

Porcupine Caribou Herd Monitoring Summary Report



SUMMARY OF INDICATORS 2025

Presentation to:

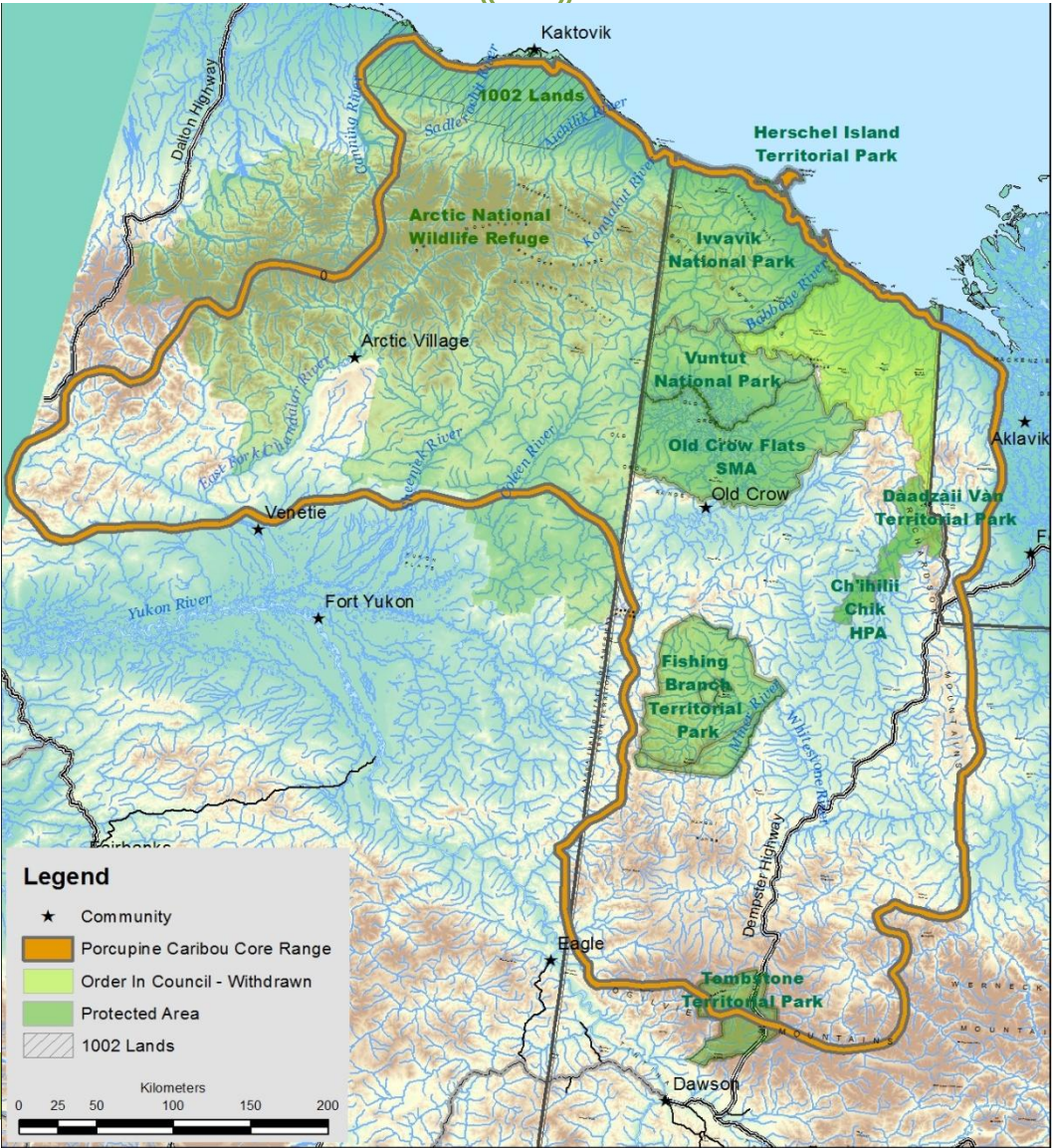
Annual Harvest Meeting

Dawson City, YT

February 11-12, 2025

By: Porcupine Caribou Technical Committee

Range of Porcupine Caribou Herd





Population

Calf

Weights

Habitat

Harvest



Population Size



Methods

- Count caribou using a photocensus
- Last completed in 2017
- Attempted in 2023
 - *Reviewed photos and distribution of pictures*
 - *Unable to interpret results*

Results



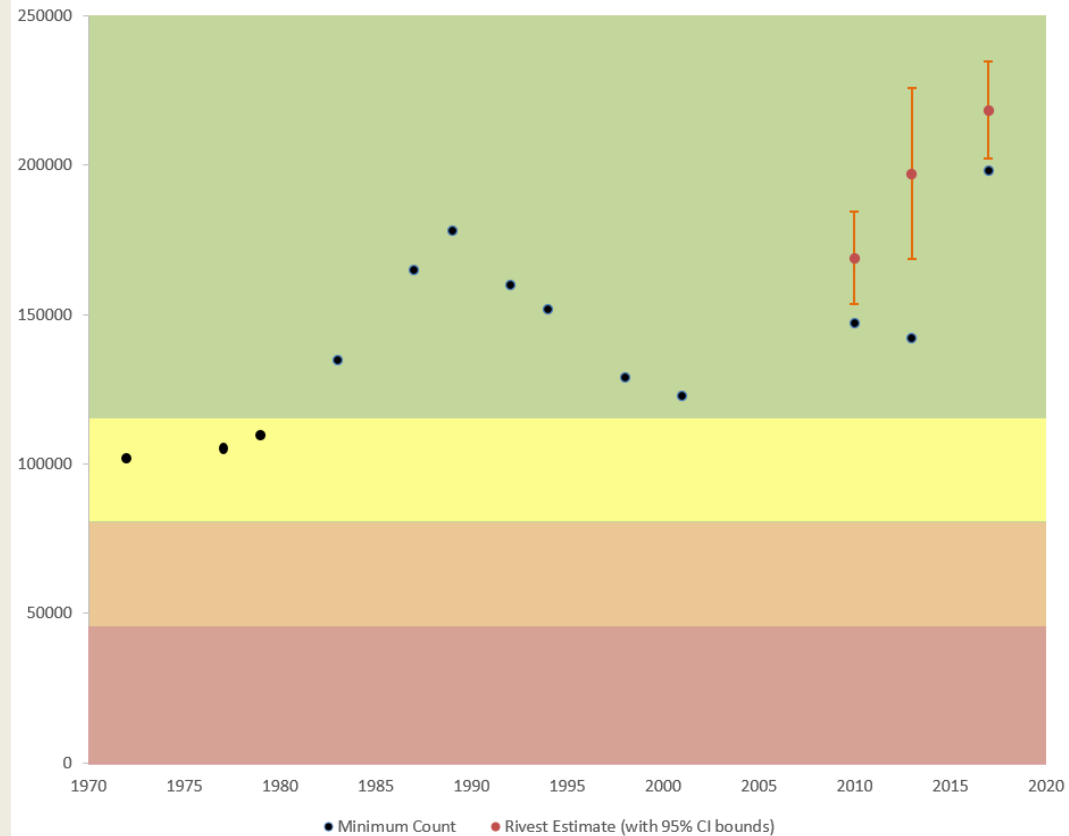
Population Size



Methods

- 218,000 caribou (202,000 - 235,000)
- Minimum count = 198,000 caribou
- Avg Annual Increase 3.7% per year 2010-2017
- Unknown trend since

Results

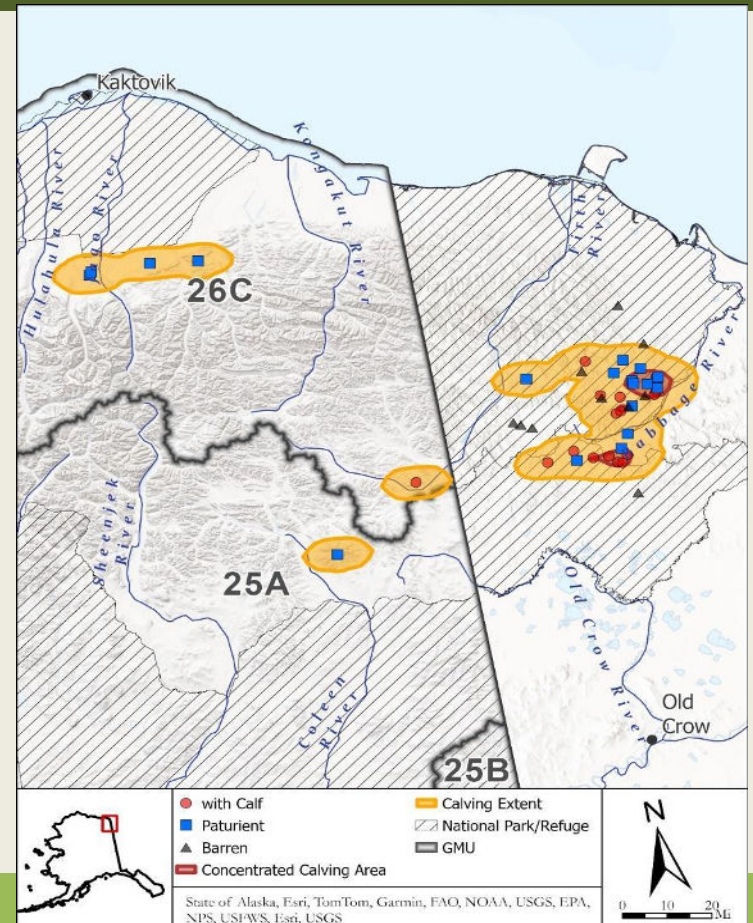


Calf Birth Rate and Survival

Methods

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

Results



Calf Birth Rate and Early Survival

Pregnancy on calving grounds

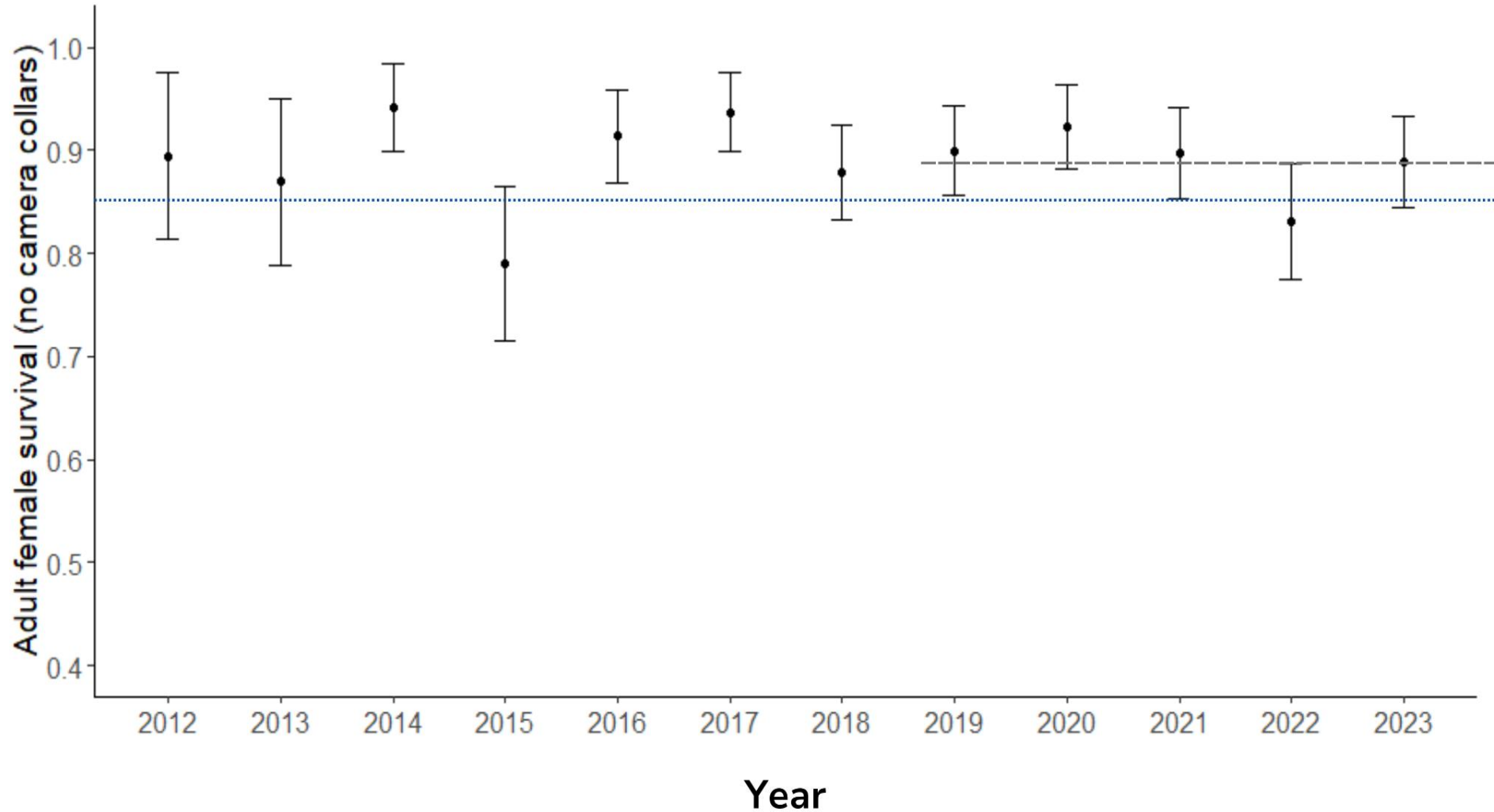
- Rates
 - *4+ years old = 86% (n = 37)*
 - *5 year avg 82%*
 - *3 years old = 33% (n = 12)*
 - *5 year avg 56%*
 - *Deep snow on North Slope*

Three Week Survey

- 3 Week Calf Survey
 - *79% Survival (n = 21)*
 - *Avg is 86%*
 - *57:100 cows*
 - *5 year avg is 61:100*
 - *Long term is 58:100*

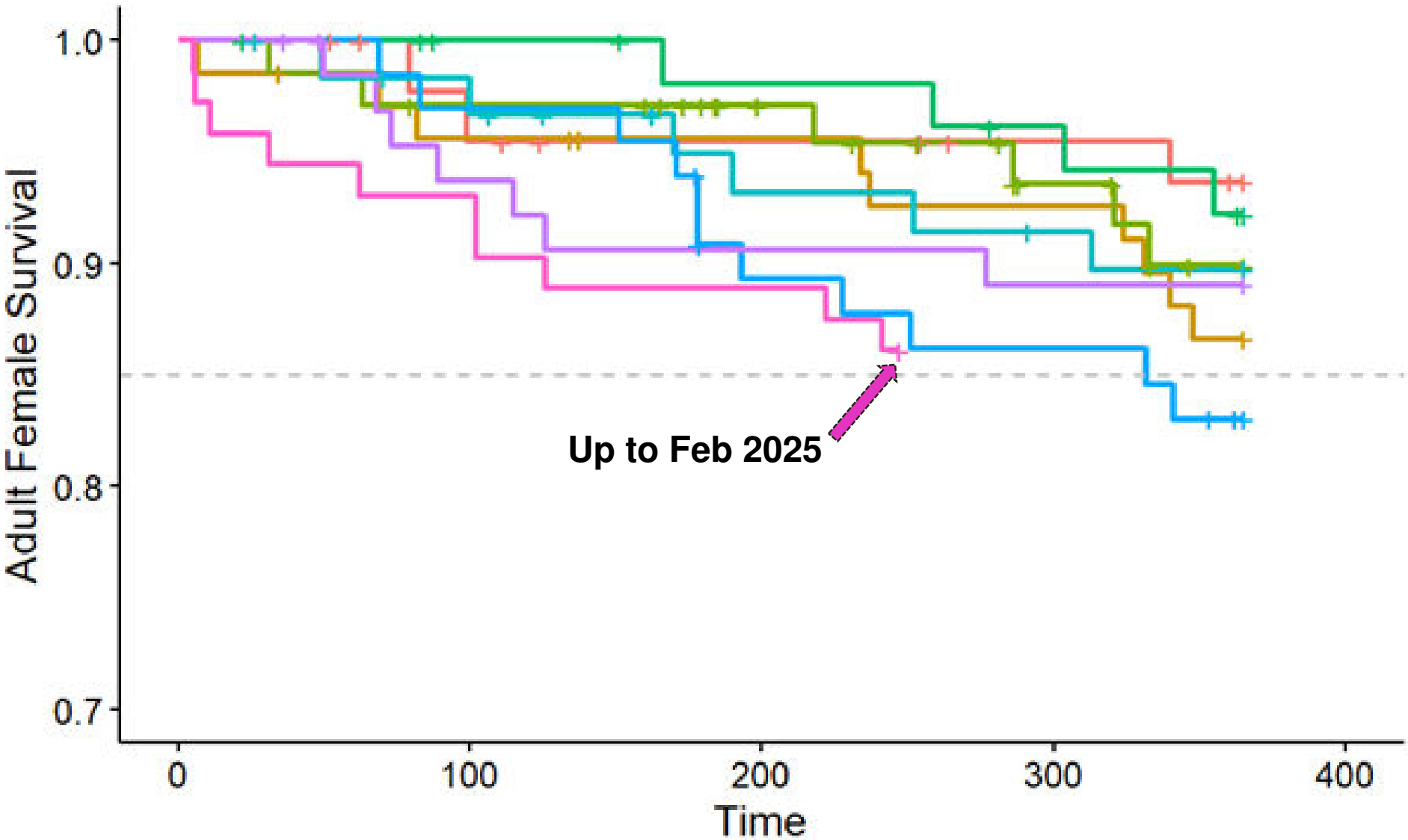
Consistent reports of low numbers of calves fall/winter last couple years

2023-24 Adult Female Survival

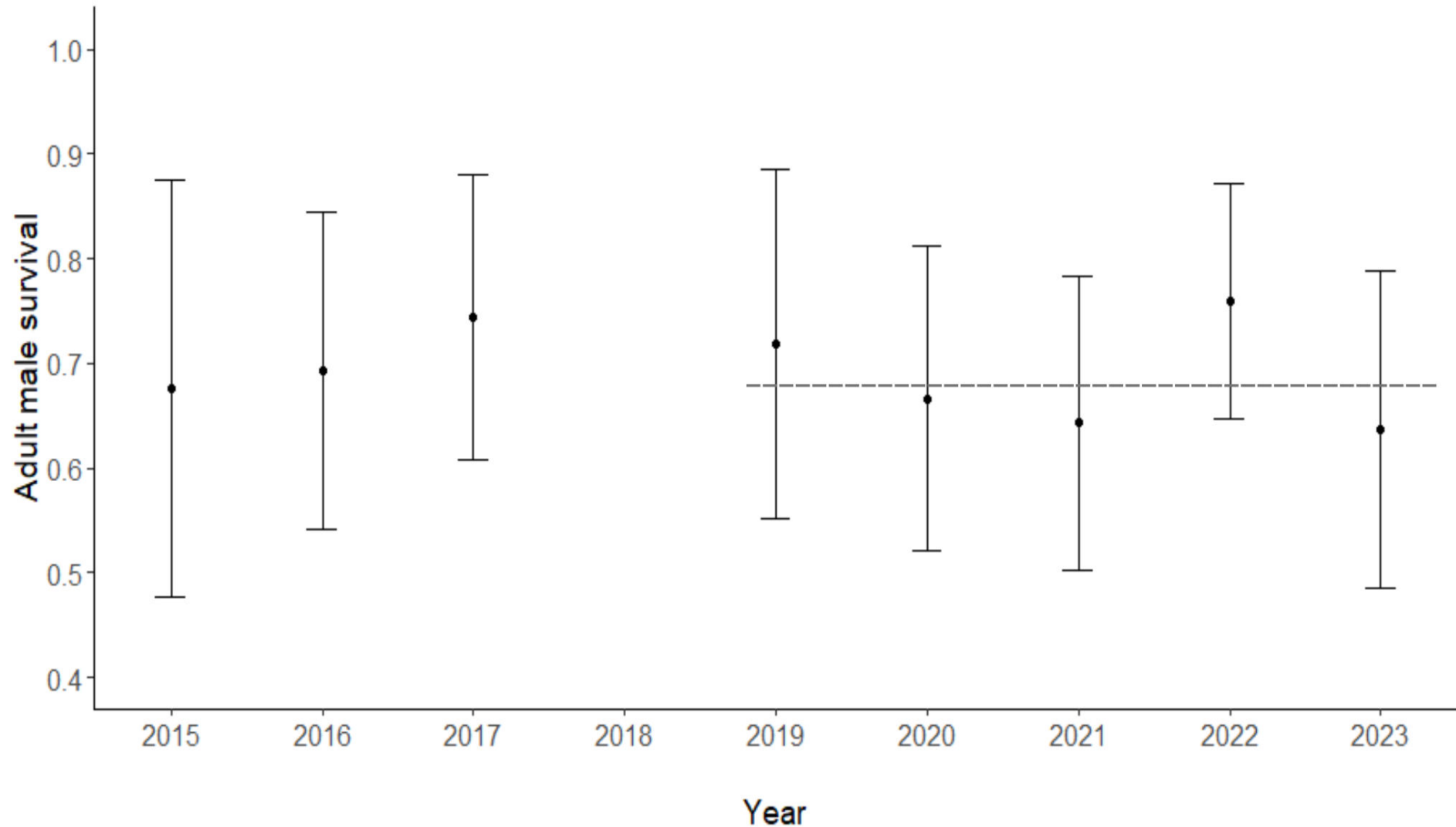


Strata

- surv_year=2017
- surv_year=2018
- surv_year=2019
- surv_year=2020
- surv_year=2021
- surv_year=2022
- surv_year=2023
- surv_year=2024

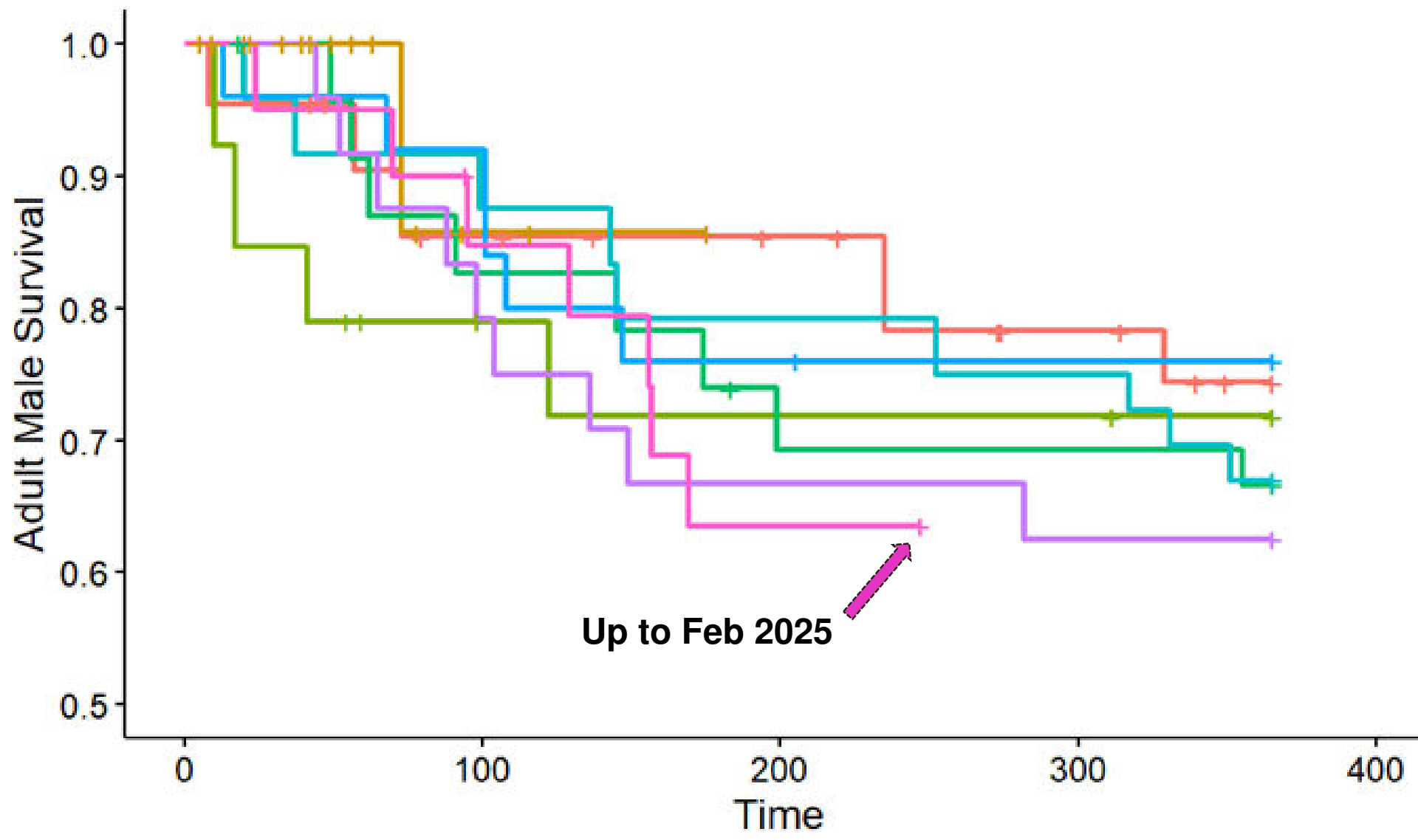


2023-24 Adult Male Survival

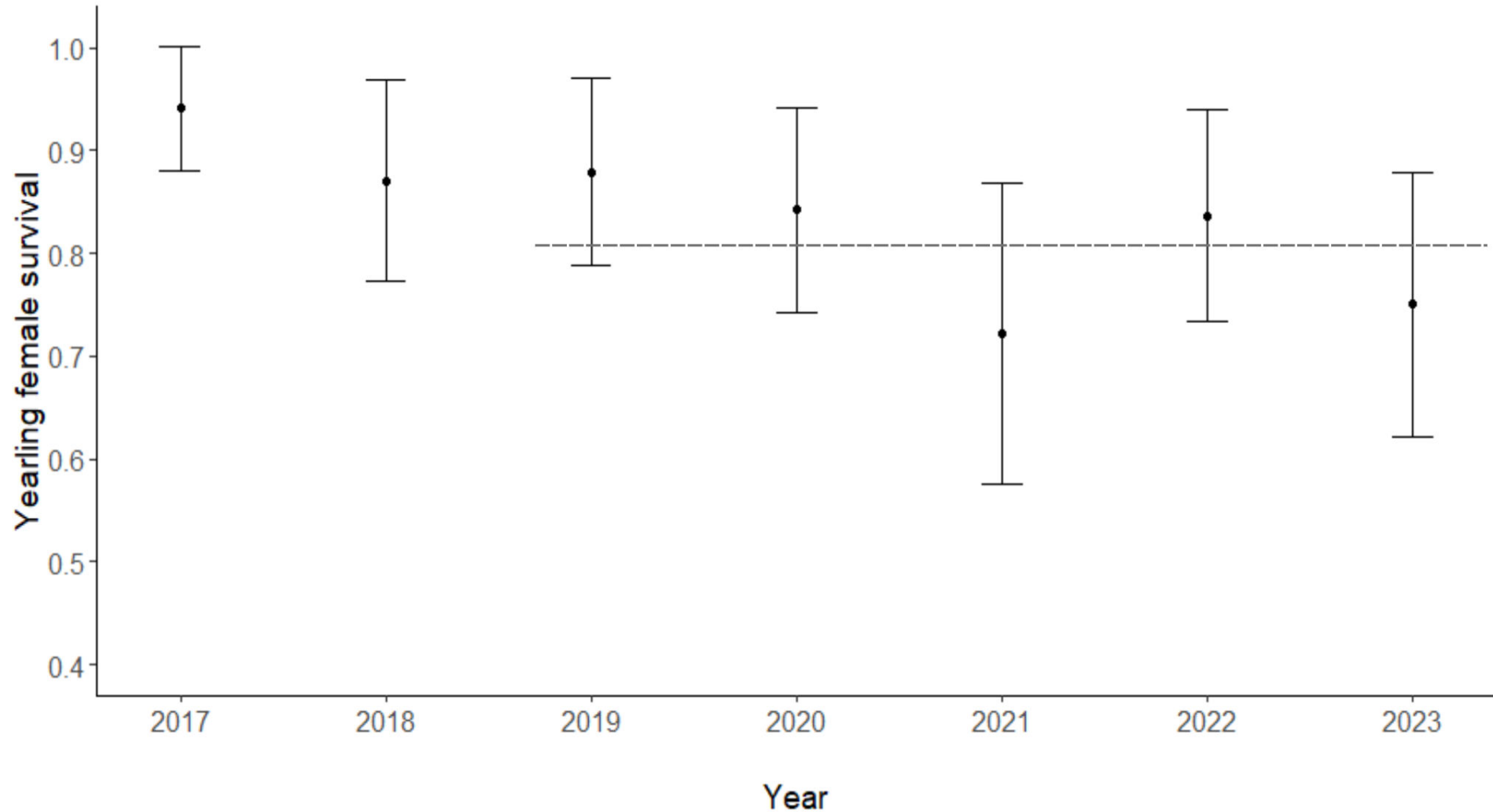


Strata

surv_year=2017	surv_year=2019	surv_year=2021	surv_year=2023
surv_year=2018	surv_year=2020	surv_year=2022	surv_year=2024

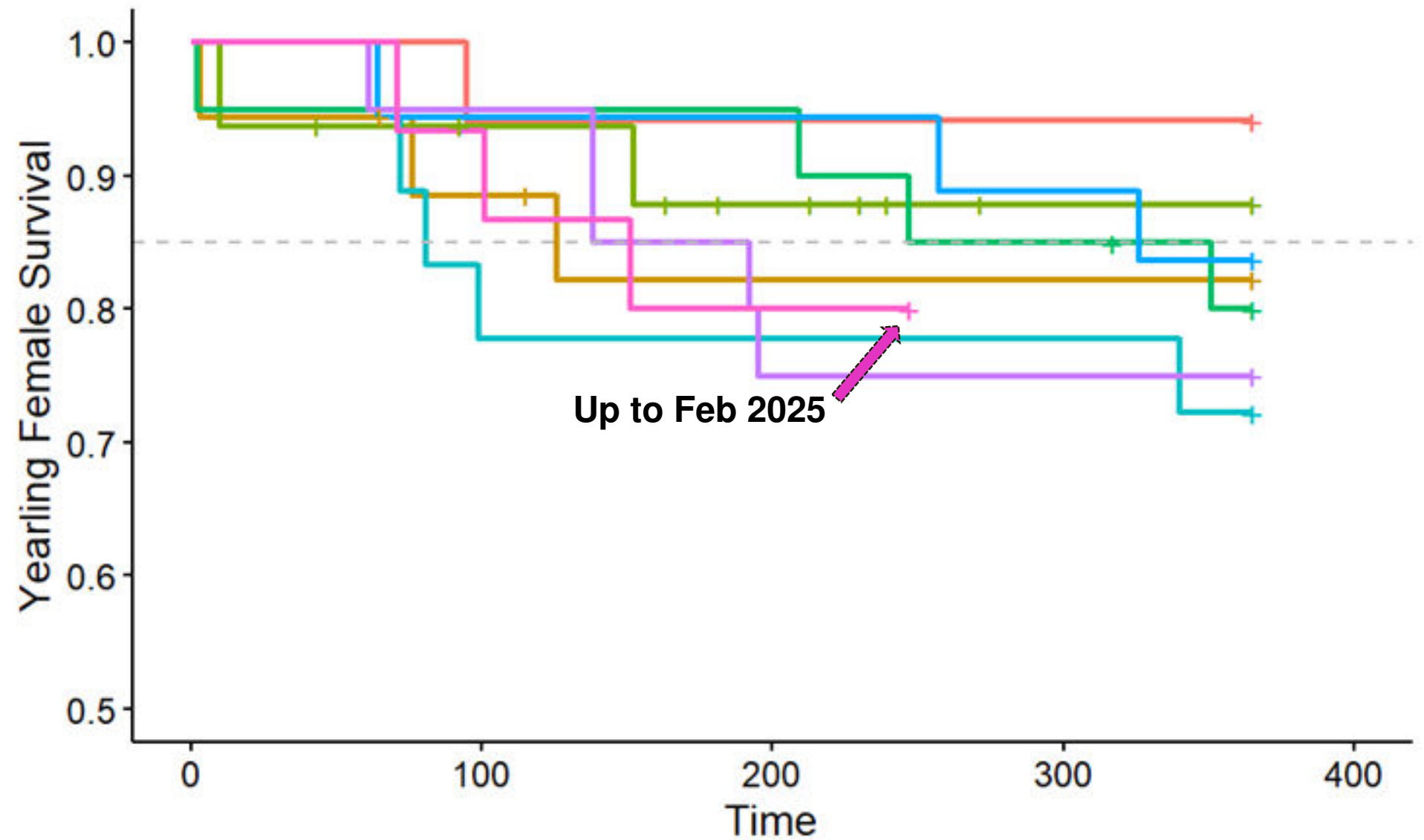


2023-24 Yearling Female Survival



Strata

surv_year=2017	surv_year=2019	surv_year=2021	surv_year=2023
surv_year=2018	surv_year=2020	surv_year=2022	surv_year=2024

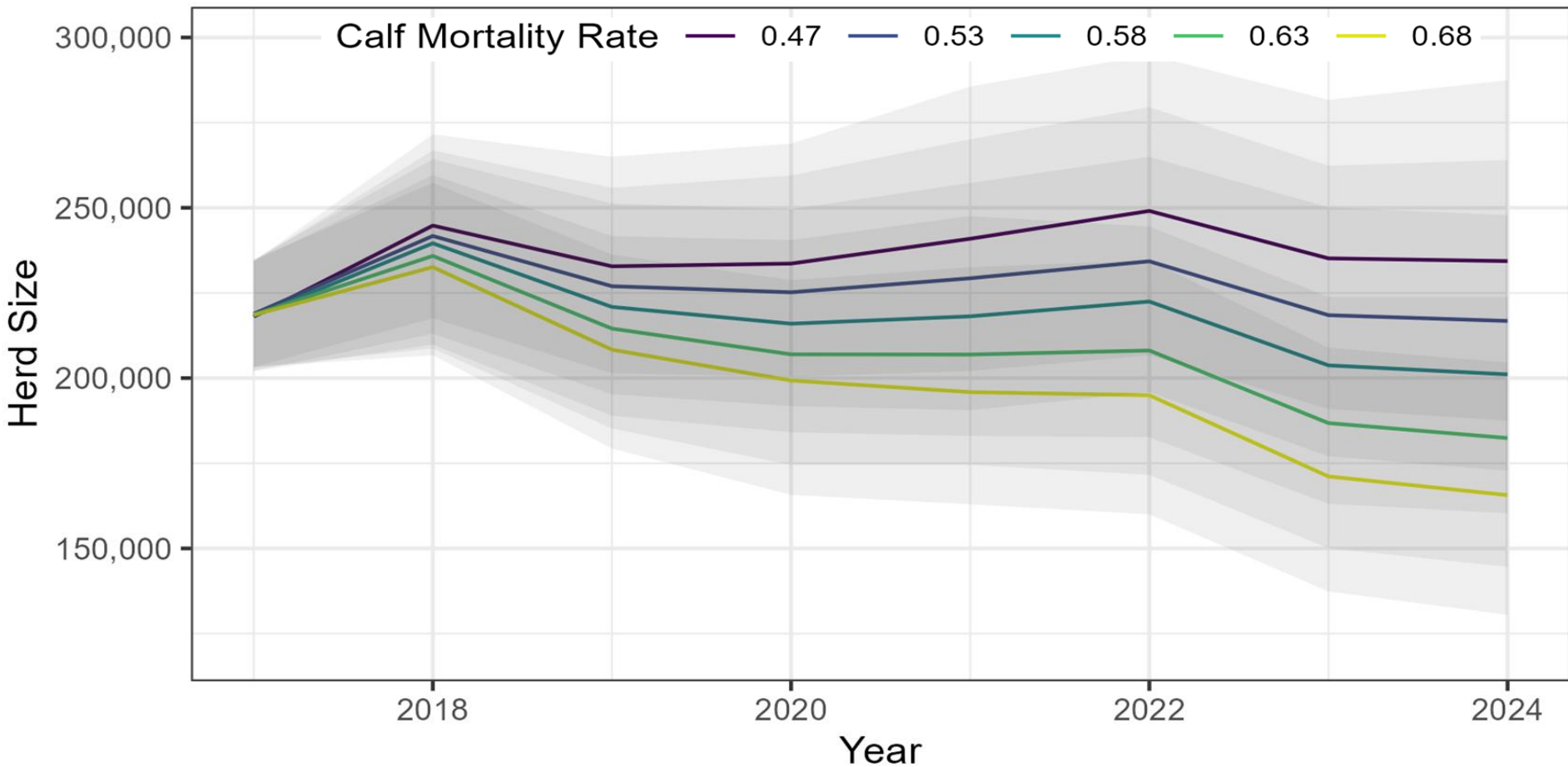


Population Model



Methods

Results



Population Model



Methods

- Brings together monitoring data
- Includes how certain we are about our monitoring
- Calf survival unknown but more pessimistic

Results

- All runs in Green Zone
- Stable or slightly declined from 2017
- Greater chance of larger decline

Population Roll Up



- Survival lower
- 3-year-old pregnancy has declined
- Calf survival unknown but believed to be low
- Models indicate likely lower than 2017
- Likely in green zone
- Herd likely stable or declining
- Greater chance of a larger decline
- Estimates for 2024-25 will be lower



Population

Calf

Weights

Habitat

Harvest



Calf Weights

Methods

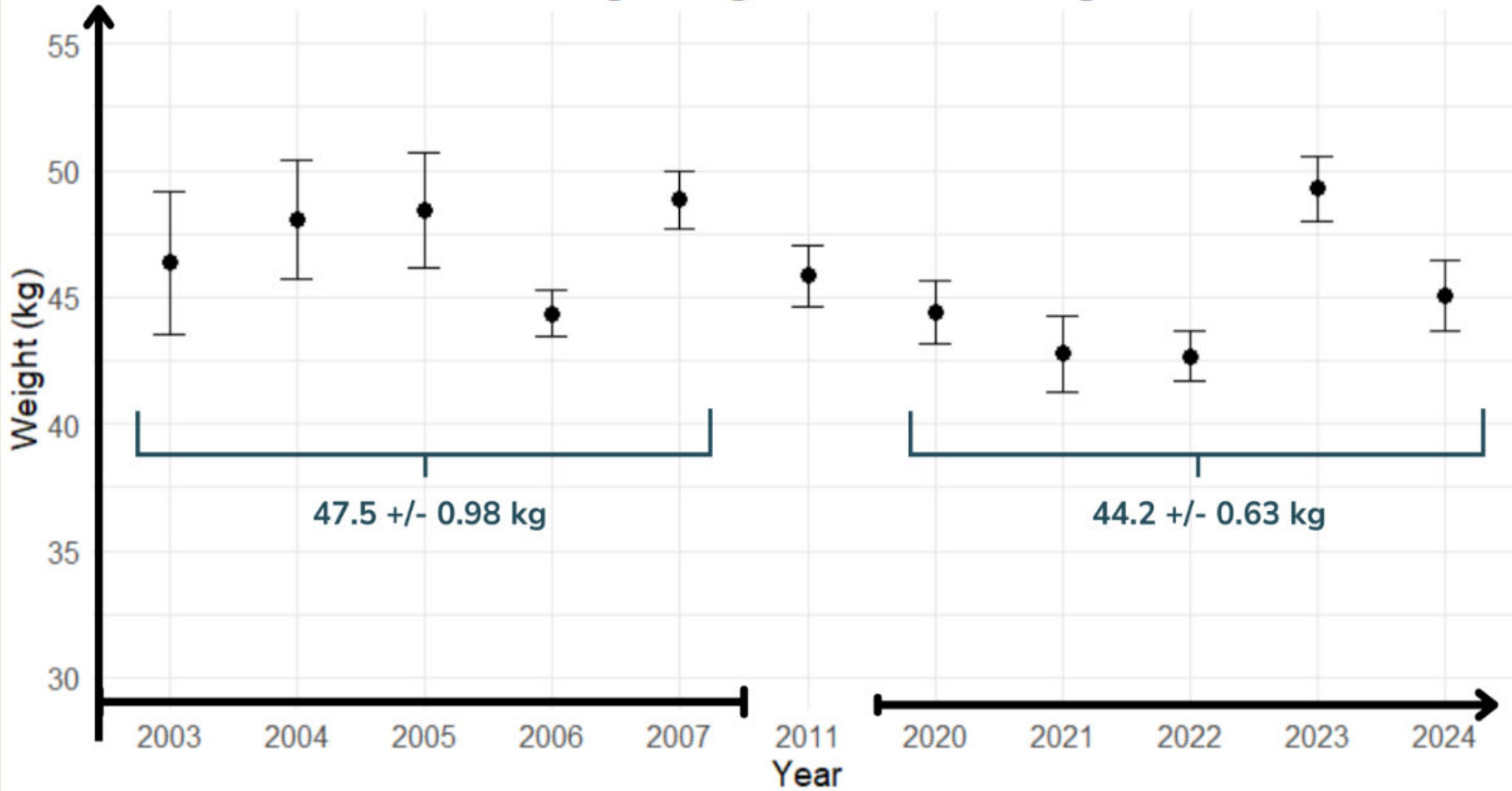
- Weigh 9-month-old calves during captures
- Data from 2003-2007, 2011, 2020-24
- Indicates effects of environment on herd



Calf Weights



Average Weight of Short Yearlings



Calf Weights



Methods

- Weight 9-month-old calves during captures
- Data from 2003-2007, 2011, 2023-24
- Indicates effects of environment on herd

Results

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



Population

Calf

Weights

Habitat

Harvest

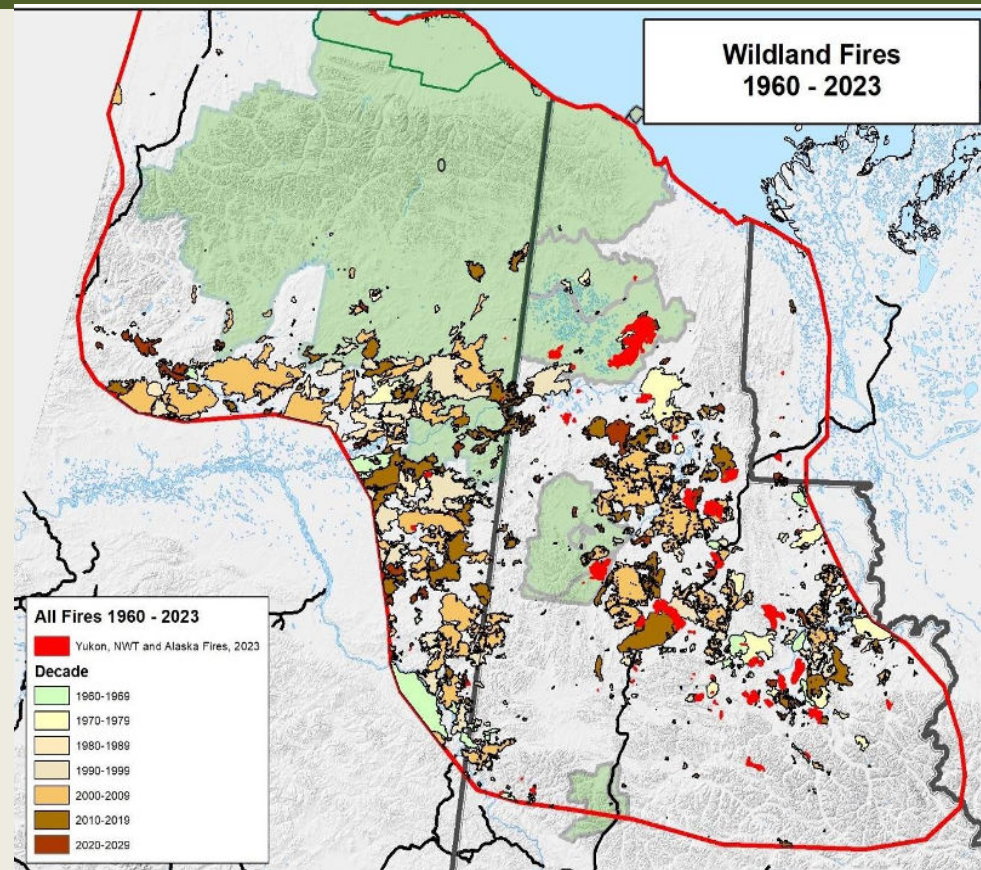


Wildland Fires

Methods

- Amount of PCH range burned as an index of range condition
- 1960—2023
- Fires in red are new as of 2023
- 2024 data not yet available

Results





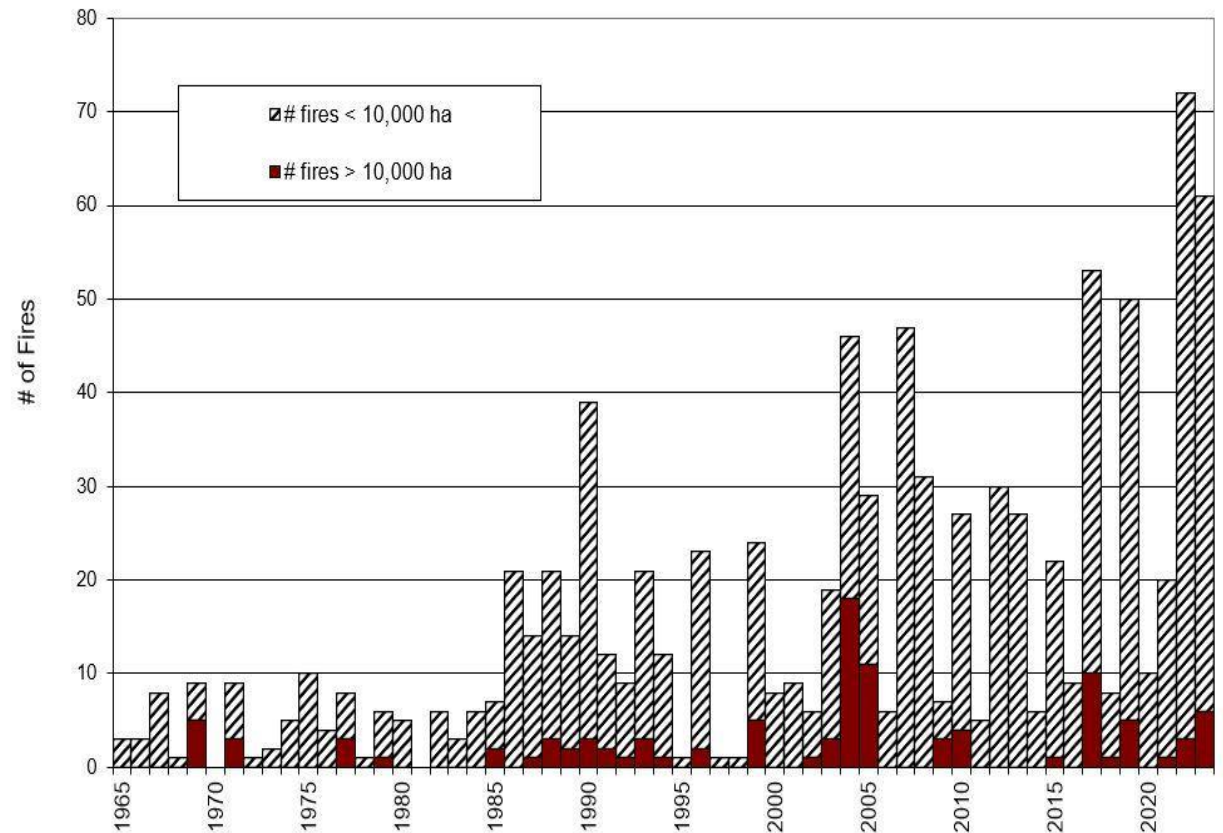
Many fires, some large

Significant tundra fire (Johnson – Blackfox creeks)

Some good wintering habitat burned

2024 relatively few fires

Total number of fires and number of large fires (greater than 10,000 hectares) in PCH range, by year



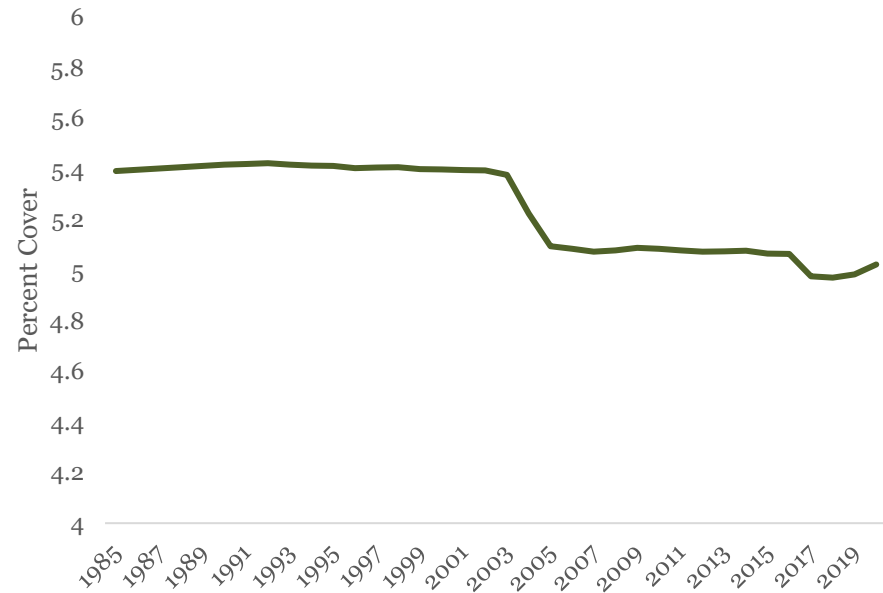
Large fires in PCH Range

Lichen

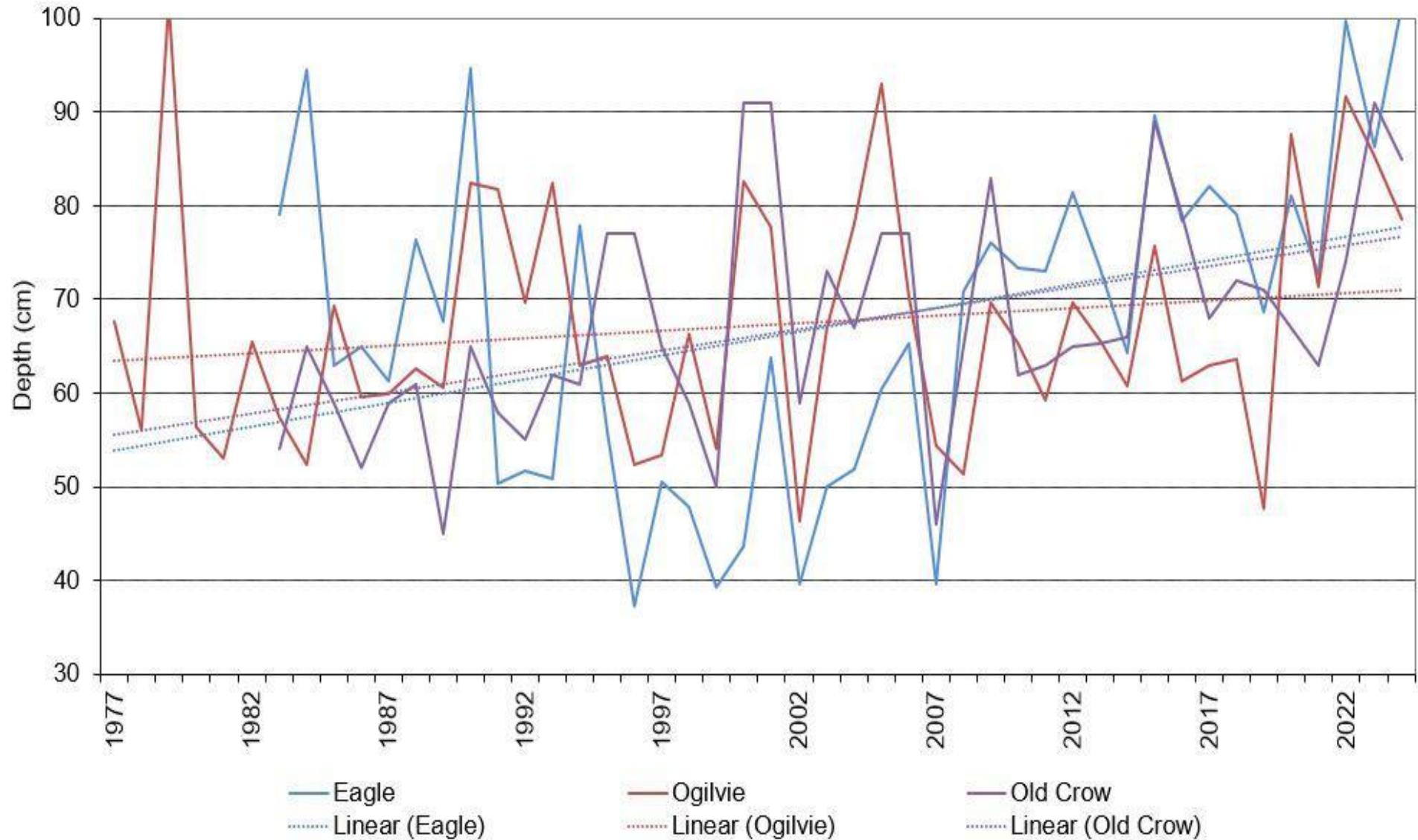


Methods

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



Snow Conditions



Habitat Roll Up



- Some significant fires in tundra and forest
- 2023-24 Porcupine at record snow levels
- Deep snow on coastal plain in spring 2024
- ANWR & development?



Questions?

