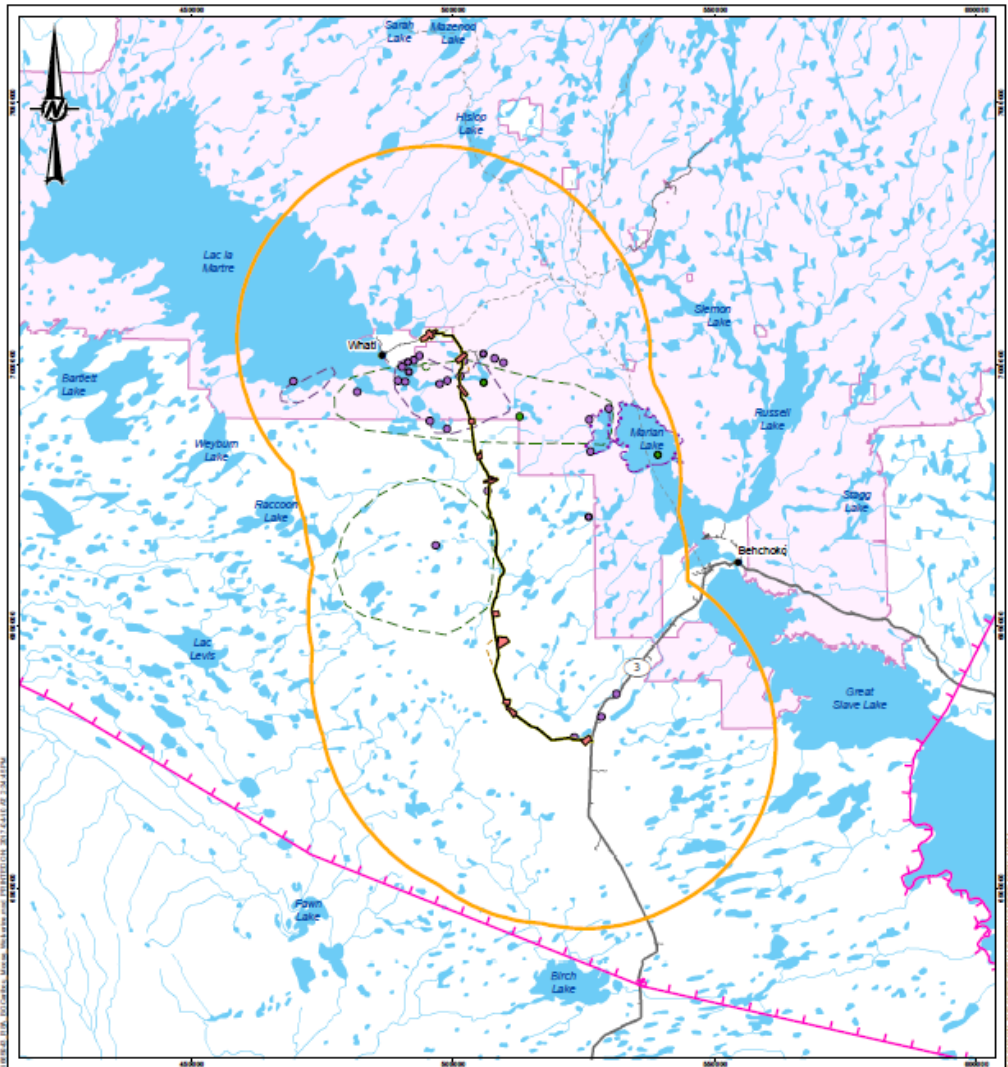


Maps to accompany GNWT
response to TASR Technical Session
Commitment # 3 - Caribou
distribution data

Map of TASR RSA from Adequacy Statement
Response – Figure 4.1-2



LEGEND

● POPULATED PLACE	● BARREN-GROUND CARIBOU HUNTINGKILL SITE
— ALL-SEASON ROAD	● MOOSE HUNTINGKILL SITE
— LOCAL ROAD	— MOOSE HUNTING
--- WINTER ROAD	— BARREN-GROUND CARIBOU HABITAT
— OLD AIRPORT ROAD	— MOOSE HABITAT
— WATERCOURSE	
— TLJCHO LAND	
— WATER BODY	
— BARREN-GROUND CARIBOU, MOOSE, AND WOLVERINE RSA	
— PROJECT FOOTPRINT - BORROW SOURCE	
— PROJECT FOOTPRINT - ROAD	
— WEK'EEZHII RESOURCE MANAGEMENT AREA	

REFERENCES

1. TRADITIONAL KNOWLEDGE DATA OBTAINED FROM THE TLJCHO GOVERNMENT, 2019.
2. BASE DATA OBTAINED FROM GEORATIS, © DEPARTMENT OF NATURAL RESOURCES CANADA. ALL RIGHTS RESERVED.

PROJECTION: UTM ZONE 11 DATUM: NAD83

CLIENT
GOVERNMENT OF NORTHWEST TERRITORIES

PROJECT
TLJCHQ ALL-SEASON ROAD

TITLE
RSA FOR BARREN-GROUND CARIBOU, MOOSE, AND WOLVERINE

CONSULTANT	YYYY-MM-DD	2017-04-10
	DESIGNED	DC
	PREPARED	LMS
	REVIEWED	DC
	APPROVED	JV

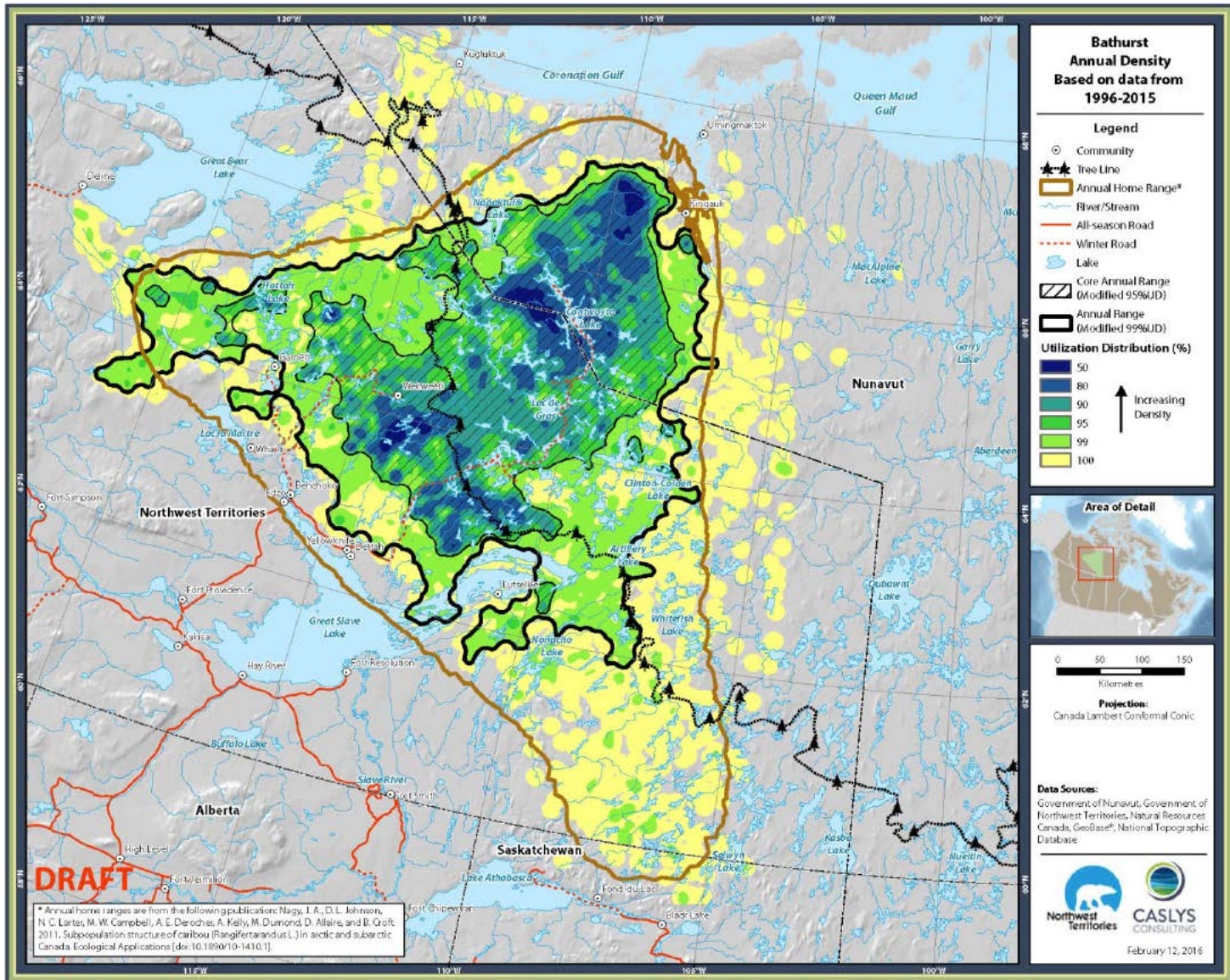
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1665943

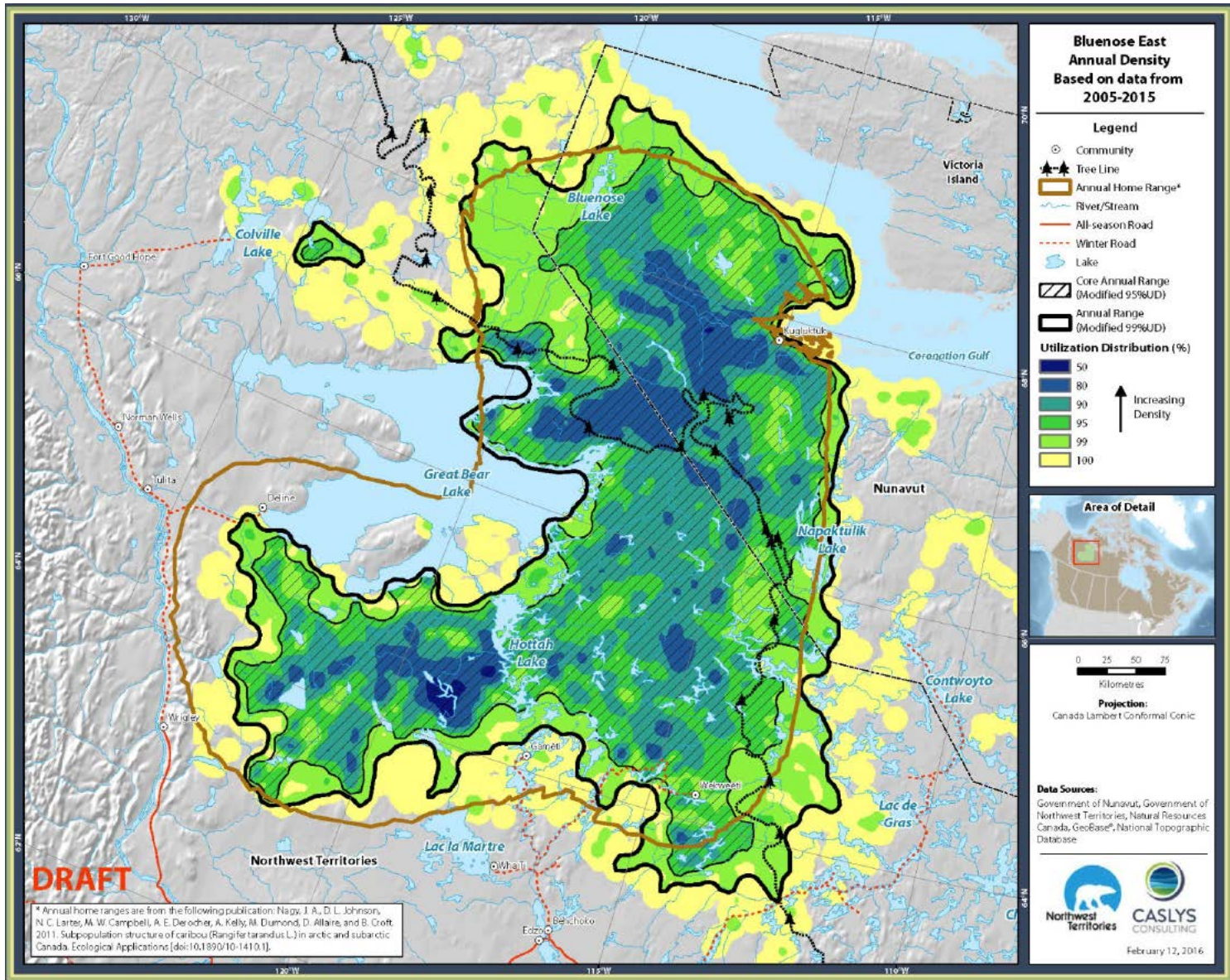
REV
0

FIGURE
4.1-2



Maps of annual ranges of Bathurst and Bluenose East barren-ground caribou herds from TASR Adequacy Statement Response - Appendix G





Map from Fortune Minerals Ltd. - NICO Project - EA0809-004 [2009] - Government of the Northwest Territories, Technical Report, June 19, 2012; Figure 4

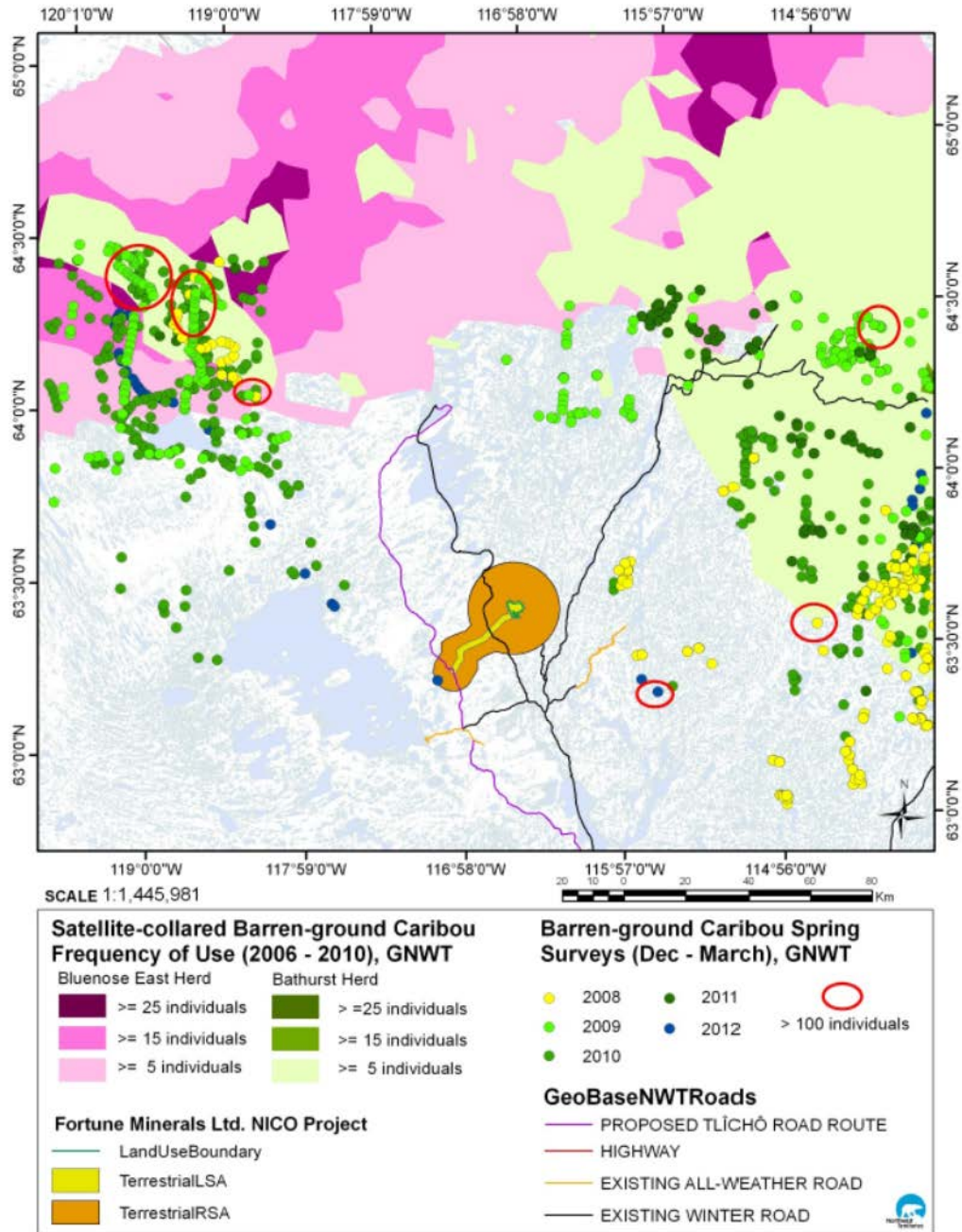


Figure 4: Barren-ground Caribou Range in relation to the Fortune Minerals Ltd. NICO Project location.

Maps from: Cluff, H.D., Croft, B., and Boulanger, J. 2017. **Calf Production and Adult Sex Ratio in the Bathurst and Bluenose East Herds of Barren-Ground Caribou 2006-2016. Part 2: Appendices - Composition Survey Maps.** Unpublished draft Manuscript Report. Department of Environment and Natural Resources, Government of the Northwest Territories, Yellowknife, NT.

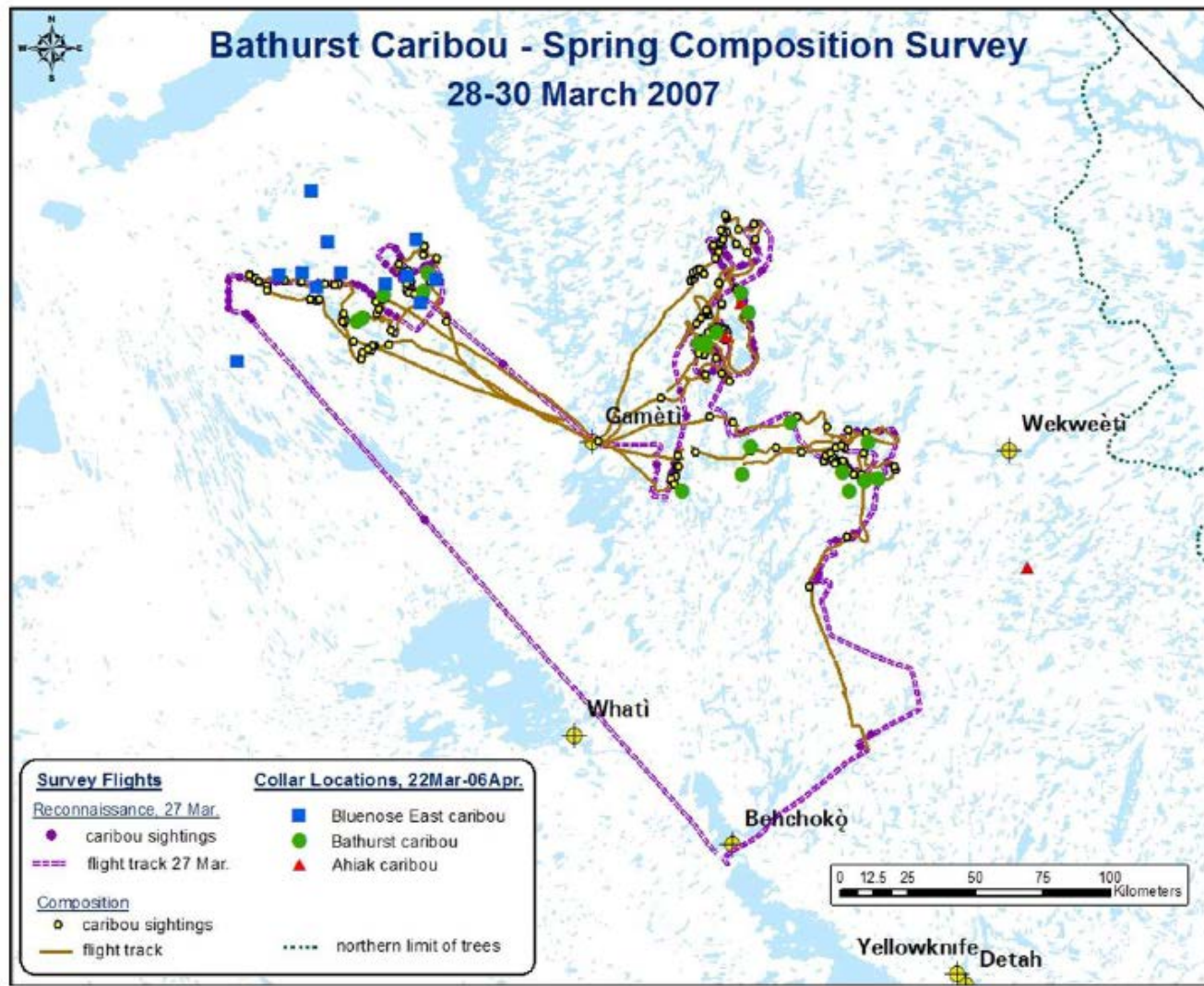


Figure A3. Spring composition survey of the Bathurst caribou herd on 28-30 March 2007 showing flight lines, sightings, and locations of collared caribou. The reconnaissance survey occurred on 27 March. Total distance flown for the composition survey was 2,011 km over 19.2 hours. Collared caribou locations from the Bathurst herd (21 individuals) occurred from 27-31 March, Bluenose East herd (14 individuals) from 22, 24, 27-31 March, 01-04 April, and Ahiak herd (16 individuals) from 27-31 March 2007.

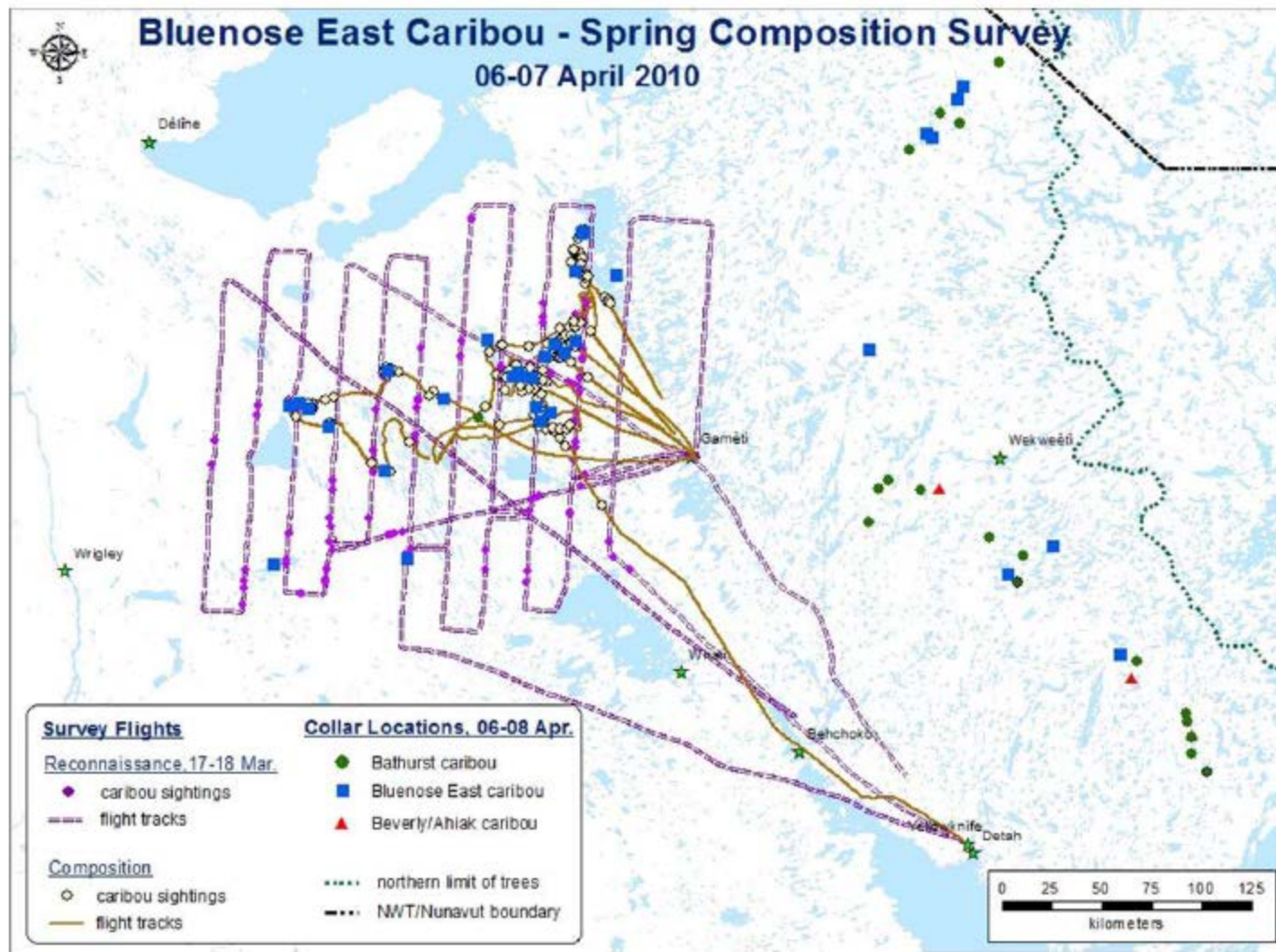


Figure A11. Spring composition survey for the Bluenose East caribou herd on 06-07 April 2010 showing flight lines, sightings, and locations of collared caribou. Reconnaissance surveys occurred on 17-18 March. Total distance flown for the composition survey was 1,882 km in 13.9 hours. Collared caribou locations are shown from the Bluenose East herd (36 individuals) from 06 or 07 April, the Bathurst herd (21 individuals) from either 06 or 08 April, and the Beverly/Ahiak herd (3 individuals) from 06 April 2010.

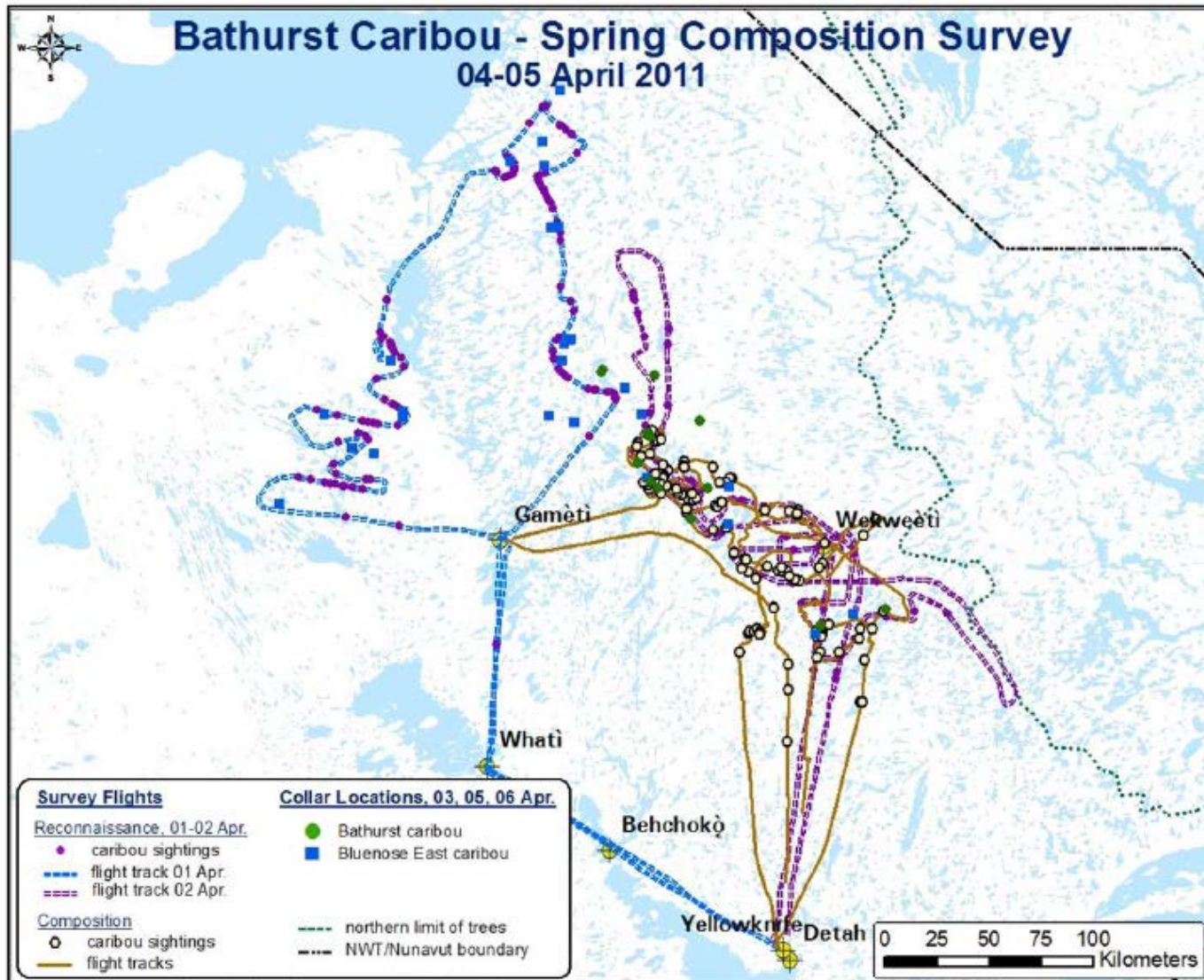


Figure A12. Spring composition survey for the Bathurst caribou herd on 04-05 April 2011 showing flight lines, sightings, and locations of collared caribou. Reconnaissance surveys occurred on 01-02 April. Total distance flown for the composition survey was 1,895 km in 13.4 hours. Collared caribou locations from the Bathurst herd (14 individuals) are shown for 05 April, and Bluenose East herd (26 individuals) for either 03 or 06 April 2011.

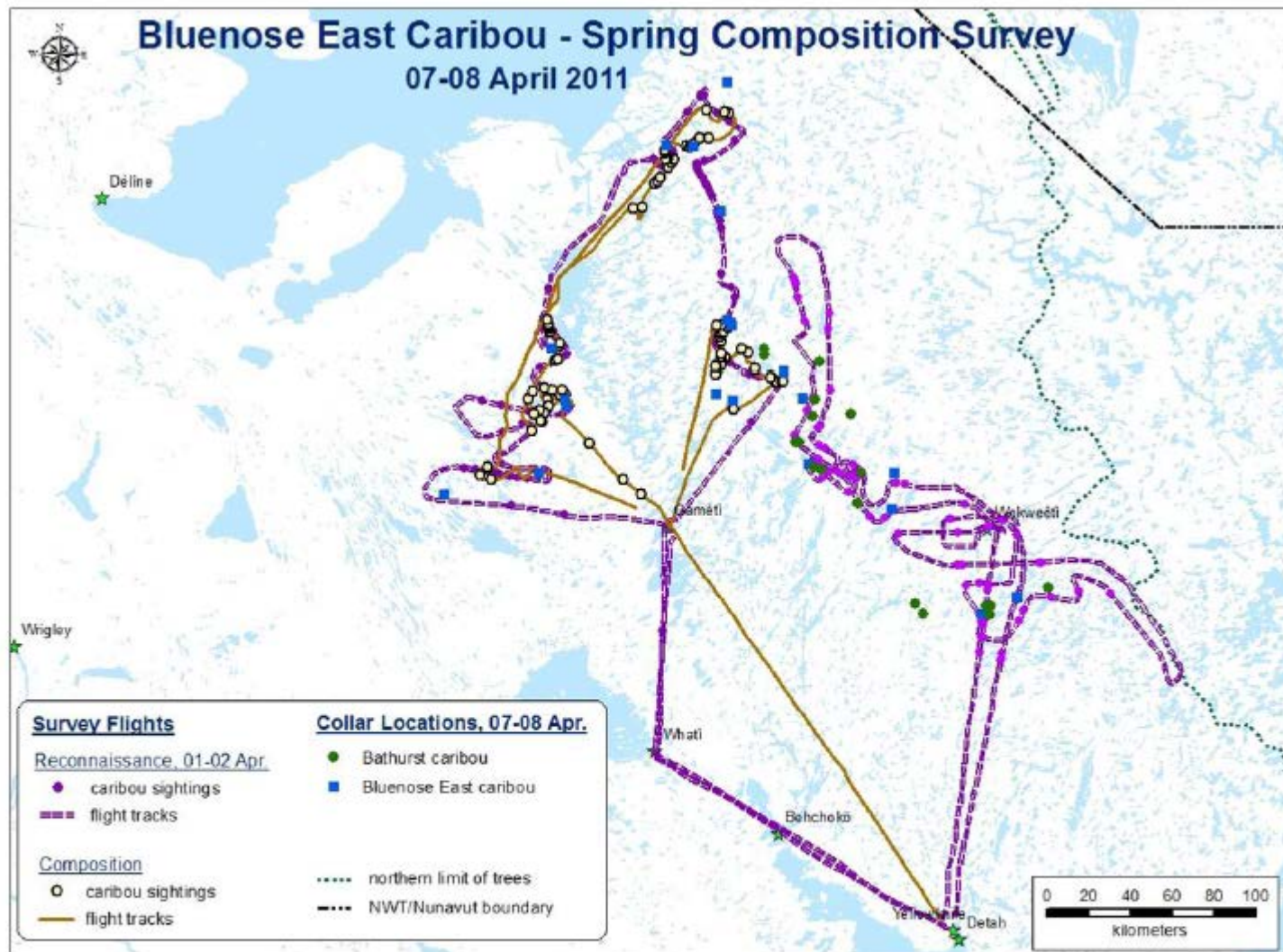


Figure A13. Spring composition survey for the Bluenose East caribou herd on 07-08 April 2011 showing flight lines, sightings, and locations of collared caribou. Reconnaissance surveys occurred on 01-02 April. Total distance flown for the composition survey was 1,310 km in 11.5 hours. Collared caribou locations from the Bathurst herd (18 individuals) are shown from either 07 or 08 April, and the Bluenose East herd (21 individuals) from 08 April 2011.

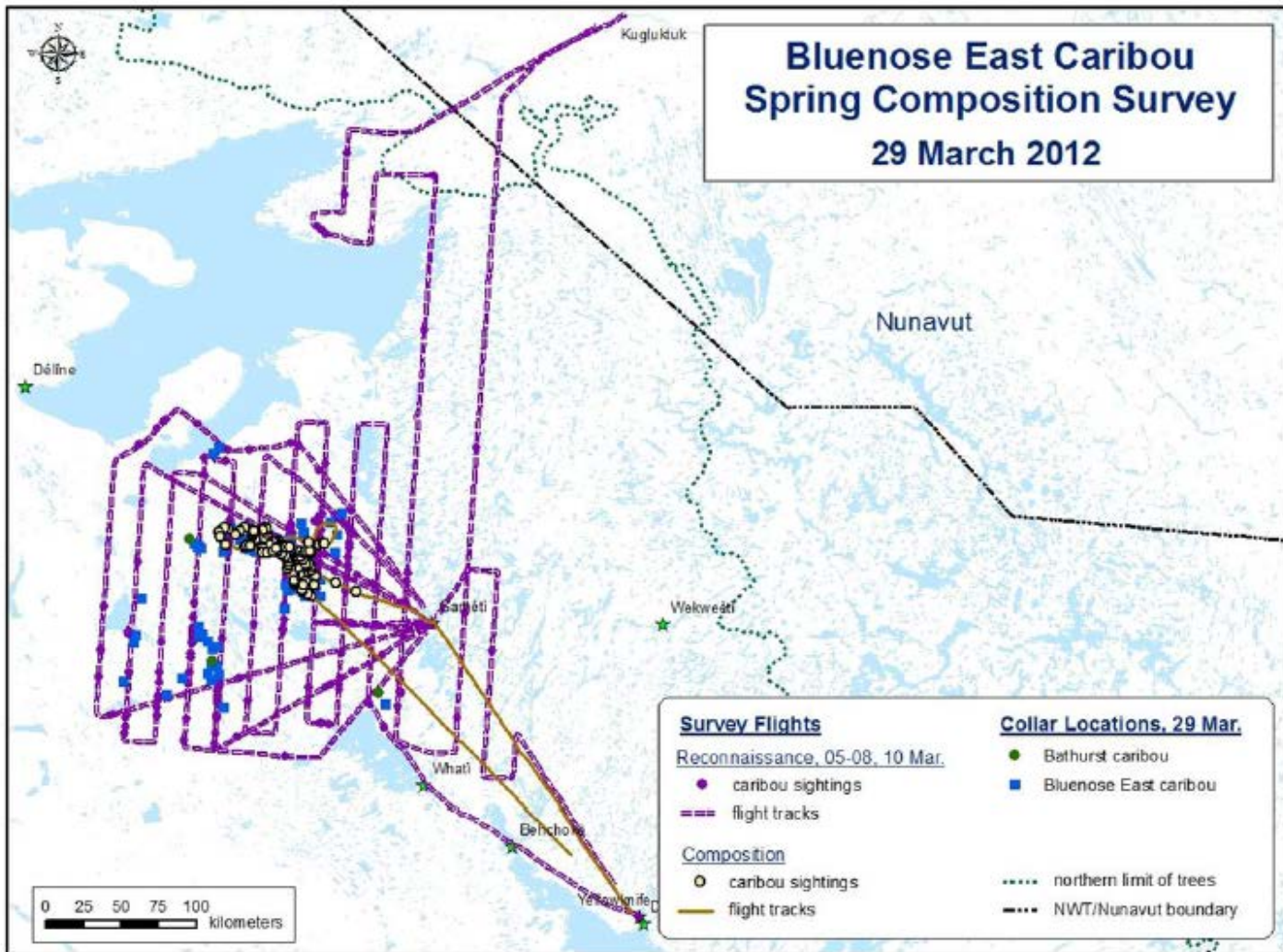


Figure A16. Spring composition survey for the Bluenose East caribou herd on 29 March 2012, showing flight lines, sightings, and locations of collared caribou. Reconnaissance surveys occurred from 05-08 and 10 March. Total distance flown for the composition survey was 1,090 km in 8.0 hours. Collared caribou locations from the Bluenose East herd (65 individuals) and Bathurst herd (3 individuals) are shown for 29 March 2012.

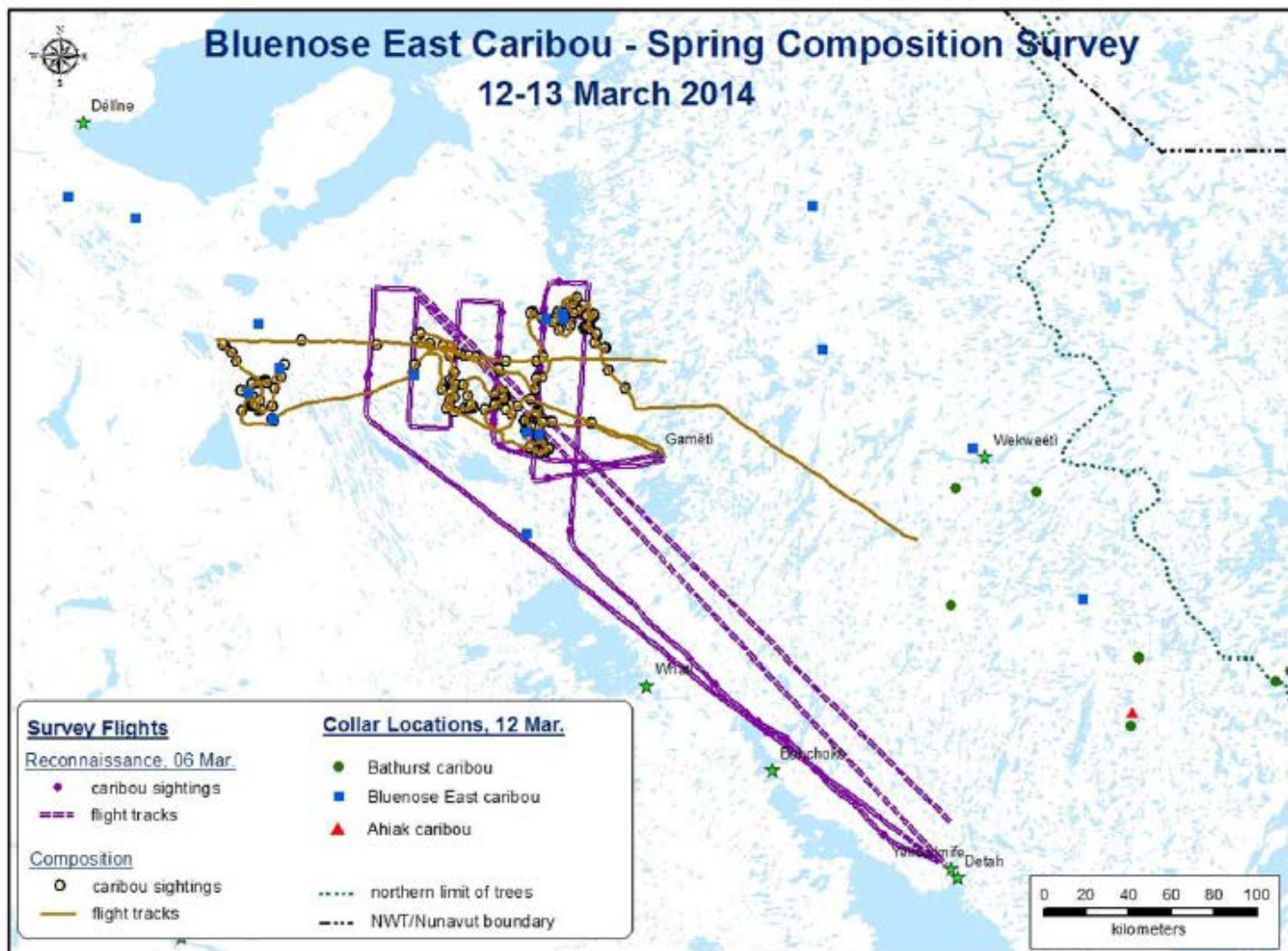


Figure A20. Spring composition survey for the Bluenose East caribou herd on 12-13 March 2014 showing flight lines, sightings, and locations of collared caribou. Reconnaissance surveys occurred on 06 March. Total distance flown for the composition survey was 1,339 km in 13.1 hours. Collared caribou locations from the Bluenose East (17 individuals), Bathurst (7 individuals), and Ahiak (6 individuals) herds are shown for 12 March 2014.

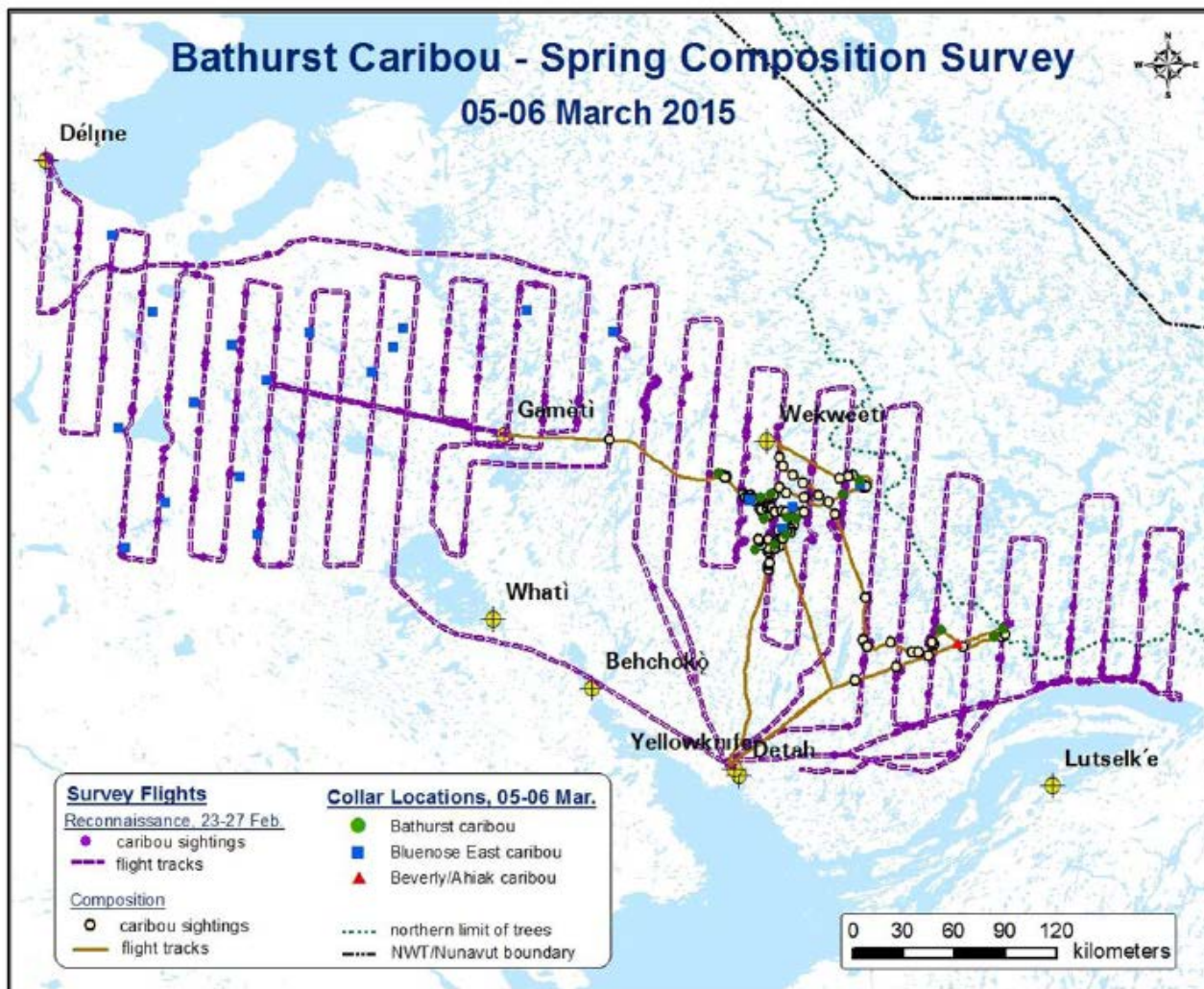


Figure A22. Spring composition survey for the Bathurst caribou herd on 05-06 March 2015 showing flight lines, sightings, and locations of collared caribou. Reconnaissance surveys occurred on 23-27 February 2015, but those in the Bathurst area occurred from 25-27 February. Total distance flown for the composition survey was 1,196 km in 11.0 hours. Collared caribou locations from the Bathurst herd (14 individuals) and the Bluenose East herd (22 individuals) are shown for either 05 or 06 March, and the Beverly/Ahiak herd (1 individual) for 05 March.

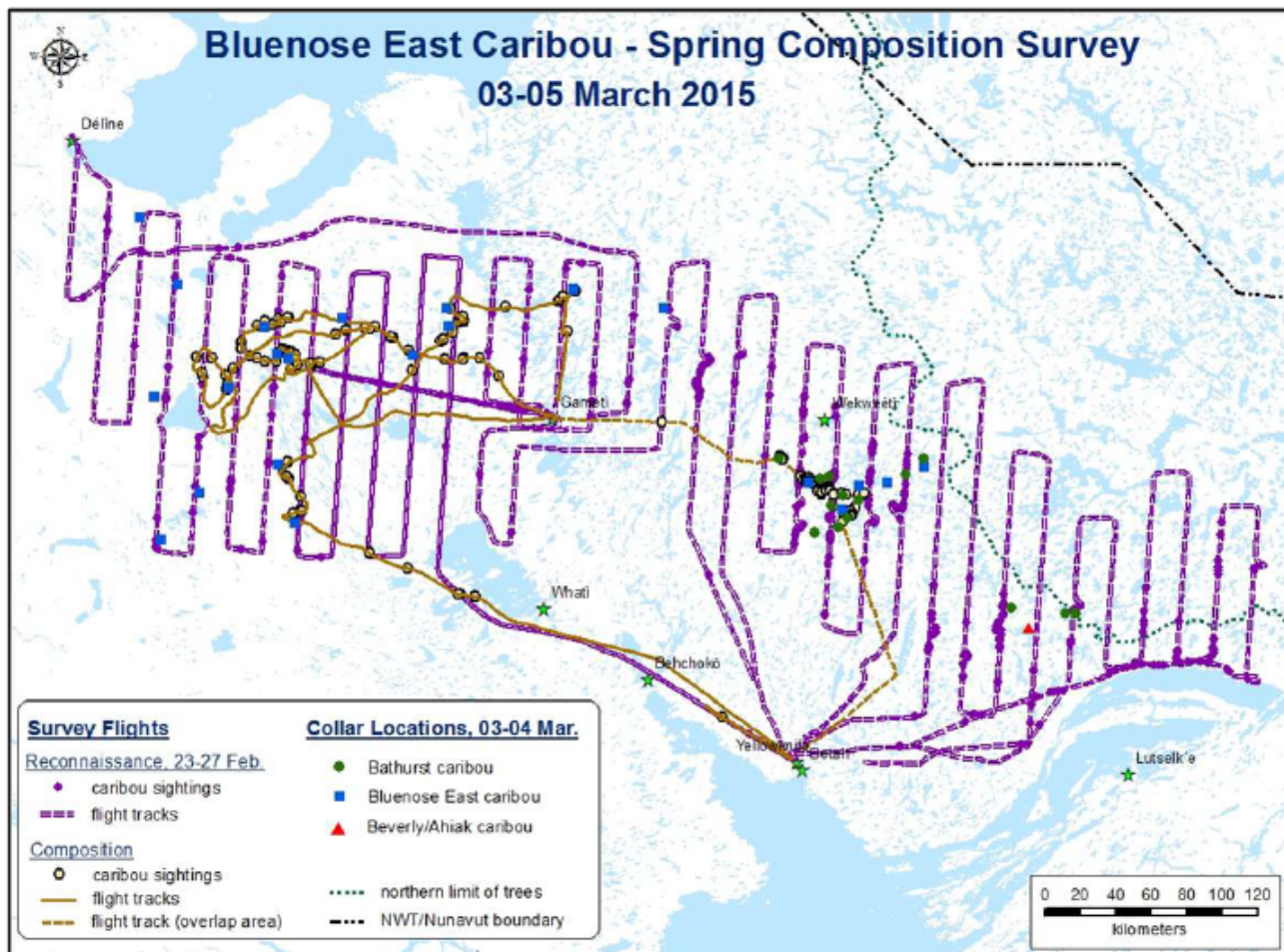


Figure A23. Spring composition survey for the Bluenose East caribou herd on 03-05 March 2015 showing flight lines, sightings, and locations of collared caribou. Reconnaissance surveys occurred on 23-27 February 2015 (double dashed line), but those in the Bluenose East caribou area occurred from 23-25 February. Total distance flown for the composition survey was 1,666 km in 10.4 hours for 03 and 04 March. The survey effort (407 km, 3.4 hrs) from Gameti to Yellowknife on 05 March is shown separately (dashed line) because of overlap of Bluenose East and Bathurst caribou between Gameti and Wekweeti, and south of Wekweeti. Collared caribou locations from the Bluenose East herd (23 individuals) and the Bathurst herd (14 individuals) are shown for either 03 or 04 March, and the Beverly/Ahiak herd (1 individual) for 04 March.

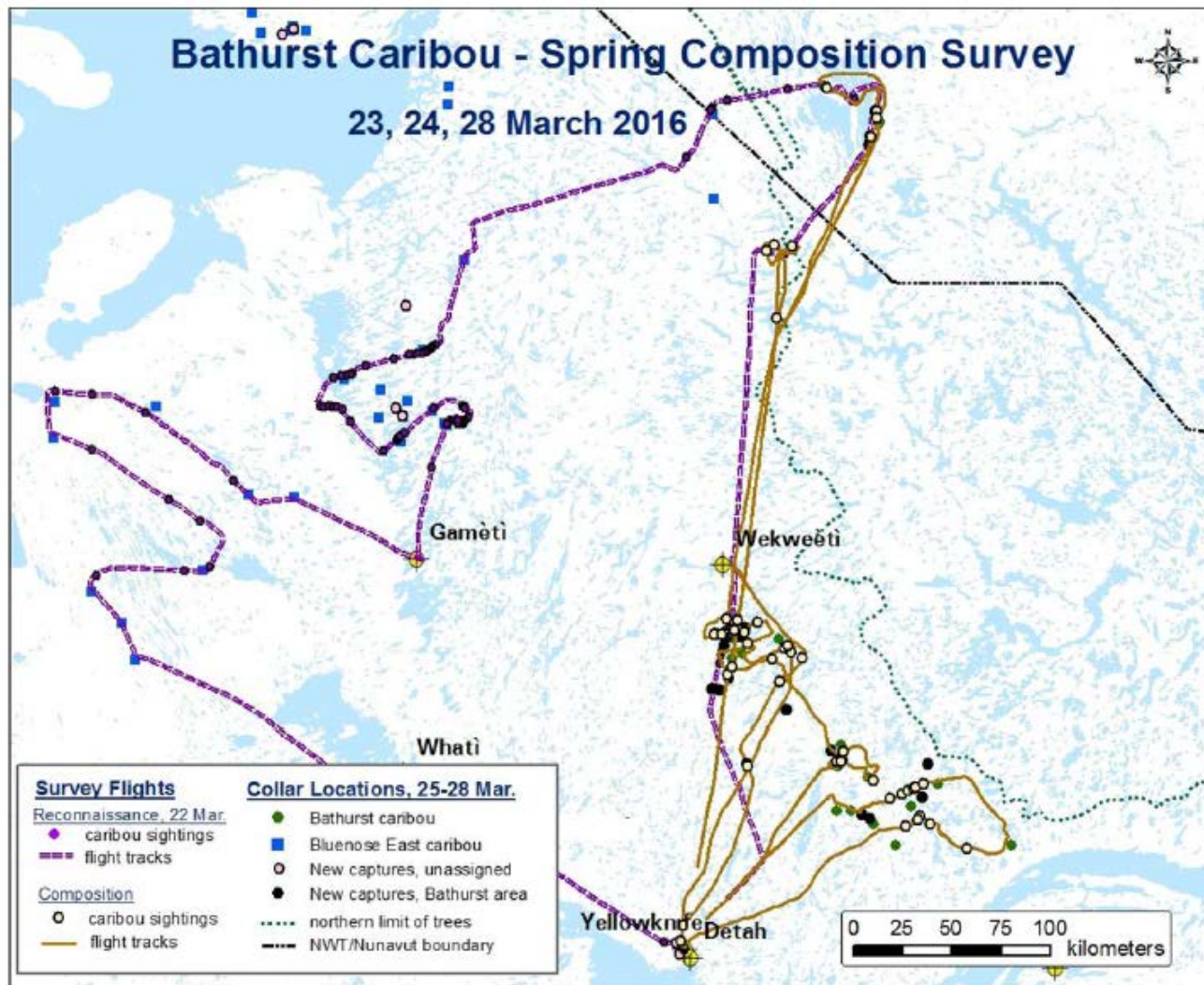


Figure A25. Spring composition survey for the Bathurst caribou herd on 23, 24, and 28 March 2016 showing flight lines, sightings, and locations of collared caribou. A reconnaissance surveys occurred on 22 March 2016 with objectives for both Bluenose East and Bathurst caribou. Total distance flown for the composition survey was 2,221 km in 15.7 hours over the three days. Collared caribou locations from the Bathurst herd (31 individuals), the Bluenose East herd (39 individuals), and newly deployed collars (32 individuals) are shown for late March.

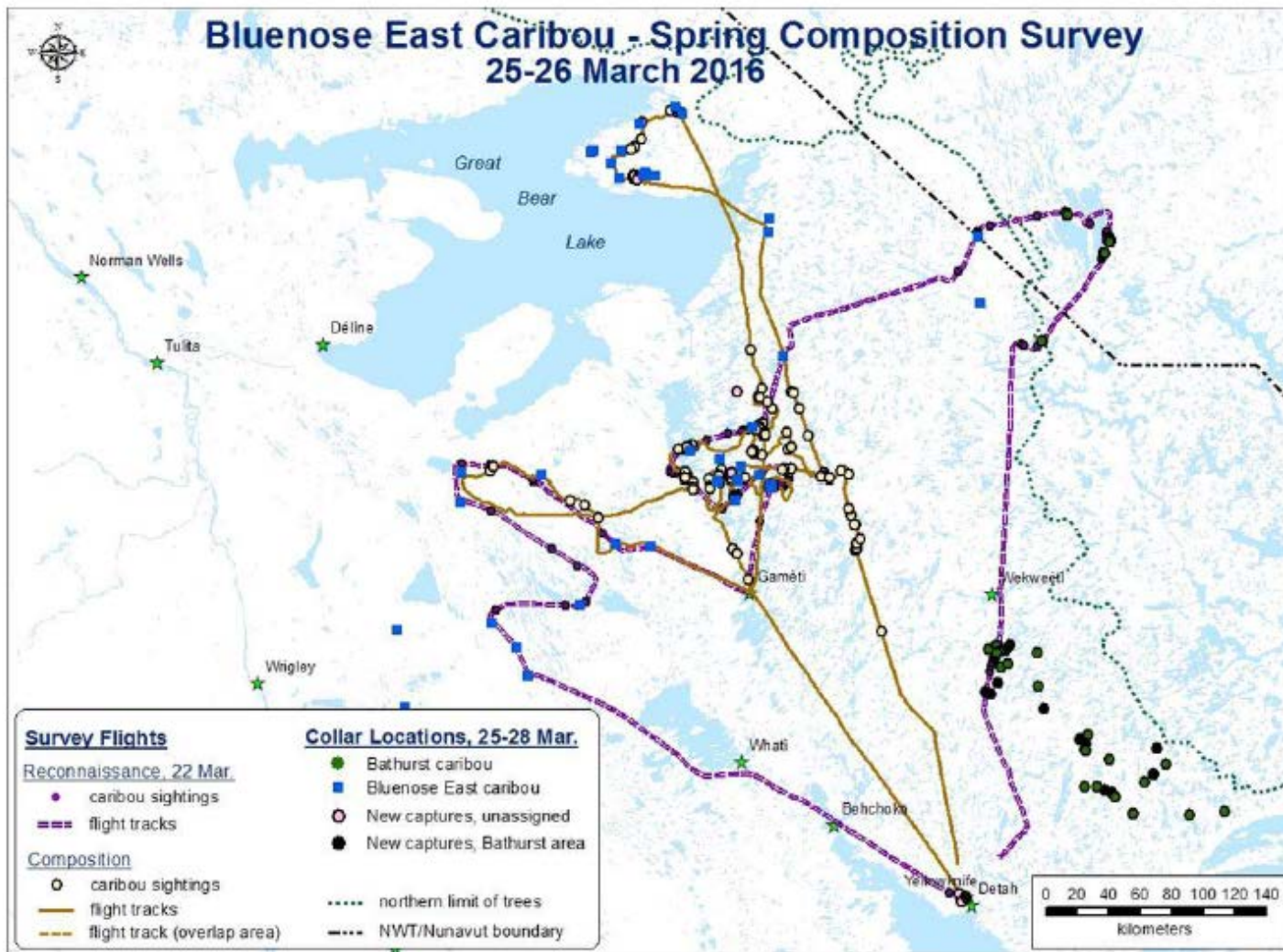


Figure A26. Spring composition survey for the Bluenose East caribou herd on 25-26 March 2016 showing flight lines, sightings, and locations of collared caribou. A reconnaissance surveys occurred on 22 March 2016 with objectives for both Bluenose East ad Bathurst caribou. Total distance flown for the composition survey was 2,297 km in 15.1 hours. Collared caribou locations from the Bathurst herd (31 individuals), the Bluenose East herd (39 individuals), and newly deployed collars (32 individuals) are shown for late March.

Maps from: Gunn, A.G., J. Boulanger, and J. Williams. 2005. **Calf survival and adult sex ratio in the Bathurst herd of barren-ground caribou 2001-2004.** Manuscript Report 163, Department of Environment and Natural Resources, Government of the Northwest Territories, Yellowknife, NT.

Note: only those maps where portions of the TASR RSA are visible on the map are included.

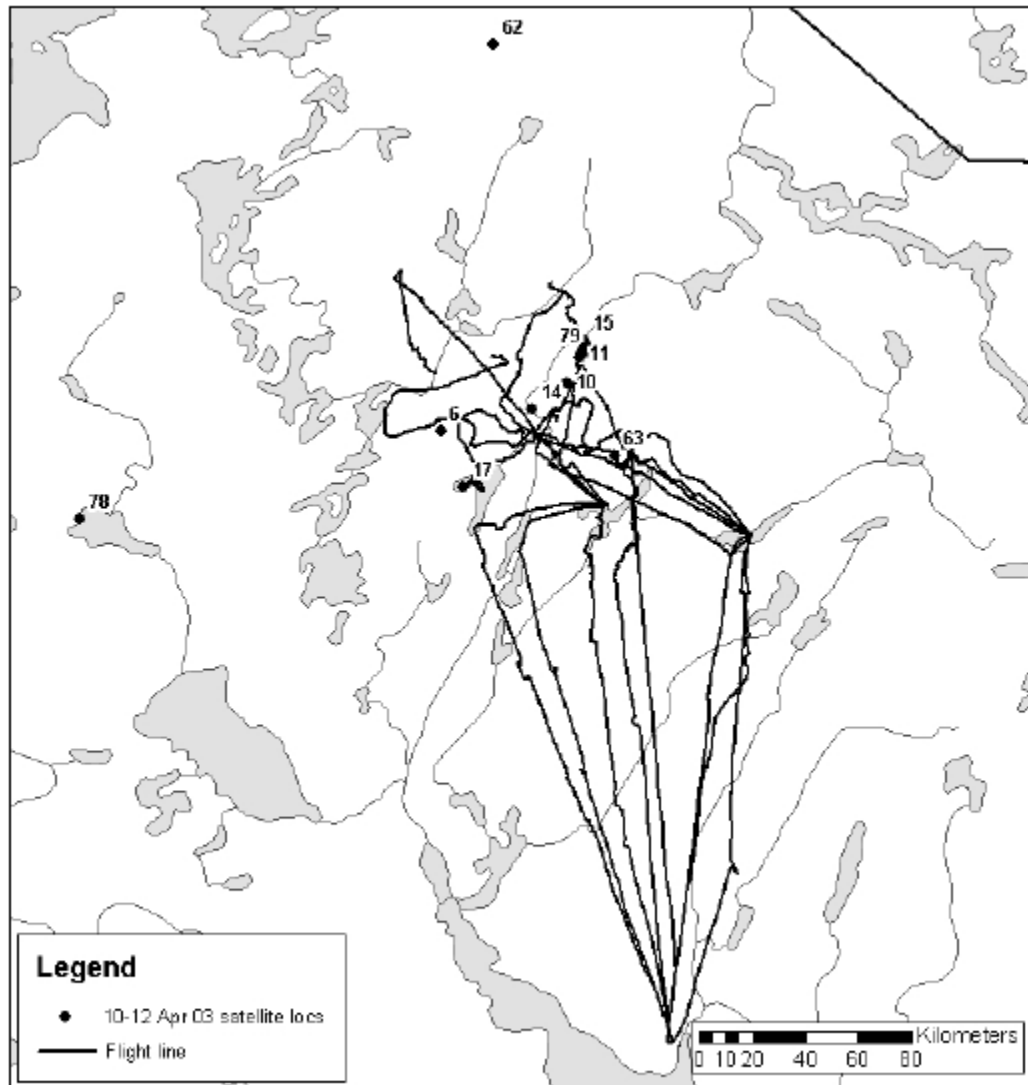


Figure 6. Spring composition survey, 8-14 April 2003 showing flight lines and location of satellite collared caribou.

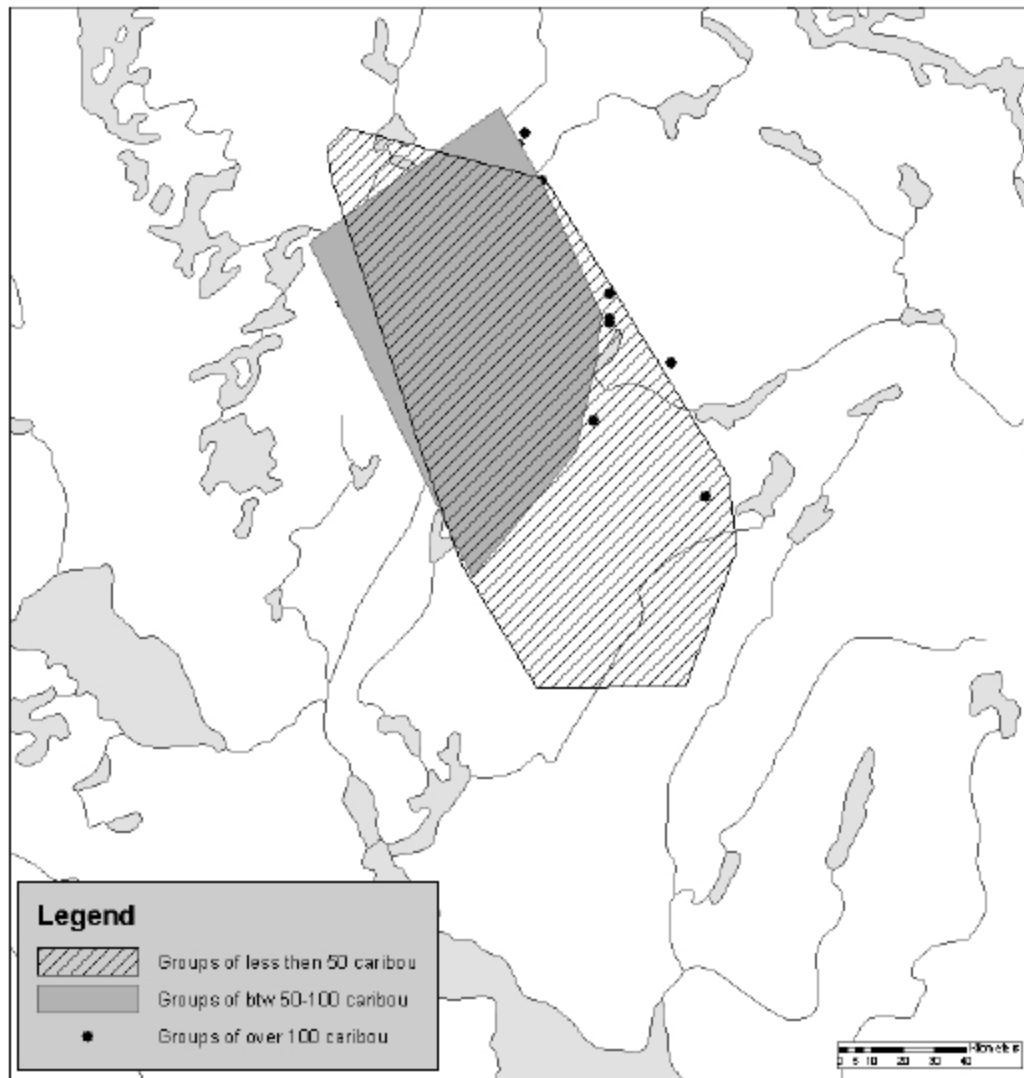


Figure 8. Spring composition survey, 8-14 Apr 2003 showing caribou groups.

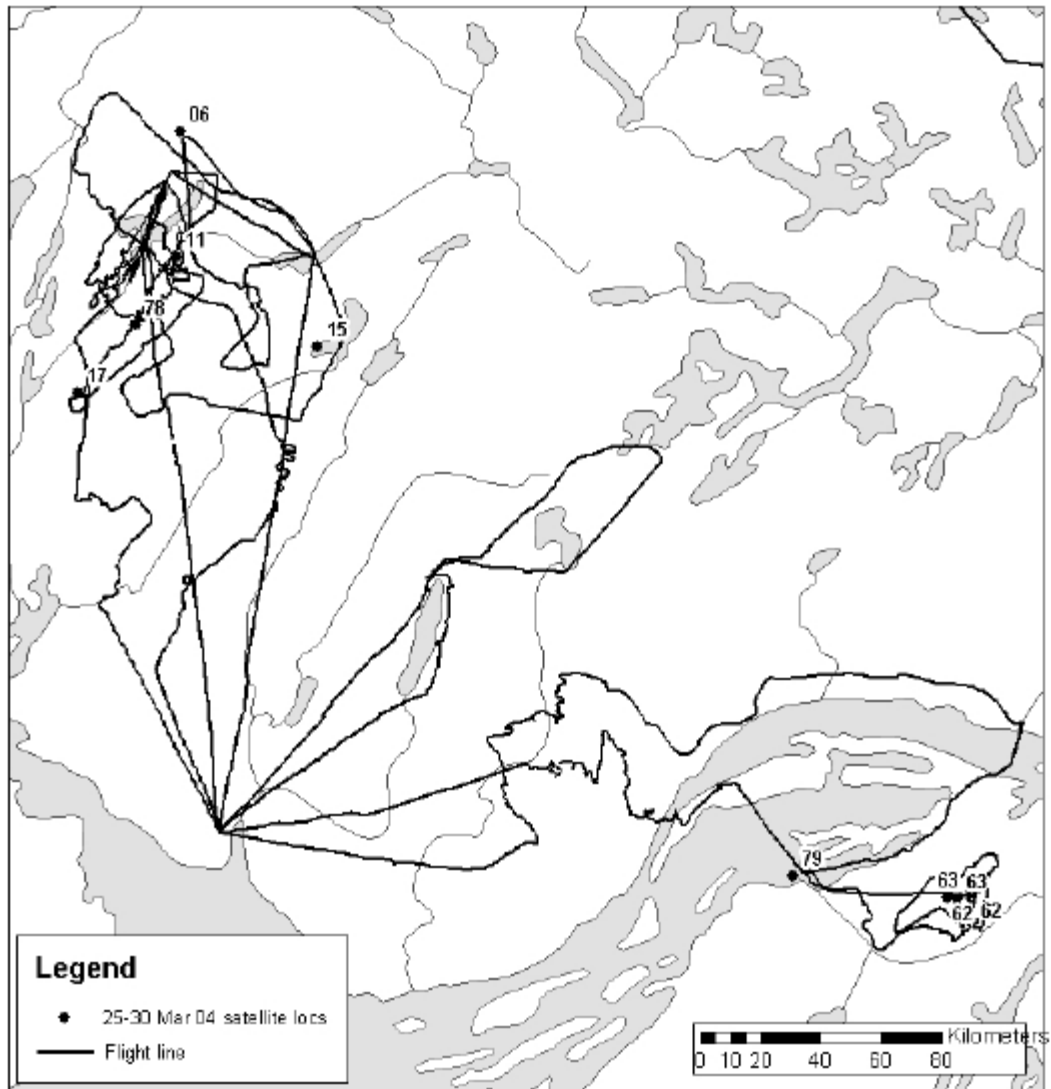


Figure 9. Spring composition survey, 25-30 March 2004 showing flight lines and locations of satellite collared caribou.

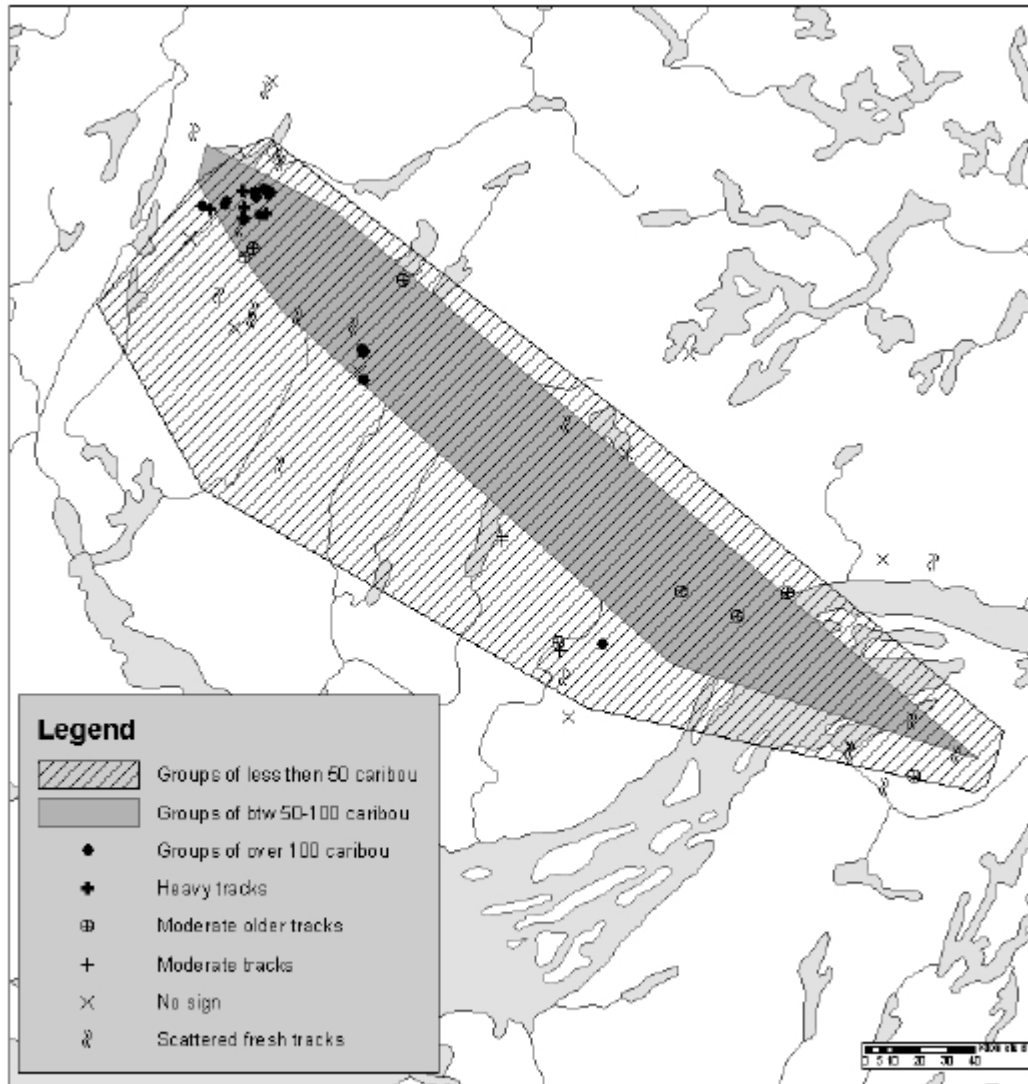


Figure 10. Spring composition survey, 25-30 March 2004 showing caribou groups and sign.

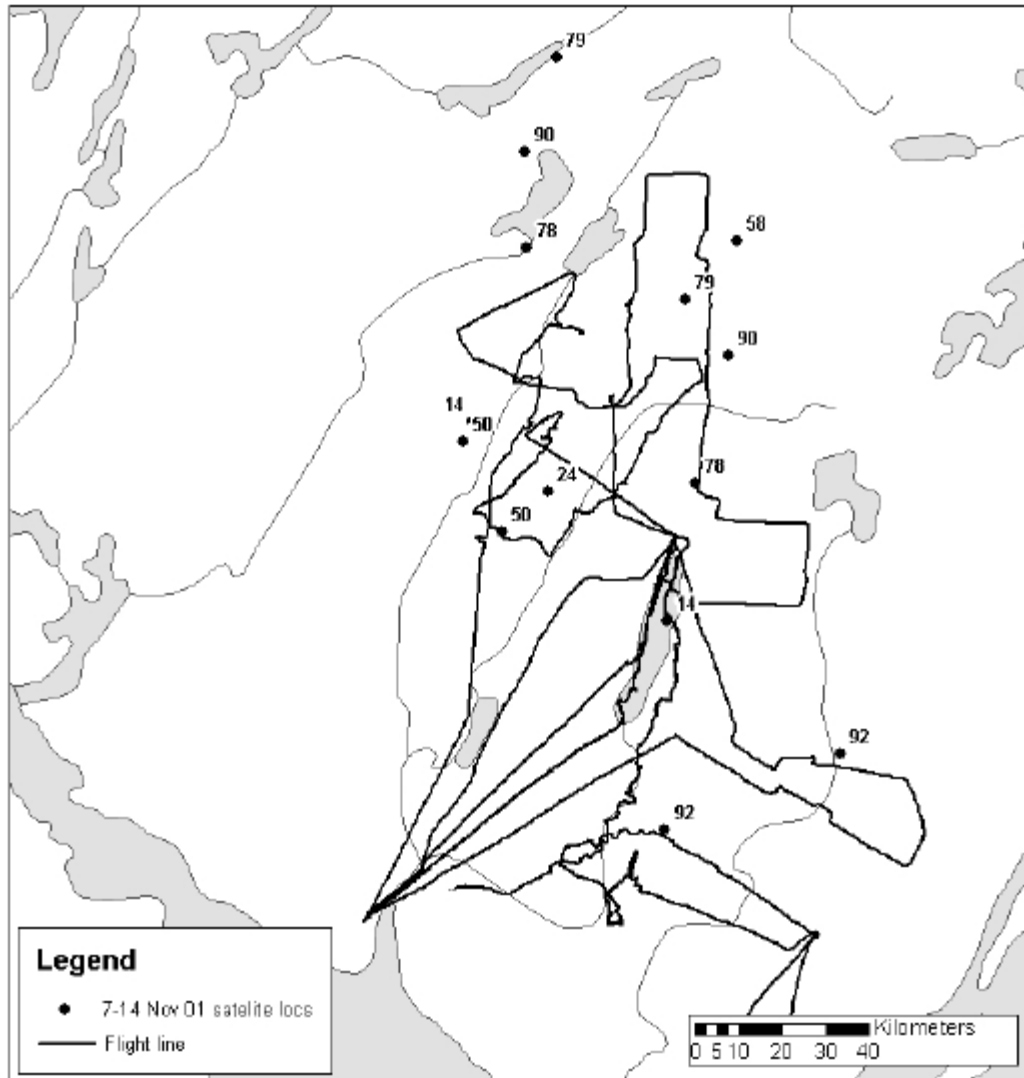


Figure 14. Fall composition survey, 7-14 November 2001 showing flight lines and location of satellite collared caribou.

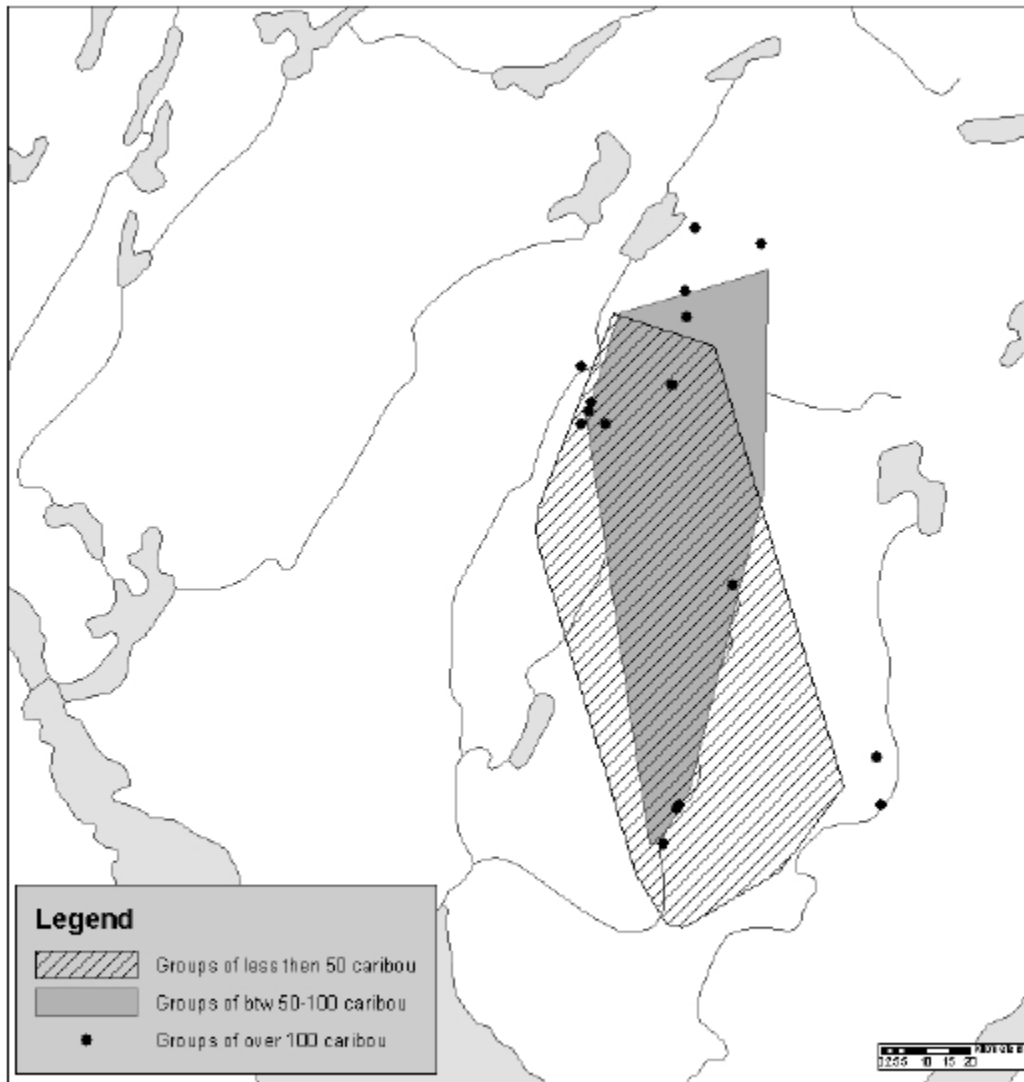


Figure 15. Fall composition survey, 7-14 November 2001 showing caribou groups.

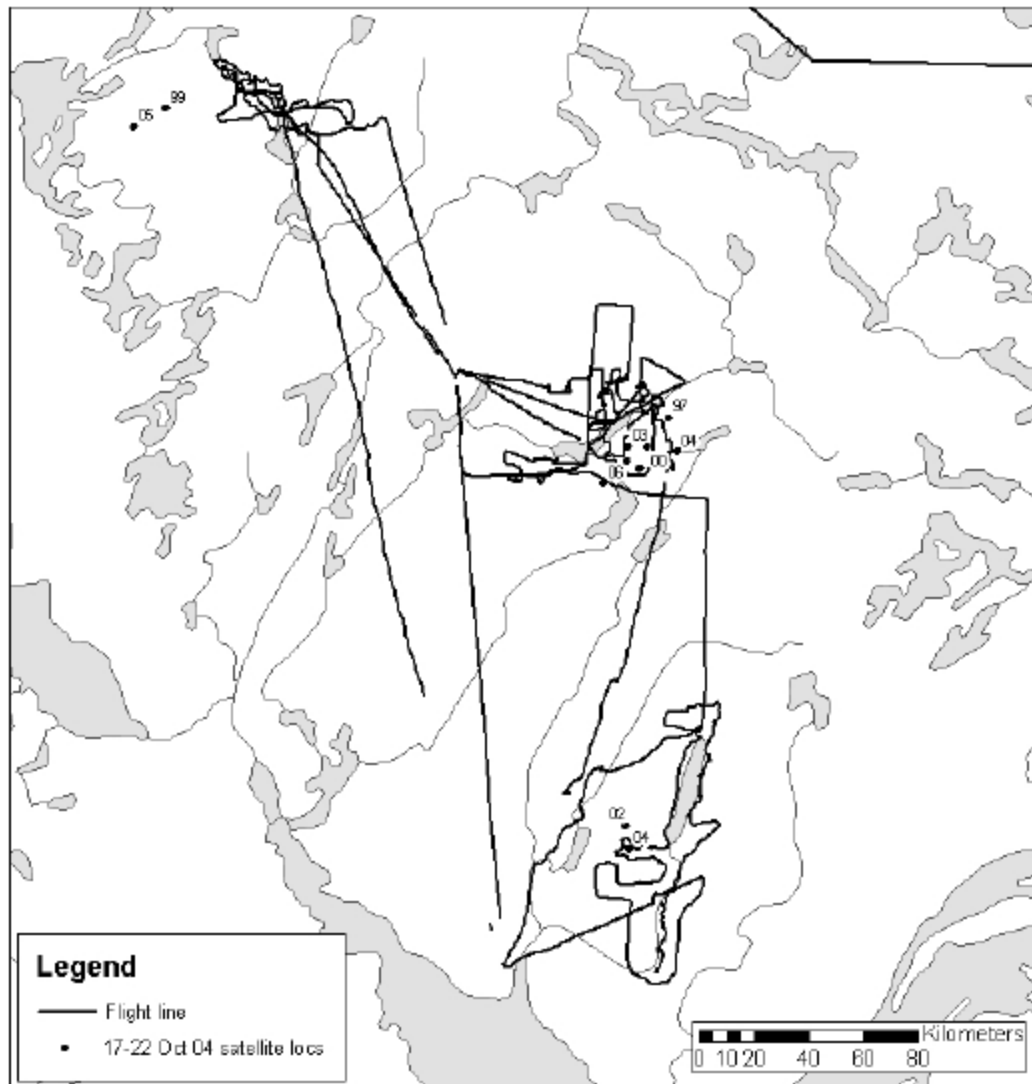


Figure 16. Fall composition survey, 18-22 October 2004 showing flight lines and locations of satellite-collared caribou.

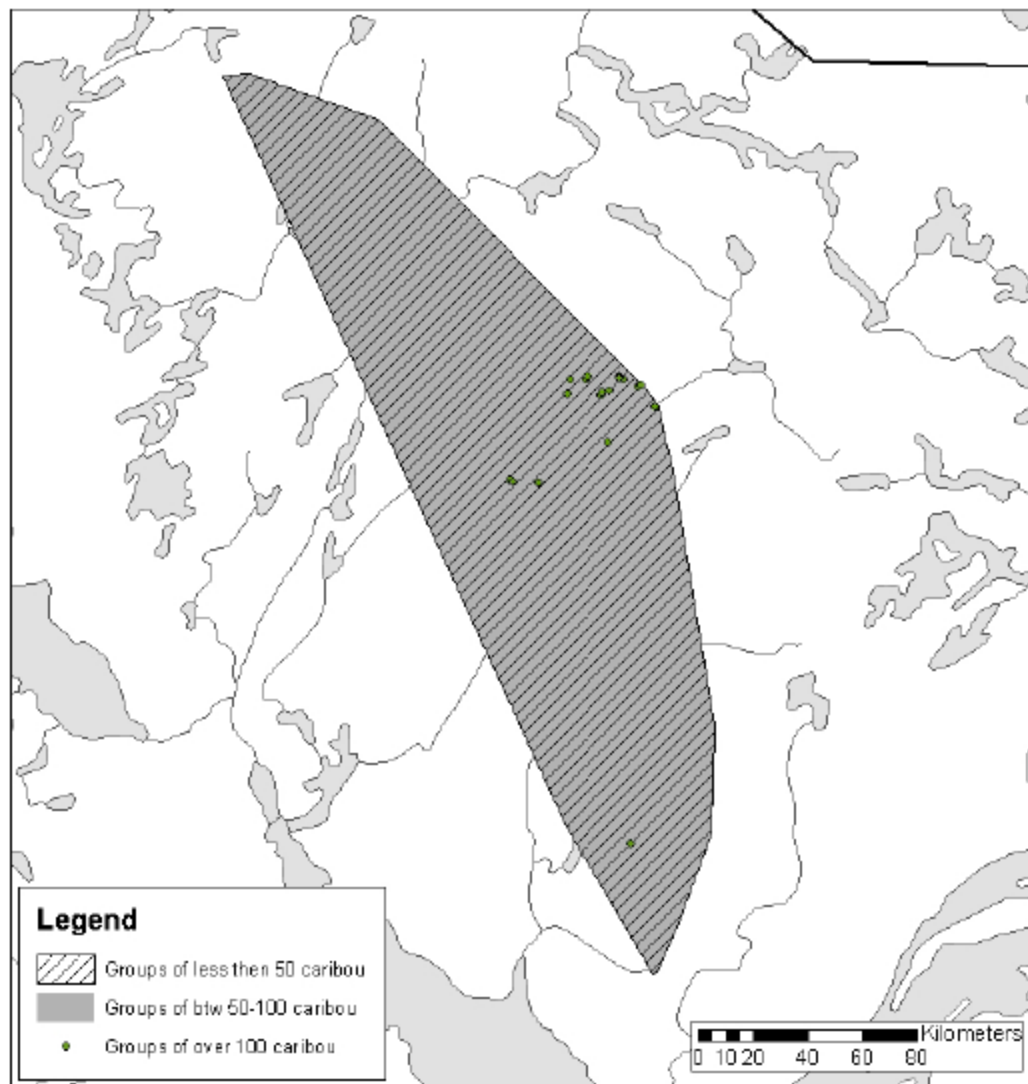


Figure 17. Fall composition survey, 18-22 October 2004 showing caribou groups.

Maps from: Williams, T.M. and Fournier, B. 1996. **Summary of spring classification surveys of the Bathurst caribou herd from 1985-1995.** Manuscript Report No. 92. Department of Resources, Wildlife and Economic Development, Government of the Northwest Territories, Yellowknife, NT.

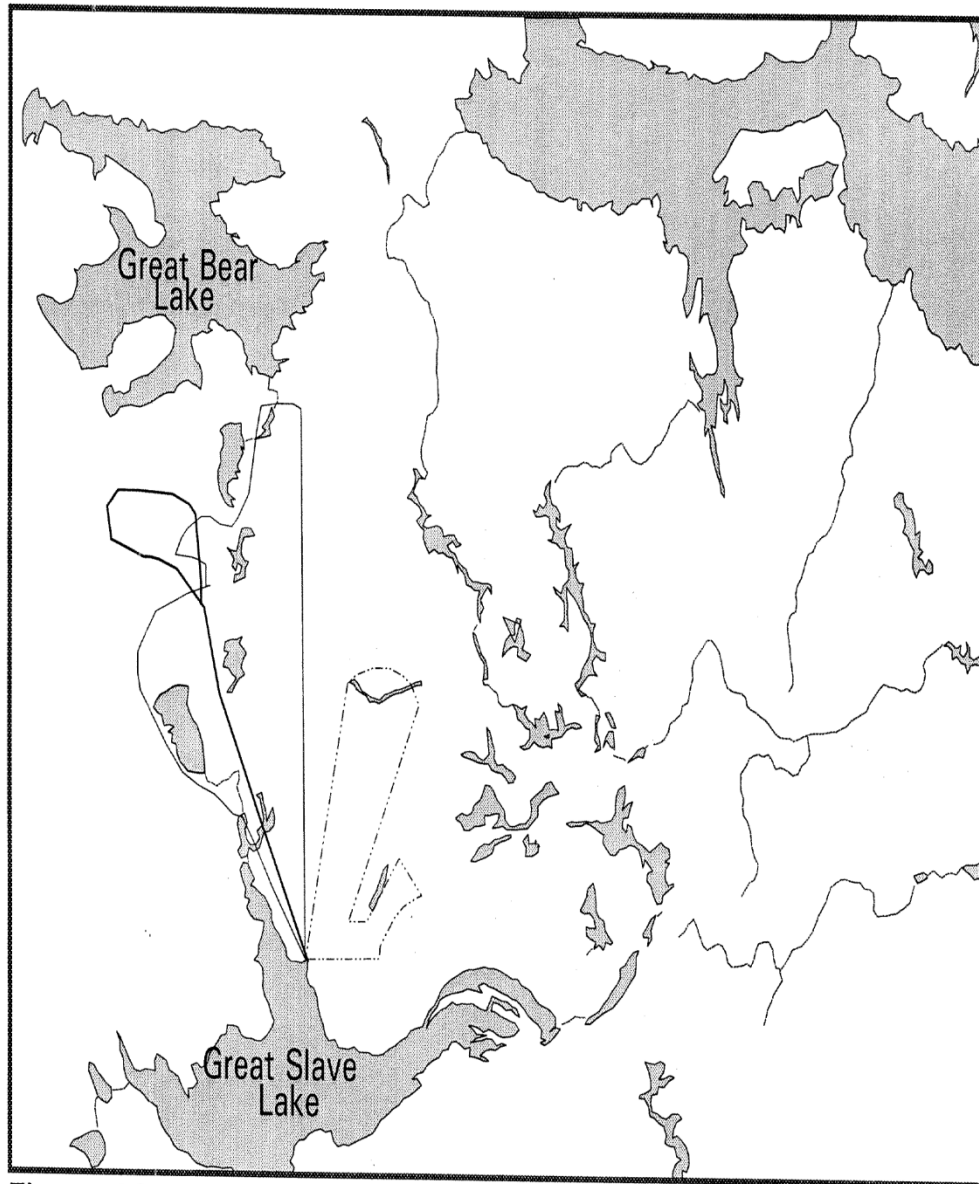


Figure 12. Reconnaissance flights over the Bathurst caribou range
27 - 28 March 1995.

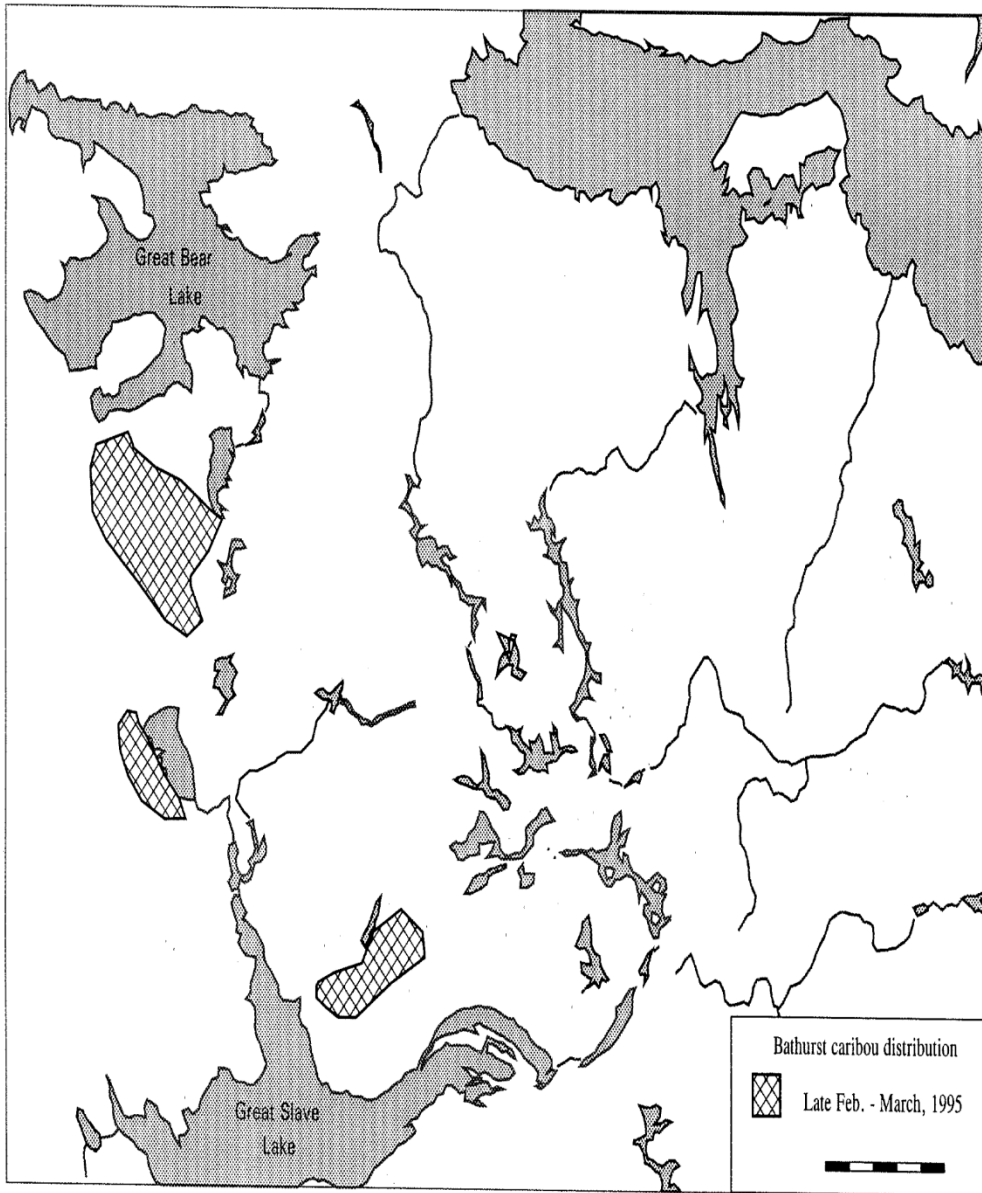


Figure 22. The distribution of Bathurst caribou between 27 February and March 1995.

1995 Distribution and Composition

Reconnaissance flights on 27 and 28 February confirmed reports that some caribou wintered southwest of Lac la Martre. However, the greatest number of caribou located were between Lac la Martre and Great Bear Lake in an area bordered by Lac Ste Therese to the west, Lac Grandin to the south, and Hottah Lake to the east (Figure 22). Caribou were also found north of Prelude Lake in a band running northeast across the south end of Gordon Lake to the Beaulieu River. There was no sign of any concerted caribou movements out of the boreal forest at that time.


Map of barren-ground caribou sightings from 2001-2016
aerial surveys available in GNWT-ENR's Wildlife Management
Information System (WMIS) – Figure A

FIGURE A

Barren-ground caribou
aerial survey data from
ENR WMIS - 2001-2016

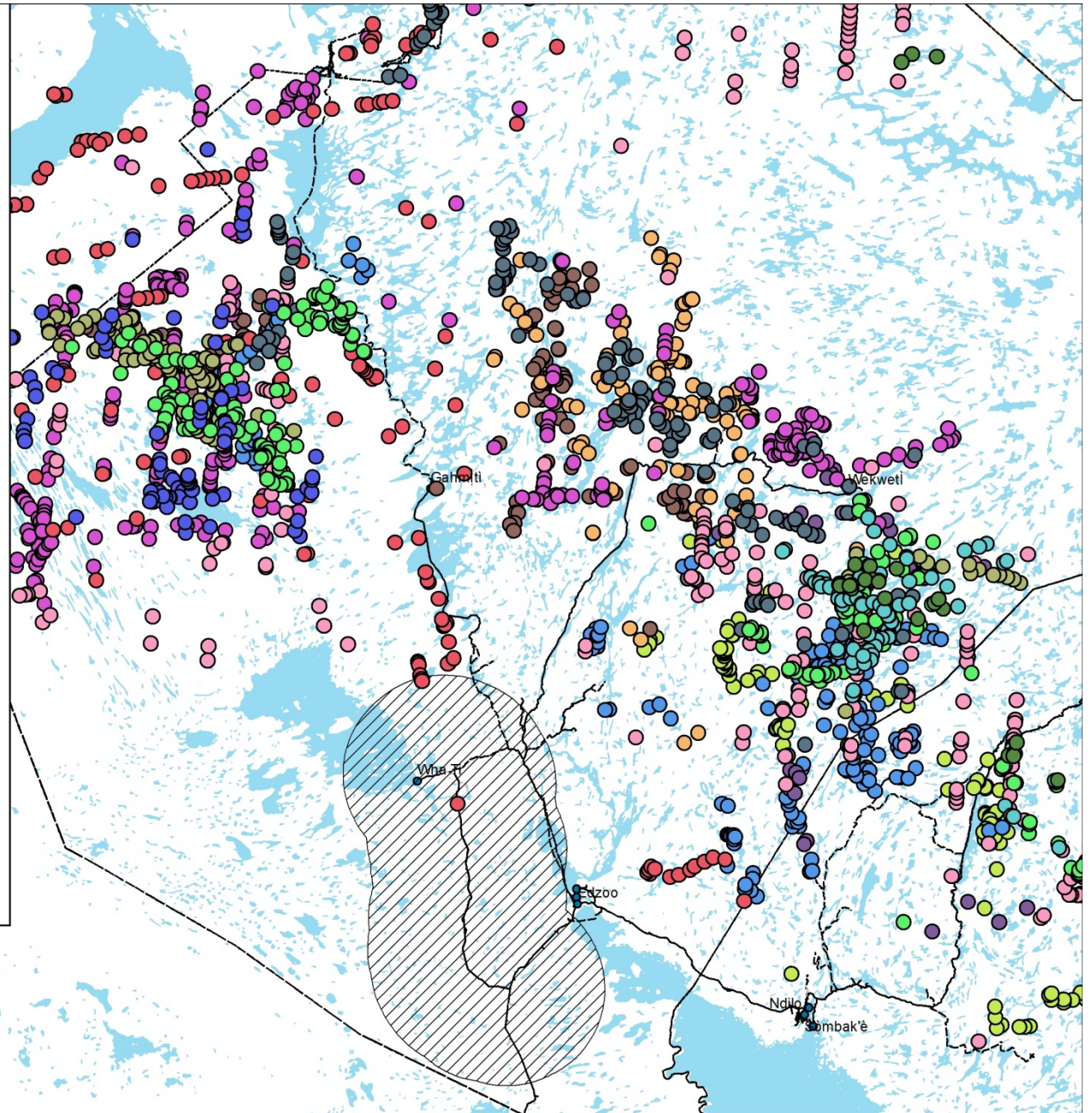
Year

- 2001
- 2002
- 2003
- 2004
- 2005
- 2006
- 2007
- 2008
- 2009
- 2010
- 2011
- 2012
- 2014
- 2015
- 2016

 TASSR RSA for BG Caribou,
Moose & Wolverine

1:1,900,000

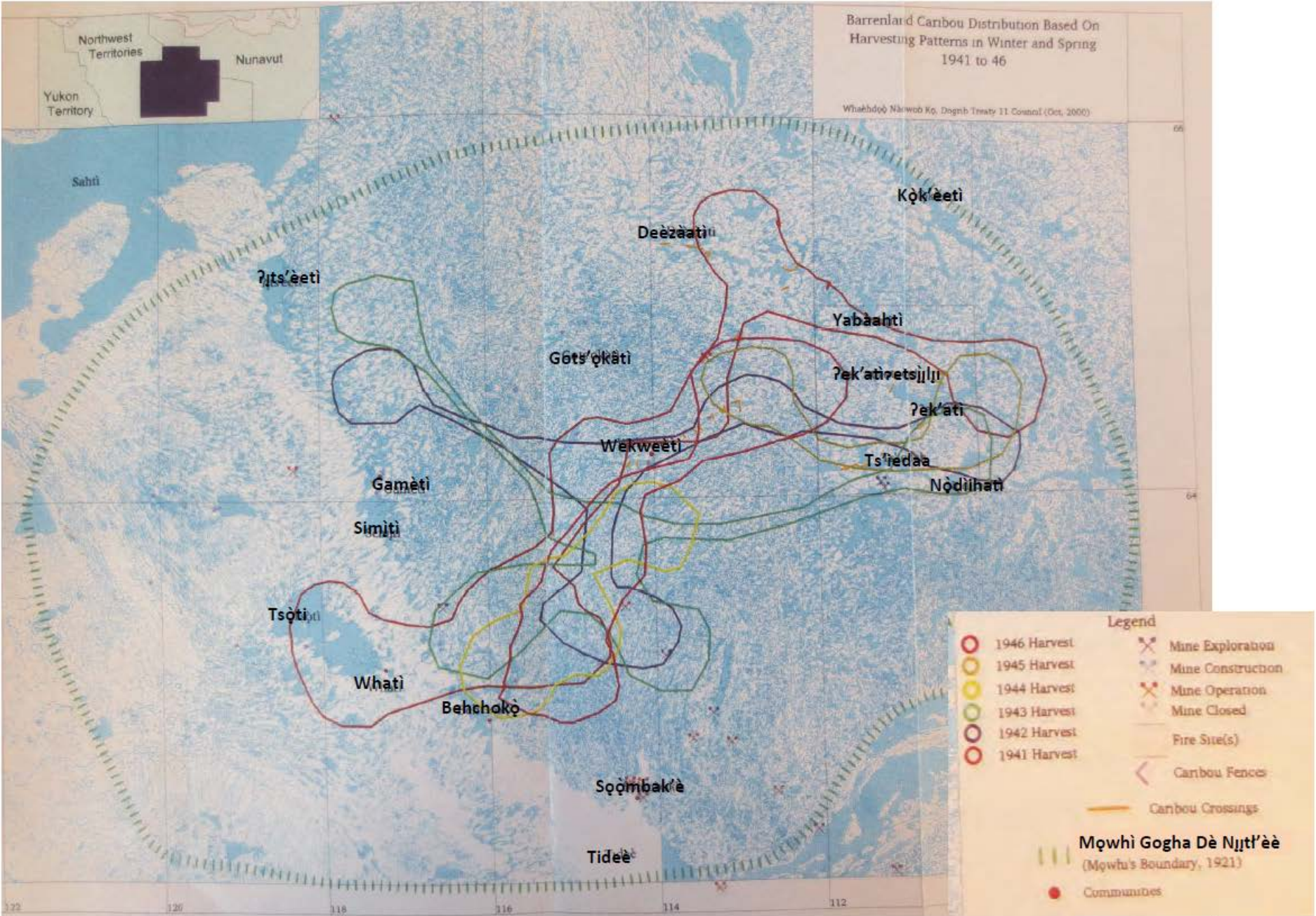
0 10 20 40 60 80
Kilometers



Maps from: Legat, A., Chocolate, G., Gon, B., Zoe, S.A., and Chocolate, M. 2014. Caribou Migration and the State of their Habitat: Tłıchǫ Knowledge and Perspectives on Ɂekwò (Barrenland Caribou). [Tłıchǫ Traditional Knowledge Reports: Series 2](#). Tłıchǫ Research and Training Institute.

Barrenland Caribou Distribution Based On Harvesting Patterns in Winter and Spring 1941 to 46

Whaahdoo' Nariwob Ko, Dogrib Treaty II Council (Oct, 2000)

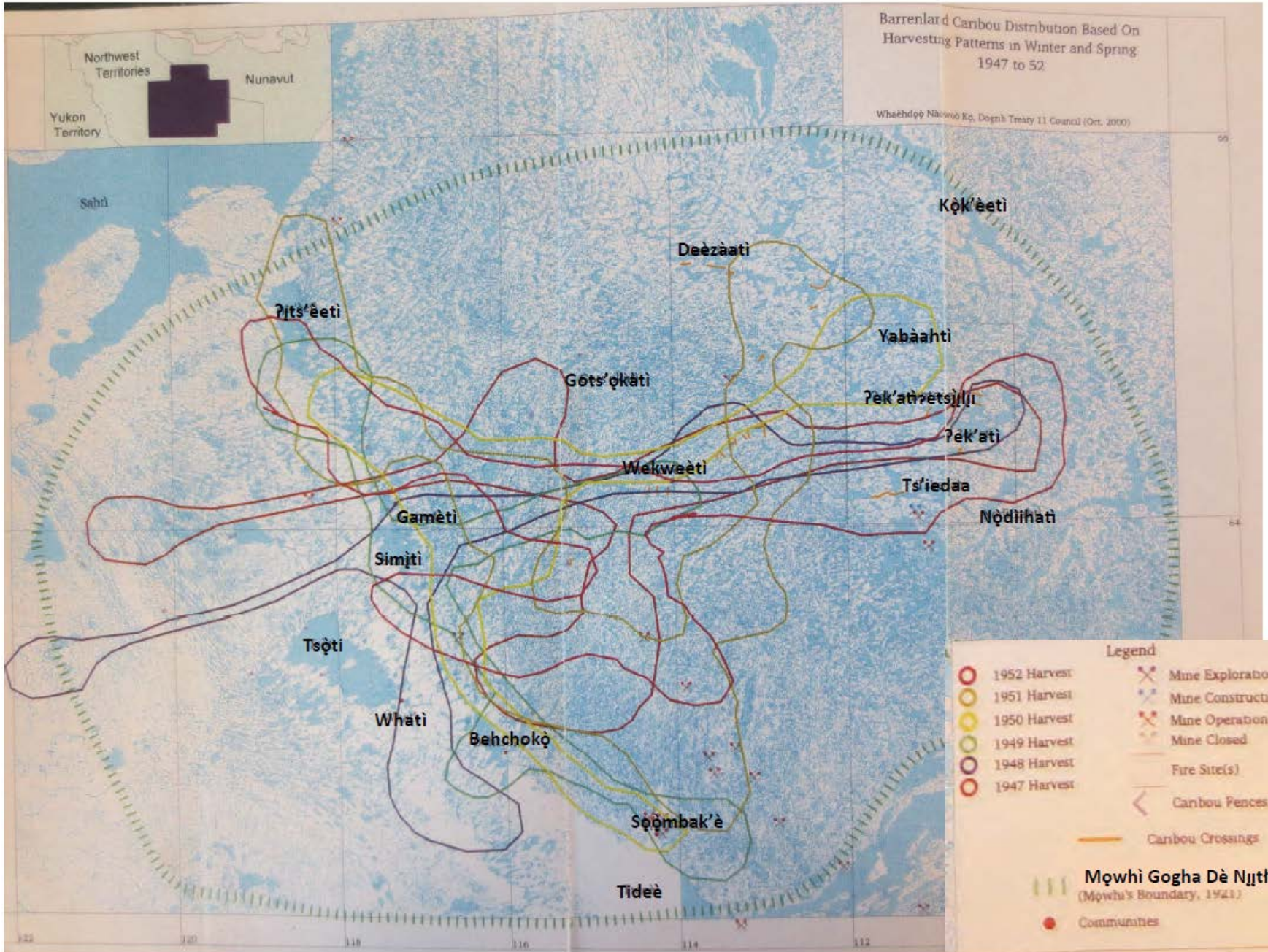


Legend

- 1946 Harvest
- 1945 Harvest
- 1944 Harvest
- 1943 Harvest
- 1942 Harvest
- 1941 Harvest
- X Mine Exploration
- - - Mine Construction
- + Mine Operation
- . . . Mine Closed
- Fire Site(s)
- - - Caribou Fence(s)
- Caribou Crossings
- - - Mòw'hi Gogha Dè Njitt'èè (Mòw'hi's Boundary, 1921)
- Communities

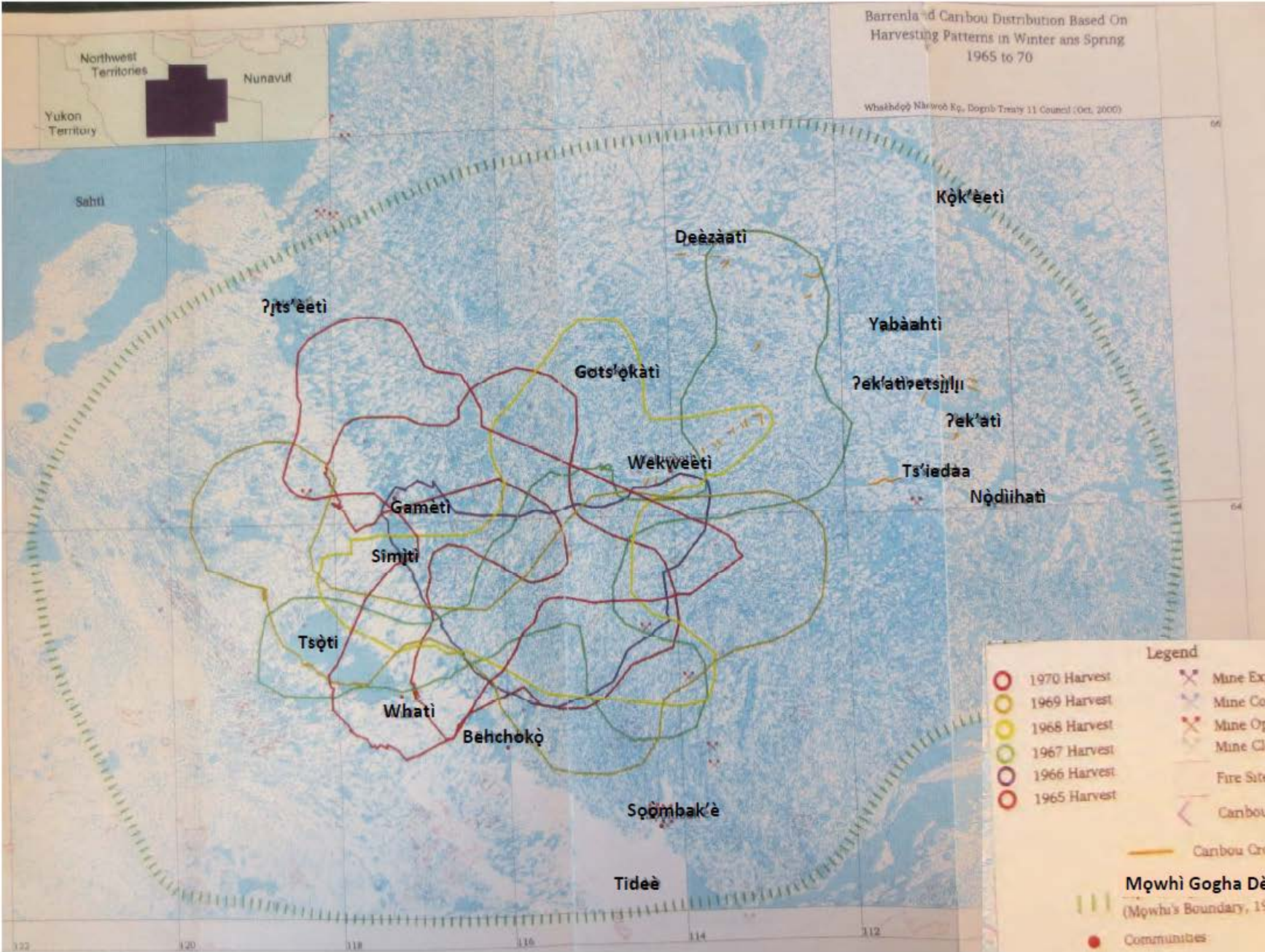
Barrenland Caribou Distribution Based On Harvesting Patterns in Winter and Spring 1947 to 52

Whaehdop̓ Nāowō Kō, Dogn̓ Treaty 11 Council (Oct. 2000)



Barrenland Caribou Distribution Based On Harvesting Patterns in Winter and Spring 1965 to 70

Whashdoh Nahwob Eq. Dogrib Treaty 11 Council (Oct. 2000)

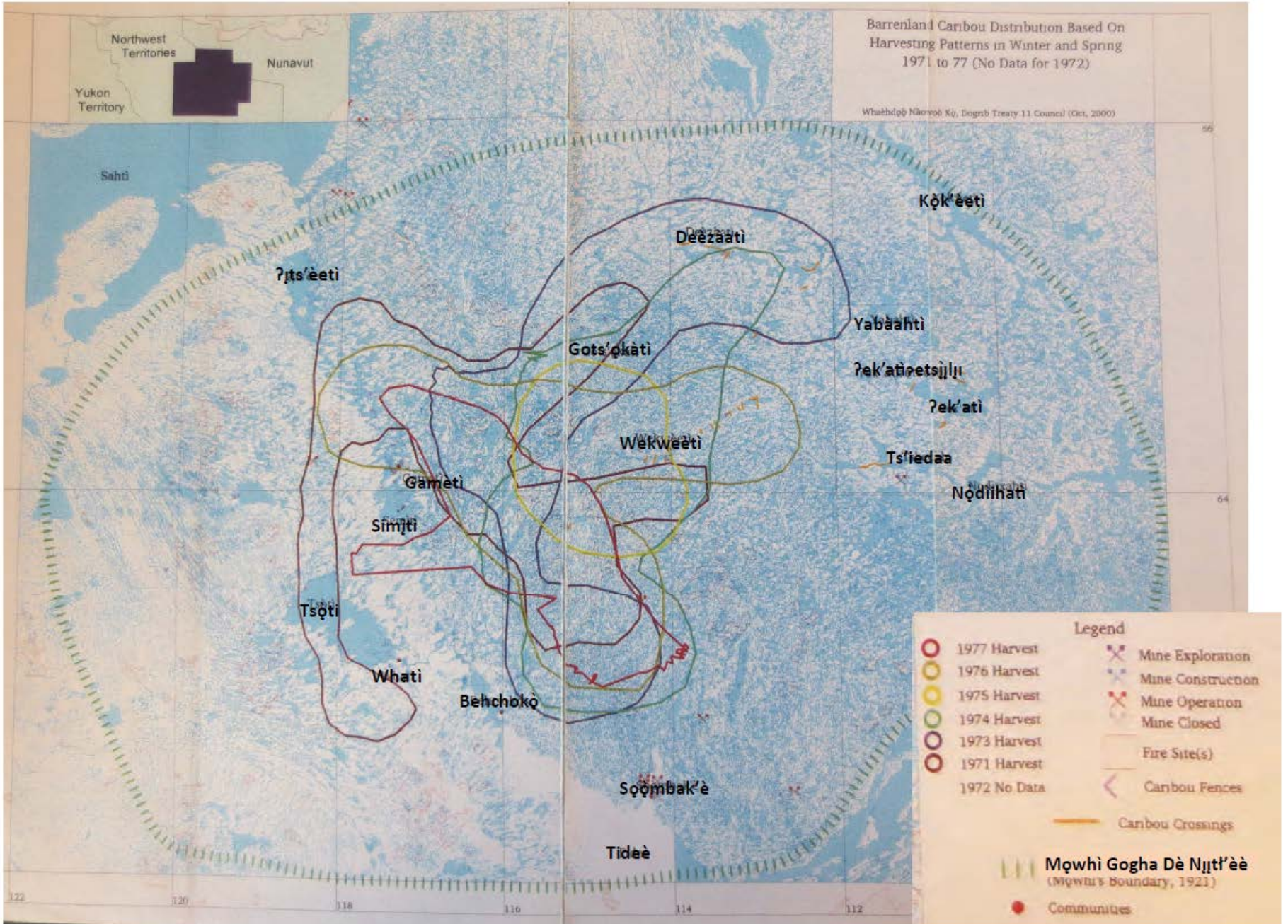


Legend

- 1970 Harvest
- 1969 Harvest
- 1968 Harvest
- 1967 Harvest
- 1966 Harvest
- 1965 Harvest
- ✕ Mine Exploration
- ✕ Mine Construction
- ✕ Mine Operation
- ✕ Mine Closed
- ★ Fire Site(s)
- Caribou Fences
- Caribou Crossings
- Mowhi Gogha Dè Njìt'èè (Mowhi's Boundary, 1921)
- Communities

Barrenland Caribou Distribution Based On Harvesting Patterns in Winter and Spring 1971 to 77 (No Data for 1972)

Whaahdoh Naavoh Koo, Dogrib Treaty 11 Council (Oct, 2000)



Legend

- 1977 Harvest
- 1976 Harvest
- 1975 Harvest
- 1974 Harvest
- 1973 Harvest
- 1971 Harvest
- 1972 No Data
- ✕ Mine Exploration
- ✕ Mine Construction
- ✕ Mine Operation
- ✕ Mine Closed
- Fire Site(s)
- ◁ Caribou Fences
- Caribou Crossings
- Mowhi Gogha Dè Njitt'èè (Mowhi's Boundary, 1921)
- Communities

Maps from: J. Adamczewski, J. Boulanger, B. Croft, D. Cluff, B. Elkin, J. Nishi, A. Kelly , A. D'Hont, and C. Nicolson. 2009. **Decline in the Bathurst Caribou Herd 2006-2009: A technical Evaluation of Field Data and Modeling.** Draft Technical Report. Department of Environment and Natural Resources, Government of the Northwest Territories, Yellowknife, NT.

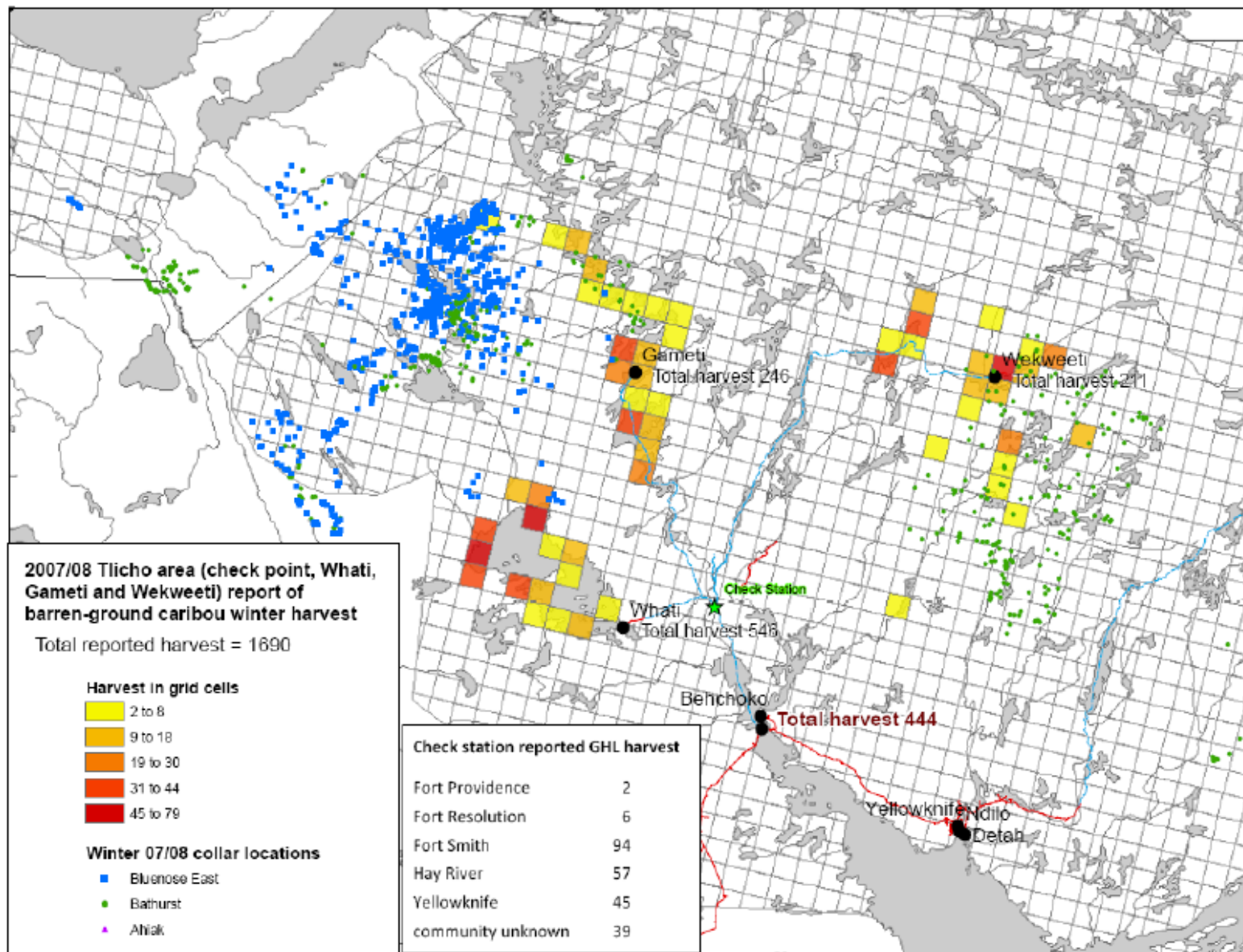


Figure 5.21a. Map showing harvest of caribou in winter 2007/2008 near Tlicho communities north of Yellowknife. The squares are 10x10km blocks and the colour scheme shows where greater and lesser numbers of caribou were taken. Blue dots are winter satellite collar locations of Bluenose-East caribou and green dots are Bathurst satellite collar locations.

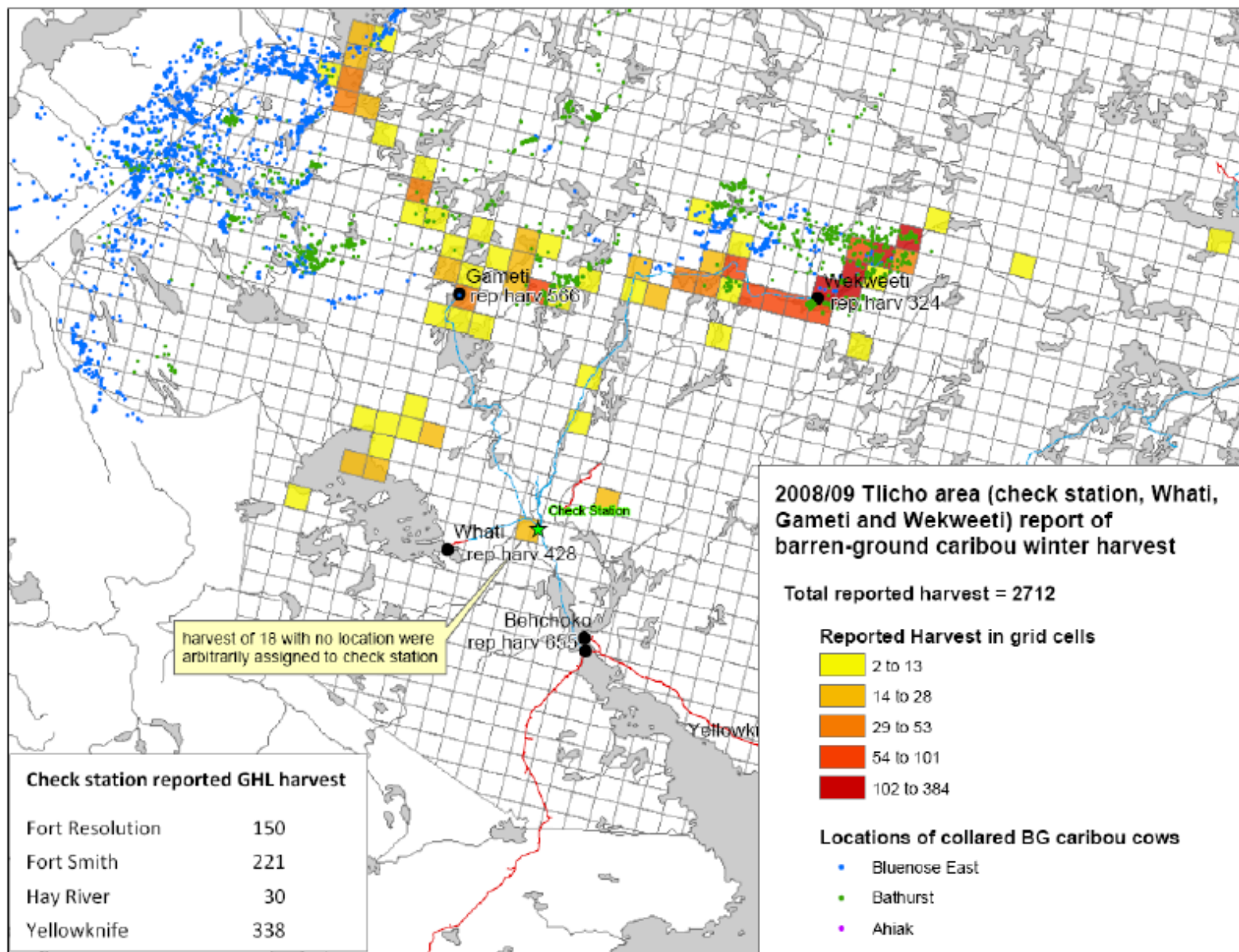


Figure 5.21b. Map showing harvest of caribou in winter 2008/2009 near Tlicho communities north of Yellowknife. The squares are 10x10km blocks and the colour scheme shows where greater and lesser numbers of caribou were taken. Blue dots are winter satellite collar locations of Bluenose-East caribou and green dots are Bathurst satellite collar locations.