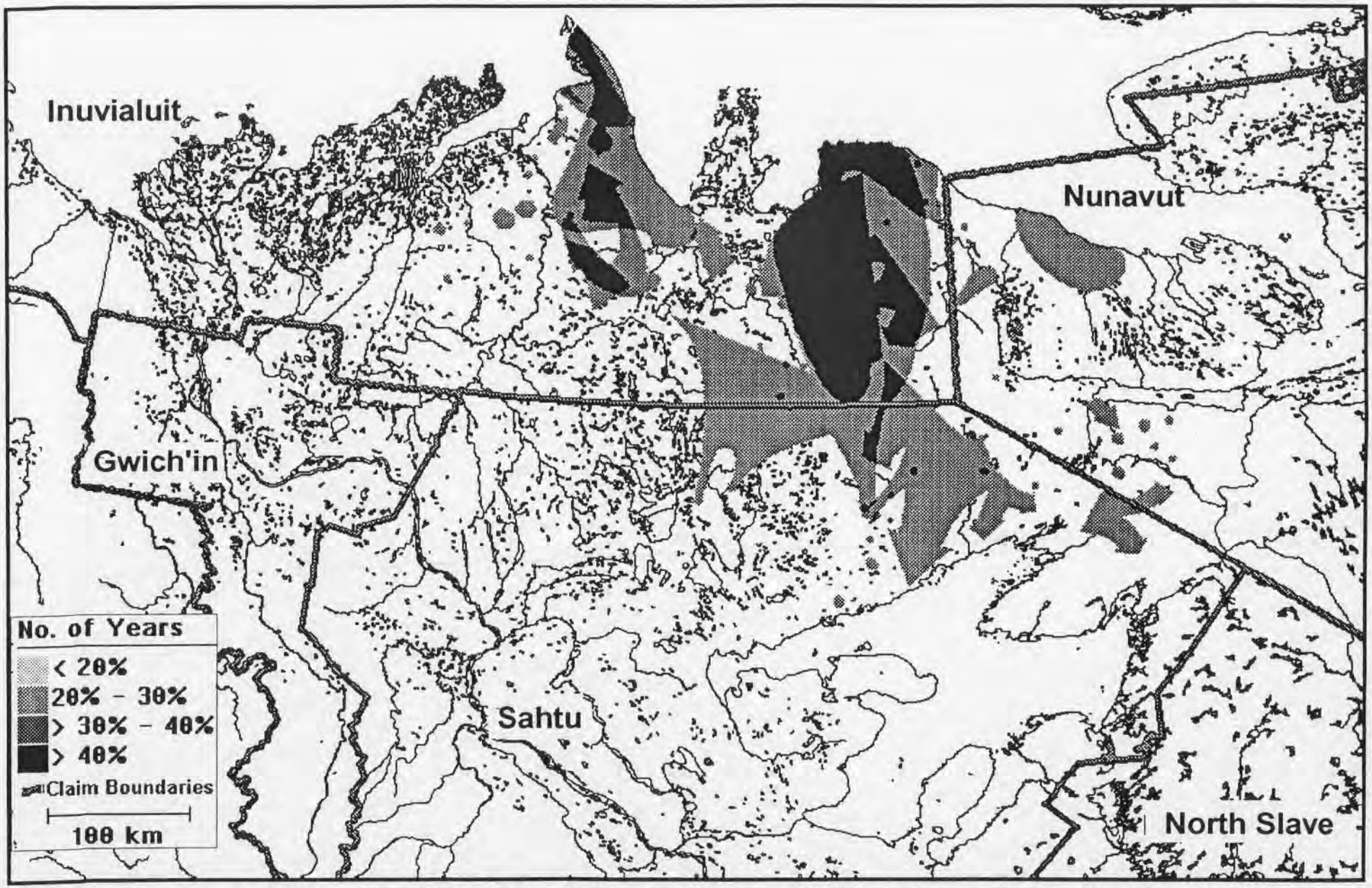


Figure 17: Documented Distribution of the Bluenose Caribou Herd during the Mid Summer Period (16 July to 7 August). Map analysis for 4 years of survey data.

The information that we have indicates that the caribou are still in the Paulatuk area, on Cape Bathurst and in coastal areas north of Bluenose Lake. In some years caribou were moving southward toward Great Bear Lake.

5.11.4 Late summer range

We do not have much information on distribution for this period (Figure 18). Distribution is based on 4 years of survey data. In the late summer the herd is moving generally in a southerly and westerly direction.

5.11.5 Rut/late fall range

By rut/late fall the caribou have move into the western portion of the Inuvialuit Settlement Region and into the Sahtu (Figure 19). Distribution is based on 8 years of survey data.

Note some caribou were located in the area between Bluenose Lake and Coppermine during the rut/late fall period. There appear to be two distinct rutting areas. This suggests that there may be two separate herds within the range of what we have been considering as one Bluenose caribou herd. We should be able to determine this through the use of satellite collars.

5.11.6 Winter range

Two main wintering areas are apparent. One centred around the Anderson River the other north and east of Caribou Point on Great Bear Lake (Figure 20). Distribution is based on 17 years of survey data.

5.11.7 Spring, spring migration

During this period caribou are moving north and eastward in the Inuvialuit Settlement Region and Sahtu to the calving areas in the Melville Hills and westward in Nunavut to calving areas near Bluenose Lake (Figure 21). Distribution is based on 5 years of survey data.

5.11.8 Total range

The total range of the herd is approximately 323,000 km^2. Approximately 27% of total range is on private or selected lands (Figure 22 and 23).

The greatest proportion of the range of the herd is in the Sahtu Settlement Area (42%) and Inuvialuit Settlement Region (34%) (Figure 24).

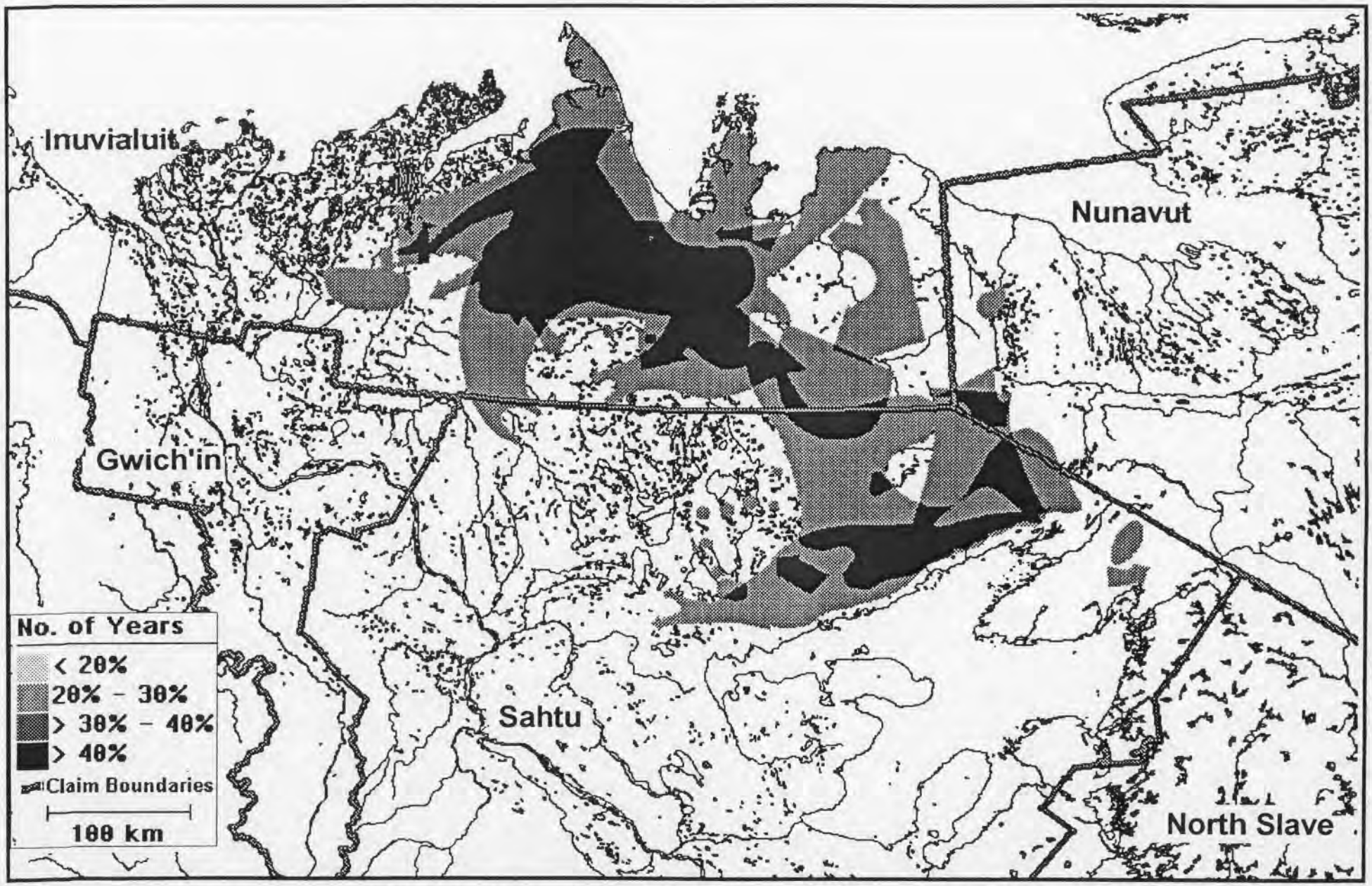


Figure 18: Documented Distribution of the Bluenose Caribou Herd during the Late Summer Period (8 August to 7 Oct). Map analysis for 4 years of survey data.

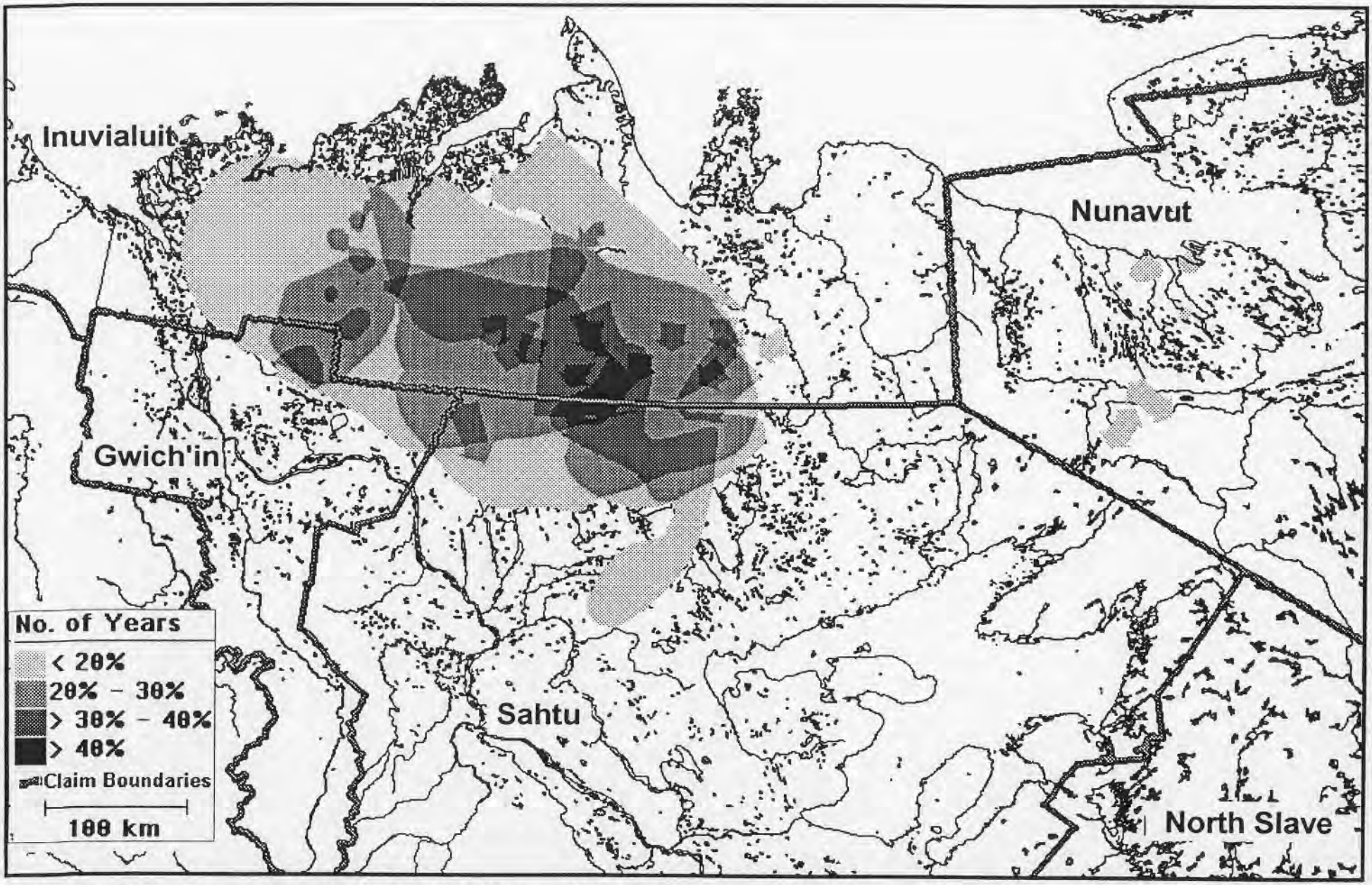


Figure 19: Documented Distribution of the Bluenose Caribou Herd during the Rut\Late Fall Period (8 Oct to 30 Nov). Map analysis for 8 years of survey data.

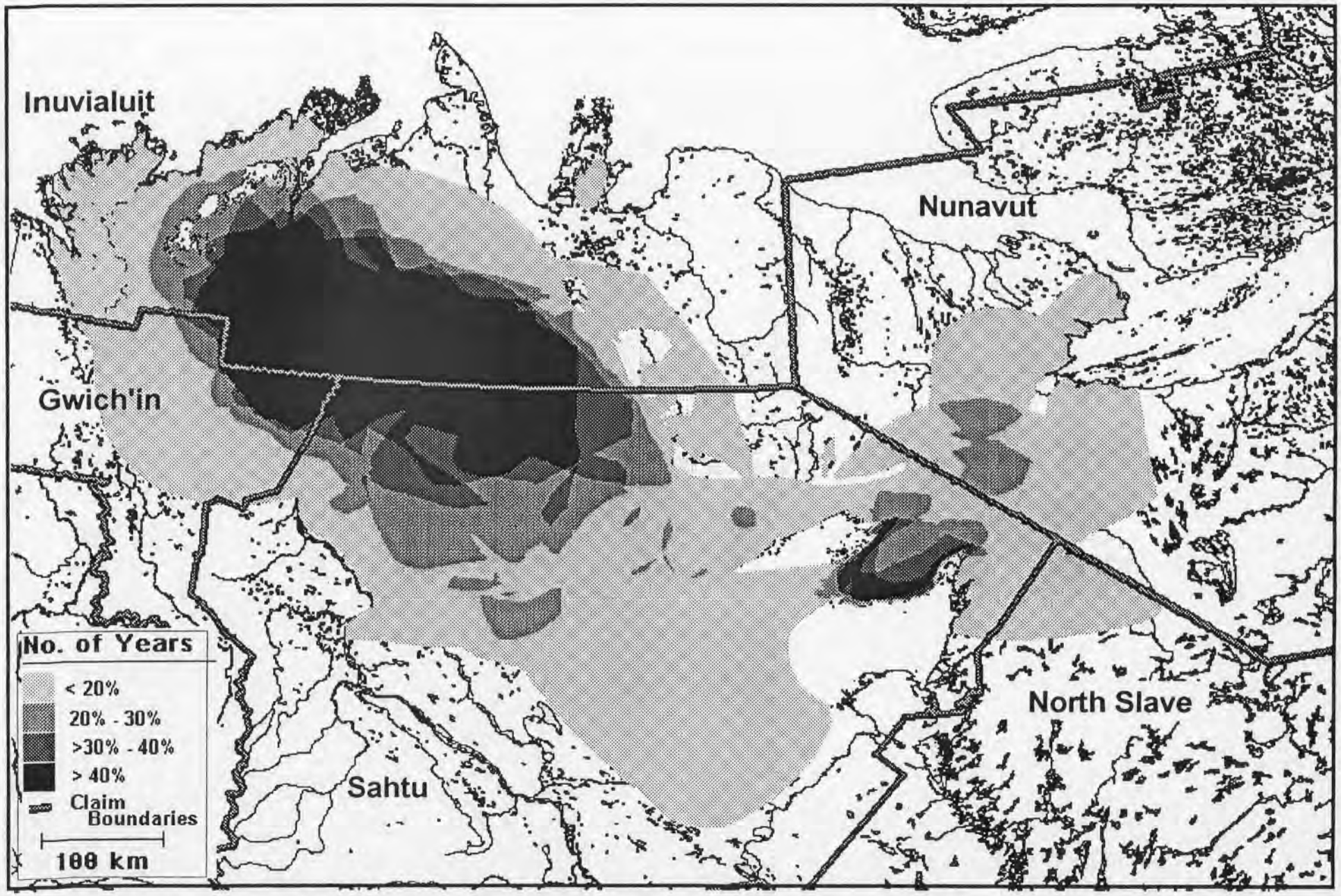


Figure 20: Documented Distribution of the Bluenose Caribou Herd during the Winter Period (1 Dec to 31 March). Map analysis for 17 years of survey data.

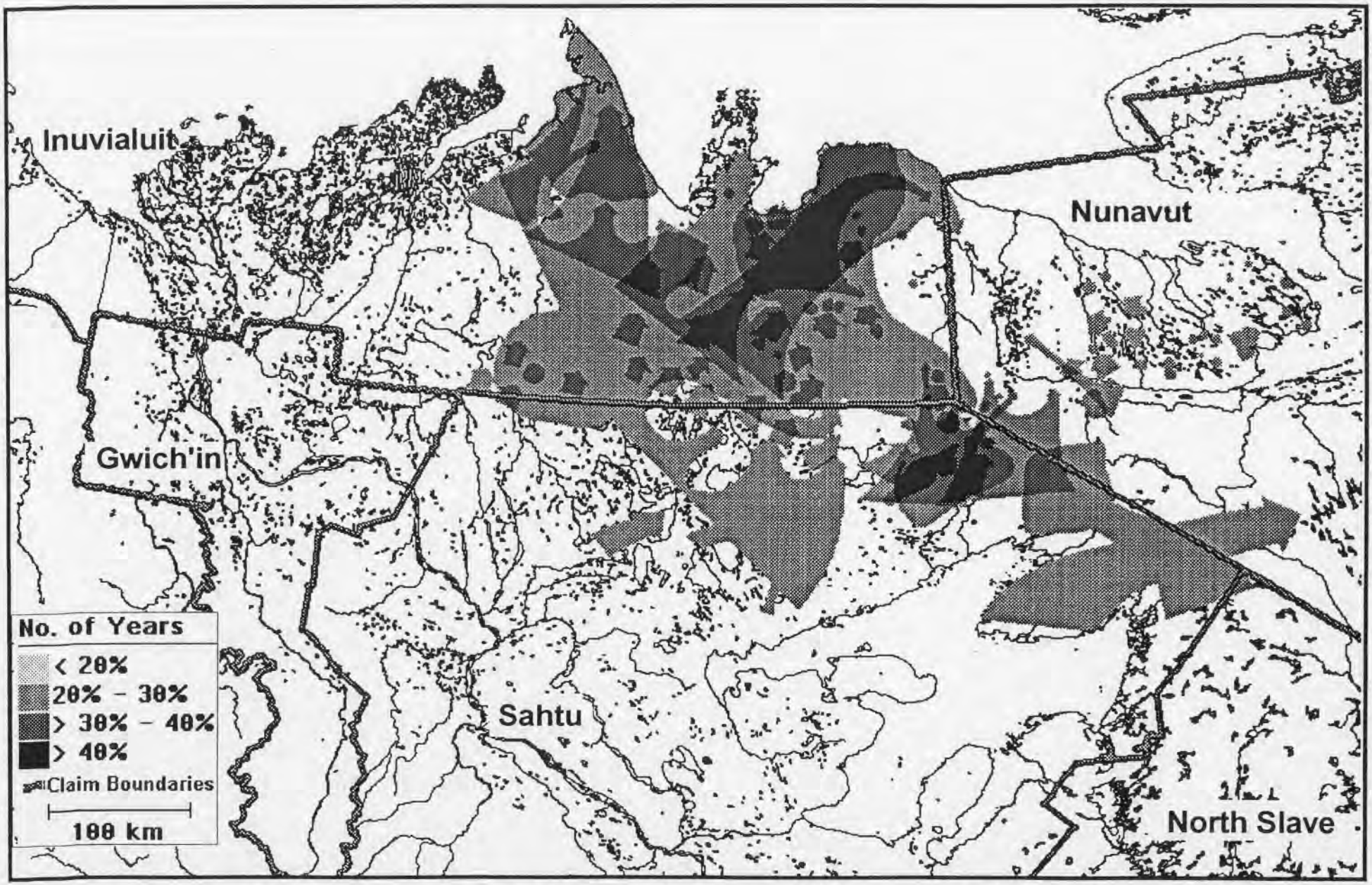


Figure 21: Documented Distribution of the Bluenose Caribou Herd during the Spring Migration Period (1 April to 25 May). Map analysis for 5 years of survey data.

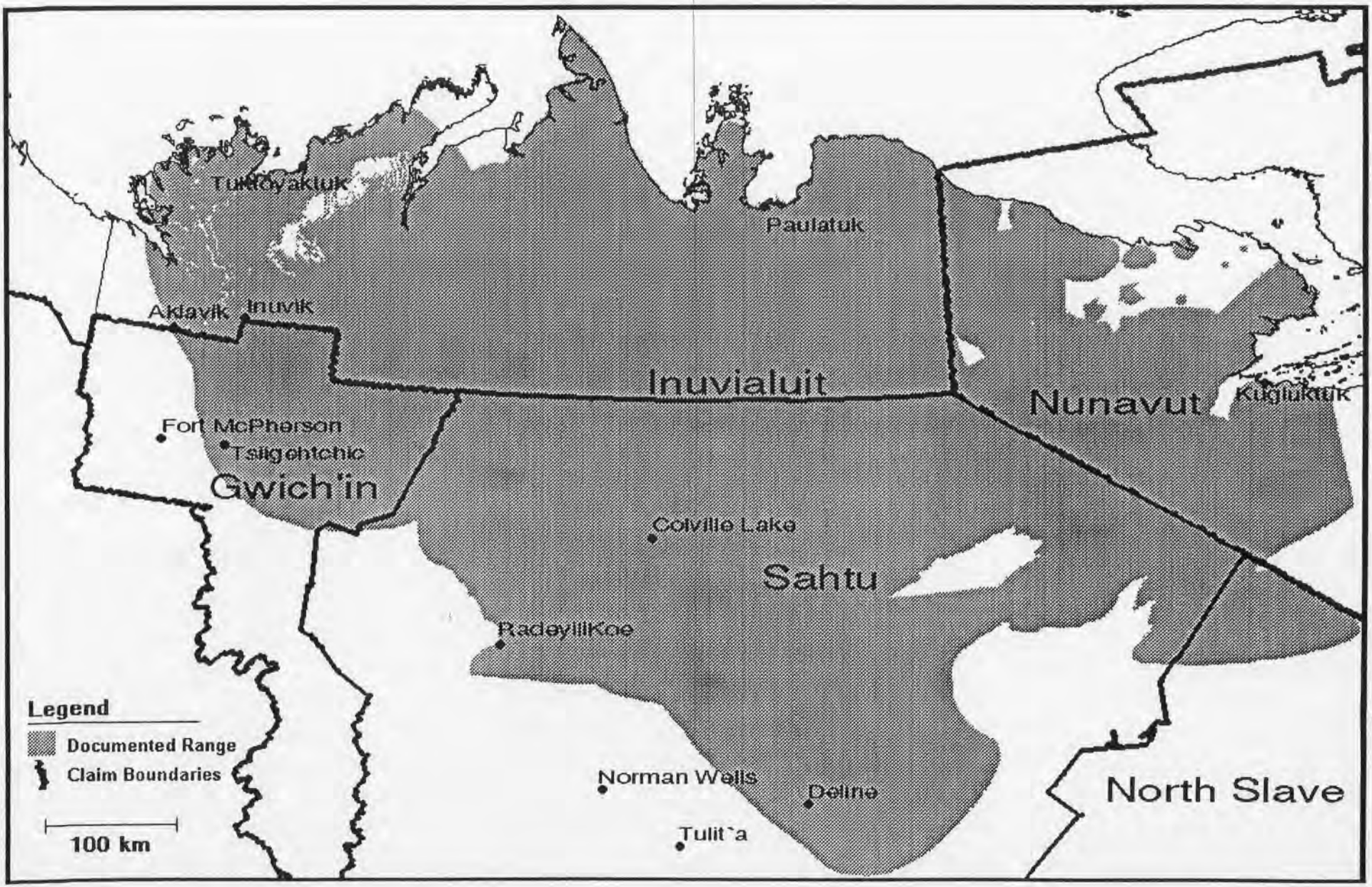


Figure 22: Documented Range of the Bluenose Caribou Herd and Associated Land Claim Boundaries.

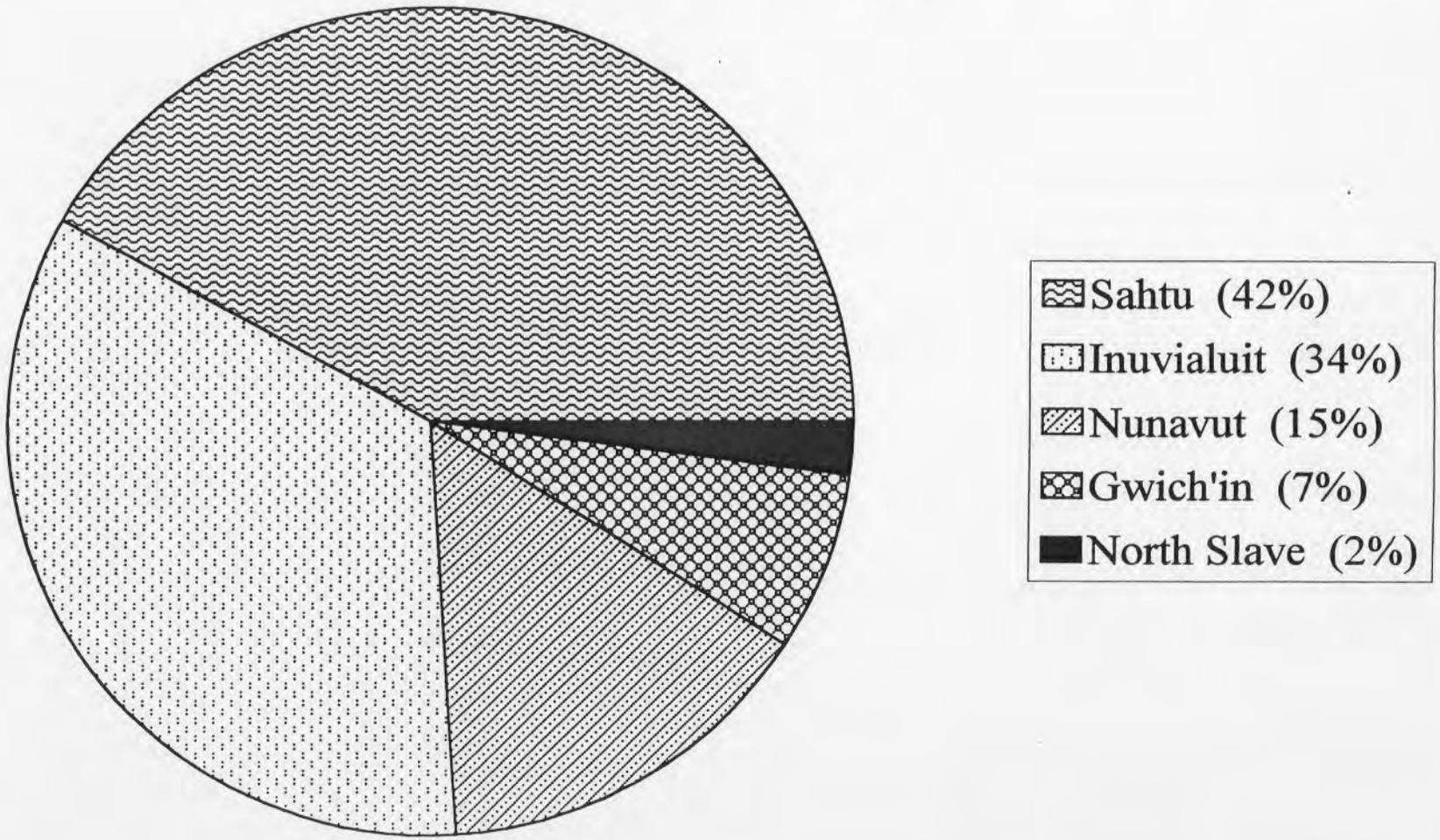
Bluenose Caribou

Figure 23. Percent of Bluenose Range in Land Claim Settlement Areas/Regions

Land Claim	BCH Range (Km2)	Surface/Subsurface Rights	Surface Rights
Sahtu	136676	1202	22944
Inuvialuit	108899	7873	40953
Nunavut	48787	1221	3708
Gwich'in	22168	2998	7106
North Slave	6563		
TOTAL	**323093**	**13294**	**74711**

Bluenose Caribou

Figure 24. Percent of Bluenose Range in Land Claim Settlement Areas\Regions



The range of the herd spans four land claim areas with 12 communities, private lands, crown land, territorial parks, and national parks (Figure 25). This must be taken into consideration when dealing with land management issues within the range of the herd.

6.0 REVIEW OF CONCERNS AND ISSUES RAISED DURING MARCH/APRIL 1995 COMMUNITY TOUR AND ISSUES AND CONCERNS RISING FROM REVIEW OF INFORMATION ON BLUENOSE CARIBOU HERD

Concerns and issues raised during a community tour conducted during March/April 1995 and concerns rising from review of information on Bluenose caribou herd were compiled as action items to be addressed in a management plan for the herd.

6.1 Population Trend

Based on GIS analysis of distribution data, what we currently consider to be the Bluenose caribou herd may possibly be 2 herds. We need to determine if there is 1 herd or 2. If there are two herds, sustainable harvest rates will have to be determined for each herd. As well two management regimes may be required.

The aerial photocensus methods used in 1991, 1992, 1993, 1995 did not consistently produce reliable estimates of herd size. Due to weather conditions, the caribou did not group up sufficiently to do a photo survey. If these weather conditions are normal for the area then we need to look at other ways to reliably and accurately count the herd.

We do not know the past and present rates of change in herd size.

6.2 Productivity and Recruitment

Productivity is defined as the number of calves produced in the spring. The last estimate of productivity was obtained in 1981.

Recent estimates of recruitment may not be reliable.

6.3 Natural Mortality

Calf mortality rates estimated from data obtained during spring composition surveys were not calculated in a consistent way in the past. Data for caribou collared between 1986-95 have not been analyzed to determine adult mortality rates.

We do not have reliable estimates of rates or causes of mortality for either calves or adults.

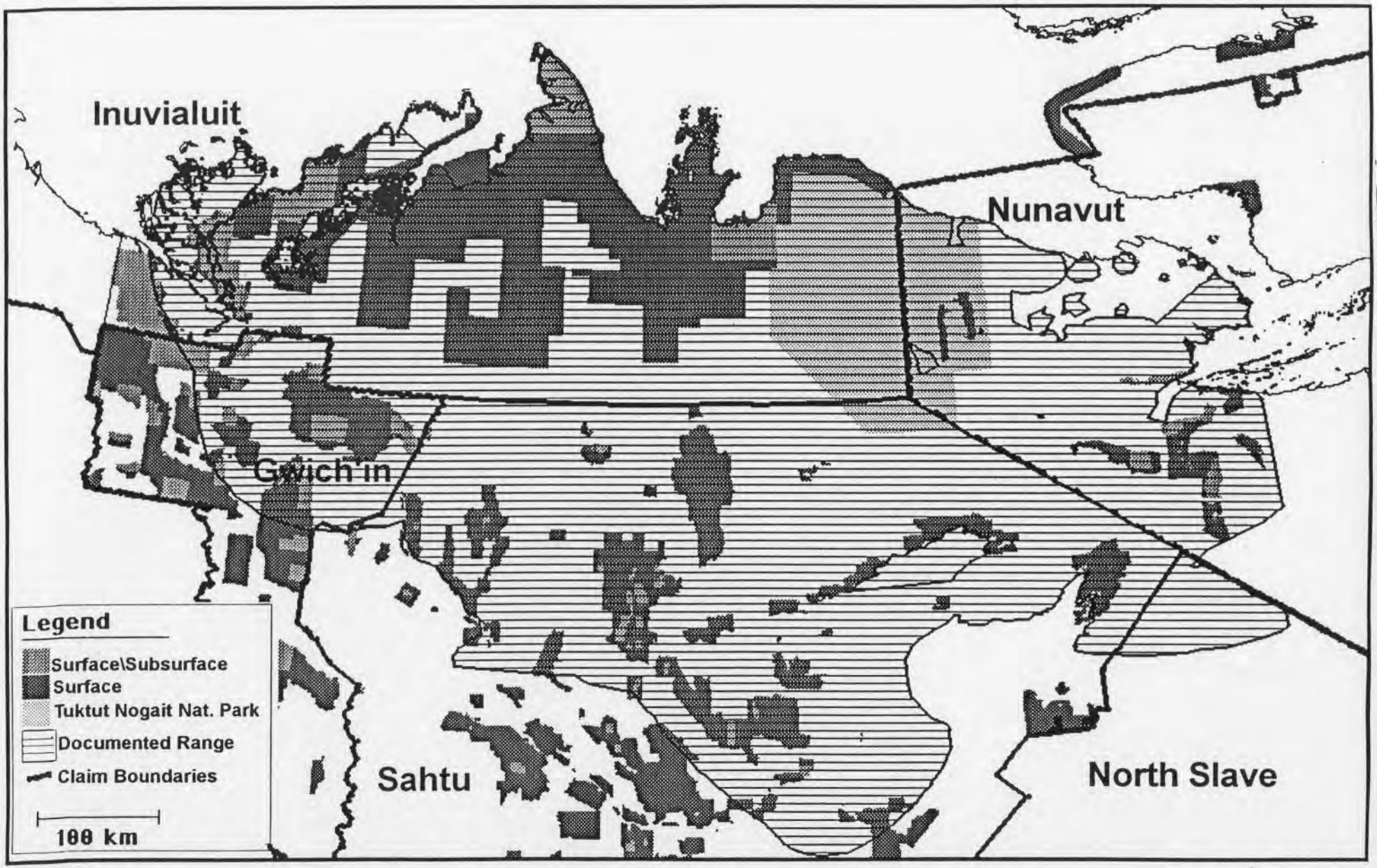


Figure 25: Documented Range of the Bluenose Caribou Herd and Associated Land Claim Boundaries and Private Lands.

Some communities in the Sahtu feel that wolves may be taking too many Bluenose caribou and that wolf predation, at least below treeline, is increasing.

Industrial developments planned on, or near, the herds calving and post-calving grounds might reduce calf or adult survival, or both (Figures 26 and 27). The proposed Tuktut Nogait National Park does not fully protect the herds calving grounds (Figure 27). Darnley Bay Resources Ltd. prospecting permit areas overlap areas frequently used by Bluenose caribou during the pre-calving, calving and post-calving periods (Figure 27).

6.4 Harvest

Accurate subsistence harvest data are not available for all communities. Hunters in communities are urged to participate in harvest studies. The information is required to manage the herds and will be used to establish community needs levels under the respective land claim agreements. The reported harvest will be used to determine the communities needs levels. If a community normally takes 20% of the total annual harvest of a the herd but only reports half of what they harvest, the community will not get their fair share of the harvest if a harvest quota is established for the herd. As a result, accurate harvest data are required to determine needs levels.

Inuvialuit, Gwich'in, and Nunavut harvest studies are all under way. The Sahtu harvest study should be operational within a year.

Accuracy of the Resident Hunter Harvest survey is questionable. Only about 65% resident hunters respond to survey questionnaires.

Harvest by non-residents is currently based on tags sold, not success, although the success rate is very close to 100%.

Commercial harvest data may not be complete.

No estimate of wounding loss added to total annual harvest.

Population and harvest data are insufficient to determine if the present harvest of Bluenose caribou is sustainable.

Some communities have questioned the fairness of the current commercial tag allocation.

Some communities would like to see a re-allocation of unused commercial tags during the year. If a community has commercial tags and does not foresee using them, they could give them to a community that needs tags or needs more tags.

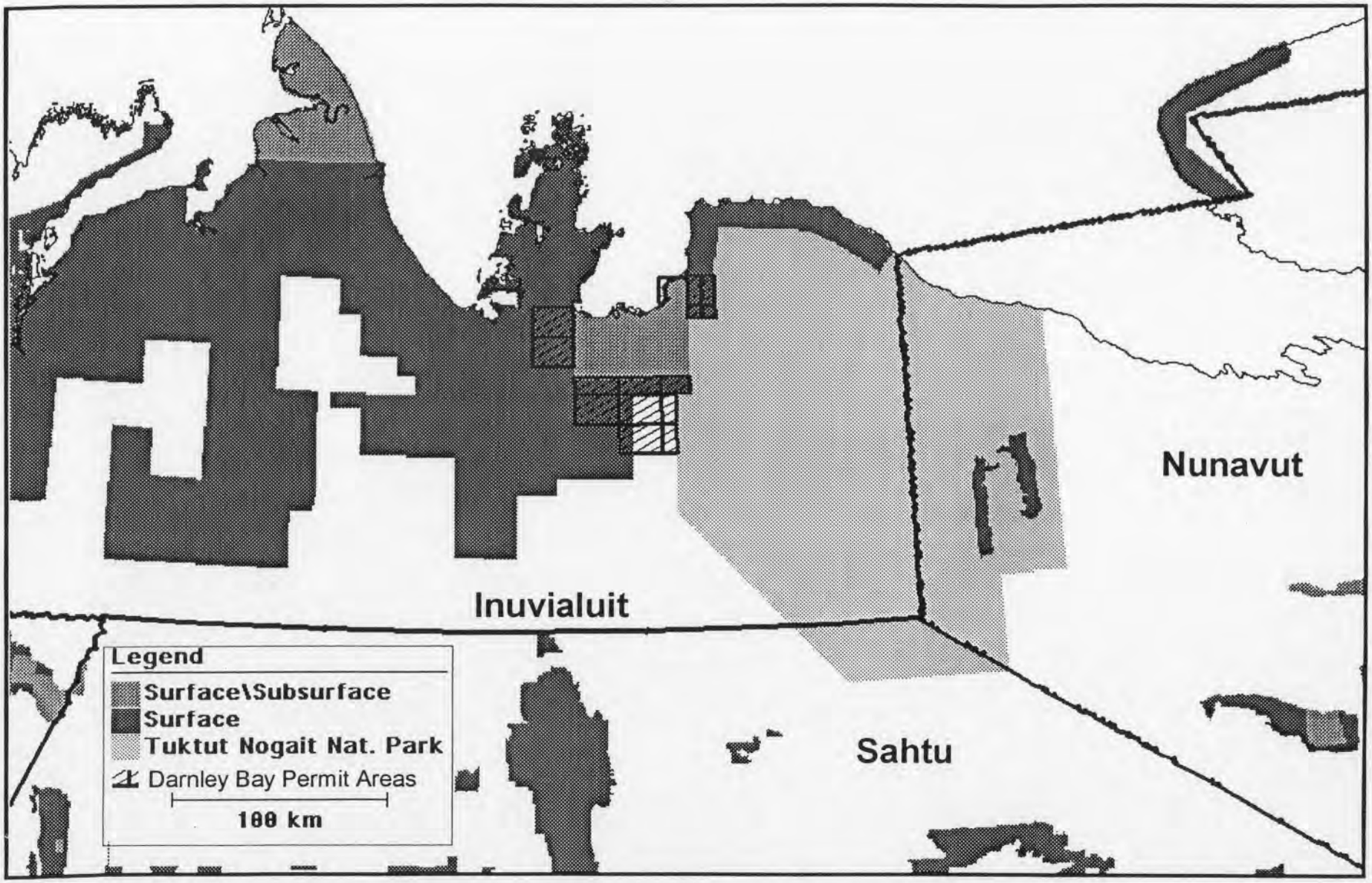


Figure 26: Boundaries of Land Claims, Associated Private Lands with Surface rights, Surface\Subsurface Rights and Tuktut Nogait National Park (under negotiation) and the Darnley Bay Resources Ltd. Prospecting Areas.

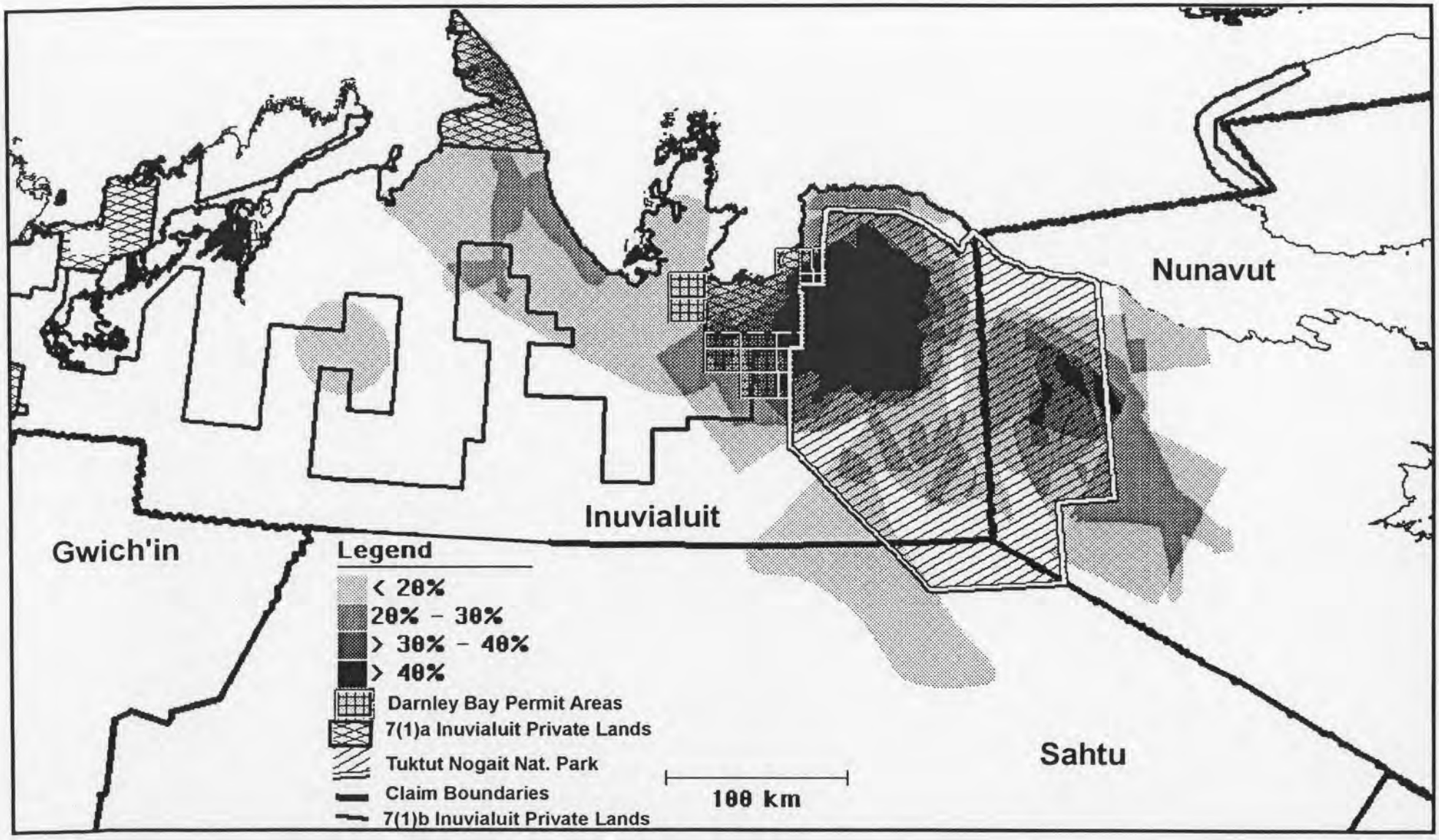


Figure 27: Documented Distribution of the Bluenose Caribou Herd during the PreCalving, Calving, and Post Calving Period (26 May to 25 June) and Associated Land Use\Claim Boundaries. Map analysis for 10 years of survey data.

Some communities oppose commercial harvest of caribou, including the sale of antlers and other parts.

Most communities support small-scale commercial harvests. This is a commercial take by local GHLs that sell carcasses to local hospitals, schools, and restaurants.

Most communities did not support large-scale commercial harvests for export.

All communities want to ensure proper use of all caribou harvested. People did not want to see caribou meat wasted.

6.5 Physical Condition

There have been reports of low fat levels in some late summer caribou in some areas (Sahtu, young caribou, Anderson River area). Wilbert Kochon, Colville Lake, indicated that this was normal among young animals harvested in late summer.

Abnormalities in harvested caribou reported to GNWT should be investigated immediately and results given to the people that made the report. People were concerned that when samples were given to the Department of Renewable Resources that results of diagnosis were not given to the hunters. Sample from diseased animals are usually sent to University of Saskatchewan. A diagnosis is usually received within several days. The Department is trying to get that information back to the hunters as soon as possible.

Parasite levels are not known.

There are concerns about contaminant levels and the effect of contaminants on people. Some communities felt that there should be ongoing monitoring of contaminants in caribou. Samples collected to date have not shown any significant problems.

6.6 Range Use and Disturbance

The proposed Tuktut Nogait National Park does not protect all calving areas. More research will be required to confirm the importance of these areas for environmental impact screening of development proposals.

Food quality and abundance for caribou is unknown in the range of the herd. It is not known whether there is sufficient food to sustain the current Bluenose population. We have no information to suggest that there is a problem.

There is no fire management plan for the range of the Bluenose caribou. People in Deline are concerned that fires on the north shore of Great Bear Lake have caused a shift in the migration of

caribou in that area.

Range management divided among several agencies - 4 land claim areas, crown lands (DIAND), national parks (Parks Canada) and territorial parks (GNWT), complicating the land management process.

The possible effects of developments, such as mining and oil exploration, on caribou and their range is unknown.

Some communities view disturbance of caribou by researchers as a problem. There have been several instances where radio collars have rubbed the necks of the caribou. The Department tries to handle the caribou as carefully as possible, but it is understood that the occasional accident can happen that may harm a caribou. With time, experience and better technology, this happens less and less.

6.7 Co-Management

There must be co-management of the herd. The importance of co-management was stressed, as was the presence of representatives from all four land claim areas on the community tour.

There is a lack of communication among communities about the herd and its management.

Land claim organizations must be included in all aspects of herd management. Within land claim areas, separate boards/committees have been established to manage wildlife resources and the land base. These wildlife and land management boards/committees must work together to effectively manage the herd and its range.

Local knowledge has not always been used in research and management decisions.

People must be told about management of the herd and be included in its management.

Enforcement should have community input.

Local people have not always involved in scientific research. Involvement of local people in research will also improve community knowledge.

6.8 Culture and Education

Existing cultural and educational information about the herd should be updated and made a part of the education program in local schools. The Department of Renewable Resources, Sahtu Region have modified the Beverly-Qaminiriaq Caribou Management Boards schools program. This program should be updated and made

available to schools in the range of the Bluenose caribou herd and to the public.

There is a lack of knowledge about the herd among the general public.

6.9 Tourism

Caribou may be disturbed by low-flying aircraft if tourists taking pictures try to get too close to the animals.

The needs of the herd and its users must be included in management plans for parks and conservation areas.

6.10 Industry

Some mineral exploration and extraction activity may be permitted near Paulatuk and the proposed Tuktut Nogait National Park. Stressed the importance of understanding and mitigating effects of industry.

Increased oil and gas exploration activities in the Sahtu. These activities are occurring in the winter range of the herd.

Proposed Mackenzie Valley Highway corridor crosses winter range of the herd. If the highway is built, problems similar to those experienced along the Dempster Highway may occur.

Herd is not considered in most development proposals. Information on the herd must be made readily available to industry and others.

Industry generally is not well informed on the herd and there is little support of herd-related projects by industry. Industry should pay for research which will show effects of development on herd.

7.0 REVIEW OF RESEARCH REQUIRED TO ADDRESS IMMEDIATE MANAGEMENT CONCERNS

7.1 Define Bluenose Caribou Herd

The Department of Renewable Resources plans to put satellite collars on 15 caribou before the end of March 1996; 5 near Inuvik/Tuktoyaktuk, 5 near Colville Lake, and 5 near Kugluktuk. Data from these animals will help us determine whether what we currently know as the Bluenose caribou herd is 1 herd or 2. The duty cycle for those satellite collars was programmed so that detailed information would be obtained on where the caribou are

during the pre-calving, calving, post-calving, early summer, mid summer, late summer, fall migration, rut and late fall periods (Figure 28).

The satellites that receive the signals from the collars orbit the earth every 100 minutes at an altitude of about 760 km. The caribou's location, with an accuracy of ±½ km, is then transmitted back to earth. This information is gathered at a data processing centre in Maryland or France. The data is then sent to the Department. The locations will be mapped using GIS to show the movements of the caribou. Maps will be sent to the HTCs/RRCs/HTOs and boards on a regular basis. A local terminal could be purchased for about $120,000.

7.2 Determine Best Method of Censusing the Herd

The Department needs to analyze weather data to determine if conditions in the Paulatuk area are normally favourable for caribou to group up so that a photocensus can be reliably complete. If not, then other survey methods need to be used to census the herd. Consultations with other caribou researchers should help answer these questions and allow us to select alternative methods if necessary.

7.3 Complete Three Reliable Censuses of the Herd

Three counts of the herd are planned:

- 1997,
- 1999, and
- 2001.

These counts will help us determine whether the herd is increasing, decreasing, or stable.

7.4 Obtain Estimates of Productivity

A minimum of 3 compositions surveys are required during calving to estimate productivity.

Managers of the Porcupine caribou herd maintain radio collars on 100 females and located them in June on the calving grounds to determine productivity. This approach may be considered for the Bluenose caribou herd

7.5 Obtain Reliable Estimates of Recruitment (March Classification)

Composition surveys will be done in late March to obtain annual estimates of recruitment during the planning period. These will be done range wide using randomly located groups and sufficient sample sizes.

Bluenose Caribou

Figure 28. Duty Cycle for Satellite Collars

Period	Frequency of Locations
24 March '96 - 13 May '96	every 10 days
13 May '96 - 15 July '96	every day
15 July '96 - 28 September '96	every 5 days
28 September '96 - 26 October '96	every 4 days
26 October '96 - 24 March '97 Cycle repeats for a second year	every 10 days

7.6 Obtain Accurate Harvest Data for All User Communities

Accurate subsistence, resident, non-resident, commercial harvest data are required for all communities. These data are required for management and to determine community needs levels.

8.0 MANAGEMENT AGREEMENTS

The Porcupine Caribou Management Agreement (1985) was used as an example of the types of things that could be covered in a management agreement for the Bluenose caribou herd.

8.1 Objectives of Parties

The Porcupine Caribou Management Agreement (1985) identified the objectives of the parties that signed the agreement, including:

- to co-operatively manage, as a herd, and its habitat to ensure conservation of the herd and provide for the ongoing subsistence needs of native users
- to provide for the participation of native user in management of the herd
- to recognize and protect certain priority harvesting rights of native users, and acknowledge other users may also share the harvest
- to improve communication between Governments, native users and others regarding management of herd

8.2 Establishment of Board

The Porcupine Management Agreement (1985) established the Porcupine Caribou Management Board and its responsibilities including:

- membership of the board
- charged by agreement to facilitate communication among native users
- review scientific information
- encourage native participation in management studies
- maintains a hunter eligibility list

The Board may make recommendations to the appropriate ministers

concerning:

- herd management plan
- training of native users
- a predator management plan; eg. wolf control
- research
- habitat protection
- land use planning

8.3 Responsibilities of Minister

The Porcupine Management Agreement (1985) established the responsibilities of the Minister:

- Porcupine Caribou Management Board recommends to Minister
- gives response period for Minister; Minister must respond within 30 days
- in an emergency situations, minister may take independent action and forthwith inform the Chairman of the Board.
  - given modern communication systems it is unlikely that a minister would take independent action without consulting the Board.
  - example of an emergency situation: the Minister establishes hunting restrictions along Dempster highway when large numbers of caribou show up during fall migration. Hunting restrictions are established for public safety.

8.4 Funding

The Porcupine Management Agreement (1985) identified who was responsible for funding the Porcupine Caribou Management Board and its activities.

8.5 Allocation of Annual Allowable Harvest in Canada

The agreement identifies the Porcupine Caribou Management Board as the body that recommends to the ministers concerning all aspects of the Canadian harvest of the Porcupine caribou herd including:

- size, method of harvest, areas, access, seasons, age and

sex of harvestable caribou, and the harvest allocations.

8.6 Rights of Native Users

The Porcupine Caribou Management Agreement (1985) identified the rights of Native Users. For Bluenose caribou these rights have been identified in the:

- Inuvialuit Final Agreement,
- Gwich'in Final Agreement,
- Sahtu Final Agreement, and
- Nunavut Final Agreement.

8.7 Commercial Harvest

The Porcupine Caribou Management Agreement (1985) identified acceptable types of commercial harvesting activities that could be undertaken.

- no commercial harvesting

- native users may trade or barter with other native users for caribou meat and sell meat to disadvantaged native users provided that the sale does not exceed reasonable expenses incurred

There may be considerable discussion on commercial harvest of Bluenose caribou as there are differences in opinions among communities about the types of activities that are considered to be acceptable.

8.8 Some Other Consideration

The Wildlife Management Advisory Council (NWT)/Inuvialuit Game Council, the Gwich'in Renewable Resource Board, the Sahtu Renewable Resource Board, the Nunavut Wildlife Management Board and the GNWT should consider a cost sharing arrangement for research on the herd when they negotiate the Bluenose Caribou Management Agreement.

- between 1987 and 1993 the Wildlife Management Advisory Council (NWT) and Inuvialuit Game Council allocated most of the funding for research on the herd. The GNWT periodically allocated some funding.

- since 1994, the Gwich'in Renewable Resources Board has allocated funds for research on the herd. The Wildlife Management Advisory Council (NWT) and Inuvialuit Game Council continued to cost share research on the herd.

- it would be beneficial for Wildlife Management Advisory Council (NWT), the Gwich'in Renewable Resource Board,

the Sahtu Renewable Resource Board, the Nunavut Wildlife Management Board and the GNWT to approve and commit funding (sharing costs) for a 4 or 5 year research program for the herd.

8.9 Establishment of Bluenose Caribou Management Board

Currently monies have not been allocated to fund a Bluenose Caribou Management Board. The decision as to whether or not a board is established will likely be made when the Bluenose Caribou Management Agreement is negotiated by the Wildlife Management Advisory Council (NWT), the Gwich'in Renewable Resource Board, the Sahtu Renewable Resource Board, the Nunavut Wildlife Management Board and the GNWT.

If the decision is made not to established a board, or a board is recommended but monies are not identified to support its operation then some other mechanism is required to ensure co-operative management of the herd. Some possibilities include:

- joint annual meetings of the Wildlife Management Advisory Council (NWT), the Gwich'in Renewable Resource Board, the Sahtu Renewable Resource Board and the Nunavut Wildlife Management Board

- annual meetings of the Chairs of the Wildlife Management Advisory Council (NWT), the Gwich'in Renewable Resource Board, the Sahtu Renewable Resource Board and the Nunavut Wildlife Management Board

- annual meetings of representatives of the Wildlife Management Advisory Council (NWT), the Gwich'in Renewable Resource Board, the Sahtu Renewable Resource Board and the Nunavut Wildlife Management Board

Three years ago, we estimated that the cost of holding 3 meetings a year of representatives from each of the communities would cost about $170,000. Most of this would be required to cover travel and accommodation costs.

We have requested implementation funds to continue work on the management plan and agreement including:

- 1996-97: $60,000 - $70,000 to continue work on management plan and initiate work on a management agreement, and

- 1997-98 to 2000-01: $40,000 - $50,000 to hold annual management meetings.

The amount of funds available to continue this work will be known early in the new fiscal year.

9.0 QUESTIONS AND COMMENTS

9.1 Review of Information Used to Prepare a Draft Bluenose Caribou Management Plan

9.1.1 Population surveys

Fort McPherson

Johnny Charlie	Are there more caribou all the time?
John Nagy	There are more caribou than during the 1940s and 1950s, but information for recent years isn't good enough to tell us whether the herd is increasing, decreasing or stable.
Woody Elias	The caribou have been around 40 years, we should worry about increasing the caribou, what if they disappear?
John Nagy	We are putting together a management plan so that the boards and government will work together to manage the herd.
Woody Elias	You should study whether there is enough food, maybe get wheat to help feed them.

Norman Wells

Norm MacDonald:	Is there one or two herds?
Alasdair Veitch:	That is a good question, at this point we are referring to it as one herd. This will be discussed later.

Deline

Dolphus Tutcho	Deline district borders the entire management area. The surrounding communities must manage the caribou properly so that there will be caribou for Deline. The lack of survey work over the past ten years or so is not good. It is not good management.
Alfred Taniton	We would like survey work every year not every fifteen.
Alasdair Veitch	We hope that within a year a management agreement will be in place and we will have annual meetings to discuss harvest, population etc. We are here to discuss how to do that. Actually there is some

information as new as 1992 when the last population survey was completed, and the latest harvest information is 1993. Only some of the required information is old.

Paulatuk

Noel Green — Out of the 122,000, these are from all different areas?

John Nagy — Yes.

Peter Green — When you do the photocensus, can you tell whether it is a calf or a cow?

John Nagy — Yes, depending on the angle the photos are taken; sometimes it is difficult to see calves.

Noel Green — What is the total range?

John Nagy — I have some slides on that later on.

9.1.2 Productivity

Norman Wells

Norm MacDonald — What is the survival of calves?

Alasdair Veitch — A very good year is 30-40%. There are instances of survival rates of only about 10%. Predation, disease, and other factors contribute to calf mortality.

Norm MacDonald — What is calf survival like in mountain caribou?

Alasdair Veitch — Don't know, but they are susceptible to similar loss conditions such as predation, etc.

9.1.3 Recruitment

Paulatuk

Noel Green — I see the decrease in recruitment from 1986 to 1992. Could Brucellosis have an affect on the population?

John Nagy — Yes, it can affect survival of unborn calves and adults; I will talk about that more later.

9.1.4 Harvest

Norman Wells

Norm MacDonald	Will you be increasing non native harvest this year?
Alasdair Veitch	There is no plan to do this.

Tulita

Frederick Andrew	Why do people in Coppermine take so many caribou?
Joseph Niptanatiak	We have access to the herd in spring and winter, winter being the easiest access to the herd. There are 1200 people in Coppermine.
John Nagy	The size of the community and easy winter access to Bluenose caribou both contribute to the large harvest. Larger communities use more caribou.

Paulatuk

Peter Green	Have you done a count on the number of subsistence hunters there are?
John Nagy	No, a Census Canada survey that is being done now will provide current numbers of people in each community. (*John Nagy: the hunter population is monitored by Inuvialuit Harvest Study; number of people in the community will be documented by Census Canada.*)
Peter Green	We should know the number of hunters, otherwise it is not good management.

9.1.5 Problems with harvest data

9.1.6 Wounding loss

Norman Wells

Wilbert Kochon	In Colville, we will send out monitors after a hunt to check for dead animals that were not retrieved.
Frank Pokiak	In Tuktoyaktuk, we are considering starting up hunter education programs for youth. Even experienced hunters require some education

about utilizing the entire caribou.

9.1.7 Sex composition of harvest

Paulatuk

Noel Green	This is why I believe we must continue the Inuvialuit Settlement Region harvest study to monitor the male, female harvest.
John Nagy	I support the continuation of the harvest study.

9.1.8 Commercial tag allocation

Fort McPherson

Unknown	How many commercial tags are used for sports hunting?
John Nagy	There is guided outfitting out of Tuktoyaktuk and Paulatuk.

Tsiigehtchic

Grace Blake	Do people in Tsiigehtchic get commercial tags?
John Nagy	Not that I know of.
Grace Blake	Why not have them here?
John Nagy	Explained that for two years now, in the region when hunters harvest caribou for commercial use they must bring them in for inspection at a Department of Renewable Resources office before a commercial tag is issued. This is to prevent partial retrieval of animals (wastage on the land).
Grace Blake	Discussed the poor service in her community due to a lack of officer presence. We would like to see an actual allotment of commercial tags for Tsiigehtchic; the community is not satisfied with the current arrangement.
Joseph Niptanatiak	Fifty tags are used out of Coppermine to send meat to elders in Holman.
Grace Blake	Explained the lack of assistance from Renewable Resources. There was some money last year for a patrolman, but nothing now.

	We need some assistance to help the RRC monitor hunting activities in this area.
John Nagy	I will mention this to Ron Morrison.
Peter Ross	How do I go about serving caribou burgers in my restaurant? What kind of permits do I need?
Roger Binne	You require a General Wildlife Permit and must buy meat that has a commercial tag.
Grace Blake	Could the Inuvik staff please come and properly explain this to us?
Grace Blake	How do we know how many of these tags go to big game hunters? Can local people here guide big game hunters with these tags? We need to know this so we know how many tags to sell to the cafe and how many to save for big game hunters.
Grace Blake	Why is our quota lumped in with the Sahtu?
John Nagy	No one remembers.
Grace Blake	Are there commercial quotas on all the herds?
John Nagy	Not on the Porcupine caribou herd.
Grace Blake	Yes I know, what about woodland?
John Nagy	There is no commercial hunting of woodland caribou, but there is outfitting which is based on the number of tags purchased. The harvest of woodland caribou is not restricted under a quota.
Grace Blake	I am concerned about what happens to the meat from these hunts. This raises a lot of questions.

Deline

Dolphus Tutcho	What is the policy on switching commercial tags to sport hunting? Do we have to get permission from all the other communities that are included in the quota of 200?
Alasdair Veitch	That is something the Bluenose management board would deal with. You would make your best pitch to the board. The whole issue of

brucellosis. What is the effect on Gwich'in, Inuvialuit?

John Nagy — There was a case in the Eastern Arctic, I believe where one or two people died from eating infected meat.

James Ruben — We are trying to get Health to do studies on the incidence of various diseases, I think we will have to bring this up again.

Noel Green — During harvest studies, we try to get people to bring in samples of animals that are not normal. This hasn't been done, but we are encouraging people to do so.

Garrett Ruben — We see a lot of tapeworms and such in caribou. We also see pieces of lung stuck to the ribs, but the animals are still fat.

9.1.10 Range use and disturbance

9.1.11 Distribution

9.1.11.1 Pre-calving, calving and post-calving distribution

9.1.11.2 Early summer distribution

9.1.11.3 Mid summer distribution

9.1.11.4 Late summer distribution

9.1.11.5 Rut/late fall distribution

9.1.11.6 Winter distribution

9.1.11.7 Spring, spring migration

9.1.11.8 Total range

Fort McPherson

Johnny Charlie — Where do they go after calving?

John Nagy — Melville hills east of Paulatuk.

Johnny Charlie — Where are woodland caribou?

John Nagy — Closer to foothills.

Wilbert Kochon — Has not seen woodland caribou near Colville Lake in about 10 years.

Frank Pokiak	Has not seen woodland caribou near Anderson River area in about 10 years.
Joseph Niptanatiak	Sometimes around Mountain Lake, freezing rain in fall makes them move toward treeline. Sometimes around Dismal Lakes.

Tsiigehtchic

There was some discussion on movements and overlap of Bluenose, Bathurst and woodland caribou.

Grace Blake	Will there be a study of woodland caribou as well?
John Nagy	There has been some discussion on that, it would likely be jointly studied between the Gwich'in and the Sahtu.

Norman Wells

Norm MacDonald	Have you seen the Bluenose herd mix with the Beverly herd?
Alasdair Veitch	I'm not that familiar.
Joseph Niptanatiak	Near Coppermine we see Bluenose and Bathurst animals mix in the winter.
Johnny Lennie	How many miles a day will the caribou cover?
Alasdair Veitch	Sometimes 15-20 km; remember they do not travel in a straight line.

Paulatuk

David Ruben	I wonder what the affect of muskox in the area has?
John Nagy	There hasn't been too much of a problem here; it is more of a problem on Banks Island. We are flying a muskox survey here next March.
Noel Green	How long does it take for feeding areas to regrow after large groups go through.
John Nagy	It depends on the conditions.
Noel Green	It is important to know, for the last five years the caribou have been coming later and later, maybe they are taking a different route to access food.

John Nagy — That is a good point, we must learn more about these things and address them within this management plan.

Garrett Ruben — Their routing could change due to large cut lines.

James Ruben — The natural fertilizer from caribou droppings should make the vegetation grow faster.

9.2 Review of Concerns and Issues Raised during March/April 1995 Community Tour and Issues and Concerns Rising from Review of Information on Bluenose Caribou Herd

9.2.1 Population trend

Tulita

Peter Andrew — Why is there such a lack of survey information?

Alasdair Veitch — We haven't done any.

9.2.2 Productivity

9.2.3 Recruitment

9.2.4 Natural mortality

Fort McPherson

Neil Colin — Has your department done research on how many caribou are taken by wolves and grizzlies in a year?

John Nagy — We have information on predation rates from the research conducted by Peter Clarkson near the Anderson River.

Frank Pokiak — Around Tuktoyaktuk there are not as many wolves as there used to be.

Wilbert Kochon — Around Colville there are a lot of caribou and not that many wolves.

Joseph Niptanatiak — Around Coppermine there are sometimes six wolves around a caribou.

Frank Pokiak — There were packs of 15-18 wolves in the past around Tuk.

Johnny Charlie	There are a lot of wolves around McPherson. More discussion on what appears to be a general increase in wolf numbers.

Fort Good Hope

Alasdair Veitch	Do people still see more wolves than caribou in this area?
Wilfred Jackson	Yes, there are lots of wolves and eagles are taking calves. The increase over the last 10 years is significant. Some of the wolves are very thin.

Deline

Alasdair Veitch	Do people think there are more wolves that a few years ago?
Alfred Taniton	We share the same view as Fort Good Hope; they are increasing. Because there are more caribou, there are more wolves. Deline hunters do not go after wolves. They are becoming a problem.

Colville Lake

Alexi Blancho	Some people do not retrieve all of the caribou meat and this is attracting more wolves.

9.2.5 Harvest

Fort McPherson

Johnny Charlie	If they are not counting harvest of Bluenose caribou, how do they know how much is taken in places like the Sahtu?
John Nagy	We interview officers and people in the communities to get estimates of the number of caribou harvested. A harvest study will begin there soon.

Norman Wells

Norm MacDonald	Do you have numbers for harvest in the Sahtu region for 1995?
Alasdair Veitch	Only estimates were obtained.

9.2.6 Wounding loss

Inuvik

Tom Wright	You mentioned that the wounding loss appears very high. Could community education be mentioned during this tour?

Kugluktuk

John Nagy	What do people here think about wounding loss?
HTO	It depends whether they are experienced hunters, but it does occur.
John Nagy	We will need to come up with an acceptable percentage over the next year.

9.2.7 Commercial harvest

Fort Good Hope

Alasdair Veitch	Has Fort Good Hope requested extra commercial tags?
Wilfred Jackson	Yes, we asked once, but we didn't get any more.

Colville Lake

Joseph Kochon	Has there been an increase in the number of commercial tags?
Alasdair Veitch	How this would be done will be dealt with in the management plan/agreement. Most years 700 or so of the tags are not used. These could be redistributed to other communities that want to use them.
Joseph Kochon	We are strongly against selling meat.
John Nagy	Some communities wish to use the commercial tags. It might be good to leave the door open in case there is a change of thought. If you have an allocation, you don't have to use it.
Joseph Kochon	We will need to discuss how to deal with other communities wanting to use tags in our area or for selling meat to these communities.

RRC	RRC is still oppose commercial harvest, especially large scale.

Kugluktuk

HTO	In regards to tag allocation, why is the quota so small for some places?
John Nagy	The quota system is old and no one knows the basis for its current allocation. Communities on this tour have felt this should be reviewed.
HTO	There is some problem with commercial allocation because of overlap of Bathurst caribou that needs to be addressed as the HTO is set up for commercial operations and wish to pursue them. Would genetic testing tell the difference between the two herds?
John Nagy	We plan to take samples, although at this time it is not a high priority, this work will get done.

9.2.8 Physical condition

Aklavik

Renie Arey	Elders may not understand what a parasite is, can you explain.
John Nagy	Described what they might look like and that they can have a negative effect on the health of a caribou.

Fort McPherson

Johnny Charlie	How do you tell the difference between a reindeer and a caribou?
Frank Pokiak	The reindeer are smaller and much darker. Even my kids could tell the difference when they were very young.

Tsiigehtchic

Grace Blake	Do you have a list and pictures of parasites for hunters who may not be able to read.
John Nagy	I will send you what I have, and we are planning to put together an information package that is "user friendly" (it was later

noted that Aklavik requested the same).

Norman Wells

Johnny Lennie — You could put the results of the disease samples in the local newspaper.

Fort Good Hope

Wilbert Cook — Have there been studies on contaminants in caribou?

Alasdair Veitch — Yes, I will be calling Yellowknife to get results of cadmium and cesium studies.

Colville Lake

Unknown — The low fat condition in young bulls is not new, it has always been that way.

JB Gully — Even fat caribou have puss around the organs or joints.

Wilbert Kochon — Maybe the puss is caused by something they eat, because they appear healthy.

John Nagy — Could you send us a sample.

Wilbert Kochon — We will try to find one and give it to you.

Alasdair Veitch — Maybe myself or Richard could come out and take samples when you are hunting.

Wilbert Kochon — Right now until May would be good.

Alasdair Veitch — Richard will be up this week and he could stay a couple days extra.

Joseph Kochon — How many caribou have you had with cancer.

John Nagy — Only one.

Joseph Kochon — Some hunters have noticed a difference in the caribou. They don't understand what it is. I could help translate to the hunters who can't speak english to explain to them what it is.

JB Gully — Even if a caribou is sick, I bring it back. I would like to have them checked.

Alasdair Veitch — Just call me and I will make arrangements to

have the samples brought to the Wells.

9.2.9 Range use and disturbance

Inuvik

Peter Clarkson	Mentioned lack of fire management plans.
Alasdair Veitch	Explained current policies and how a fire management policy could help communities identify and maintain important caribou hunting areas.
Duane Smith	Explained about historical fires before suppression and how caribou adjusted in the past; also there is movement into fresh fires by other species.

Aklavik

Mary Kendi	Where did Bluenose caribou come from?
John Nagy	They calve around Paulatuk and move west after calving.

Tuktoyaktuk

Fred Wolki	Comment about caribou moving because of "chopper" disturbance, also gave example of moose being disturbed.
John Nagy	Said that caribou may not move because of disturbance, but will experience stress.
Fred Wolki	Stressed the need to monitor effects disturbances.
Jim Elias	Could there be a problem of too many (120,000) caribou overfeeding in a given area? Are thin animals resulting from this? The caribou are mingling with muskox which may cause a problem.
Roger Gruben	Should examine the relationship between muskox and caribou to prevent a similar problem to Sachs Harbour. Muskox should be included in caribou management plan.
John Nagy	We will be doing a muskox survey next March in the Paulatuk area.
Roger Gruben	The Banks research was too late, we should

prevent that happening here.

John Nagy — Explained that in the Banks Island situation the caribou population was declining and no management action was taken. Explained actions taken regarding controlling the muskox.

Roger Gruben — Believes that the proposed muskox harvest is not feasible and will not rectify the caribou decline.

9.2.10 Co-management

9.2.11 Culture and education

Fort McPherson

Unknown — Is there money to develop an education program?

John Nagy — We will be trying to develop a program for the Bluenose caribou that is similar to what exists for the Porcupine caribou.

9.2.12 Tourism

Norman Wells

Johnny Lennie — How could you enforce low flying aircraft?

Alasdair Veitch — It would be difficult to monitor this kind of activity, we need people to report this type of activity.

John Nagy — Explained that if people on the land see instances of harassment they should report it to the Department of Renewable Resources.

Kugluktuk

Sandy Buckin — The Nunavut Planning commission is planning to do a questionnaire about the proposed Bluenose Park. Possibly this process should involve itself with that questionnaire.

9.2.13 Industry

Aklavik

Evelyn Storr — Commented on under water pipelines in Alaska, that this type of activity could be dangerous

to caribou habitat.

Donald Avigana — Do reindeer mix in with caribou?

Frank Pokiak — Yes.

Tsiigehtchic

Wayne Cardinal — What kind of effects does the mine around Yellowknife have on animals?

John Nagy — Not sure.

Wayne Cardinal — Could a mine like this effect the meat of caribou?

John Nagy — Don't know. The development may change the route of the caribou making them calve in areas which are poorer for calving. This may affect calf survival.

Grace Blake — We want to be involved in hearings on this proposed development.

Wayne Cardinal — We would like to get information on the affects of mining around Yellowknife.

John Nagy — I don't have it, but we can try to get it.

Peter Ross — What effects would the mine have on the caribou?

John Nagy — It could change migration routes and caribou may calve in different areas.

Grace Blake — People here have concerns about the proposed highway, who will help the community with these concerns?

Grace Blake — How long will the testing last to open the Darnley Bay mine.

John Nagy — I think that they have to complete four stages of testing. It should take 3-4 years. It is unclear at this point.

Fort Good Hope

Wilfred Jackson — They have the diamond drilling where there is caribou?

John Nagy — Darnley Bay have staked an area in a portion

of the calving grounds. There is an environmental screening committee which will determine whether the development might affect the caribou or harvesting areas. This screening committee is made up of government and Inuvialuit. At this point we want people to be aware of the proposed development.

Wilfred Jackson — There has been development where moose live and the moose still come into the camps.

John Nagy — With the caribou we are worried about calf survival.

Wilbert Cook — Have there been studies on disturbance around places like DEW lines?

Alasdair Veitch — Not on Bluenose, but Alaska have studied around Prudoe Bay it has shown a decrease in survival.

Tulita

Frederick Andrew — Is there any other way to shut this mining down?

John Nagy — When a company wants to carry on exploration or mining, there is an environmental impact screening process in the Inuvialuit Settlement Region. The screening committee reviews development proposals and if they feel that the activity will result in a significant environmental impact, they can refer the project to a public review. The public review will determine whether the activity can proceed and identify operational guidelines/conditions for the project. Darnley Bay is submitting its projects in five stages. The first two stages have been screened and been approved. None of the proposed work has been done to date. It is likely the remaining stages of the development will be referred for public review. It is important that all communities that use the herd know of this potential development.

Frank Pokiak — The screening committee is made up of 50% Inuvialuit, and 50% government.

Paulatuk

Peter Green	Question to the Sahtu representative. What effects has exploration had in the Sahtu?
Wilbert Kochon	The current activities are around Fort Norman where there are no caribou. In the past Petro Canada had rigs around Colville and we didn't see caribou for four years.
Peter Green	How about Coppermine?
Joseph Niptanatiak	Activity has split the migration of the herd there.
Fred Bennett	When you say there was disturbance in Alaska, did you find out what caused it?
John Nagy	If the caribou are continually disturbed they may not fed normally and get enough food, and as a result cows may not produce enough milk for their calves.
Fred Bennett	Why wasn't it revealed to the people of the north NWT? When you look at video of Prudoe Bay the majority of caribou are males; you don't see females and calves in the industrial area.
John Nagy	It is a bio/political battle there, and may be something to be concerned about here.
Garrett Ruben	We have flown around areas around Valdez and seen caribou grouping up.
John Nagy	This may be a reaction to disturbance and can cause feeding disruptions which may cause health effects.

9.3 Review of Research Required to Address Management Concerns

9.3.1 Define Bluenose caribou herd

Inuvik

Joey Amos	Commented about reliability of Argos and satellite telemetry.
Alasdair Veitch	Indicated that caribou collars have been very reliable but similar attempts on beluga whales have been less successful because of the more difficult conditions. Alasdair

	explained that there were very few problems with satellite collars used on caribou in the past.
Joe Benoit	Asked if a local user terminal might be better.
Joe Benoit	Asked if 2 years of data will be sufficient to define the herd?
John Nagy	More time may be required.
Unknown	Question was asked re stress of collaring during pre calving, would collaring in summer in the water be better?
John Nagy	Explained budgetary problems with year end and acknowledged the collaring caribou in the water may be a method used in the future.
Nick Larter	Explained that on average animals were handled for less than 10 minutes during collaring.
Peter Clarkson	Discussion on data from conventional collars versus satellite collars.
Alasdair Veitch	Pointed out that conventional collars were not used for herd delineation; the satellite collars are more likely to give the required information.
John Nagy	Past data were never pooled until the GIS work began last year.
Alasdair Veitch	Mentioned that most conventional collars were put on and surveyed in the Inuvik area, as a result data are lacking for the more eastern caribou.
Tom Wright	People have complained about the negative aspects of research, but the research is so important to the population that this tour should stress that some losses should be overlooked in favour of the gain for the caribou.

Aklavik

Unknown	Will more collaring be done?
John Nagy	Yes, we plan to put out more.

Unknown	How heavy is the collar?
John Nagy	3-4 pounds.
Unknown	How long do you leave them on?
John Nagy	We normally don't remove them. The cost of removing them is very high.
Unknown	Has there ever been problems with the caribou from collars?
John Nagy	We had two reports of rubbed necks, the problems have been few, but sometimes we have problems even when we are doing the best we can. It is not to our advantage to kill an animal, then we get no information.
Unknown	Will they fall off after 2 or 3 years?
John Nagy	Sometimes the bolts holding the collar together rust and the collar falls off.

Tuktoyaktuk

Unknown	If collars are already on, why not monitor every day?
John Nagy	Primarily because of the cost of purchasing the data; more frequent locations will be obtained for key periods, cost is about $20 per location, but is still much cheaper than conventional collars.
Max Kotokak	Have colour coded tags by season been tried such as on the whaling project?
John Nagy	No. We would have to be fly extensively to find animals with colour coded tags, satellite collars provide better information on wide ranging animals.
Max Kotokak	What about money that might be saved to remove dead collars from live caribou? Some caribou may be injured by tight collars.
John Nagy	Not a problem with females, but males must also be located.
Jim Elias	Why collar males if they are not with the herd and are alone or with very small groups?

John Nagy — We must account for all animals in the herd to get a reliable population estimate.

Fort McPherson

Unknown: — Are you going to keep putting collars on caribou? The collars rub their necks.

John Nagy — We won't put them on any longer than required. We need them for locating the caribou for photo surveys.

Unknown — Are satellite collars cheaper?

John Nagy — There are many problems with tracking with aircraft, weather being one. The collars provided reliable information regardless of weather conditions.

Tsiigehtchic

Gabe Andre — Expressed concerns about collaring.

John Nagy — We put collars on to find the caribou for censuses and to get information on movements. As well collars were put on Porcupine caribou to obtain important information to help protect critical areas for the caribou. This information has helped in arguing against development in some areas such as the Arctic National Wildlife Refuge. Some communities have suggested that we consider going back to collaring caribou at river crossings. This method reduces stress on animals and may be cheaper. However using helicopters allows us to collar caribou in a larger area. Many people are concerned about collaring, but we only collar a few, fifteen (satellite collaring), and the information gathered from these few caribou is valuable for the management of the herd as a whole. We do as little as we have to, to get our information. We are as careful as possible. If we harm the animal, we are defeating our own purpose, because we can't get information from a dead caribou. We have learned a lot over the past ten years about collaring.

Grace Blake — How much money is spent gathering this information? Have you ever thought about using the knowledge the local people have?

Gabe Andre — Doesn't most of the money go to the helicopters and only a few people?

John Nagy — It is definitely expensive, but we have been hiring people from the communities to help us with collaring and other research. We need this information now so we are prepared to deal with proposed developments.

Gabe Andre — I still don't think it is right. We know where the caribou are. I think you should leave the animals alone, we do not like collaring. You spend too much money on this. You should give the money to communities to help train youth to live in the bush.

Grace Blake — You are talking about gathering technical data, but if you really want to know want is on the land, you need to ask the people. The lobbying of the people will help get the cause defended. Think about trapping. It is no longer a viable way of living because of anti-trapping. The knowledge of the people is worth so much. Only the government can afford a helicopter. If you pay the people for what they know, then they can afford skidoos and such to be out on the land. There are no jobs to raise money for this.

John Nagy — This is why we are doing this; so the people can express their views on how all this should be done.

Gabe Andre — Gave an example of a beaver tagging project where no animals were later found. They must all have been dead. It was a waste of money.

Nap Norbert — I think when you tag animals they suffer. I know I once got a grizzly bear near my cabin. I thought I saw a person coming and it was a bear. It was acting crazy and I had to shoot it. It had been tagged and it had puss coming out of its ears, it had suffered. I gave the tag to the game warden in McPherson. Things like that should be reported and put in the newspaper so people know about it. The caribou come from Alaska and go all the way to McPherson Mountain and go back where they came. They are smart they know what they are doing and where they are going. But that bear that was tagged was crazy. It didn't know where it was going. By tagging

animals, a person makes money, it is not good. The same as when a caribou was caught in a conibear trap. It is not right.

Rose Clark

You guys are tagging because the government is telling you to do it. But now our land claim is settled, we want to make the decisions. We think the animals should be left alone. This kind of thing is cruel. Why do Greenpeace not do anything, they say us native people are cruel for using legholds, I wish they were here now to hear about suffering, it is terrible. Leave the animals alone. Greenpeace don't go after you because you are white. We used to make money trapping. Now we are suffering. People get caught in the conibear trap and get hurt. People stay in town now, it is not good. Trappers can't get one of these off their hand if they get caught. It looks like you say, you native people do what we tell you, you can go to hell. Why don't you guys stop this nonsense, leave our animals alone. You guys make so much money, maybe it can come into our community, then maybe someone here can make some money. It is not that we don't like you people but we don't like what you are doing. You spend so much to do so little, why don't you go back and tell your government people the truth. We will back you up.

Nap Norbert

Hudson Bay has trapped for 300 years, now Greenpeace has stopped it. There are no longer many trappers, now there is nothing.

Peter Ross

I agree with the elders. Collaring is cruel. I also understand you need information to save this herd against development. If we are to protect the herd, we must be careful. The RRC, elders and community must sit down and discuss this. You have other systems to monitor the caribou like a GIS.

John Nagy

We need information put in so that we can use a GIS. We have pieced together information collected over the past 30 years. There are information gaps.

Explain proposed work near Paulatuk. The developers suggest that the proposed mine would be the size of that in Sudbury,

Ontario. A portion of the calving area falls in the area where Darnley Bay proposes to conduct exploration and mining activities. The collaring work will help us to find out how importance those areas are to the caribou. There is a view that the proposed park will protected the calving area, however our information indicates that a portion of the calving area extends to the west and to the east of the park. We need more, newer information to assess the potential impacts of the proposed development activities. We will need this information for environmental screening purposes. There are many people who depend on this herd for food. If we are to successfully defend the need to protect important areas for the herd we will need this information. Groups of 5,000 caribou will pass through this area in the summer, but we don't have as much information as we need.

Grace Blake — We have concerns from the people here that have to be looked at. I think the people, in the case of Darnley Bay, should have a say in the protection of their caribou. The concerns about the collaring, I'm sure nothing will be done right away. Try to find ways and technology that meld with tradition. We must find new ways.

John Nagy — This is what we need to know to put together a management plan and agreement. There will be direct input from each community into the plan.

Grace Blake — When there are caribou in one area and not in another, how can we support what is going on in another area? We must find a way to address this.

Norman Wells

Norm MacDonald — Do you have any caribou collared in the Sahtu now?

Alasdair Veitch — We have about 70 conventional collars out, but no satellite collars.

Johnny Lennie — How much do satellite collars cost?

Alasdair Veitch — They cost about four thousand dollars each

and last 2-3 years.

Winter Lennie — Do you have a figure for all aspects of collaring?

John Nagy — Approximately $100,000 to purchase collars, collar caribou and purchase location data.

Winter Lennie — Are the collars reusable?

Alasdair Veitch — Yes.

Johnny Lennie — So you are saying that after the collars are out, you don't have to fly to follow, in other words, this could be cheaper?

Alasdair Veitch — Yes.

Unknown — Are you sure that 15 collars will be sufficient to determine if there are 1 or 2 herds?

Alasdair Veitch — Good question, I hope so. Fifteen collars have worked in the past.

Johnny Lennie — What is the reason for trying to find out if there are 2 herds?

Alasdair Veitch — It may change who manages the herd. If it is 2, then Nunavut may manage the eastern herd. It also matters that if there are two herds, it may affect the allowable harvest and may require 2 different management regimes.

Fort Good Hope

Wilbert Cook — Do collars emit signals or vibrations?

Alasdair Veitch — No you cannot hear or feel vibrations, it could cause interference on your home radio.

Colville Lake

Joseph Kochon — Collars can get iced up and become very heavy.

Alasdair Veitch — Maybe the collar was loose and the animal was swimming and ice built up on the transmitter.

Joseph Kochon — It could be from sleeping and accumulating snow.

RRC — We would like to see more monitoring of the collared caribou.

Joseph Kochon — Is there any way of making the collars smaller?

Alasdair Veitch — The problem is the battery, the collar requires the power to provide an ample signal. Solar power is being developed.

Joseph Kochon — Maybe you should try wearing one for 3 years. The caribou are valuable to us, a smaller collar would be better.

Alasdair Veitch — Over the last 10 years I have taken collars off of caribou and maybe one in ten has any wear. When we do it here, people from Colville Lake can come along to see the collared animals.

Wilbert Kochon — Winter is the problem. Summer is not a problem. Maybe some people can come out to see when you work on these animals.

RRC — Take a picture when you put the collars on and again when you remove it.

John Nagy — We have collared over 100 caribou around Inuvik in the past few years. We have had several problems. About 15 of these animals have been harvested. We have pictures of some of these animals which I will send down for you to see.

Paulatuk

Garrett Ruben — So you are saying there would be less disturbance because you don't have to chase the animals around with a plane?

John Nagy — Yes, the only disturbance is putting the collars on.

Kugluktuk

John Stevenson — How soon do you think it will take to have an indication as to whether there are one or two herds?

John Nagy — We have radio locations from the past I want to analyze. With the satellite collars we should have some indication by next year

where the caribou calve and rut and whether there are two distinct herds.

John Stevenson — If there are two herds, why are we calling it one? It will affect how we deal with funding here.

John Nagy — We are dealing with the same thing, if the eastern herd is about 25,000 then the harvest from Kugluktuk is far more significant from that herd than if it is from a herd of 125,000.

Bernice Lyall — Why was all of this handled by the Inuvialuit?

John Nagy — Because of when land claims were signed and when money is allocated for research. The Inuvialuit allocated funding to address priority issues. The Department has not put that much money into research for these caribou in recent years.

John Stevenson — The other concern is the boundary between Bluenose and Bathurst caribou for management reasons. The satellite collars should help distinguish between the two. There are legal considerations which depend on where the line is drawn.

9.3.2 Determine best method of censusing the herd

Tuktoyaktuk

Jim Elias — Did Peter Clarkson give John photos of caribou when wolf tagging?

John Nagy — I believe so.

9.3.3 Complete three reliable censuses of the herd

Tuktoyaktuk

Roger Gruben — Can GNWT say the herd increased with any certainty from "best estimates"?

John Nagy — Not in recent years.

Roger Gruben — Could there have been a wiser use of resources to stress the more reliable aspects of research?

John Nagy	Explained problems with past research during which techniques may not have been properly used.

9.3.4 Obtain reliable estimates of productivity

9.3.5 Obtain reliable estimates of recruitment (March classification)

9.3.6 Obtain accurate harvest data from all communities

Inuvik

Unknown	Commented on better use of communities in research, and better overall communications, example of Department of Fisheries and Oceans doing beluga studies.

Tuktoyaktuk

Jim Elias	Is harvest reporting by residents mandatory? Can they get another licence if they don't report? Does Renewable check that residents tag animals so they can't shoot more than their allotment.
Roger Gruben	Commented on tags given out by the community by HTC.
Ed Henderson	Likes Roger's idea, Renewable would collect data.

9.4 Management Agreements

9.4.1 Objectives of parties

Inuvik

Unknown	How will the caribou be managed if they are indeed two herds?
Alasdair Veitch	Possibility of claim groups pooling funds to complete research. The Beverly/Qaminiriaq board, operating as the oldest and most well known board in existence, manages two herds.

Aklavik

Unknown	Who would management agreement be signed by? Local or regional boards.
John Nagy	It will likely be WMAC(NWT)/Inuvialuit Game

	Council, Gwich'in Renewable Resource Board, Sahtu Renewable Resource Board, Nunavut Wildlife Management Board and the Minister of Renewable Resources.
Evelyn Storr	Suggested that the word "aboriginal" be used rather than "native".
John Nagy	The Porcupine Caribou Management Agreement was written in 1985, word usages have changed since then.

9.4.2 Establishment of board

Tuktoyaktuk

Roger Gruben	Where does the majority of the herd spend most of their time on an annual basis?
John Nagy	Likely within the Inuvialuit Settlement Region.
Roger Gruben	If there is a management board or agreement would that be reflected in the representation on the management board? The Inuvialuit Settlement Region should have a greater representation because of where the caribou reside. Roger commented on participating in protection measures in areas of development. Comment on participation of natives in research, and also ensure use of native knowledge. Has difficulty with minister making emergency decisions; the decision may not be in line with the management board and is made on the basis of timing and could be incorrect.
Jim Elias	Why have another board-management regimes are in place under land claims agreements.

Aklavik

Renie Arey	Where are you planning on having the main office for the Bluenose Caribou Management Board?
John Nagy	This is open for discussion. If there is a board it should be in one of the main communities which uses the herd.
Roger Binne	Explained the Porcupine Caribou Management Board's set up.

Evelyn Storr	Do you go back to the main boards when making decisions? Is there communication with IRC or GTC?
John Nagy	Not certain.

Colville Lake

RRC	If there is a board a representative from the RRC's would be the best option to sit on that board.

Paulatuk

Noel Green	Is this the only herd without a management plan?
John Nagy	No the Bathurst herd does not have one.
Noel Green	There are so many users, maybe the government needs a little push to re-emphasize the importance of this herd to so many people.

9.4.3 Responsibilities of Minister

Inuvik

Tom Wright	In what sort of emergency would the minister act without consulting the board, would the minister know enough without consulting the board, modern telecommunications should allow some communication prior to a decision.
John Nagy	Gave an example of Minister closing a highway corridor for hunting if there was a concern about public safety.

Tuktoyaktuk

Ed Henderson	Commented on recent co-management now having good communication and this problem has not existed. Information gaps are related to enforcement. HTC should be more accountable for harvest information, which may result in better information.

Kugluktuk

Bernice Lyall	If there are such important decisions to be made and recommendations to the Minister, then what if there disagreement between the land claim groups?

John Nagy — The 4 groups will participate in making management decisions.

9.4.4 Funding

Tuktoyaktuk

James Pokiak — What is the advantage of setting up a Bluenose Caribou Management Board, where will funding come from to operate? Why not use local HTC?

Ed Henderson — We are not promoting a board.

John Nagy — Some communities want a board, others don't. Most of the cost of running a board is travel.

Roger Gruben — If a board is set up, then the money to operate the board should not come from within current operating money for the existing settlements. Stealing from existing budgets shouldn't occur. Should examine cheaper ways of obtaining information than some ways currently employed.

9.4.5 Allocation of harvest

Inuvik

James Firth — How would quota be allocated among communities in the case of a population decline; how much must a population decline before an allocation change would occur.

John Nagy — The process should be addressed in the management agreement.

9.4.6 Rights of native users

9.4.7 Commercial harvest

Inuvik

James Firth — Indicated that the Gwich'in did not want any commercial harvest before an accurate population estimate was determined; how will the Bluenose Caribou Management Board make decisions on allocation?

John Nagy — Harvest studies should be operational within 6 to 8 months in the Sahtu. Gwich'in,

Inuvialuit, and Nunavut are already operational. These will determine community needs levels that could be used to assess quota allocations.

Fort McPherson

William Teya — Why does Fort McPherson not get commercial Bluenose tags? And, why are Bluenose tags used on Porcupine caribou?

John Nagy — The commercial tag allocations are old and require review.

Johnny Charlie — By selling the antlers, there will be nothing left for the small animals to eat. In all my years of hunting, I never see dropped antlers; they are very quickly eaten. I don't think they should be removed from the bush.

Fort Good Hope

Isadore Manual — What is the reason for no commercial harvest of Porcupine caribou?

Roger Binne — At the time the agreement was written, the participating communities did not want commercial harvest.

Wilbert Kochon — It is like why the Gwich'in did not want trade in antlers, they were afraid of wasted meat.

Wilfred Jackson — The antlers fall off in the fall, you don't need to shoot them.

Alasdair Veitch — Yes, but the dropped antlers are worth a lot less.

David Cook — There was a motion made in Colville last year to increase the commercial quota, but it was not supported. I think the motion should be brought to the attention of this committee.

9.4.8 Some other considerations

Inuvik

Duane Smith — Should GNWT fund part of research on behalf of non beneficiary users?

John Nagy	Made reference to the region's $10,000 "A" level budget being insufficient for this.

Tsiigehtchic

Grace Blake	There is a lot of work for the Gwich'in Renewable Resource Board to do. One problem right now is that the money is going into the pockets of professionals not into the communities. This must be rectified.

Deline

Alfred Taniton	We would like to have more time to review all of this. Possibly we could have a 2 day workshop.
John Nagy	Next year I have requested some money to continue working on the plan and we may be able to do something like that.
Alfred Taniton	We talk about partnerships and working together. It is good. In the past, a warden put out poison for wolves and it is fortunate that our dogs were already fed because there was no communication; we did not know about this. It is important to know about pollution because it gets into our food. It is good to have a decision on how to prevent development. An example is the dam in Quebec that killed 10,000 caribou. We want our livelihood protected, we need to hear more.
Alasdair Veitch	Hydro Quebec did not talk to the community people or the biologists. The accident could have been prevented because they would have found out the caribou migrate across the river then.
Alfred Taniton	This is a new start for us. We have received a lot of information. We will have our own meetings on this. Researchers often come in and leave without any follow up communication.
Alfred Taniton	In the old days, we fed caribou to our dog teams. Now there are no dogs so there are more caribou. Roger Binne used to have a dog team. Maybe he should have brought the message with his dogs. Long ago people would visit each other by dog team over long distances. It is easier now by plane and

when we come together it is good.

Alfred Taniton — (old story) In the old days shells were hard to find. An old man once went out for caribou. The old man had only 3 shells and he went up toward Coppermine to find caribou. He hid under a rock to wait for the caribou. When they came, he shot up in the air 3 times and didn't hit any caribou. The old man was mad and made a spear, followed the caribou onto a lake and killed them all.