

# Porcupine Caribou Herd Monitoring Summary Report



## **SUMMARY OF INDICATORS 2026**

Presentation to:  
Annual Harvest Meeting  
Inuvik, NT  
February 11, 2026  
By: Porcupine Caribou Technical Committee



# Range of Porcupine Caribou Herd



# Key Points Today



- Significant decline
- Supported by multiple lines of evidence
- We knew this was happening
- Decline is continuing
- Food and energy driven
- Expected this, can turn around, uncertain when it will





Population

Calf  
Weights

Habitat

Reasons

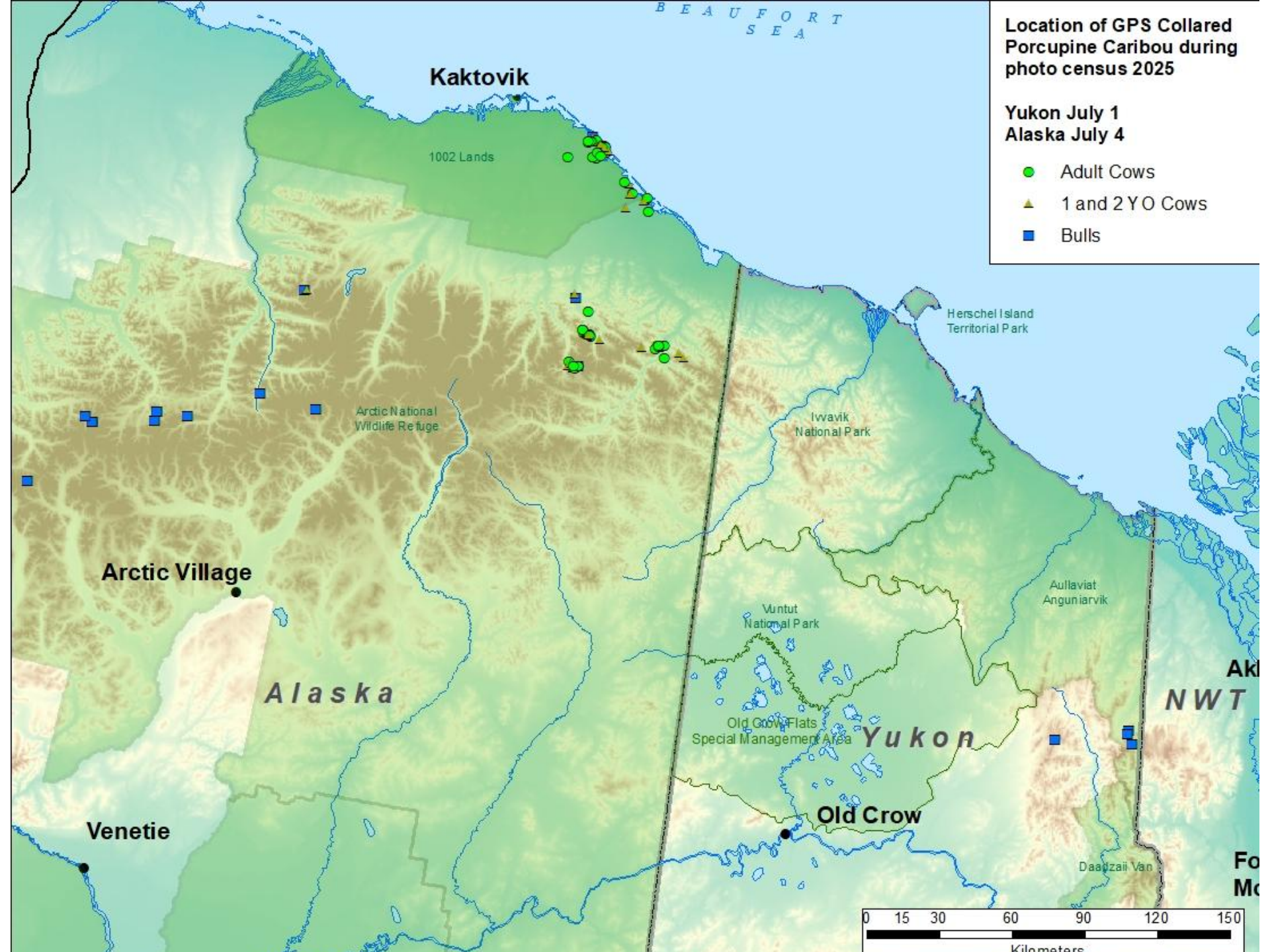
Scenarios



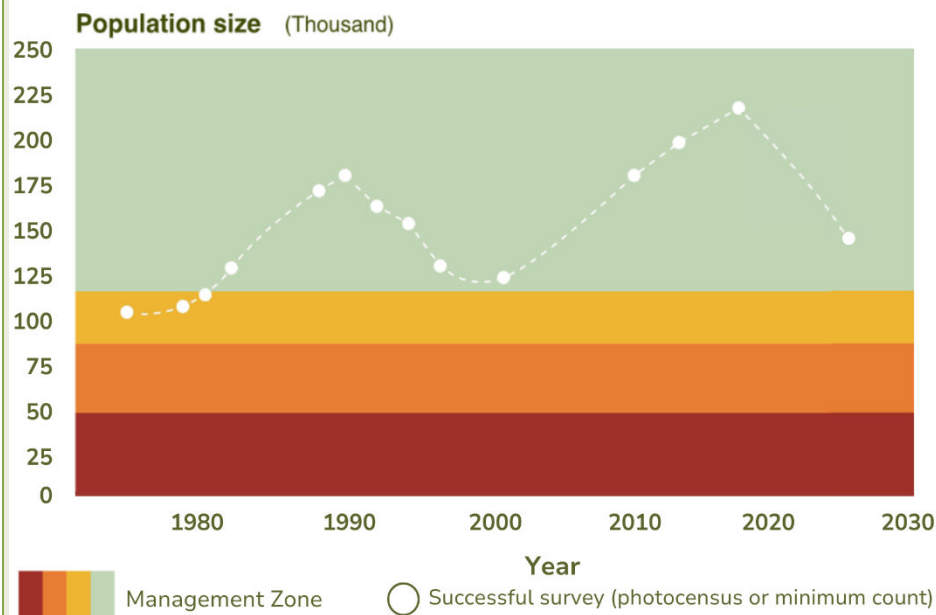
# 2025 Photocensus



- Modified collar schedule and close eye
- Major effort by ADF&G
- Successful on July 1 & 4
  - 101/101 collars
  - Good groups
  - Some of the best images
  - Bull groups were spread



# 2025 Photocensus



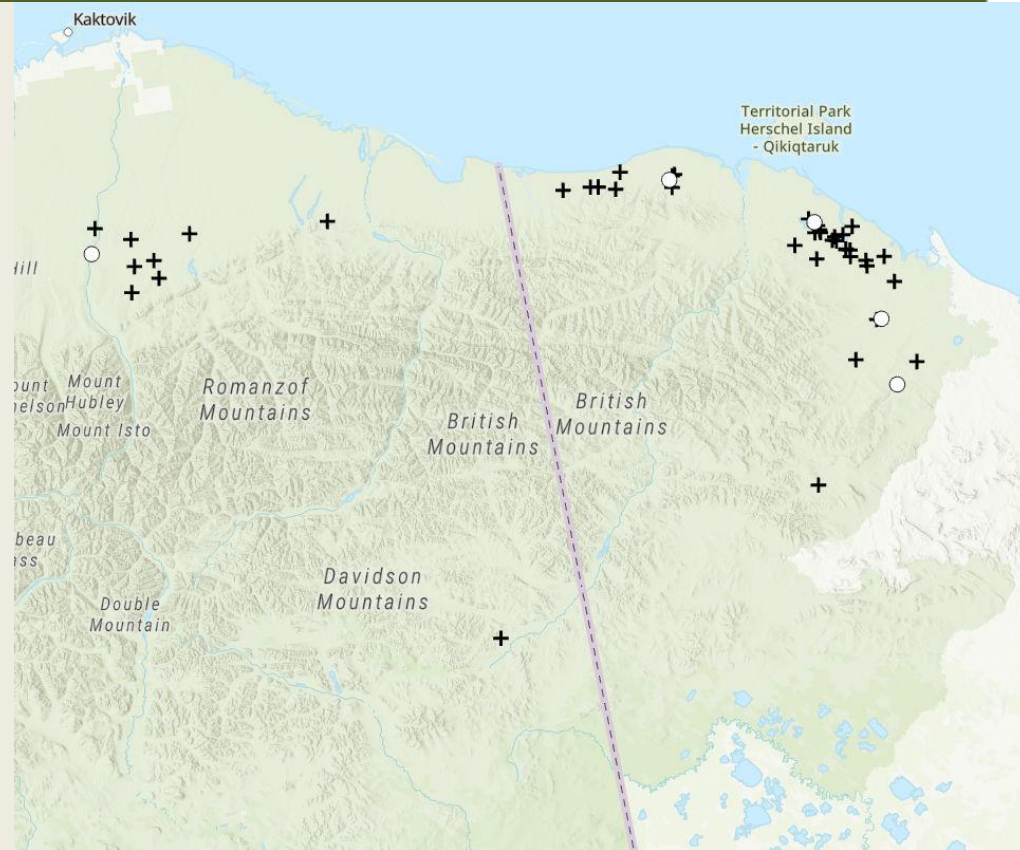
- 143,000 mid-point estimate
- Min count 123,000
- 2017 – 2025 average annual decline of 5%
- Greater than 3.5% noted previously, comparable to other herds though

# Calf Birth Rate and Survival

## Methods

- Classify pregnancy on calving grounds
  - Evaluate 3-year-old cows
- Calf survival to 3 weeks
- Observations of calf numbers

## Results



**PCH cow locations 2-3 June**

# Calf Birth Rate and Early Survival

## Pregnancy on calving grounds

- Rates
  - *4+ years old = 93% (n = 41)*
    - *5 year avg 85%*
  - *3 years old = 70% (n = 10)*
    - *5 year avg 54%*
  - *Snow on Alaskan North Slope and cold*

## Three Week Survey

- 3 Week Calf Survey
  - *79% Survival (n = 14)*
    - *Avg is 86%*
  - *55:100 cows*
    - *5 year avg is 60:100*
    - *Long term is 57:100*

# Lots of Calves Born but not Surviving



## Calf Mortality



- Monitoring and community obs:
- Population estimate in 2017 and 2025 estimate calf survival
- Some but not all the data we'd like

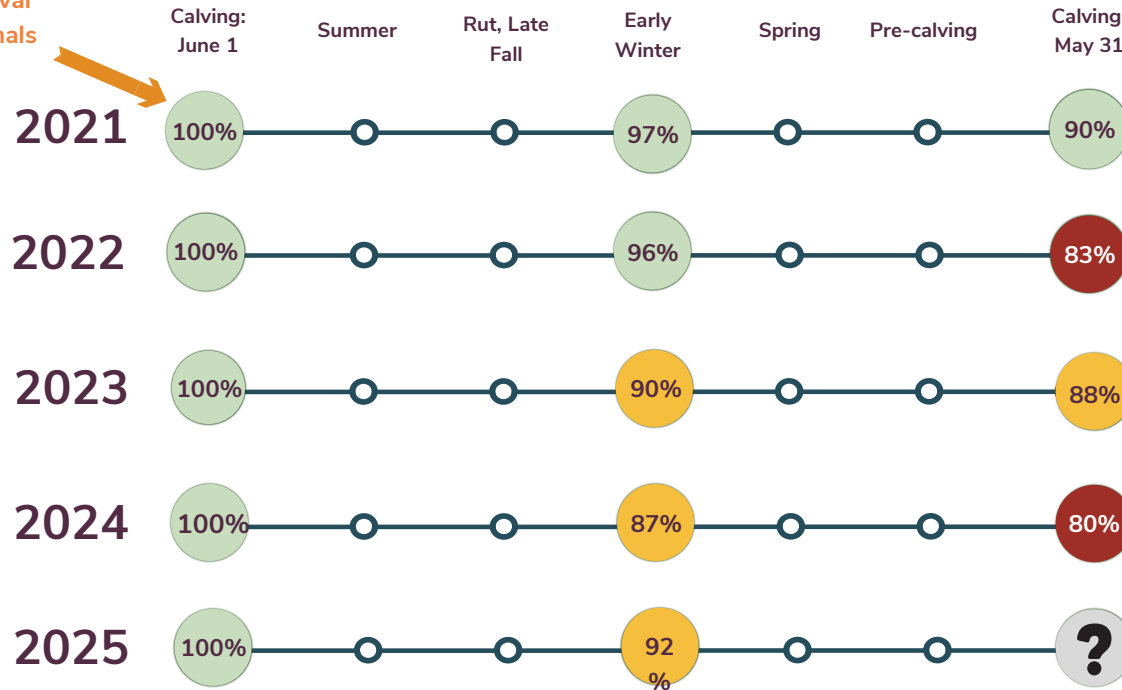


# Survival status: How are the adult females doing?



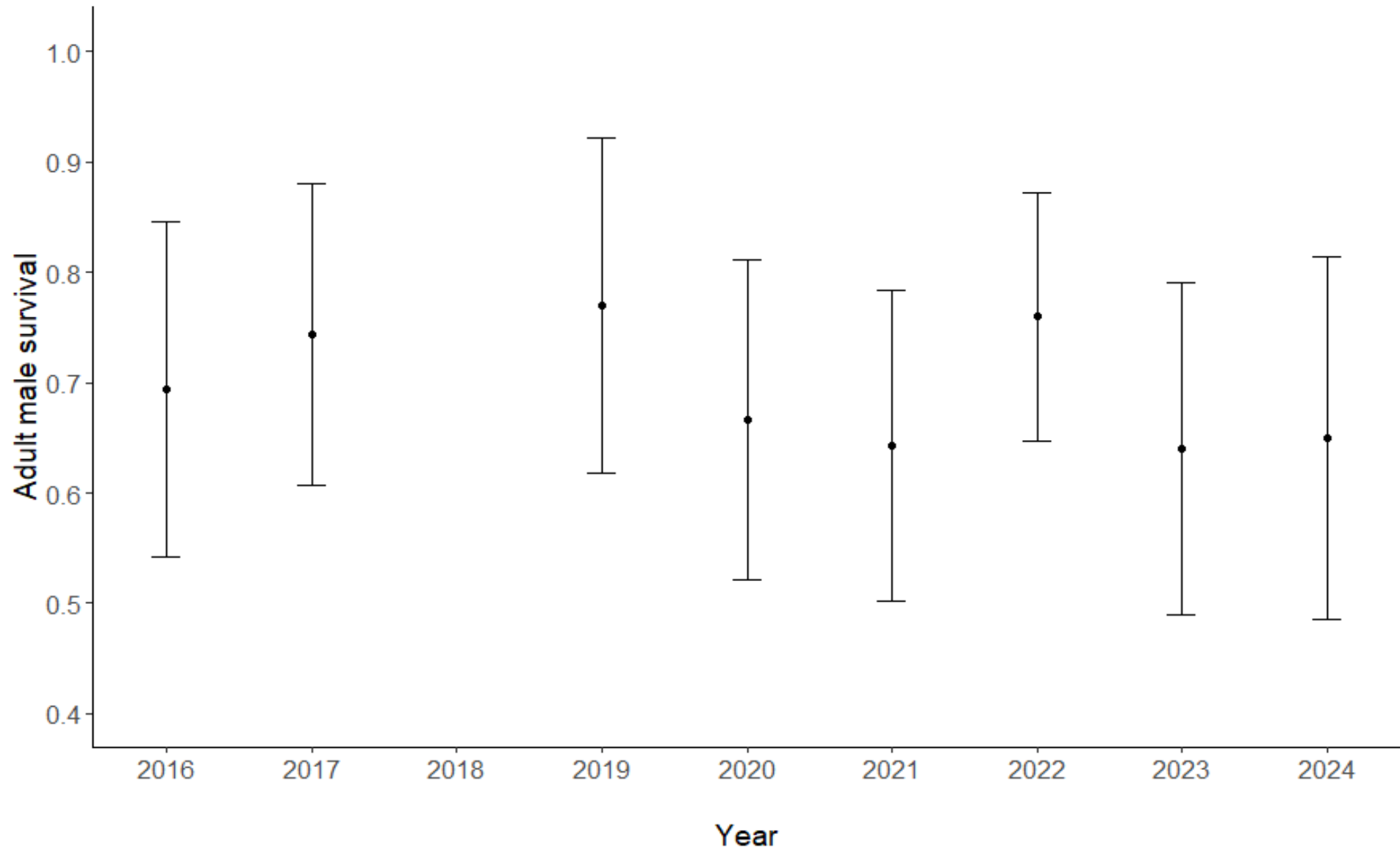
Start of survival year. All animals start alive.

## CARIBOU YEAR

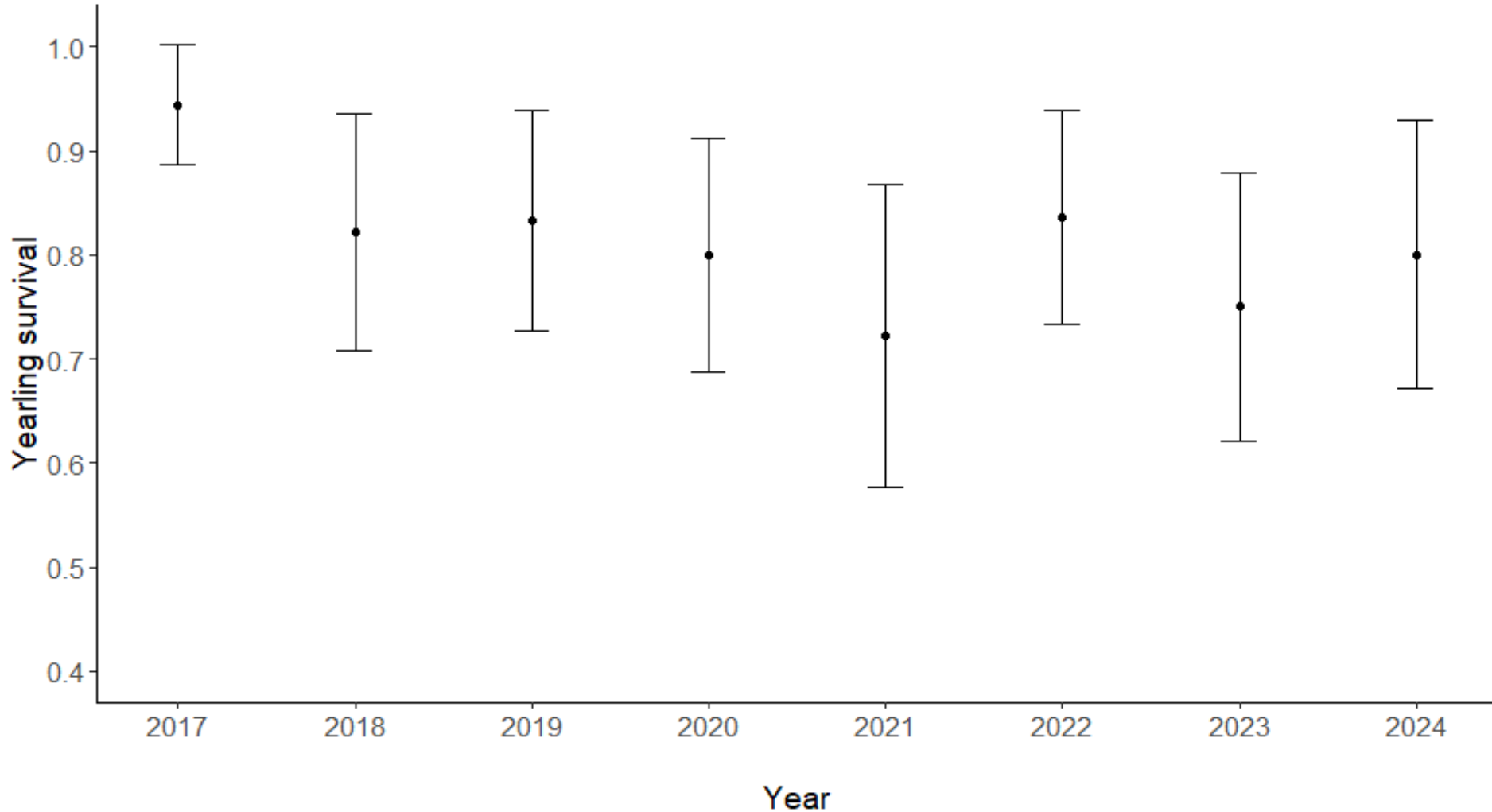


-  High survival; at the beginning of the caribou year, all animals are alive and monitored throughout the year
-  Moderate survival; adult female numbers are likely stable.
-  Poor survival; adult female numbers are likely decreasing.

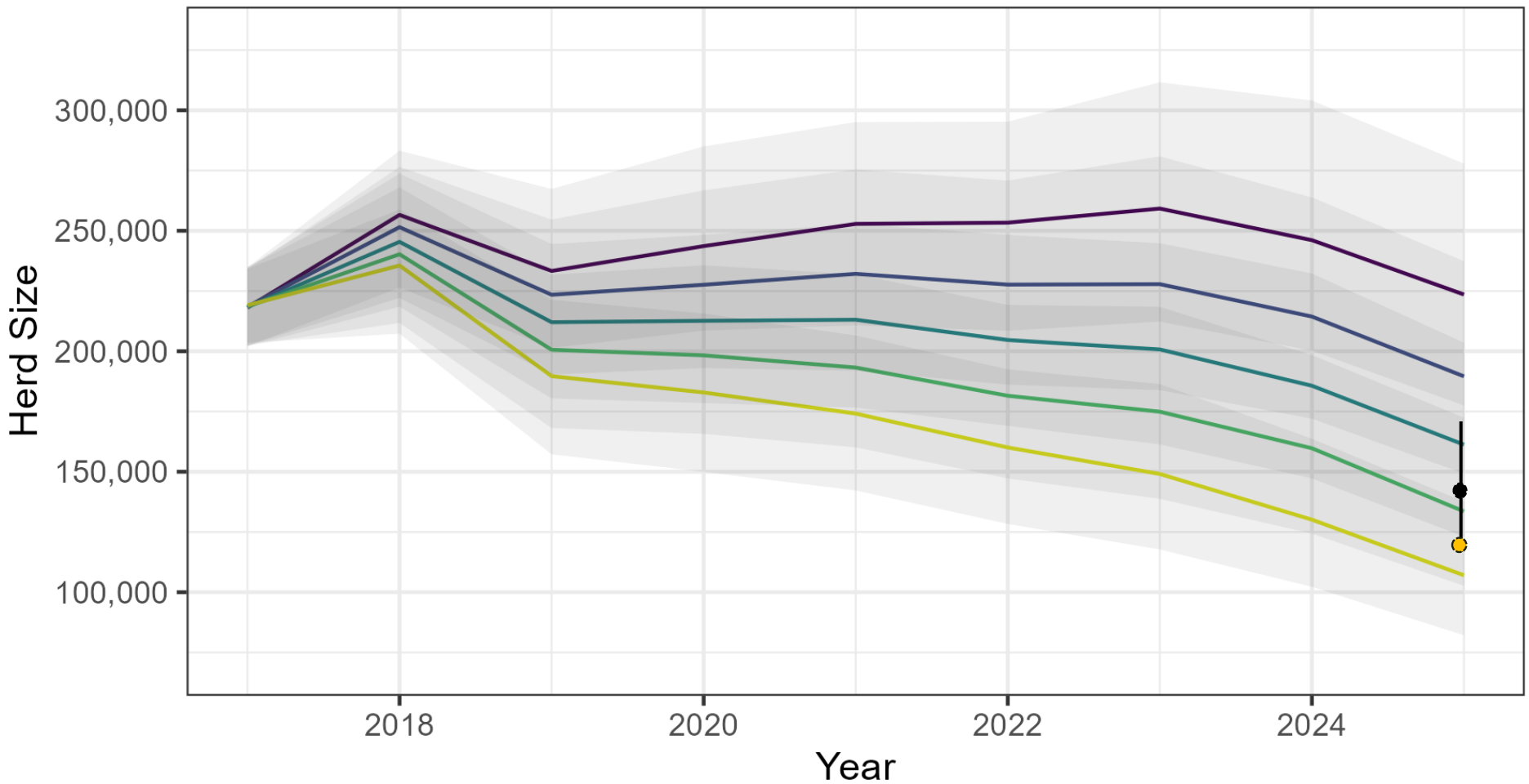
# Adult Male Survival



# Yearling Female Survival



# Population Model



Calf Mortality Rate — -1.0 SD — -0.5 SD — Baseline — +0.5 SD — +1.0 SD

# What did the decline look like?



Year	Projected Population Size	Change
2017	218,299	11.5%
2018	243,441	-15.9%
2019	204,671	-1.0%
2020	202,651	-1.4%
2021	199,755	-4.9%
2022	189,883	-3.5%
2023	183,278	-8.6%
2024	167,508	-14.8%
<b>2025</b>	<b>142,751</b>	

# Population Roll Up



- Survival remains low
  - 3-year-old pregnancy has declined
  - Calf survival is low
  - Significant decline in 2024-25
  - Current year is ok but less caribou
- In green zone
  - Herd is declining
  - Calf numbers continue to be poor in winter



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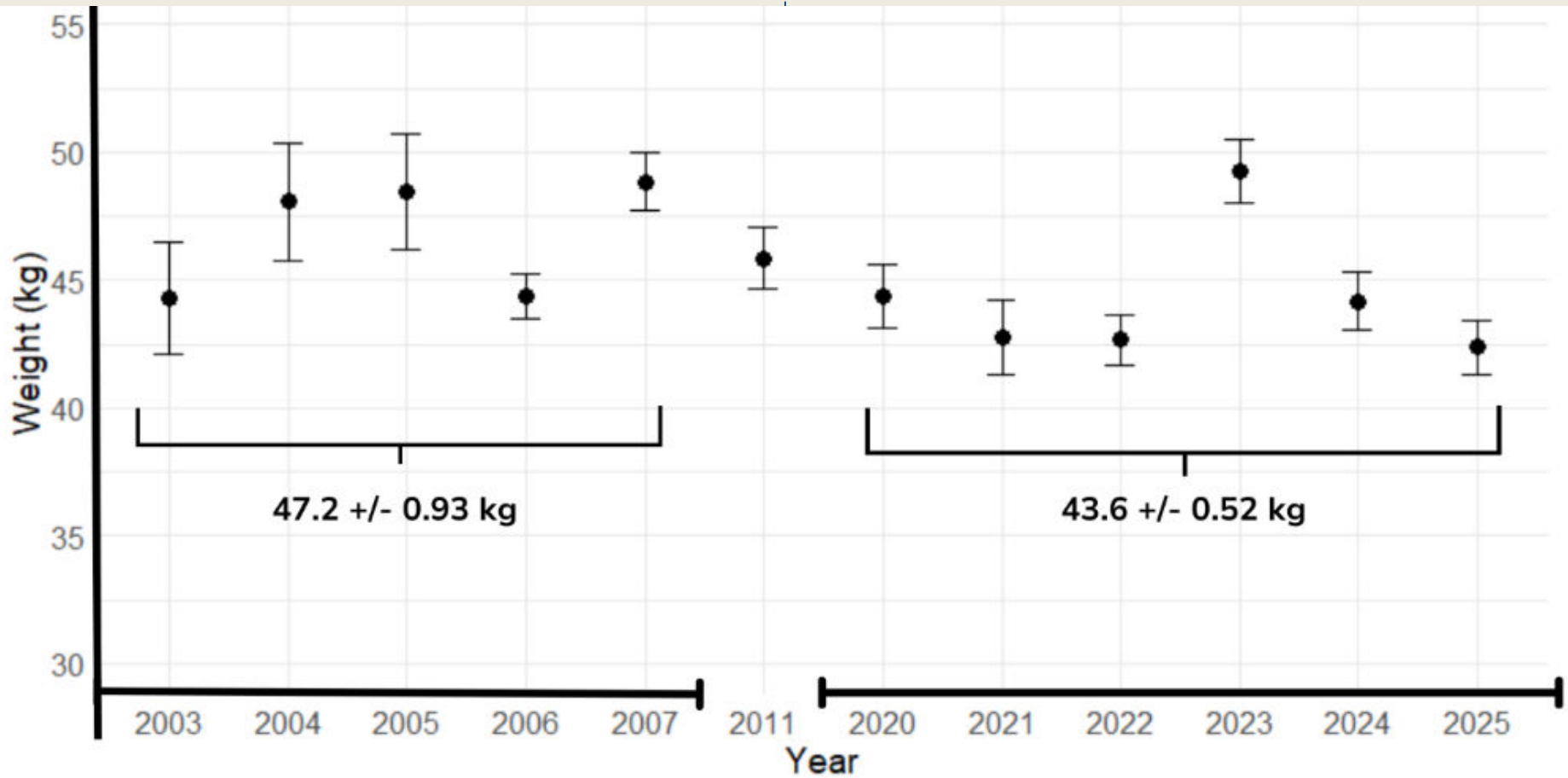
# Calf Weights

## Methods

- Weigh 9-month-old calves during captures
- Data from 2003-2007, 2011, 2020-25
- Indicates effects of environment on herd



# Calf Weights



# Calf Weights



## Methods

- Weight 9-month-old calves during captures
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- Indicates effects of environment on herd

## Results

- Decline since early 2000's
- Herd rebounding from a low = expect heavier
- Herd near peak = expect lighter



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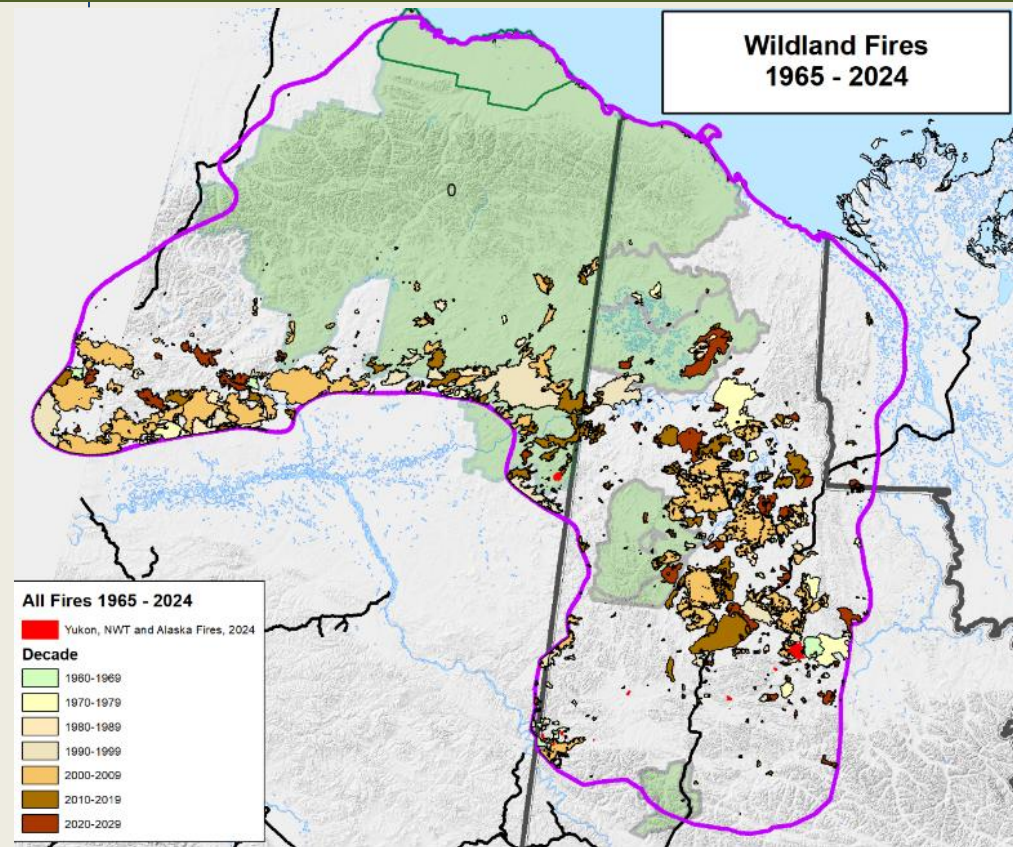


# Wildland Fires

## Methods

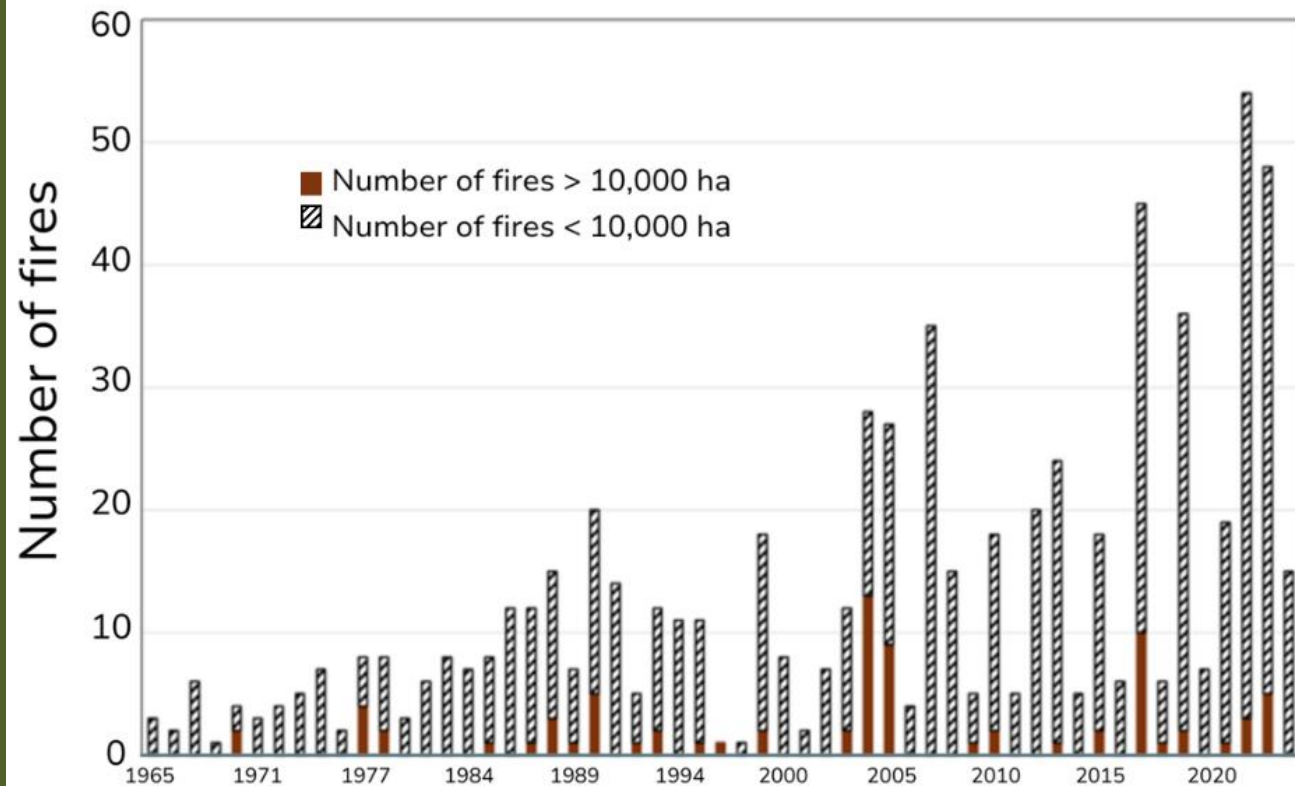
- Amount of PCH range burned as an index of range condition
- 1960—2024
- Fires in red are new as of 2024
- 2025 data not yet available

## Results



Fewer fires in 2024

Not many fires in  
2025



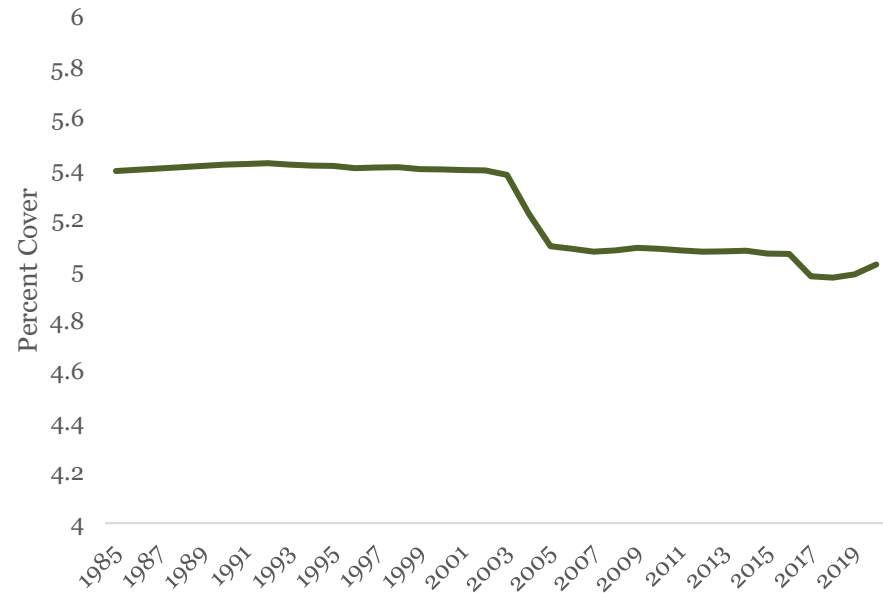
## Numbers and Sizes of fires in PCH Range

# Lichen



## Methods

- How much ground is covered in lichen on range
- 1985 to 2020
- Satellite images used



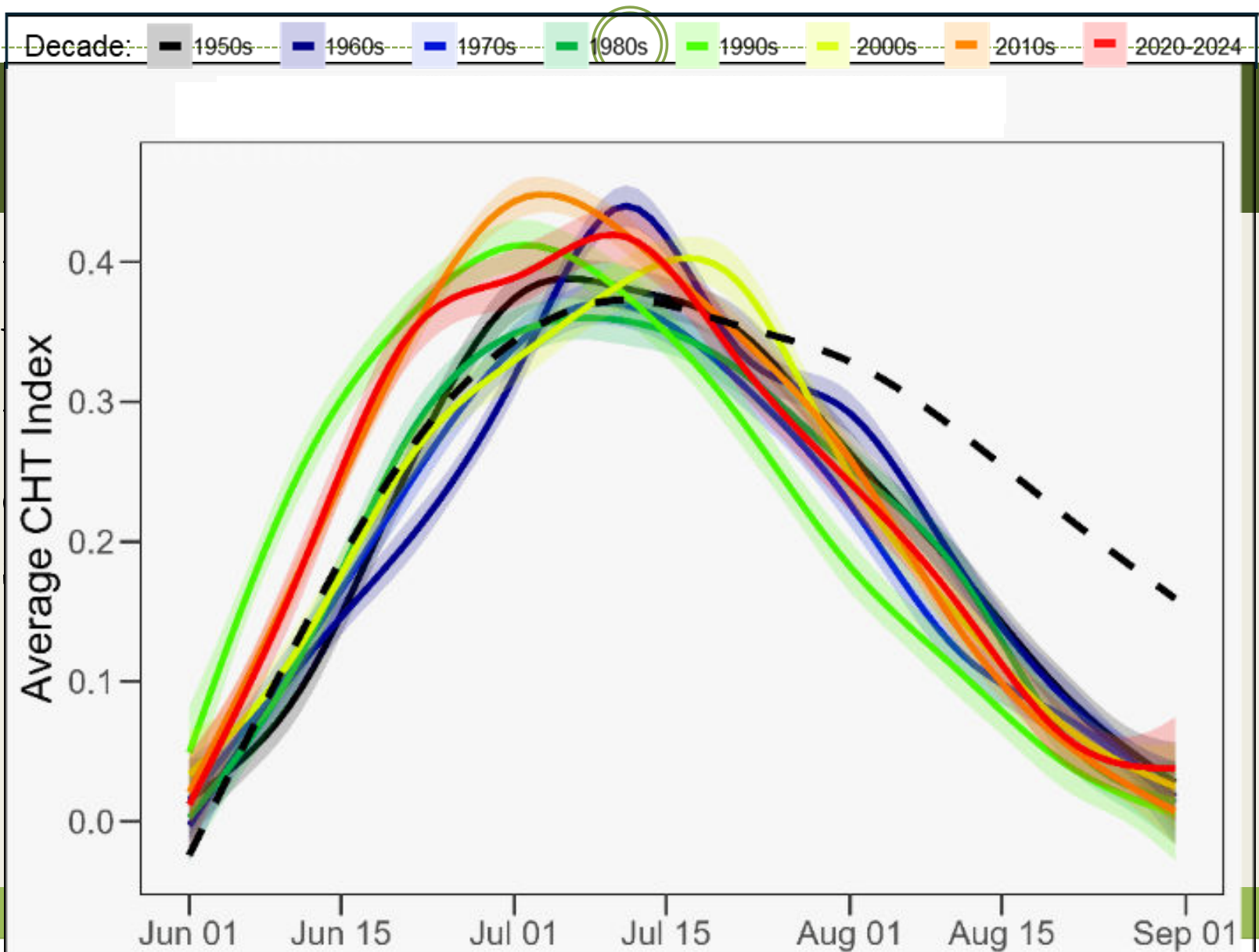
# Mosquito Harassment



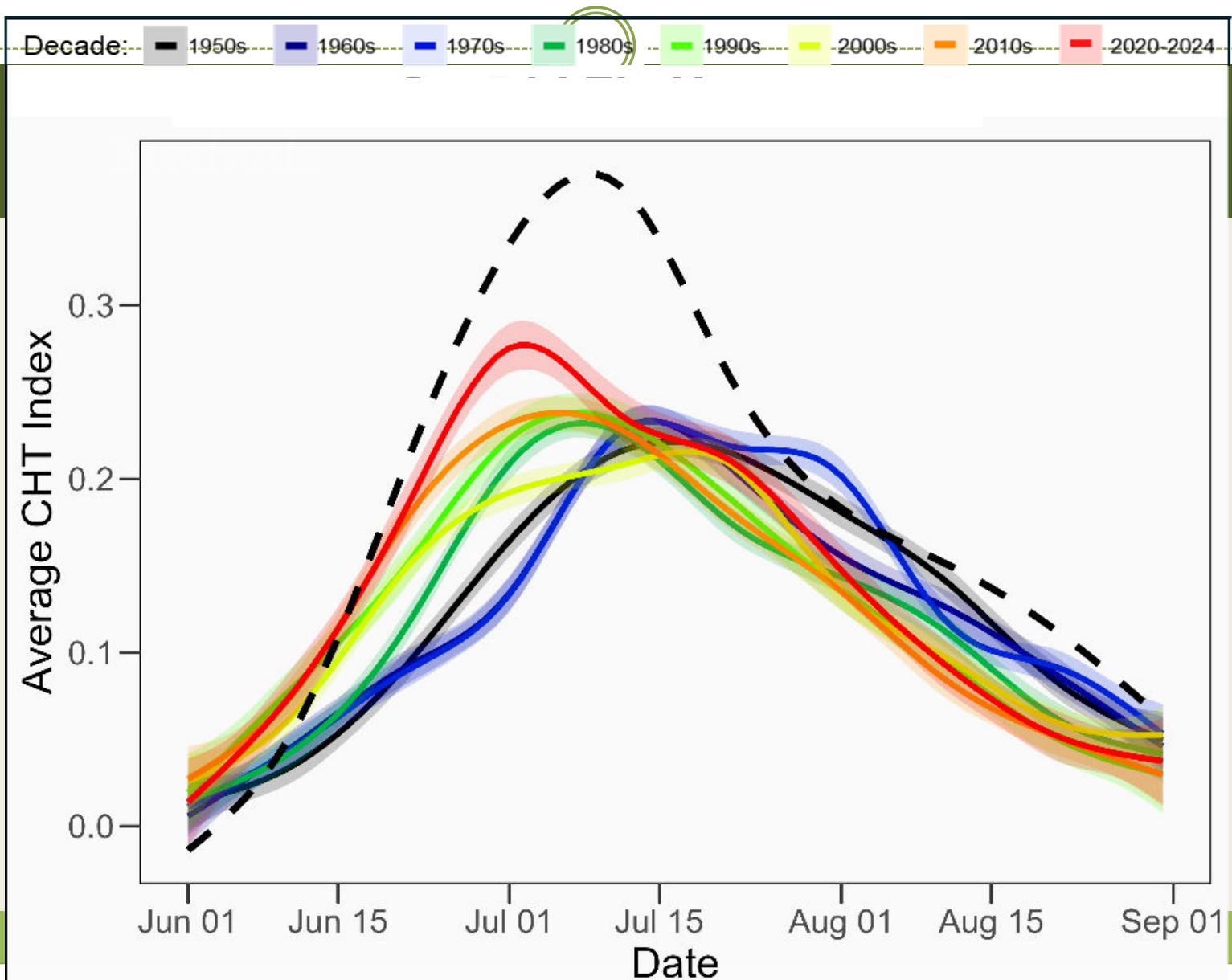
## Methods

- Use same approach as Will Hein (2025)
- Uses satellite based data on weather and soil moisture
- Each line represents a year
- Dashed line is this past summer
- Higher the peak = worse bugs!
- The peak lines up with the date at the bottom

# Mosquito Harassment



# Warble and Nasal Bot Harassment

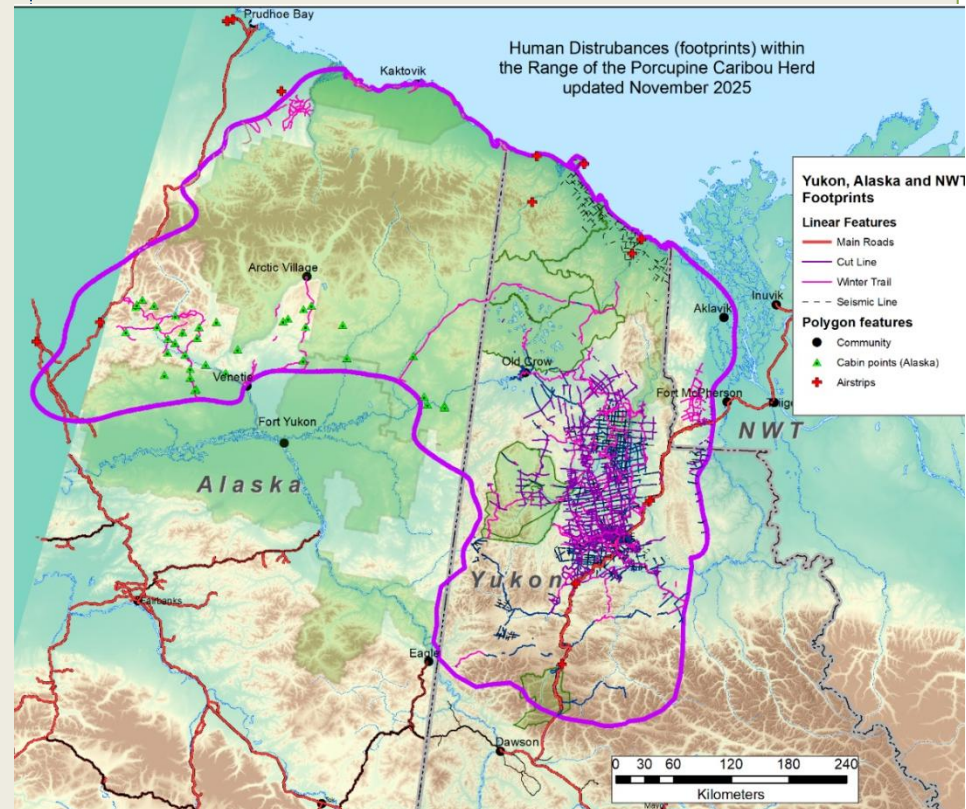




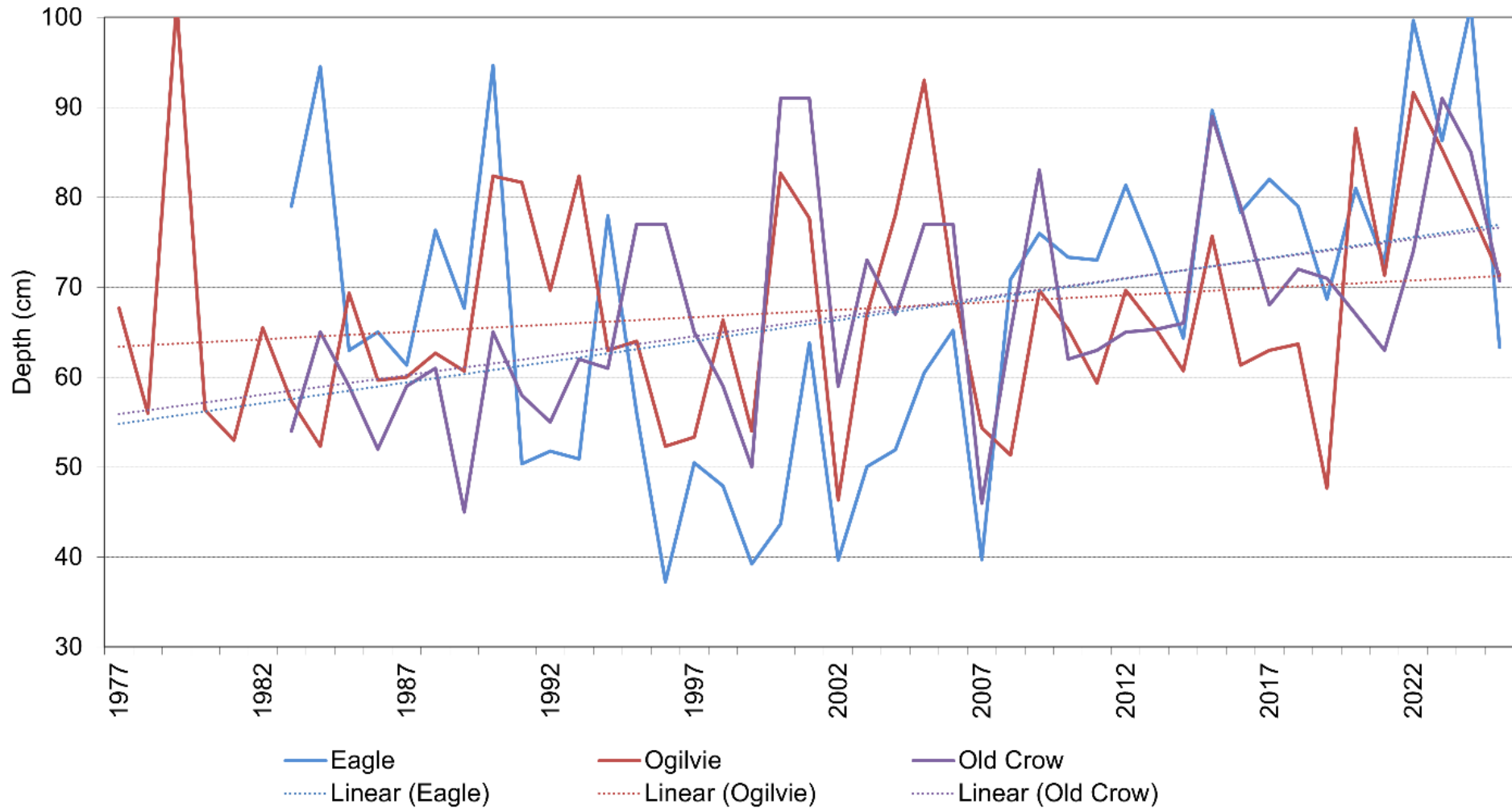
# Human Disturbance and Footprint

## Methods

- Measured footprint for each disturbance type
- No appreciable change in footprint during 2023/24
- Oil and gas lease sales in ANWR
- Eagle Plains oil & gas exploration



# Snow Conditions



# Habitat Roll Up



- Limited new fires since 2023
- Deep and late snow continues
- ANWR & development?





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# Why the decline?



## Adult Survival

- Adult male survival lower since 2020
- Some bad adult female survival – key driver

## Calf Recruitment

- Recruitment was low: model and observations
- Lower survival from 1-2 years of age
- Don't know exact number without better data for calves

# Why the decline?



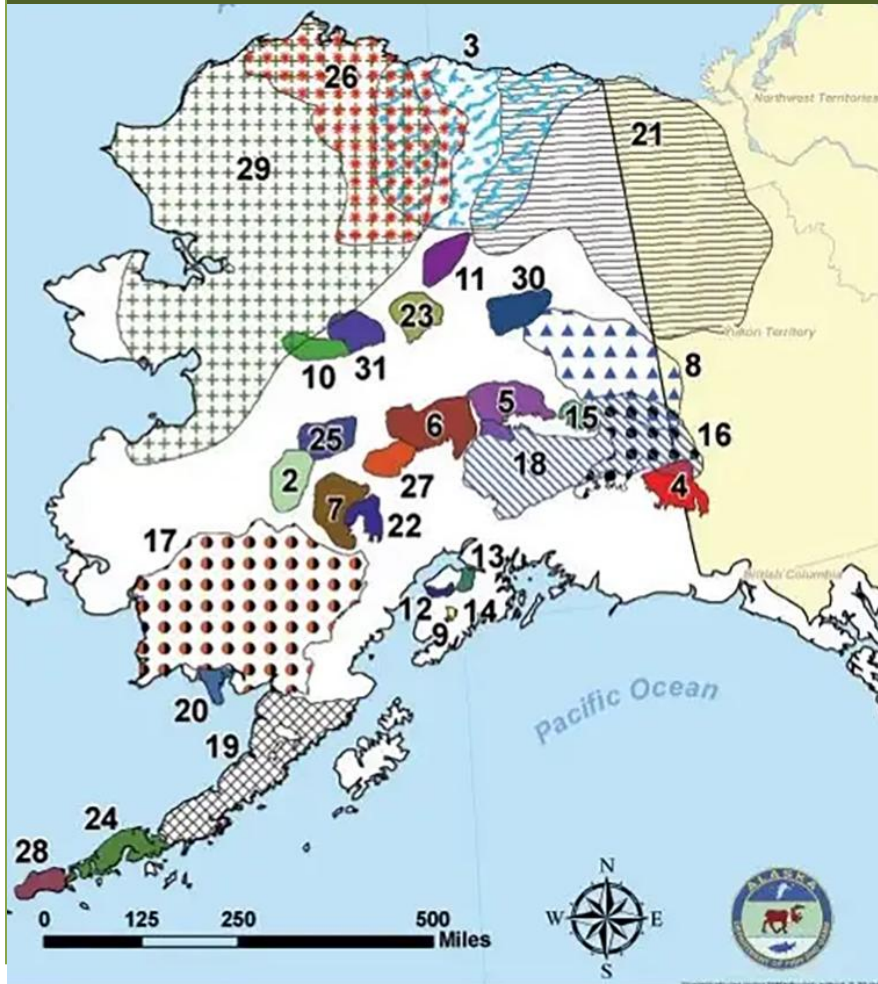
- This is a food and energy problem
- Deep snow / late springs last two years
- Insect conditions: very hot and buggy!

# What next for the herd?



- Decreasing phases can last a decade or several decades for some herds
- We are declining and may have a ways to go
- Food and not predator driven, at least initially

# How about other herds?



- Central Arctic
  - 27K down from 35K (2022) and 68K (2010)
- Western Arctic
  - 121K down from 152K (2023) and 490K (2003)
- Fortymile
  - 27K down from 84K (2017) and 38K (2022)



Population

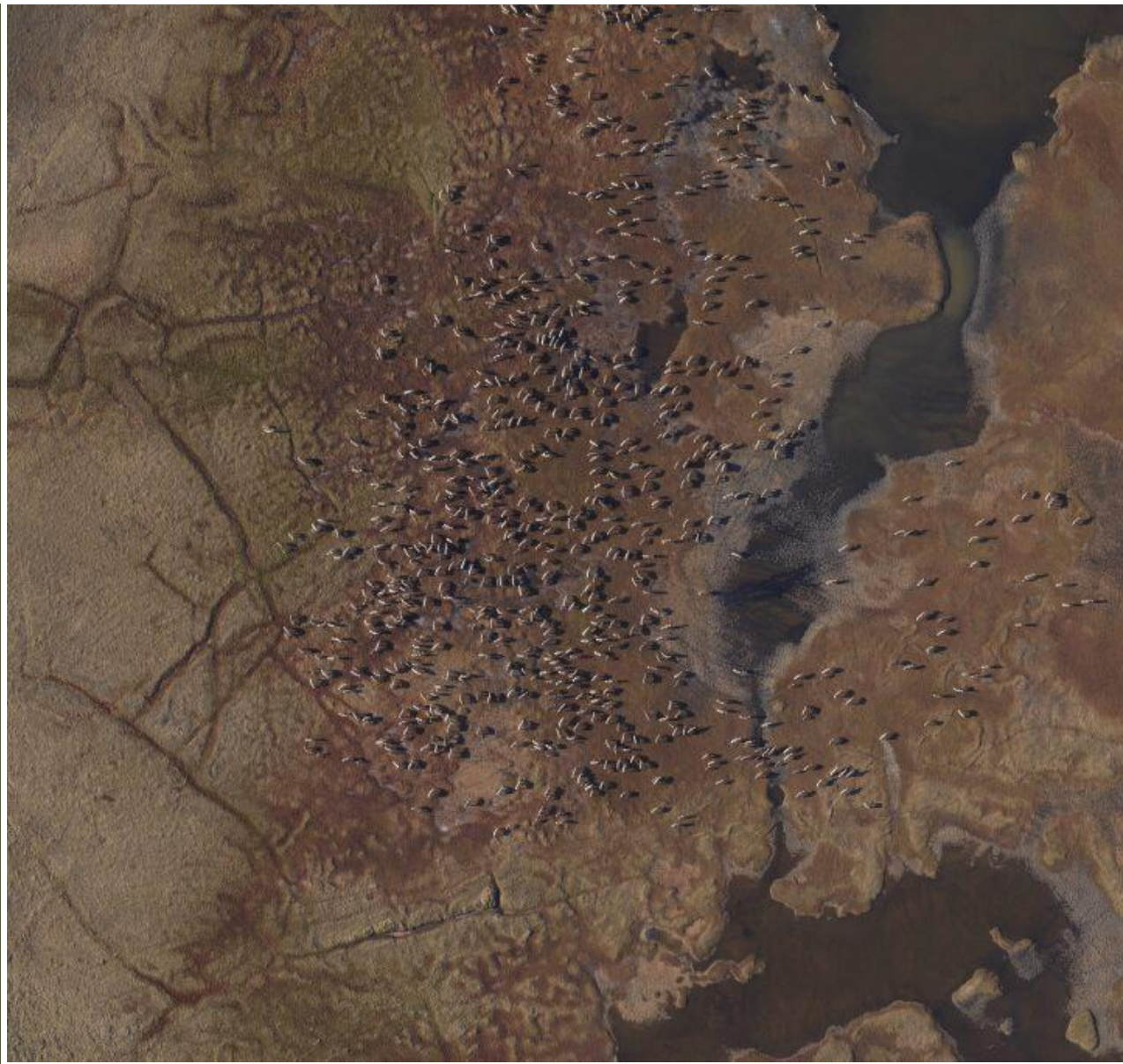
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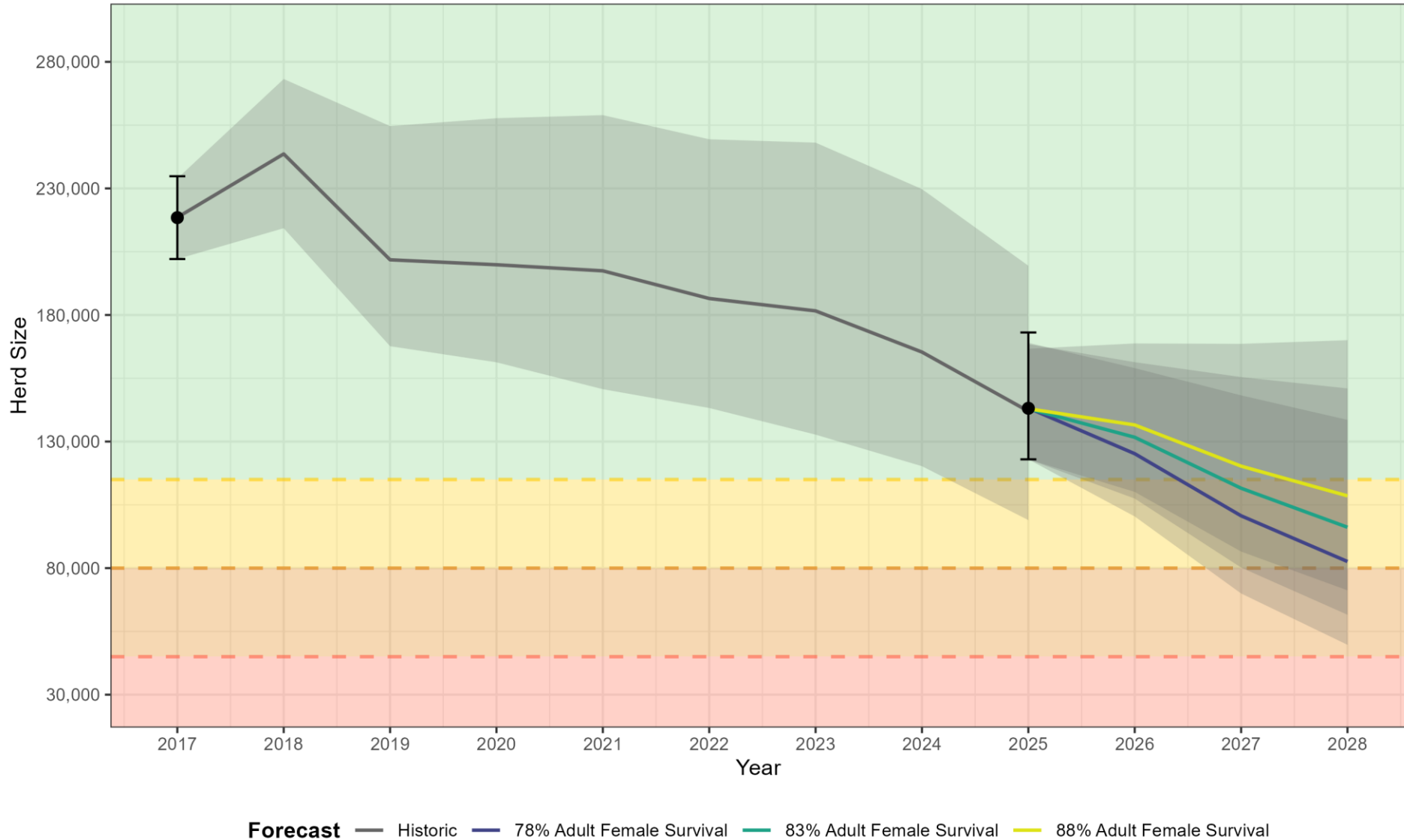
# What is Possible Going Forward



- Possible rates of decline
- Decline could stop although no indications
- Illustrate how quickly things can change and what is possible

**Not Reality!!!**

# What is Possible Going Forward



# July Population With Adult Survival Varied



## 88% Adult Female Survival

Year	Projected Population Size
2025	143,017
2026	137,161
2027	122,153
<b>2028</b>	<b>111,738</b>

## 83% Adult Female Survival

Year	Projected Population Size
2025	143,548
2026	132,527
2027	112,905
<b>2028</b>	<b>98,581</b>

## 78% Adult Female Survival

Year	Projected Population Size
2025	143,610
2026	126,558
2027	102,654
<b>2028</b>	<b>85,297</b>

# Key Points Today



- Significant decline
  - Supported by multiple lines of evidence
  - We knew this was happening
  - Food and energy driven
- Decline is continuing
  - Expected this, can turn around, uncertain when it will
  - Likely that numerically in the Yellow in coming years

# Questions?

