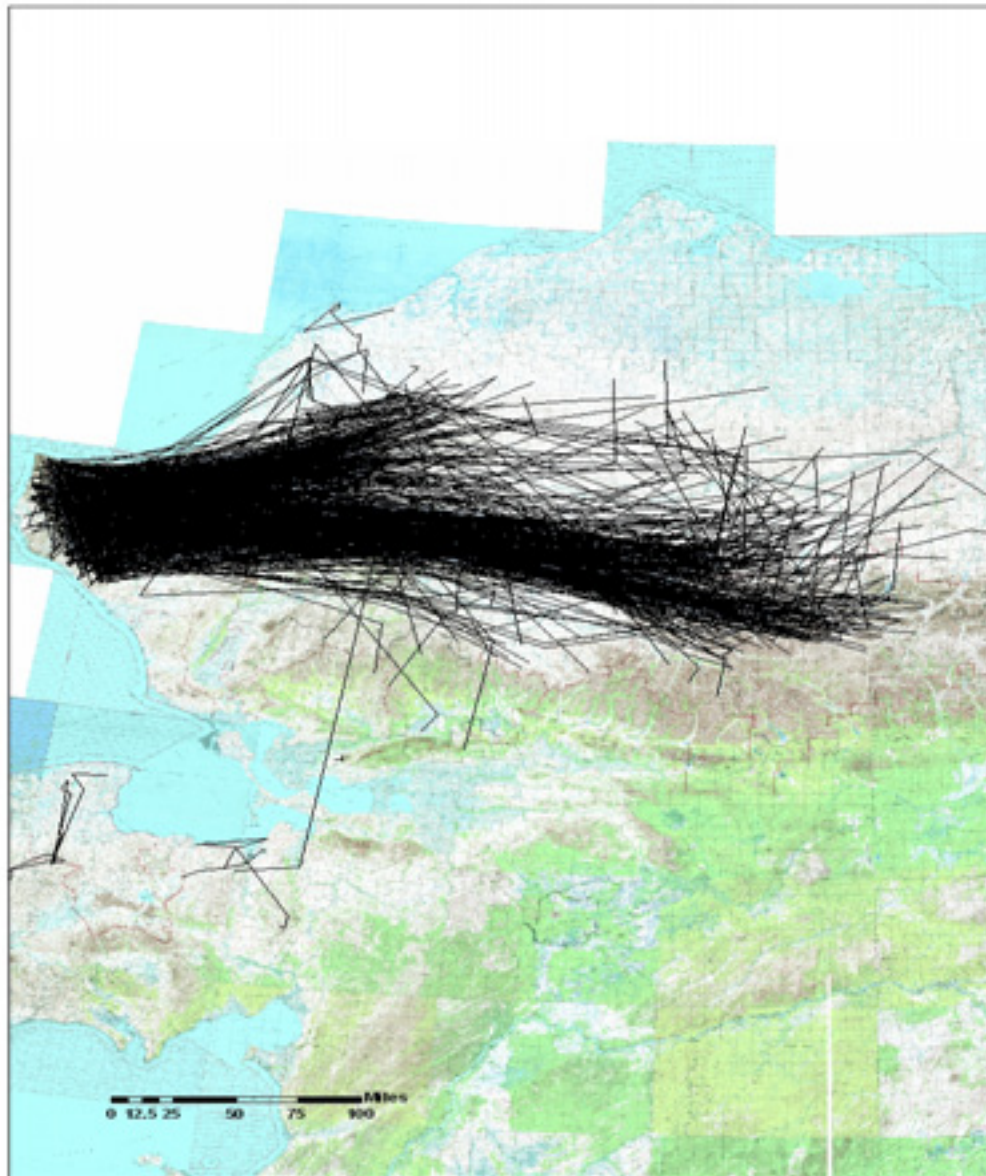


# Caribou Distribution and Migration in Relation to the Road to Umiat



Lincoln Parrett  
Alaska Department of Fish and Game

# WAH - Summer





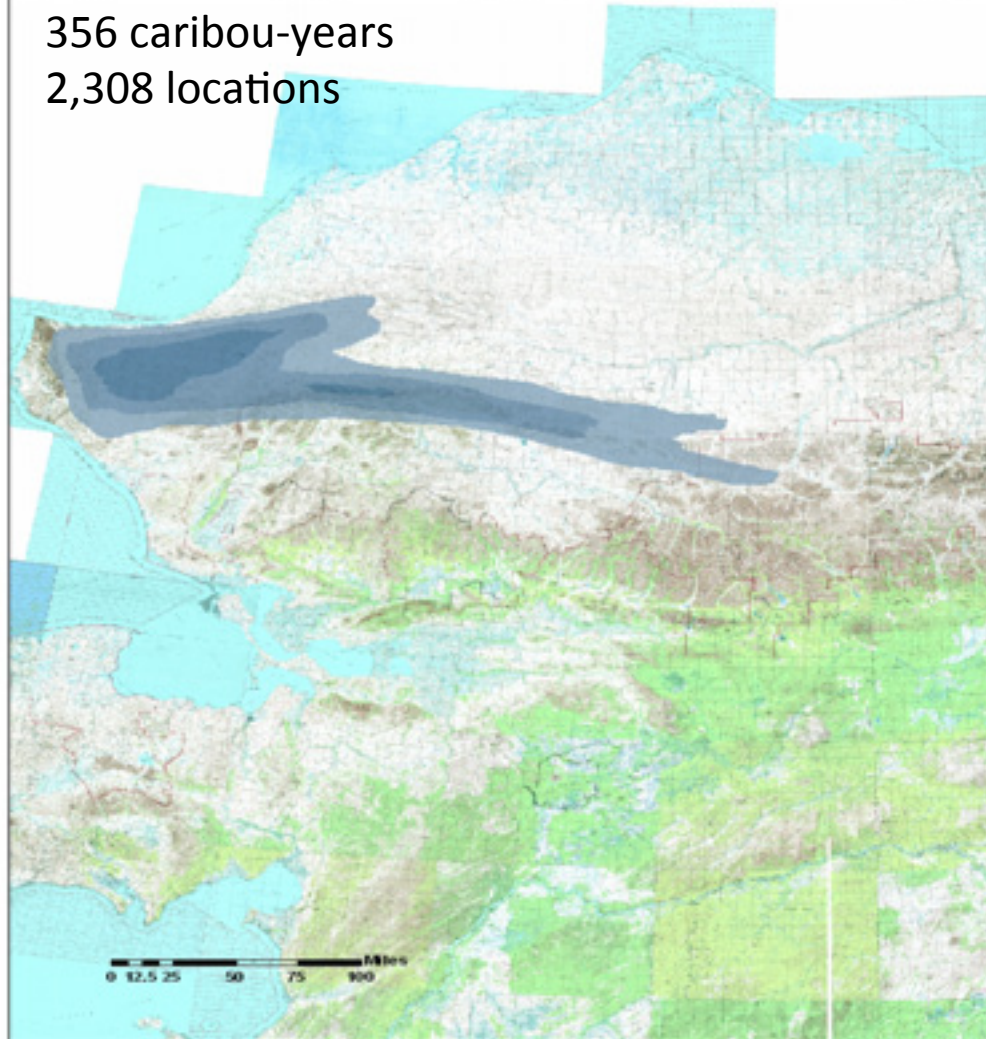
# WAH-Summer

June 15-Aug.

188 satellite-collared caribou

356 caribou-years

2,308 locations



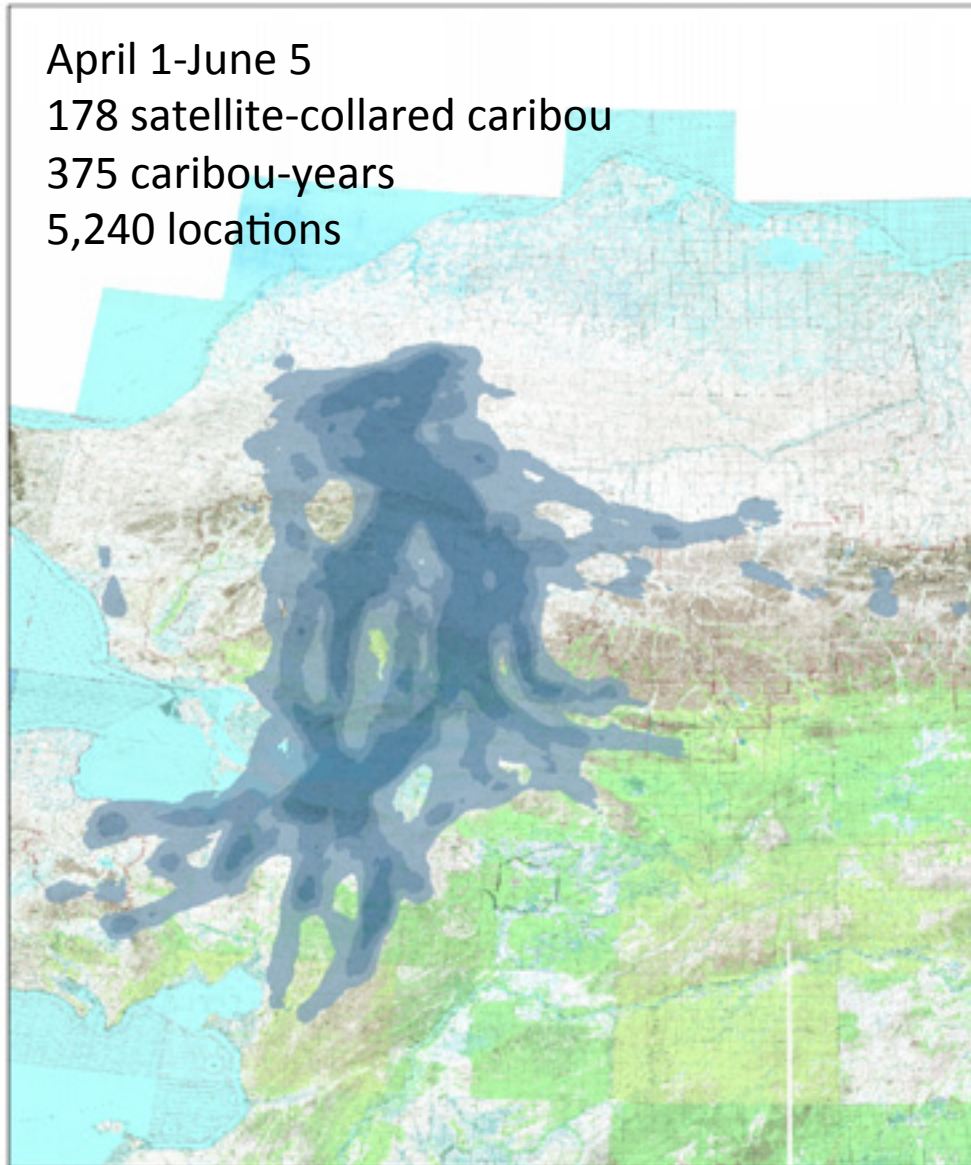
# WAH -Spring

April 1-June 5

178 satellite-collared caribou

375 caribou-years

5,240 locations



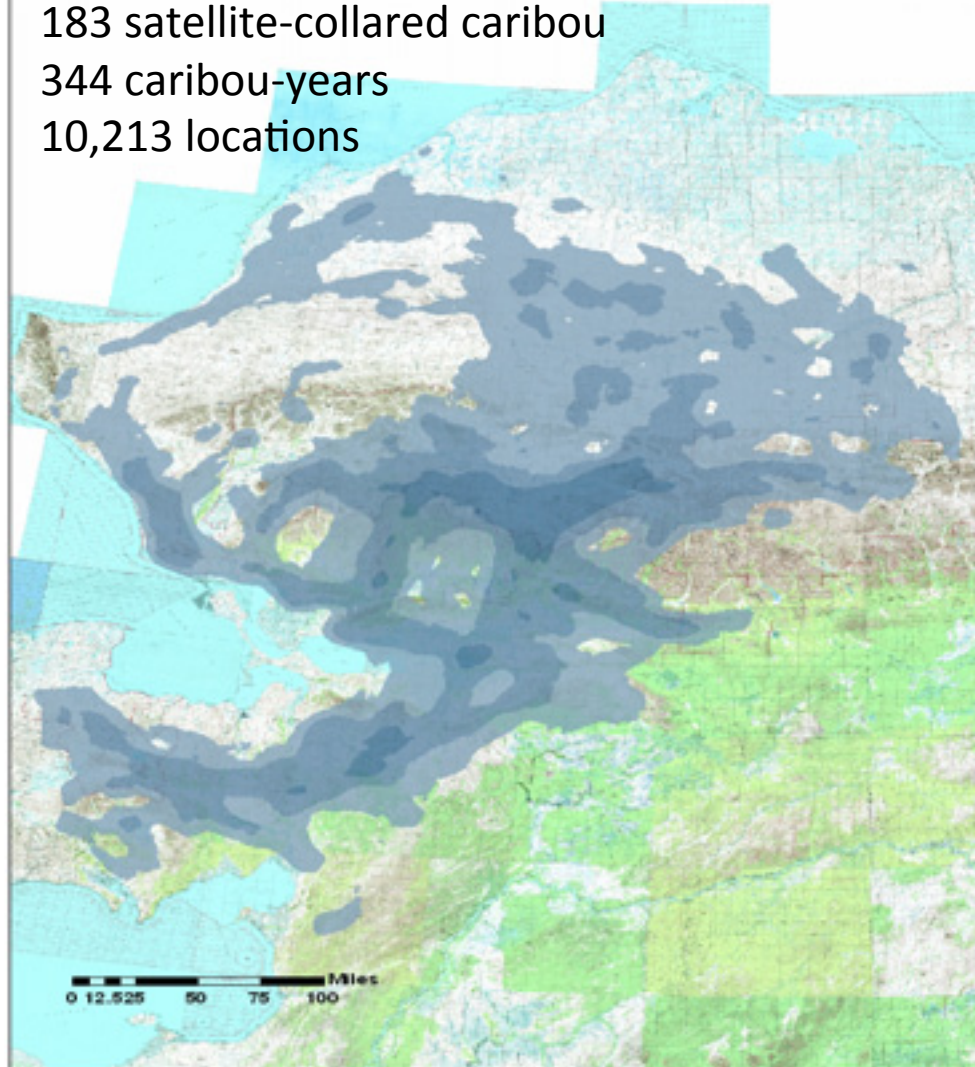
# WAH- Fall

Aug. 2-Dec.

183 satellite-collared caribou

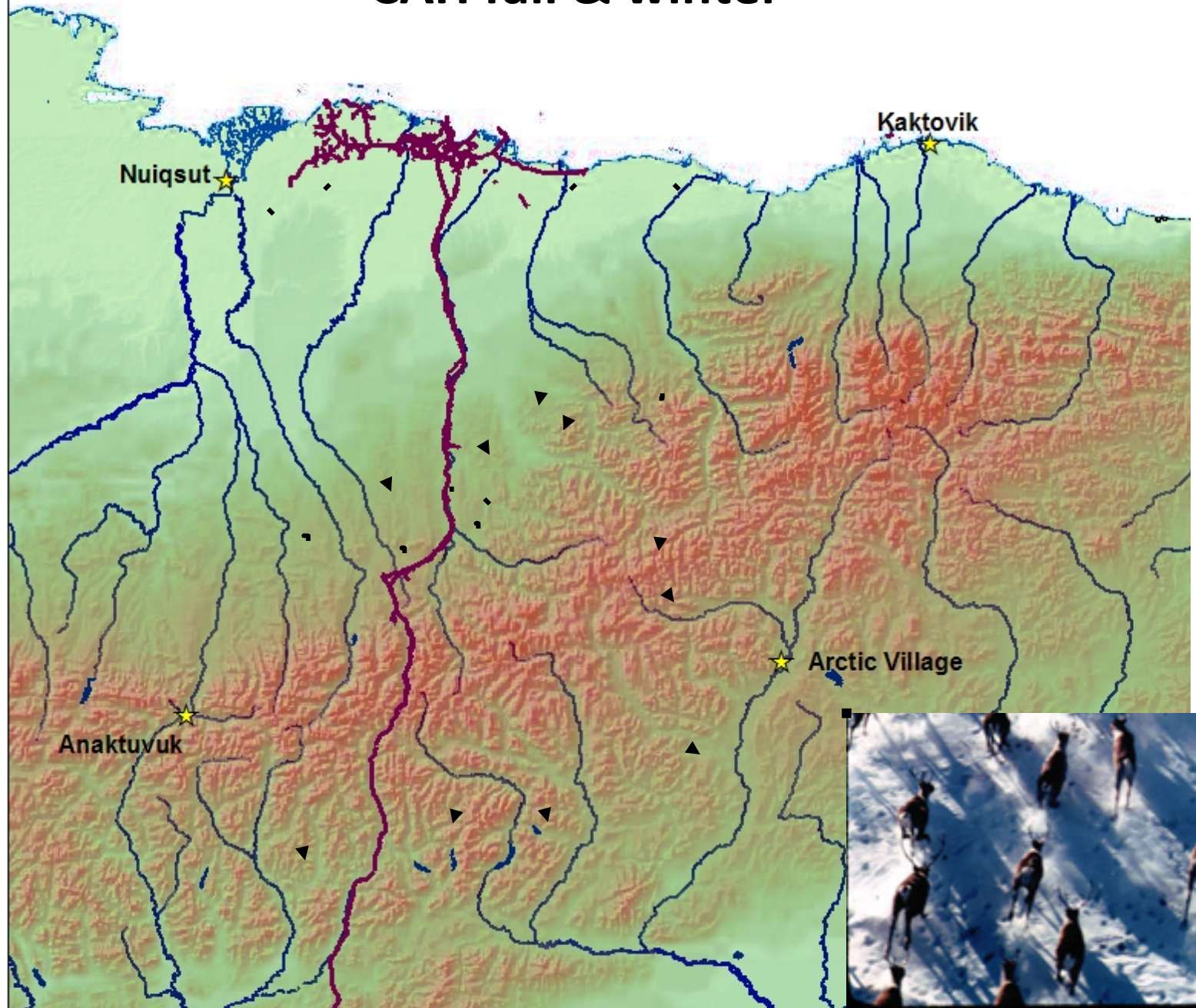
344 caribou-years

10,213 locations





# CAH fall & winter



# Legend

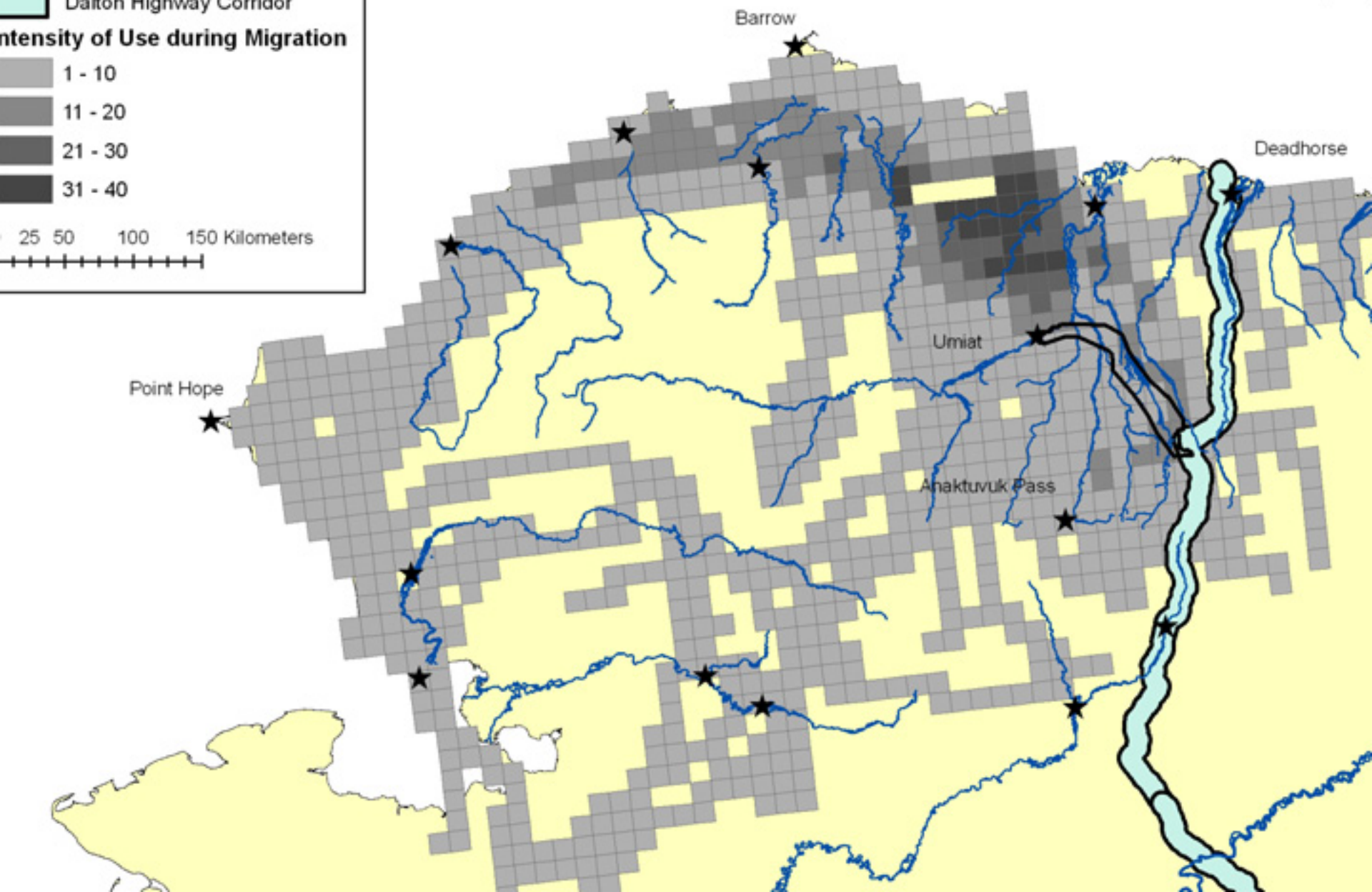
- ★ Villages
- Galbraith Road Study Corridor
- Dalton Highway Corridor

## Intensity of Use during Migration

- 1 - 10
- 11 - 20
- 21 - 30
- 31 - 40

25 50 100 150 Kilometers

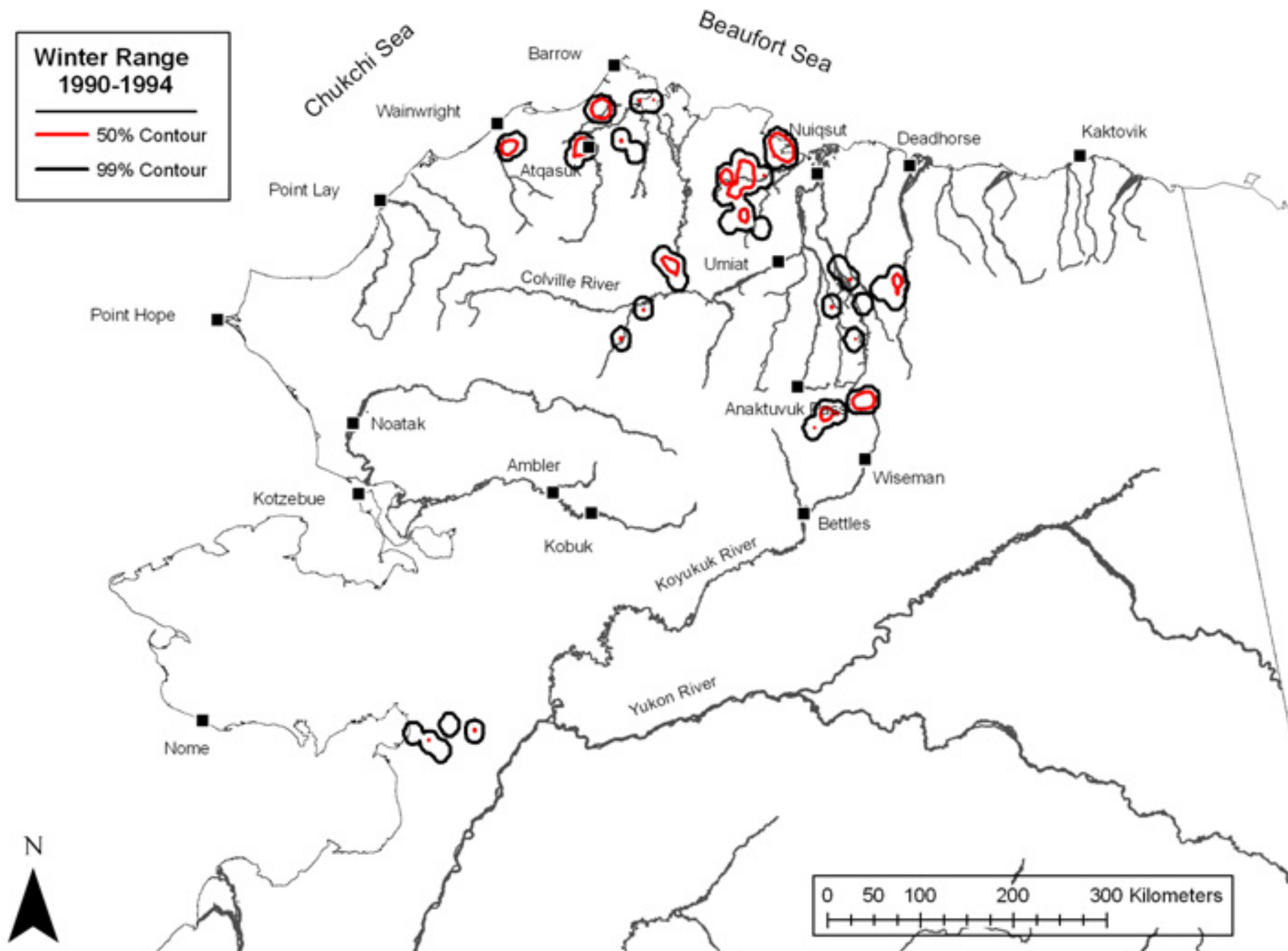
## Teshekpuk Herd Fall Migration 1990-2010





**Winter Range  
1990-1994**

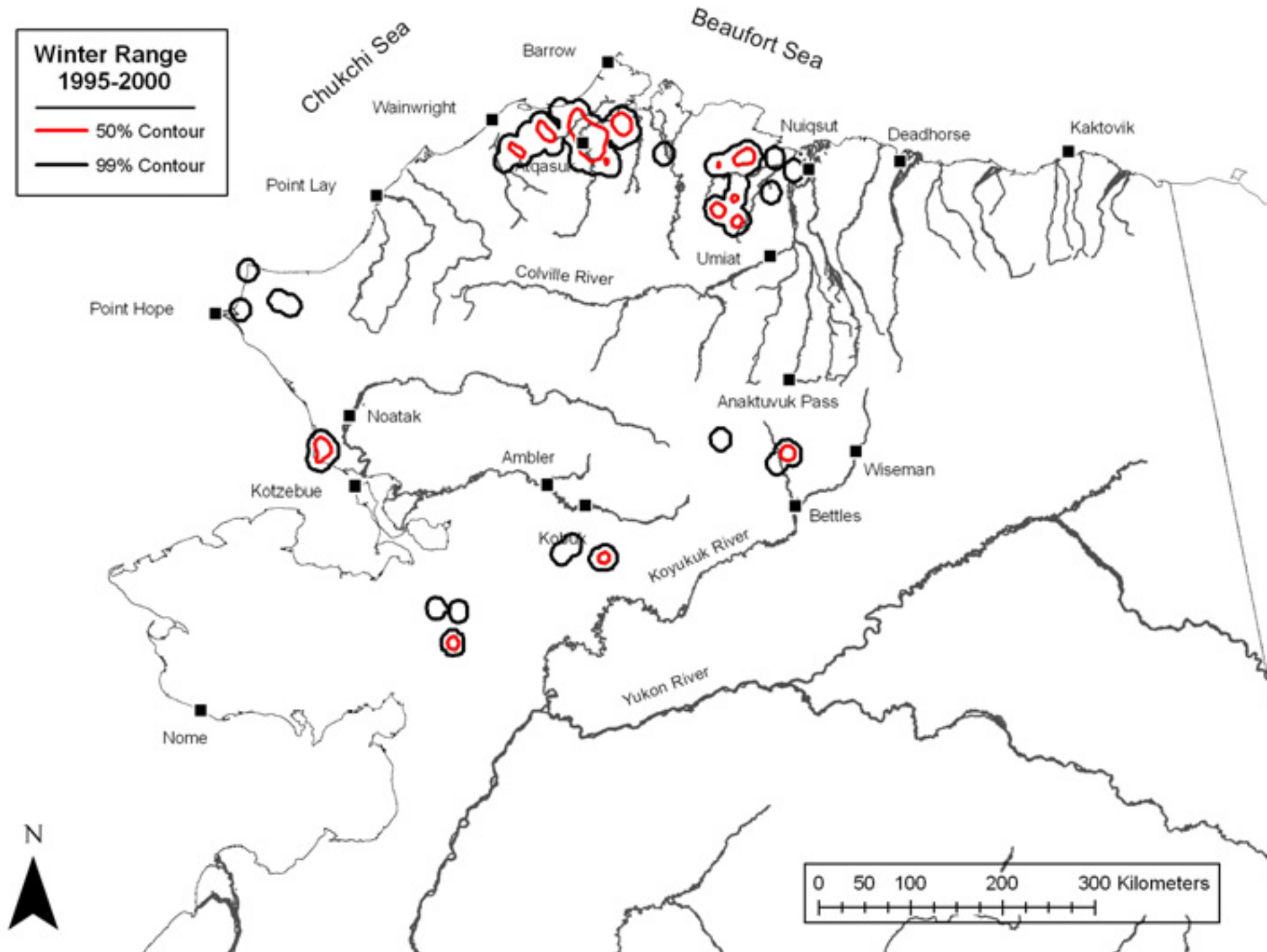
- 50% Contour
- 99% Contour





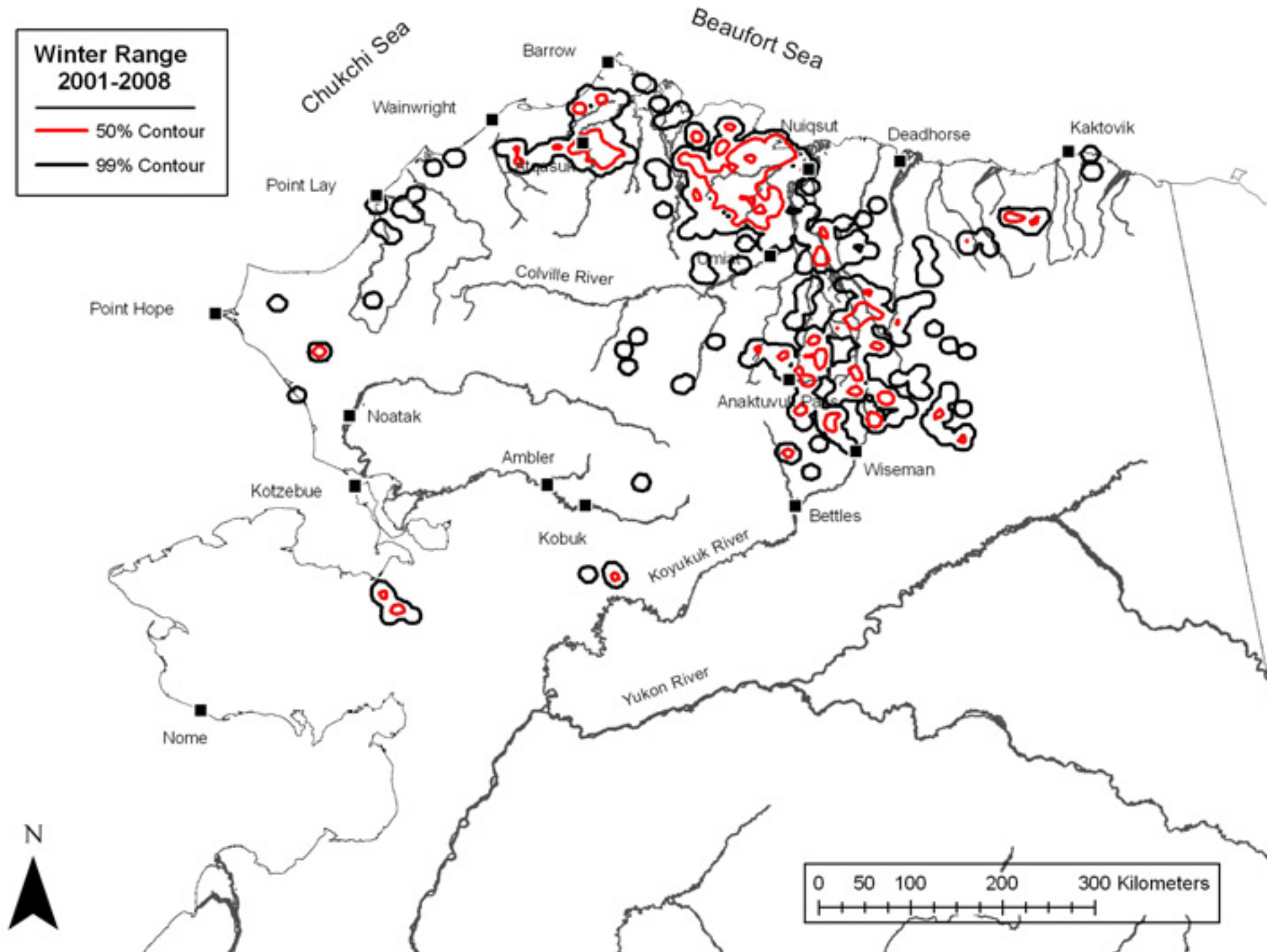
**Winter Range  
1995-2000**

- 50% Contour  
— 99% Contour



**Winter Range  
2001-2008**

- 50% Contour
- 99% Contour





## Legend

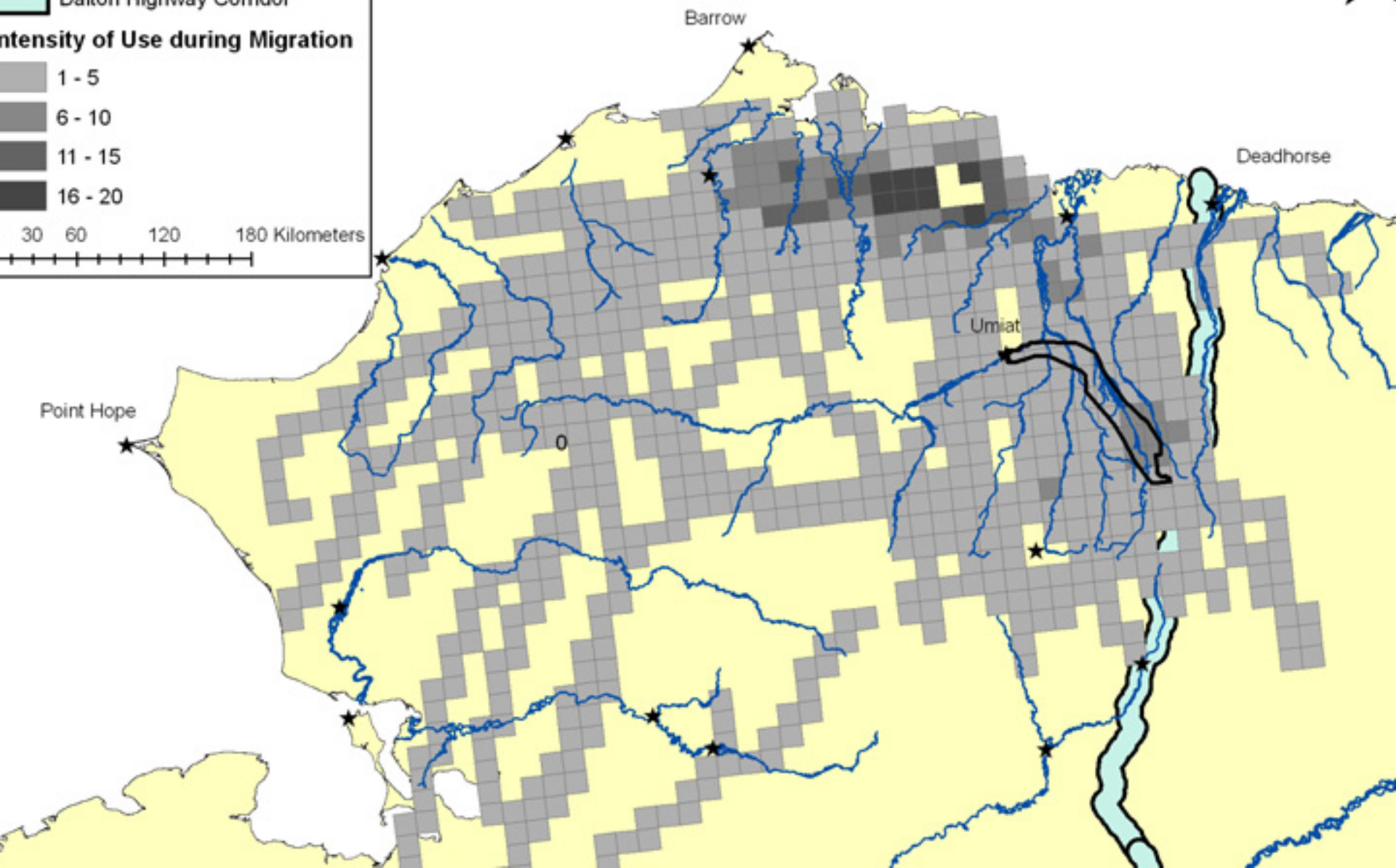
- ★ Villages
- Galbraith Road Study Corridor
- Dalton Highway Corridor

### Intensity of Use during Migration

- 1 - 5
- 6 - 10
- 11 - 15
- 16 - 20

30 60 120 180 Kilometers

## Teshekpuk Herd Spring Migration 1990-2010



What happens when a caribou encounters a road?

Many case studies, few quantitative assessments.

- WAH and the Red Dog Road

- anecdotally, appears that caribou cross the road with minor deflections; not quantified

- TCH and the Dalton Highway

- The first time satellite collared caribou encountered the road there were some striking observations

- Some caribou appeared to take > 1 week to cross the road

- Caribou had difficulty on both fall and spring migration

- PCH and the Dempster Highway

- Heavily used for hunting in Canada; not much information on how caribou deal with the road there

- CAH and Kupaaruk-Deadhorse Infrastructure

- caribou avoid infrastructure during calving

- caribou can usually cross road/pipeline combinations

- how GPS collared caribou interact with infrastructure is a very active area of research

- We hope to be able to use a combination of all of these data to come up with more quantitative answers to this question in the future