

# WAH Caribou Overview

Regional Advisory Council Meeting

Alex Hansen – Wildlife Biologist ADF&G

- Western Arctic Caribou Herd
  - Abundance
  - Additional Biological Data
  - Management
  - Harvest Reporting
  - Summary



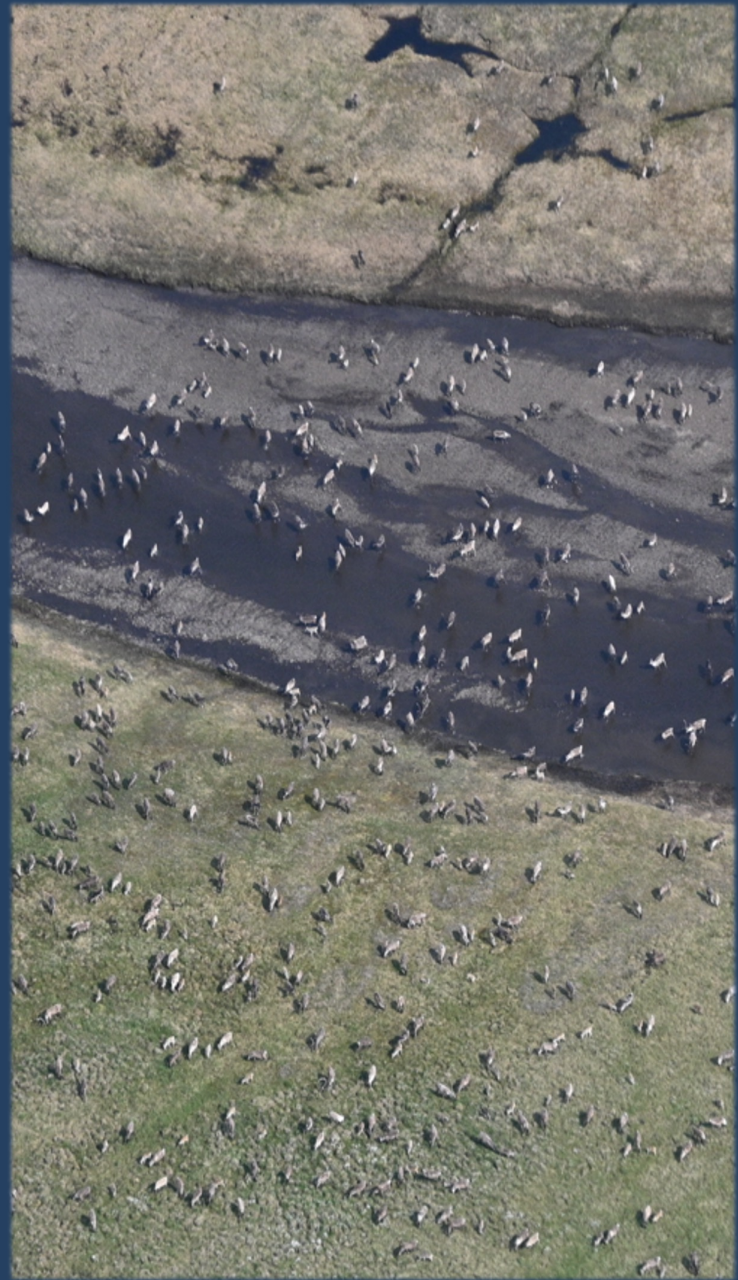


# WAH Abundance

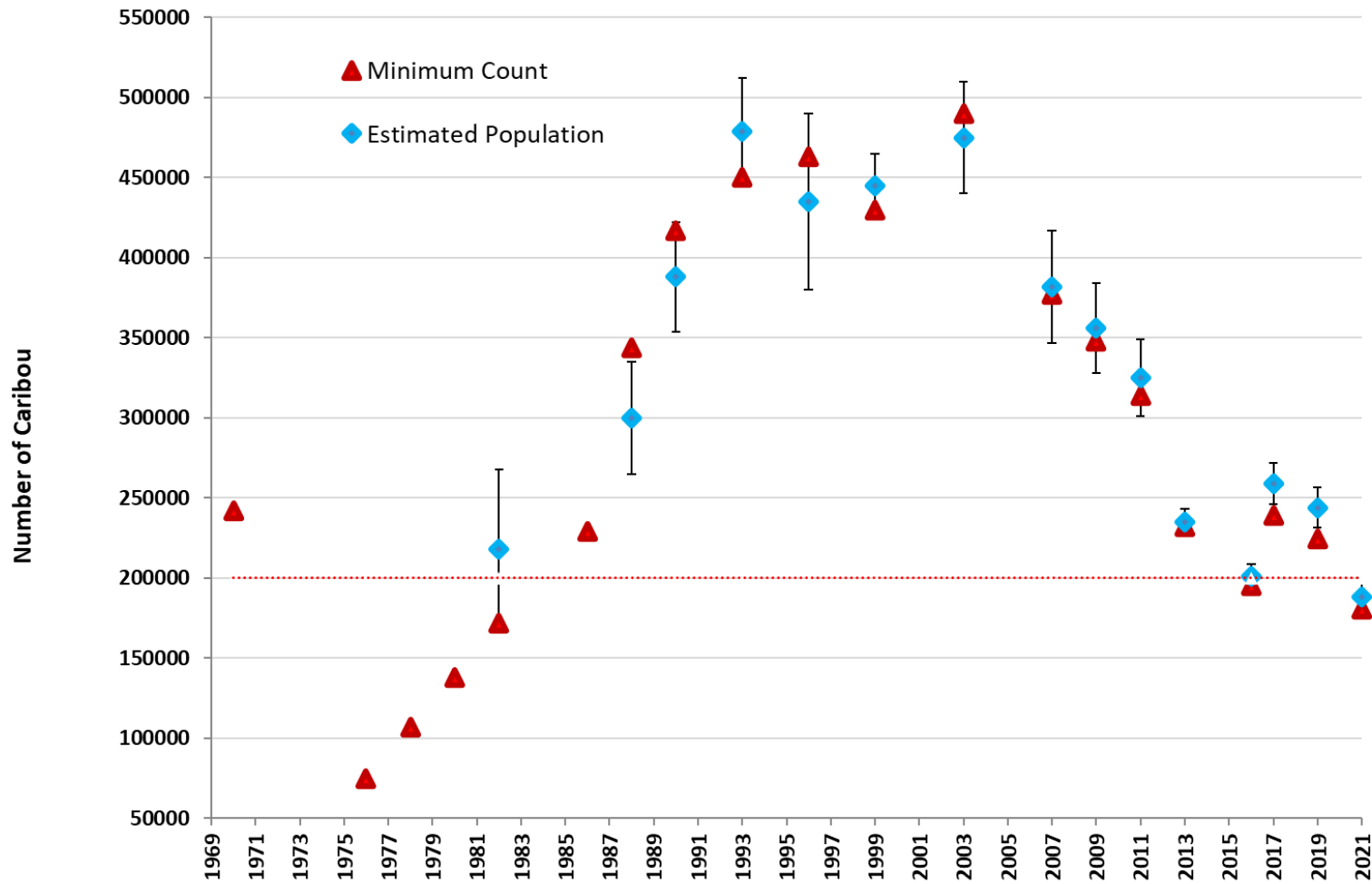
2022 Count in Progress

2021 Photocensus Results

- Rivest Estimate: 188,000
- +/- 11,855 (95% CI)
  - Minimum Count: 180,374
- 2020 - no census
- 2019 - 244,000
- 2018 - no census
- 2017 - 259,000
- 2016 - 201,000

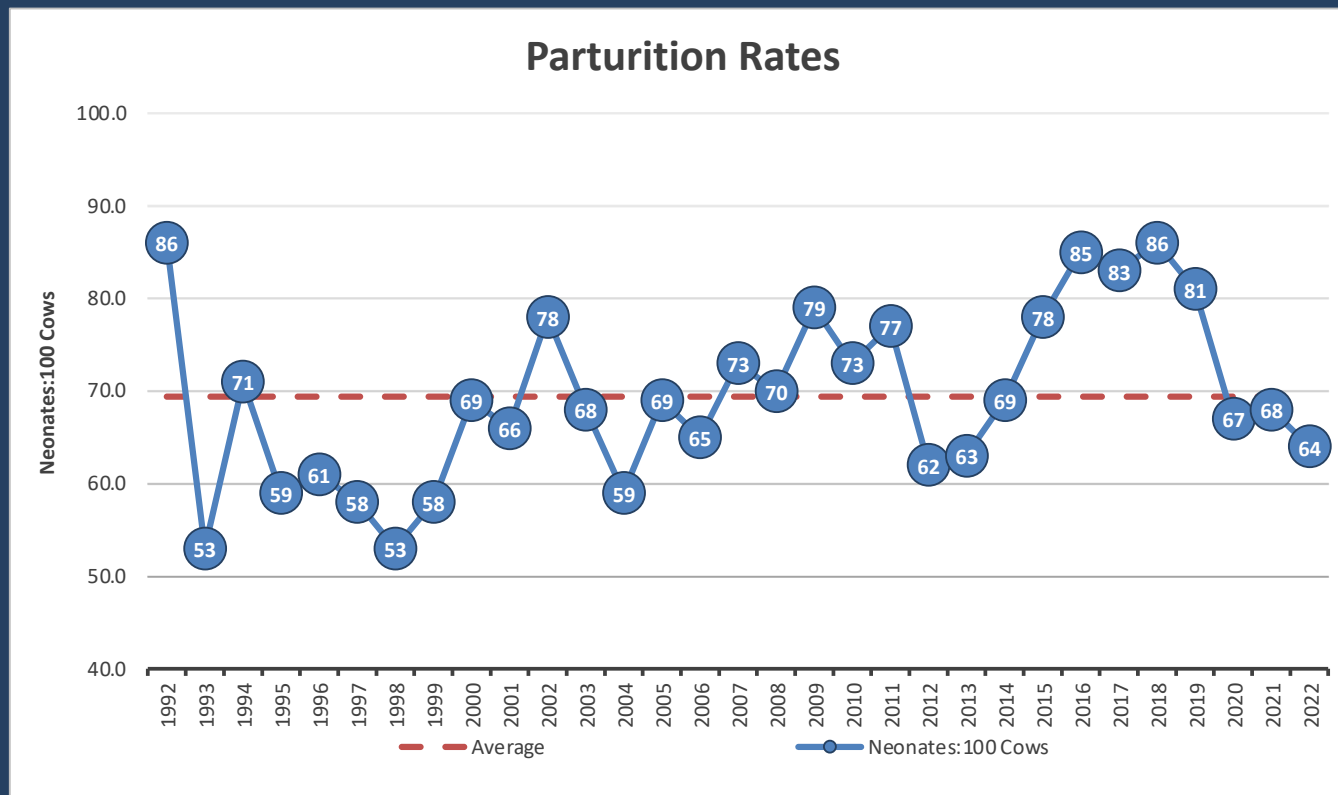


# WAH Abundance Over Time



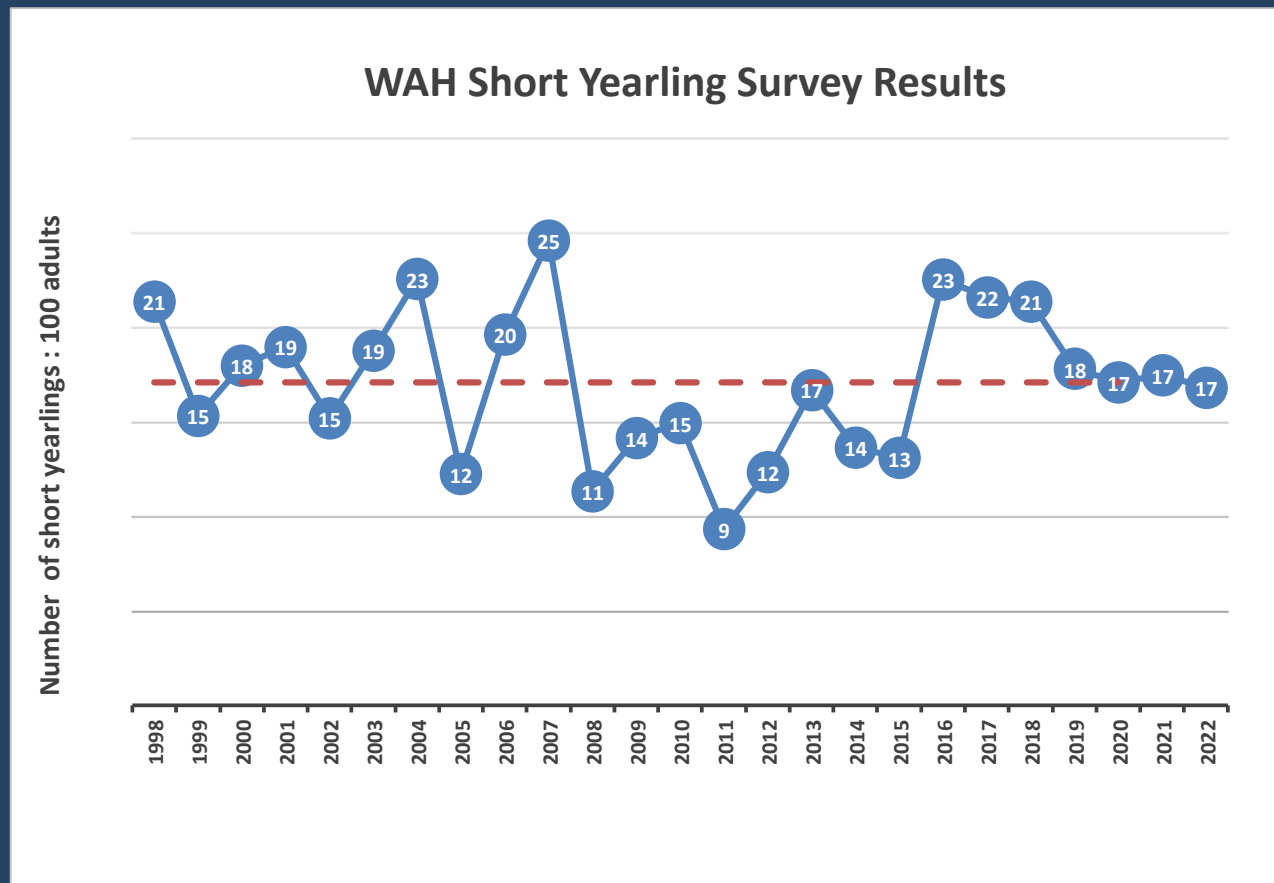
# Calving

- Parturition - 66% (2020-2022)
- Long-term average (70%)



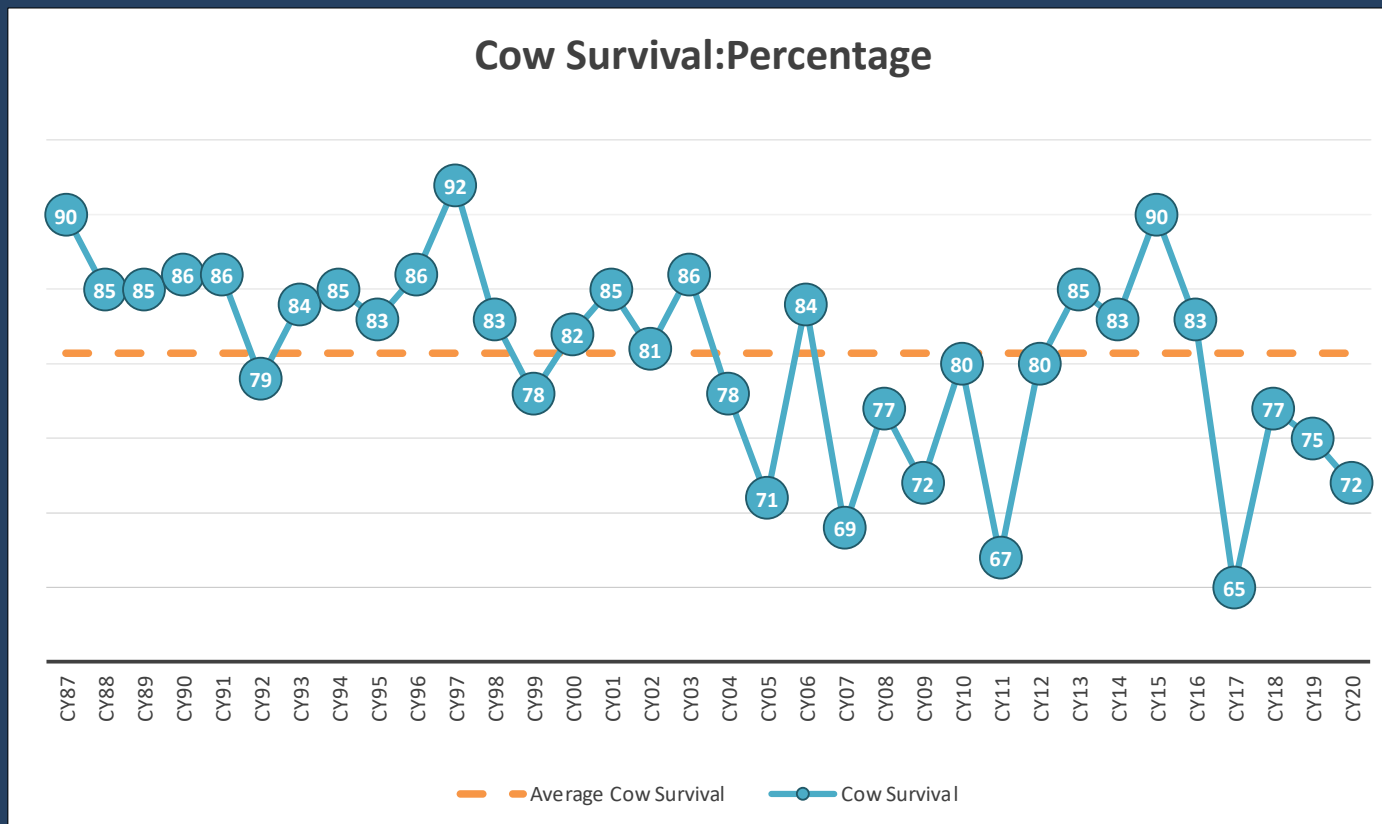
# Recruitment

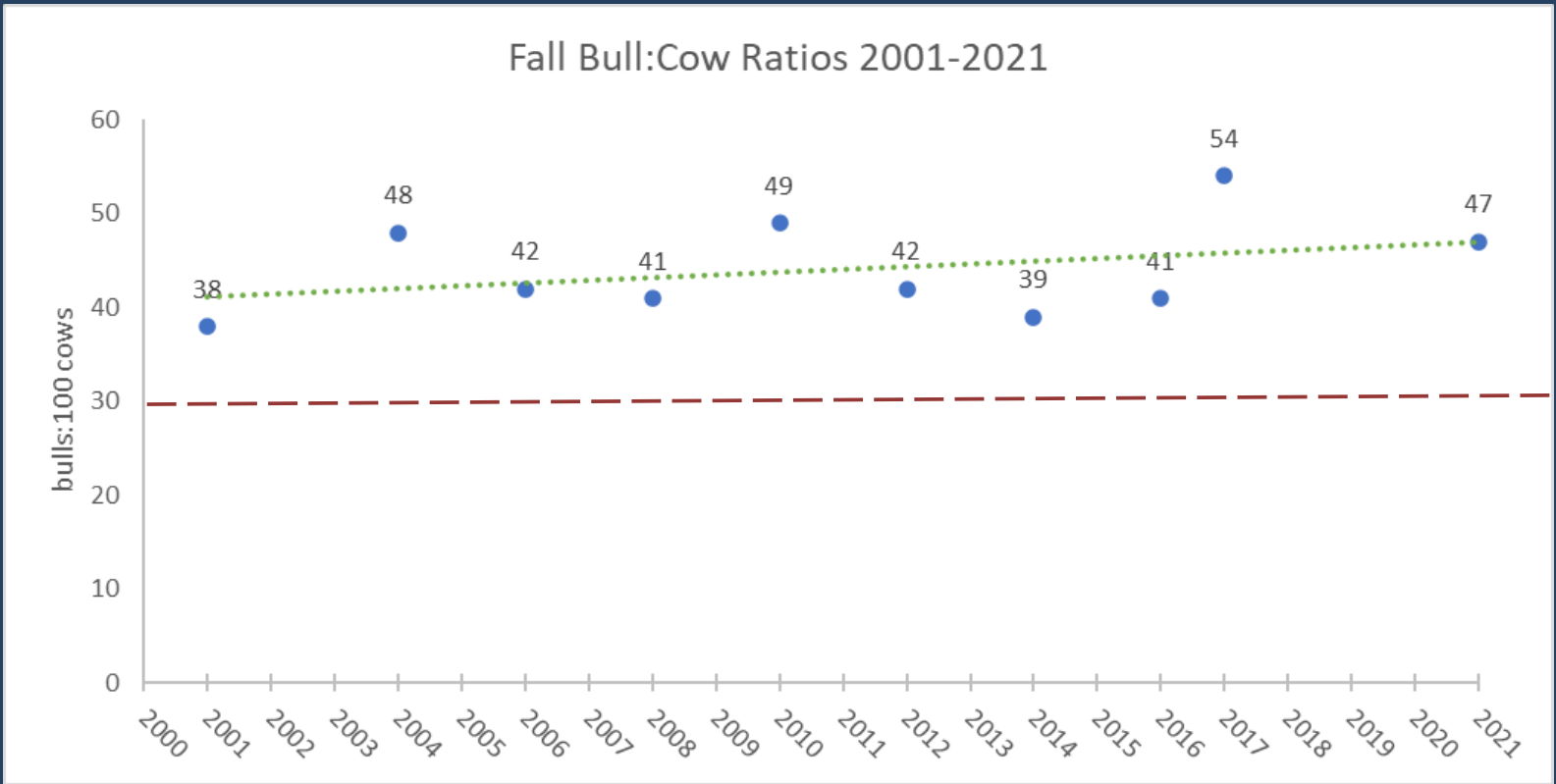
- Short Yearling Recruitment = 17:100 adults (average)
  - Long term average = 17



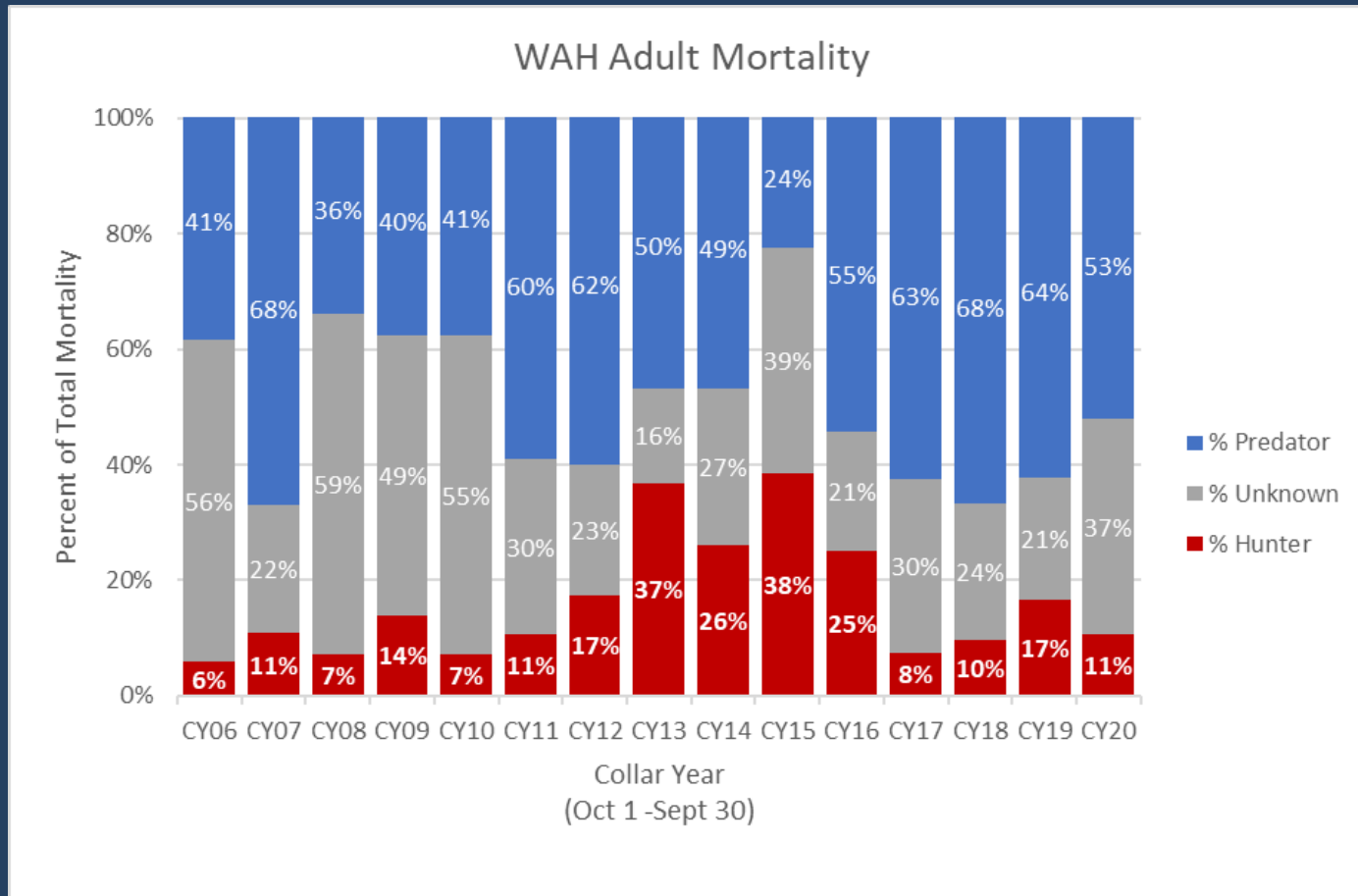
# Adult Survival

- Adult Female Survival – 72% (below average)
  - Long term average = 81%



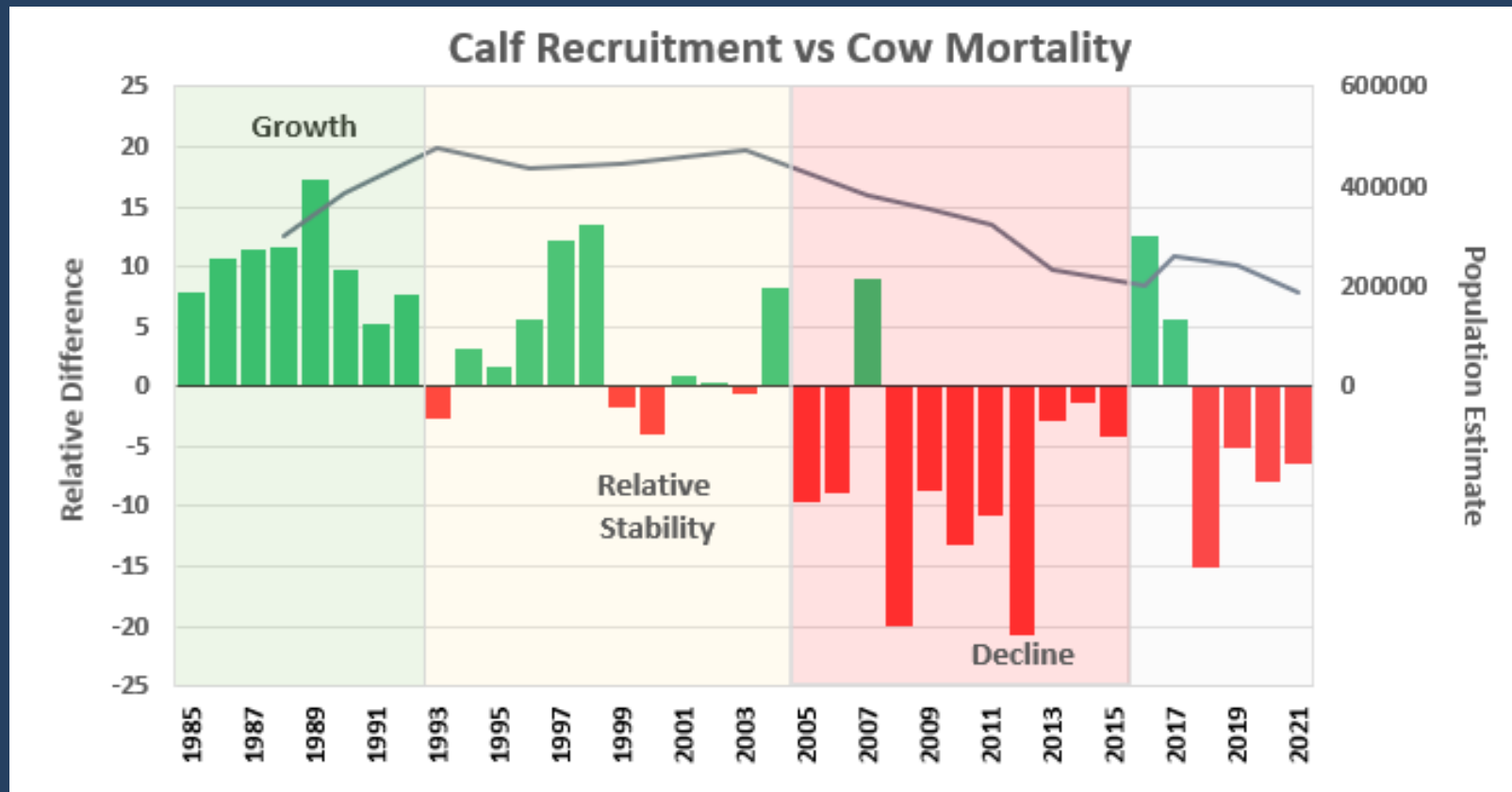


# Cause of Mortality





# Population Trend



# Management Level Overview

Management Level	Population Trend		
	Declining Adult Cow Survival <80% Calf Recruitment <15:100	Stable Adult Cow Survival 80%-88% Calf Recruitment 15-22:100	Increasing Adult Cow Survival >88% Calf Recruitment >22:100
Liberal	Pop: 265,000+ Harvest: 14,000+	Pop: 230,000+ Harvest: 14,000+	Pop: 200,000+ Harvest: 14,000+
Conservative	Pop: 200,000-265,000 Harvest: 10,000-14,000	Pop: 170,000-230,000 Harvest: 10,000-14,000	Pop: 150,000-200,000 Harvest: 10,000-14,000
Preservative	Pop: 130,000-200,000 Harvest: 6,000-10,000	Pop: 115,000-170,000 Harvest: 6,000-10,000	Pop: 100,000-150,000 Harvest: 6,000-10,000
Critical	Pop: <130,000 Harvest: <6,000	Pop: <115,000 Harvest: <6,000	Pop: <100,000 Harvest: <6,000

# Management Level

## WAHWG Cooperative Management Plan: Harvest Recommendations

Conservative Management (orange, based on 2019 photo census)

1. Encourage voluntary reduction in calf harvest...√
2. No nonresident cow harvest √
3. Restrict nonresident bull harvest √
4. Encourage voluntary reduction in resident cow harvest √
5. Limit subsistence harvest of bulls only if < 30 bulls:100 cows

Preservative Management (yellow, based on 2021 photo census)

1. No harvest of calves
2. Limit harvest of cows by residents through permit hunts and/or village quotas
3. Limit subsistence harvest of bulls to maintain at least 30 bulls:100 cows
4. Harvest restricted to residents only, according to State and federal law. Closure of some federal public lands may be necessary.

# WAH Management

C&T Finding: Positive

ANS: 8,000-12,000, WAH and TCH

Annual Harvest

Estimate: ~12,000 (+/- 1,750)  
Includes ~3,600 cows

Intensive Management Objectives:

Population - 200,000 or less

Harvestable Surplus:

Approximately 11,300 (Bull and Cow combined)  
At 6% harvest rate



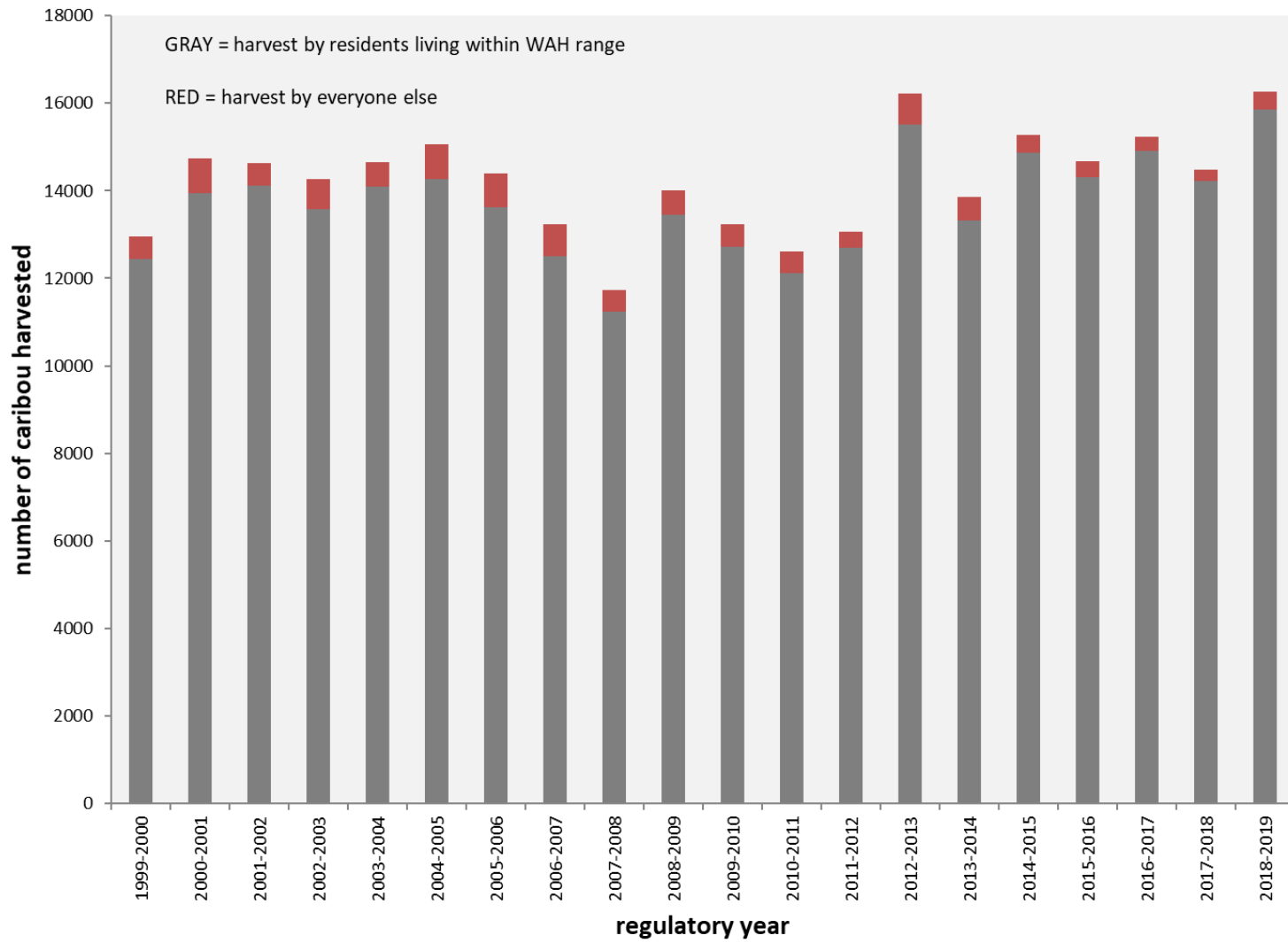
# WAH Management Challenges

RC907/800 participation is too low to provide a clear picture of harvest

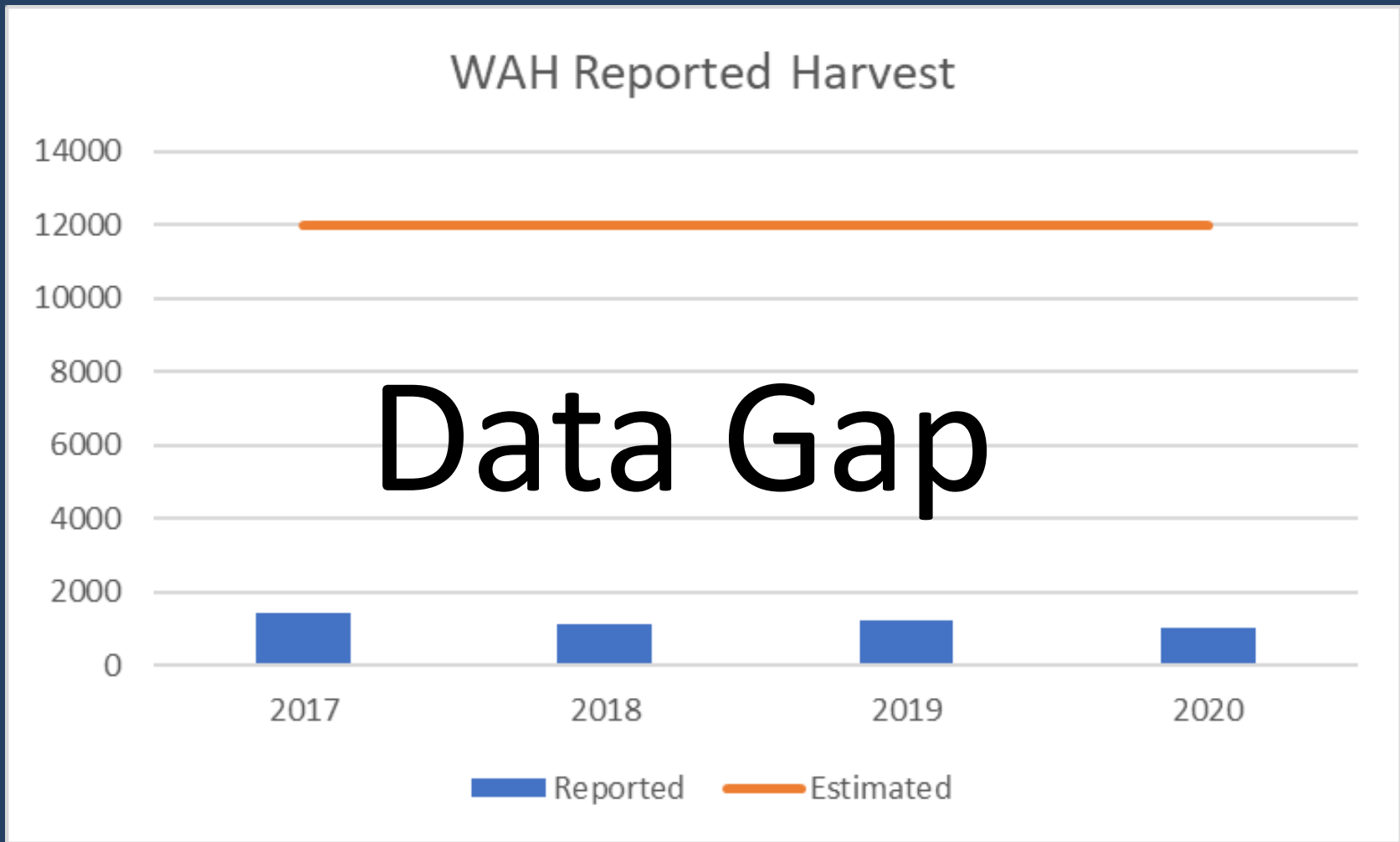
Harvest model is too coarse to provide meaningful data for management

Increased understanding of harvest is key to understanding human caused impacts

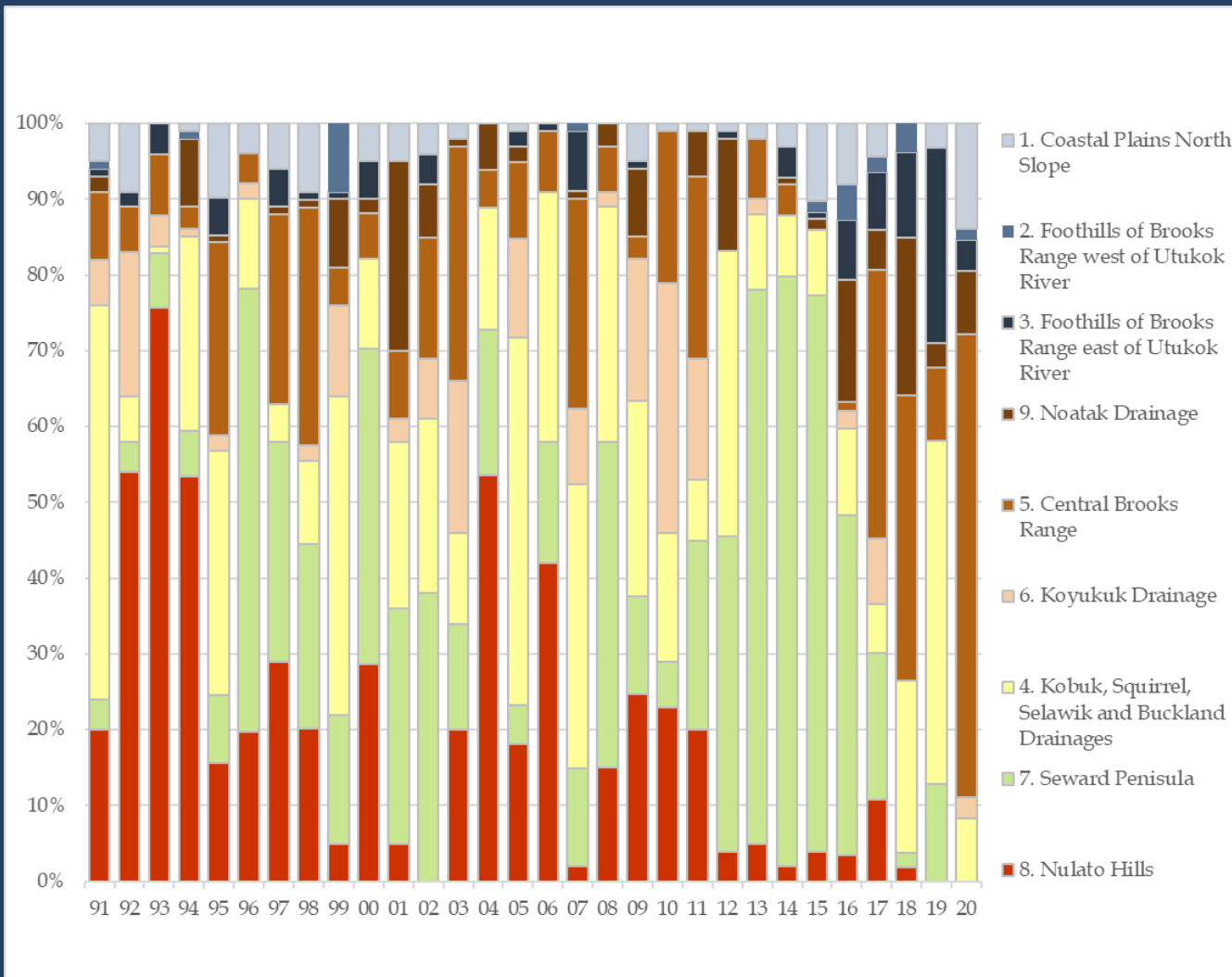
# Harvest Model



# Harvest Reporting



# Annual Variation in Winter Range





# Summary

## Biological Concerns:

- Hovering around critical thresholds (WACHMP)
  - Short-yearling recruitment – average
  - Calving – below average
  - Adult cow survival – below average
  - Harvestable Surplus – need data

## Biological Conclusions:

- NFQU harvest is a known and very small part of total harvest better local r data is needed
- Fall migration is heavily tied to temp and snow (Cameron et al. 2021)
- Caribou winter ranges continuously shift (Caribou Trails 2021 graph)

# Questions

Regional Advisory Council  
October, 2022

Alex Hansen – Alaska Department of Fish & Game

