

Caribou Forever – Our Heritage, Our Responsibility



Presentation to Wek'eezhii Renewable
Resources Board – Public Hearing
March 13, 2007
Environment and Natural Resources

Introduction

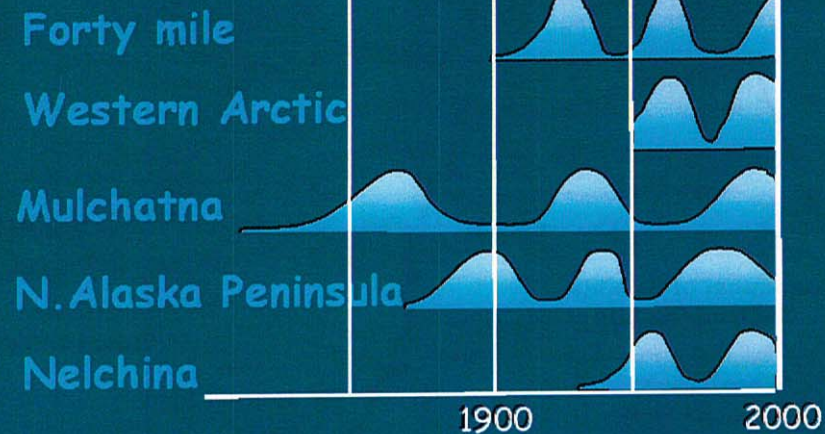


- Variation in herd size – cycles
- What is a herd
- Calving areas
- Why are herds the basis for management
- What information is collected
- What factors affect herd size
- Other herds in Wek'eezhii
- Working with other management partners

1. Long Term Caribou Cycles

How do we know?

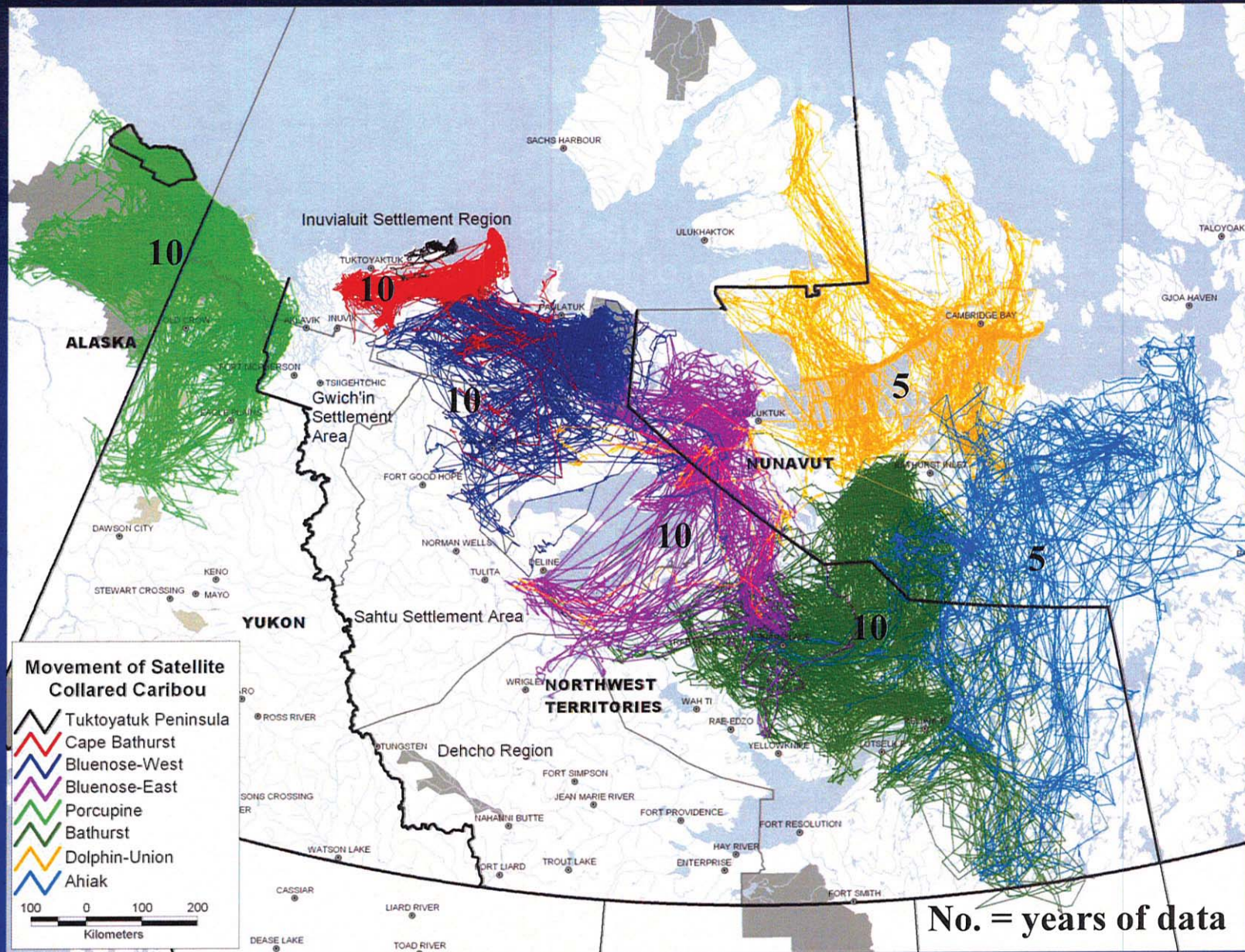
- Traditional Knowledge
- Censuses over past 35 years of herds in the NWT show a similar pattern of low numbers in the late 1970's, then increasing in 1980's and then slowly declining



Alaskan caribou herds (smoothed curves)

Data from Pat Valkenburg pers. comm. 2001

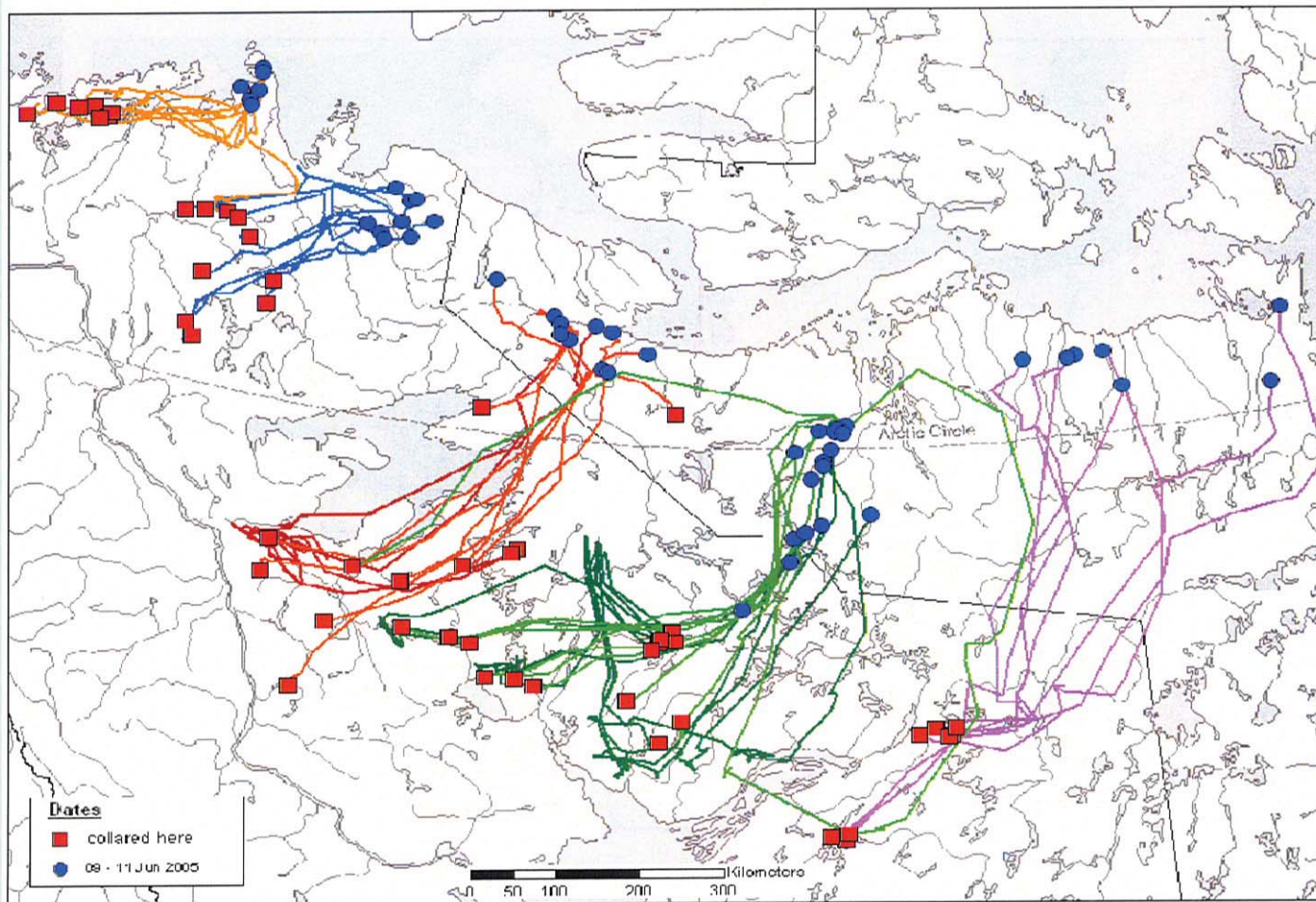
2. What is a Herd?



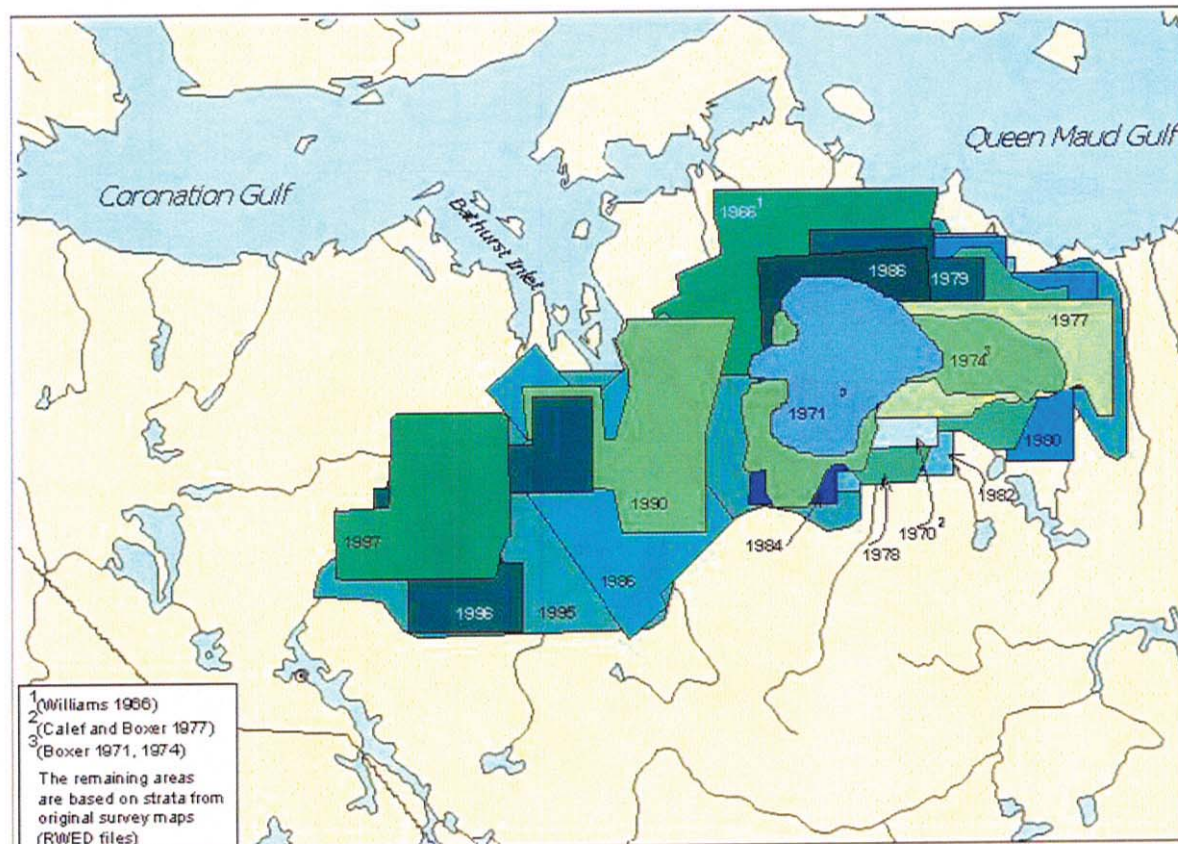
3. Calving Areas

- less than 2% interchange in NWT

Movements of barren-ground caribou cows from when collared to calving season 2005.
Lines of darker tones of a color are from Oct 2004 collars, others are from Mar 2005 collars.



Calving Areas



Bathurst calving grounds

4. Why Manage by Herds?

- Each herd range has different conditions
- Each herd used by different communities
- Each herd needs to be monitored separately

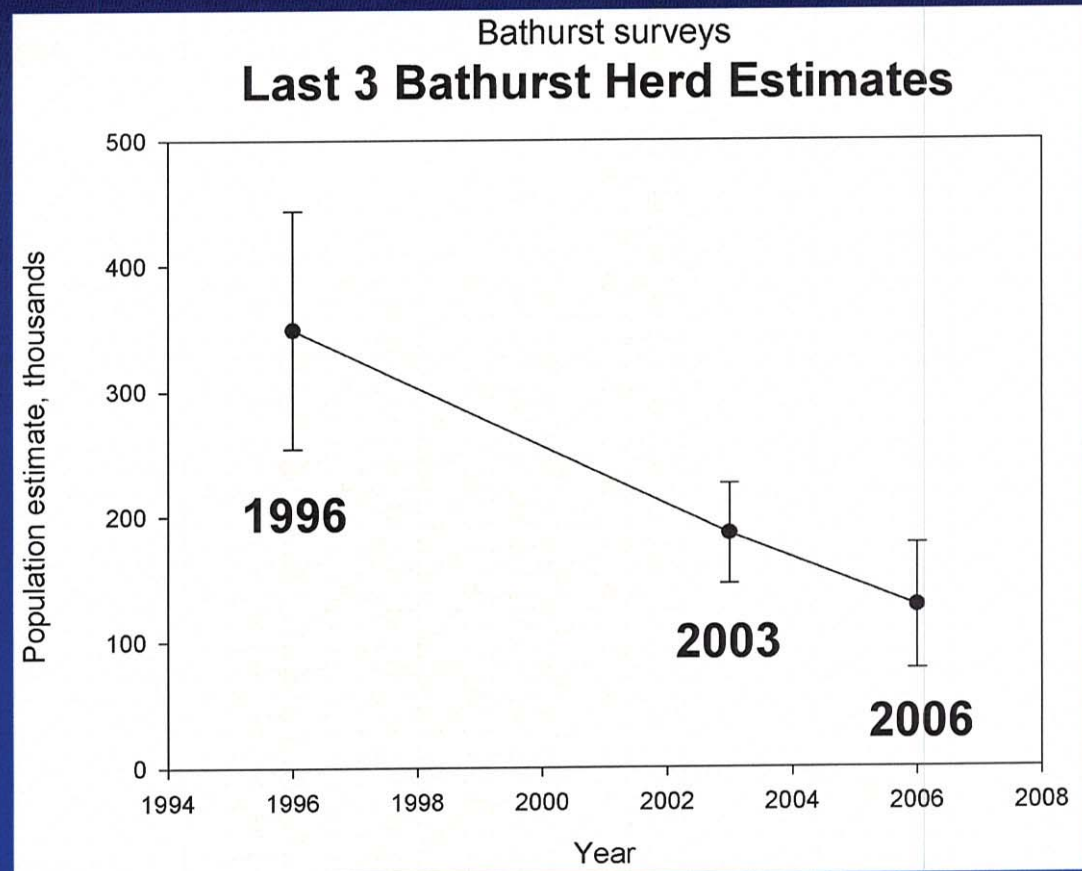


5. Monitoring Herd Status

Trend based on several surveys + other information

Other information =

- calf survival
- pregnancy rates
- condition
- adult sex ratio
- winter distribution
- flights
- traditional knowledge



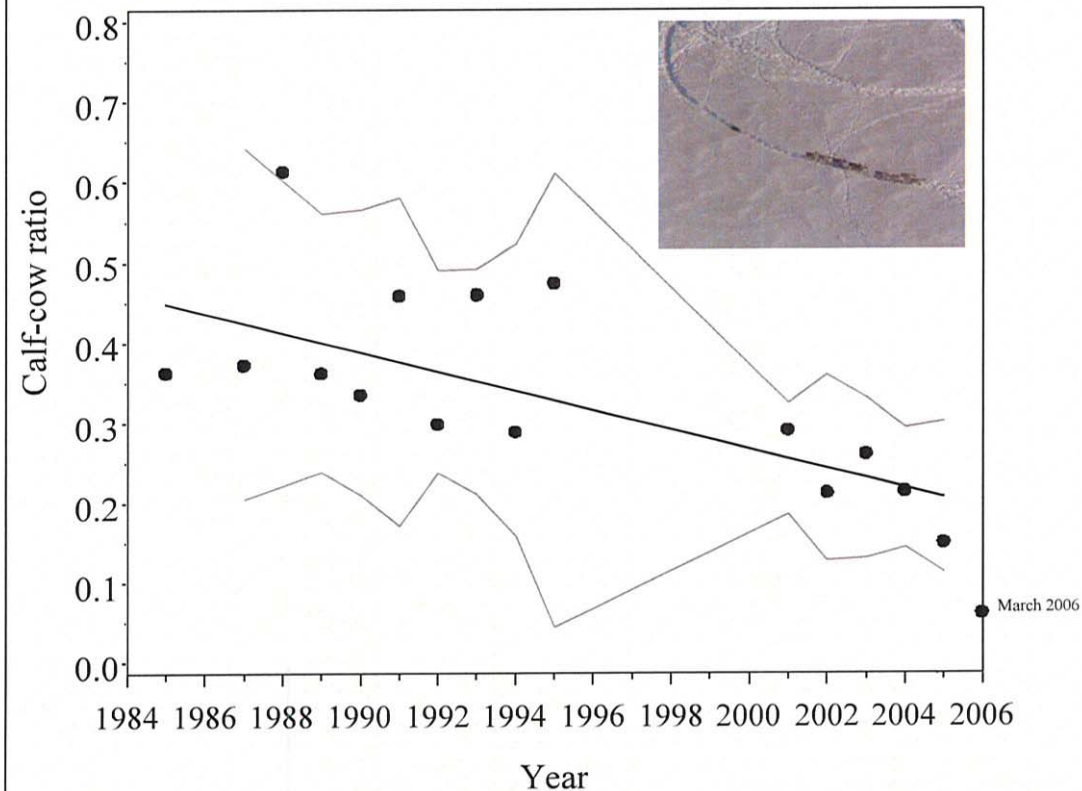
Calf Survival & Pregnancy Rates

Spring calf:cow ratios

- lowest in 2006

Pregnancy rate

- 2005-06 = 63%



Bathurst Caribou Herd

Adult Bull:Cow Sex Ratio

Bathurst Herd

- Normal: 60 bulls:100 cows
- Low: 30 bulls:100 cows
- 37 bulls: 100 cows (2004)
- 36 bulls: 100 cows (2006)

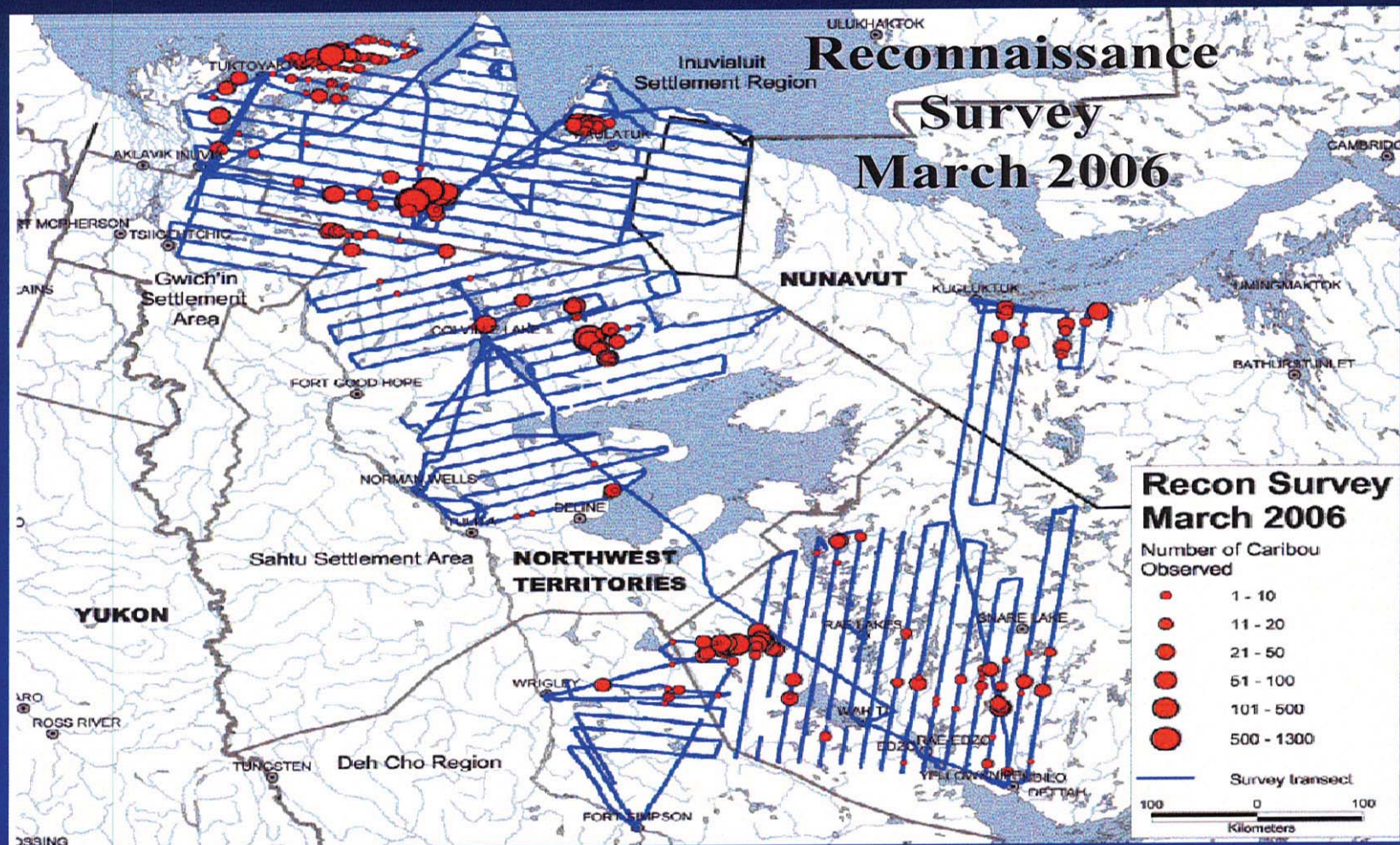
Traditional Knowledge

- Bulls lead groups south (e.g. fall closure of Dempster Highway)
- Bulls carry bloodline (same applies to livestock, horse and dog breeding)



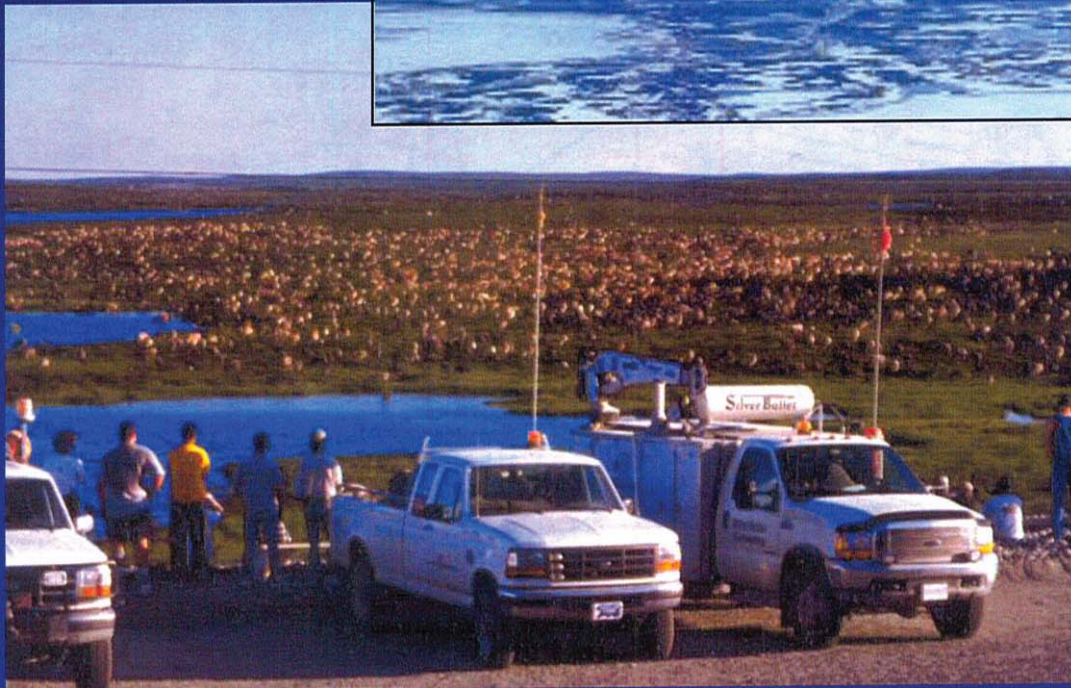
**Surveys done during Rut
(late October)**

Winter Distribution Flights



6. What factors affect individual herd size?

Indirect Impacts & Cumulative Effects



- Diamond mines
- Mineral exploration
- Oil and gas
- Winter roads
- Tourism

Direct Impacts

- Predation
- Harvesting
- Disease



Wolf Productivity Declining



Carcass Collection

- 105 carcasses examined in 2006
- No pups in sample size in contrast to other years
- Ovaries and uterus show decrease in eggs implanted

Annual Wolf Den Surveys

- Of 75 denning areas, usually 20 are active with 50-75 adults seen in June surveys
- In 2006, 14 were active with 14 adults seen in June survey
- Decrease in litter size from 10 years ago

Wolf Control?

Grizzly Bears – Increase?

Bear Sightings - Point Lake Lodge

- Collected from 1998-2004
- July - few bears during fishing season
- August 15 – hunting season starts, bear sightings increase 10x
- Hunting season ends – few bears seen
- Report suggests bears drawn in by caribou hunting

Bear Sightings - Daring Lake

- Collected from 1997-2006
- May to August 15 – few bears seen
- August 15 to mid September – no bears seen
- Caribou in area but no hunting at camp allowed



Are bears attracted to food?

- Weight gain takes place in August-September
- Outfitter operations have been in same areas for 20 years
- Bears in other areas drawn in to consistent food sources

Grizzly Bear Kill and Wolf Harvest

Annual grizzly bear kill in North Slave area

- no quota
- bears killed during conflicts with people at camps

Average annual harvest in North Slave area is 130-150 wolves

- outfitters = 20-30
- resident = 15-25
- trappers = 80-100

Wolf Control

- Yukon – initiated after hunting shut down for 2 years
- Alaska – hunting restricted
- methods include sterilizing dominant pairs in a territory, relocation and culling



2005-06 Caribou Harvest in North Slave Area



Bathurst Herd

800	Outfitted tag harvest
80	Resident harvest – fall
75	Commercial tags
320	Resident harvest – winter
600	Aboriginal harvest – fall
3470	Aboriginal harvest – winter

5345 **Total estimated harvest**

Bluenose-East Herd

91	Outfitted tag harvest
0	Resident harvest – fall
0	Commercial tags
0	Resident harvest – winter
0	Aboriginal harvest - fall
430	Aboriginal harvest – winter

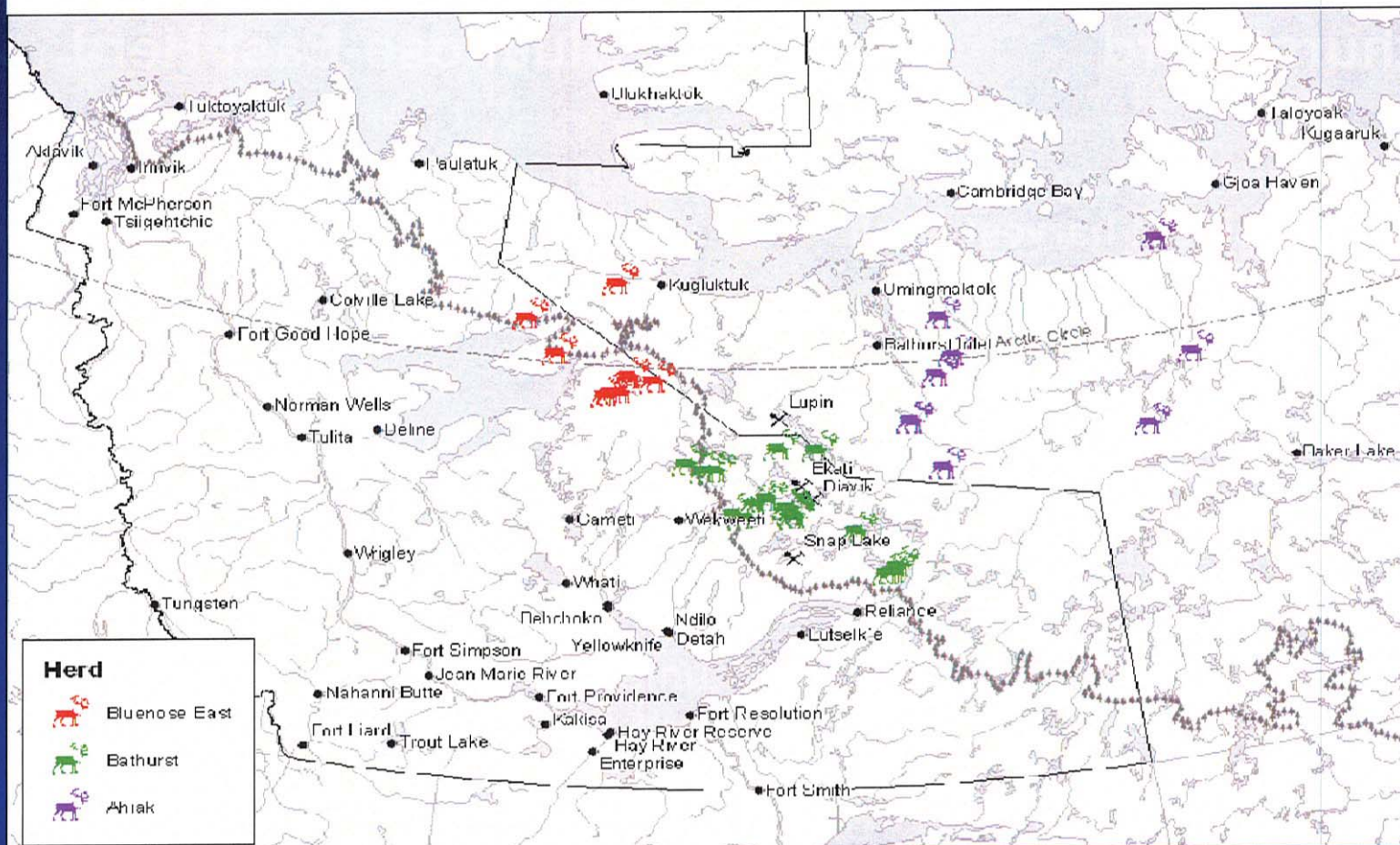
521 **Total estimated harvest**

- Includes harvest from Tlicho communities, Yellowknife, Detah, Ndilo, Lutsel k'e and South Slave who travelled to North Slave area to hunt
- Does not include Nunavut communities

How do We Allocate Harvest by Herd?

September 1, 2005

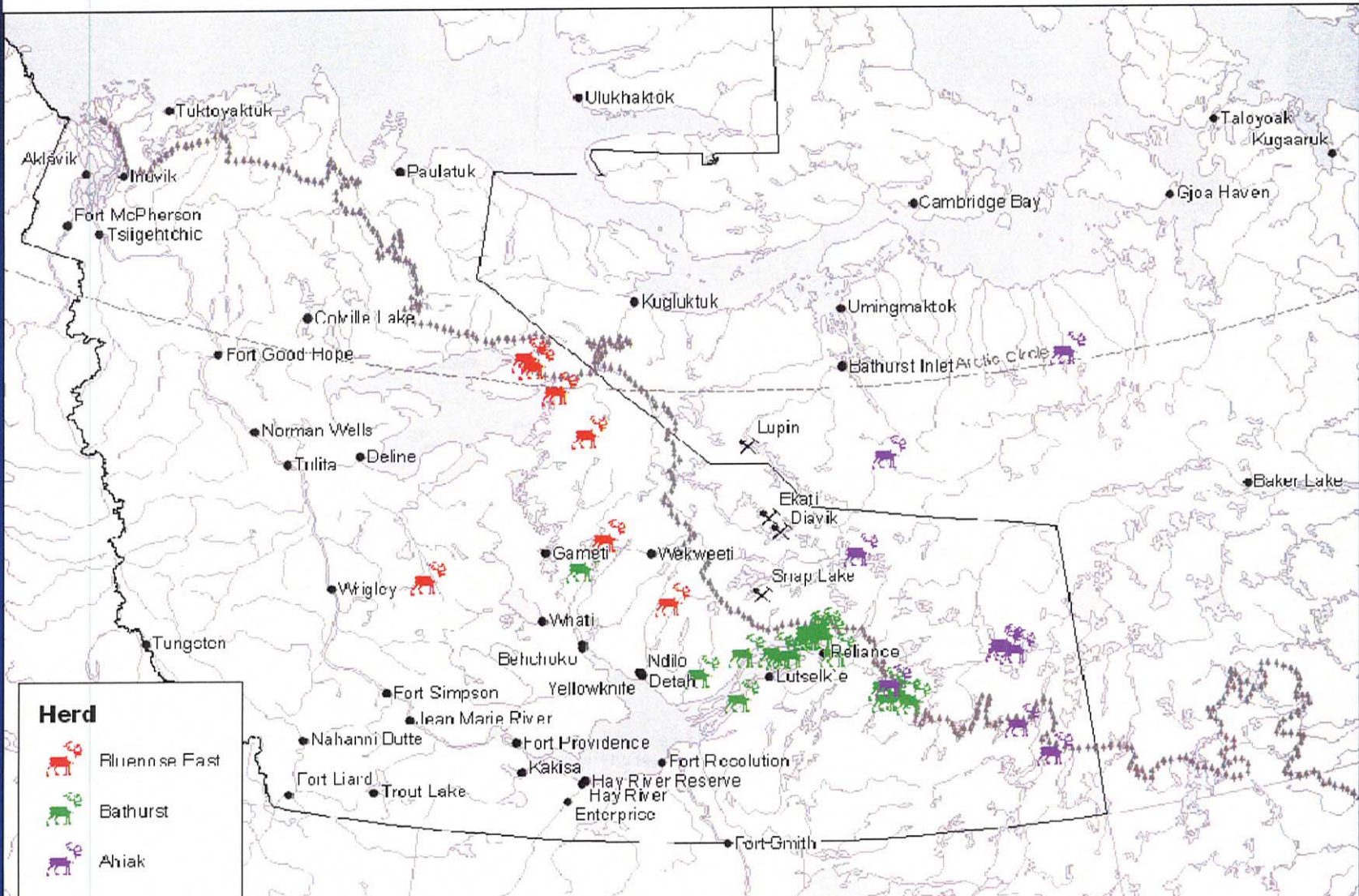
Locations of satellite collared barren-ground caribou cows, 1 September 2005



Winter Harvest

January 1, 2006

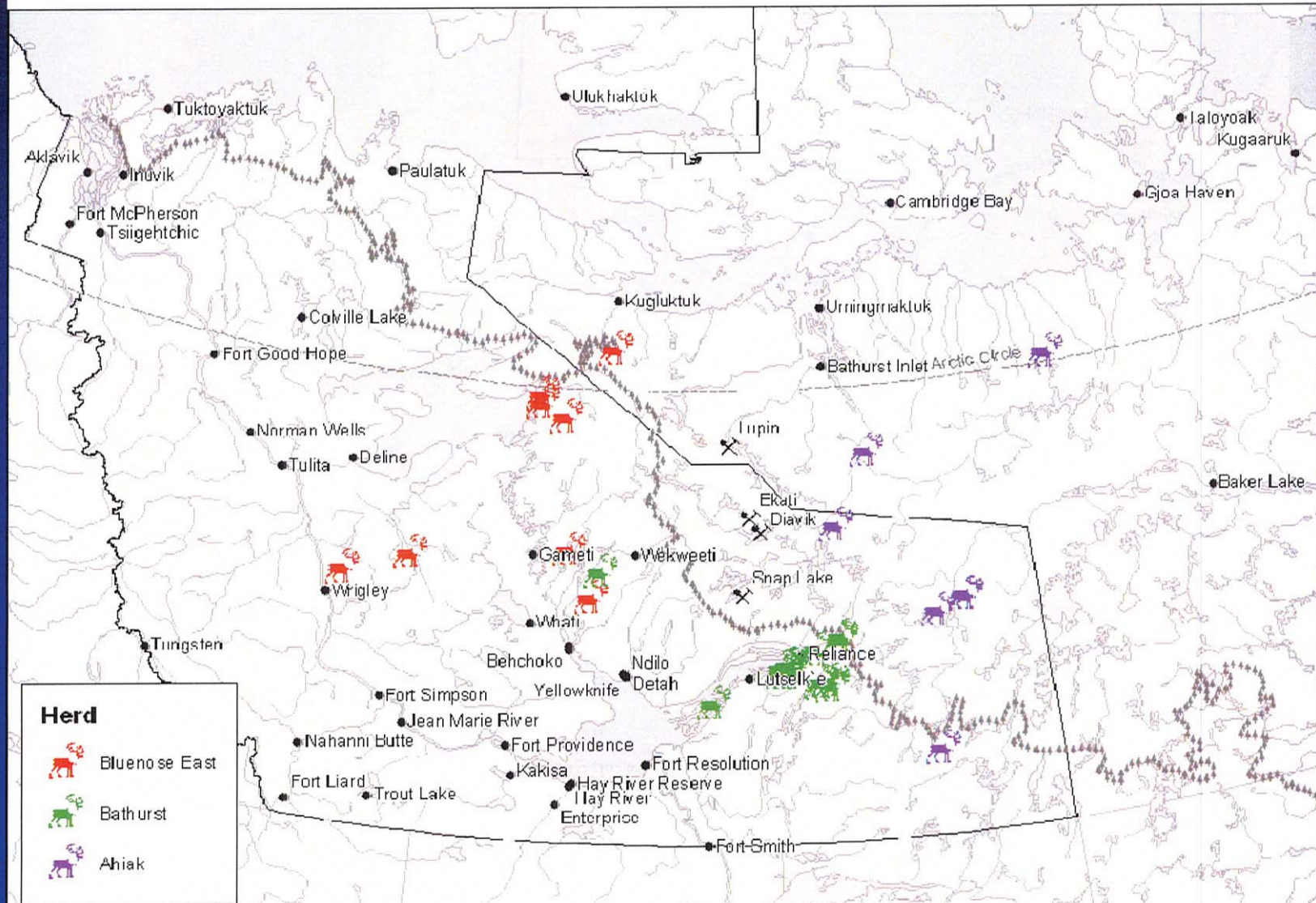
Locations of satellite collared barren-ground caribou cows, 1 January 2006



Winter Harvest

March 1, 2006

Locations of satellite collared barren-ground caribou cows, 1 March 2006



Is Harvest Too High?



**When herds are declining, there is no sustainable harvest.
Instead we must look at what level of risk can we live with.**

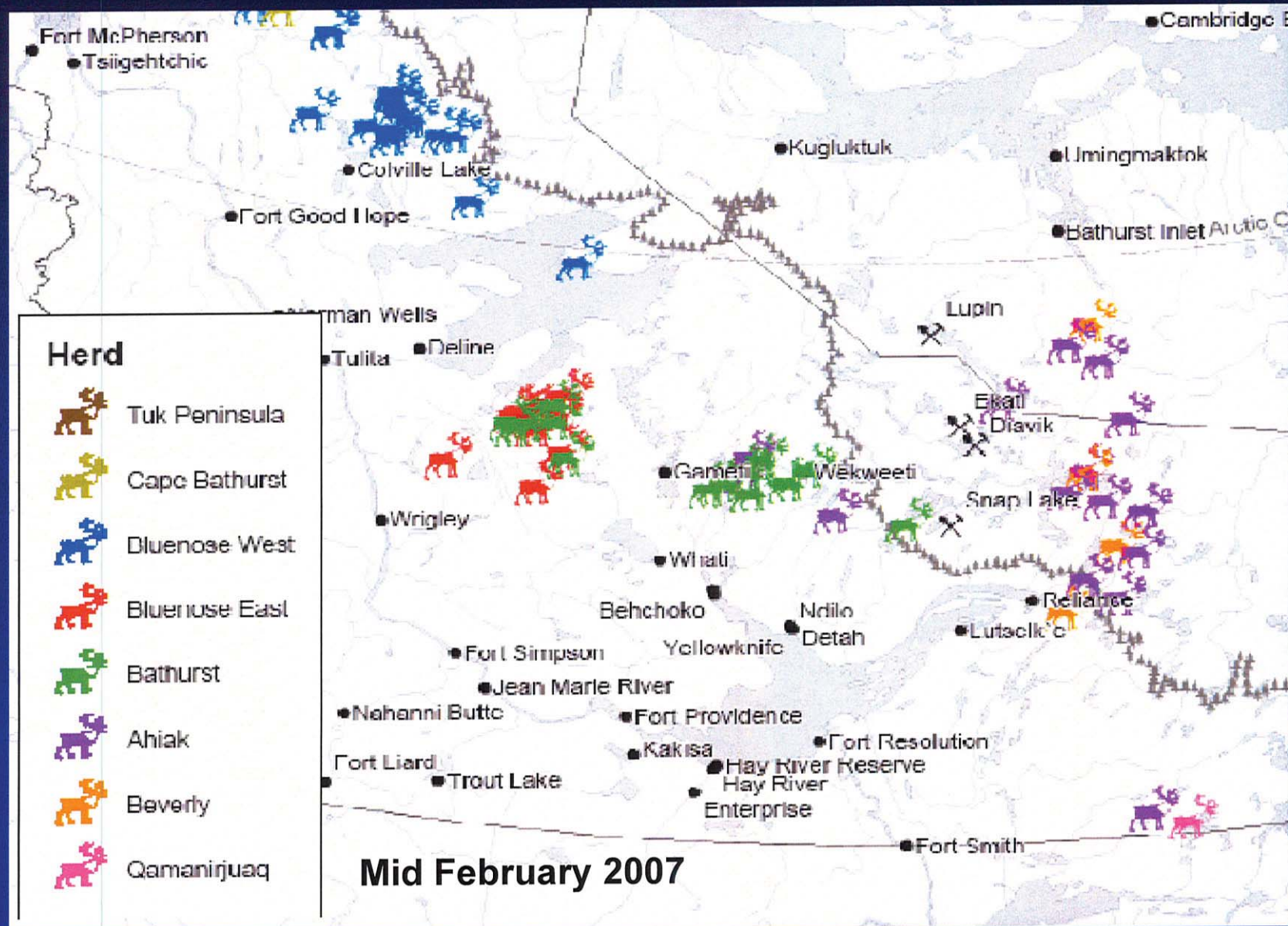
Why is harvest management important today?

Last time caribou were low in late 1970's, conditions were different:

- No winter roads
- No maps of satellite collared caribou
- Dog teams for winter hunt
- Little use of aircraft
- No outfitting operations



7. Other Herds in Wek'eezhii



Bluenose-East Herd

- Most of range in Sahtu region
- Sahtu Renewable Resources Board will engage partners



8. Other Partners in Managing the Bathurst Herd

- Bathurst Caribou Management Plan – annual meeting
- Nunavut – protect calving areas
- Tlicho Agreement – Clause 12.11.3 – develop a proposal to manage Bathurst herd with other authorities



2006 Bathurst calving grounds

Conclusion

- Bathurst herd is declining
- Calf survival low
- Bull:cow sex ratio is getting low
- Wolf productivity is declining
- Harvest affects recovery rate
- Aboriginal harvest has highest priority in Wek'eezhii



What risk is acceptable?

Proposed Management Actions to help Bathurst herd recover:

- Based on Bathurst Caribou Management Plan
- Harvest not exceed 4% of 2006 herd size
- Eliminate all commercial meat tags
- Reduce tags for outfitted hunts to 350 and to 1 per hunter
- Establish no hunting corridors on winter roads
- Resident and Aboriginal hunters to report harvest
- Monitor calf survival, condition, harvest and do next survey in 2009