

WAH Caribou Overview

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



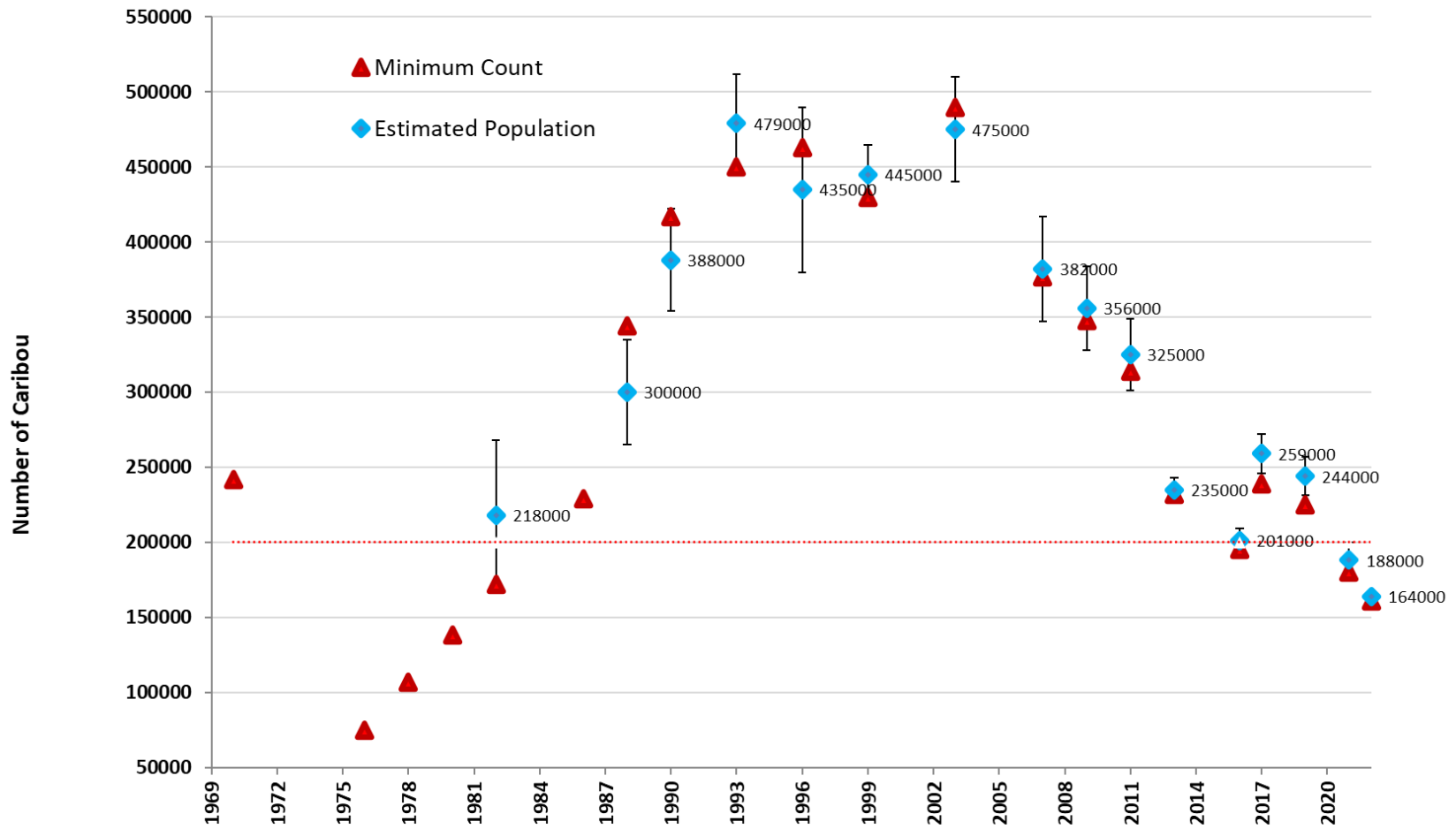
WAH Abundance

2022 Photocensus Results

- Rigest Estimate: 164,000
- +/- 7,271 (95% CI)
 - Minimum Count: 161,034
- 2021 – 188,000
- 2020 – no census
- 2019 – 244,000
- 2018 – no census
- 2017 – 259,000
- 2016 – 201,000

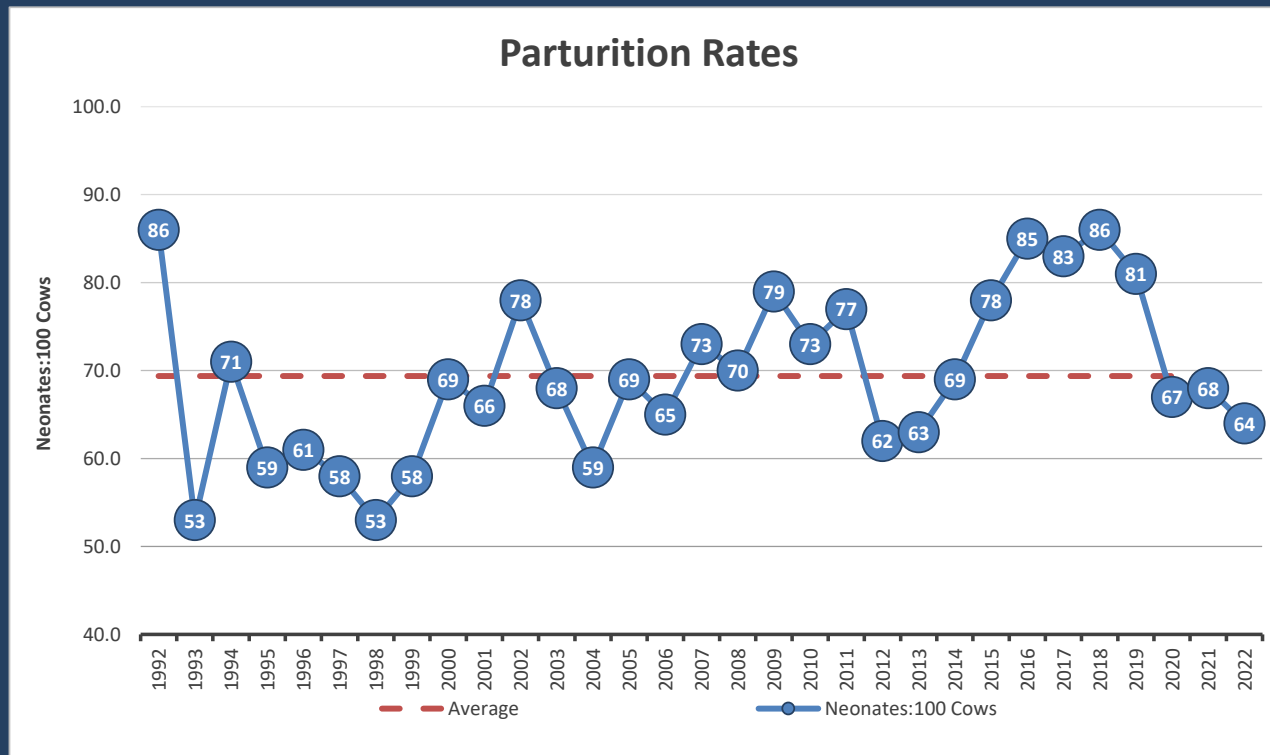


WAH Abundance Over Time



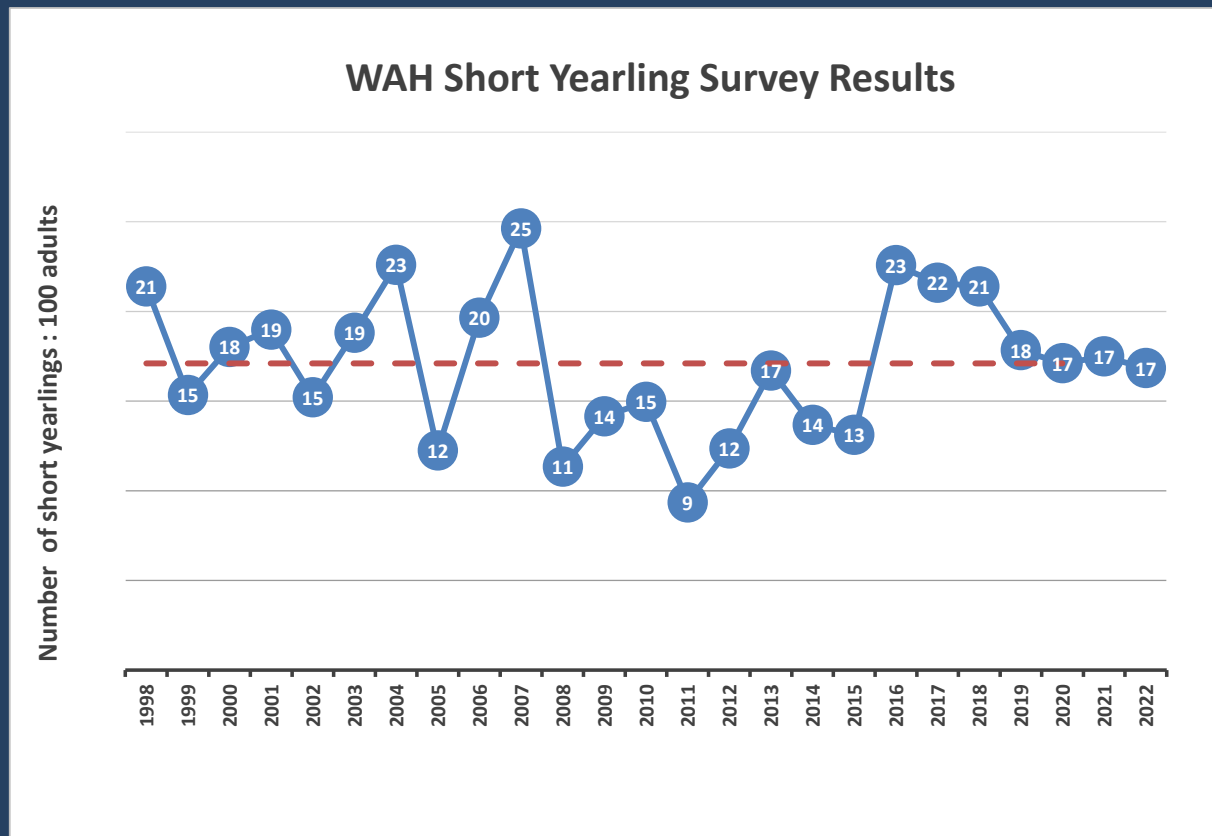
Calving

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



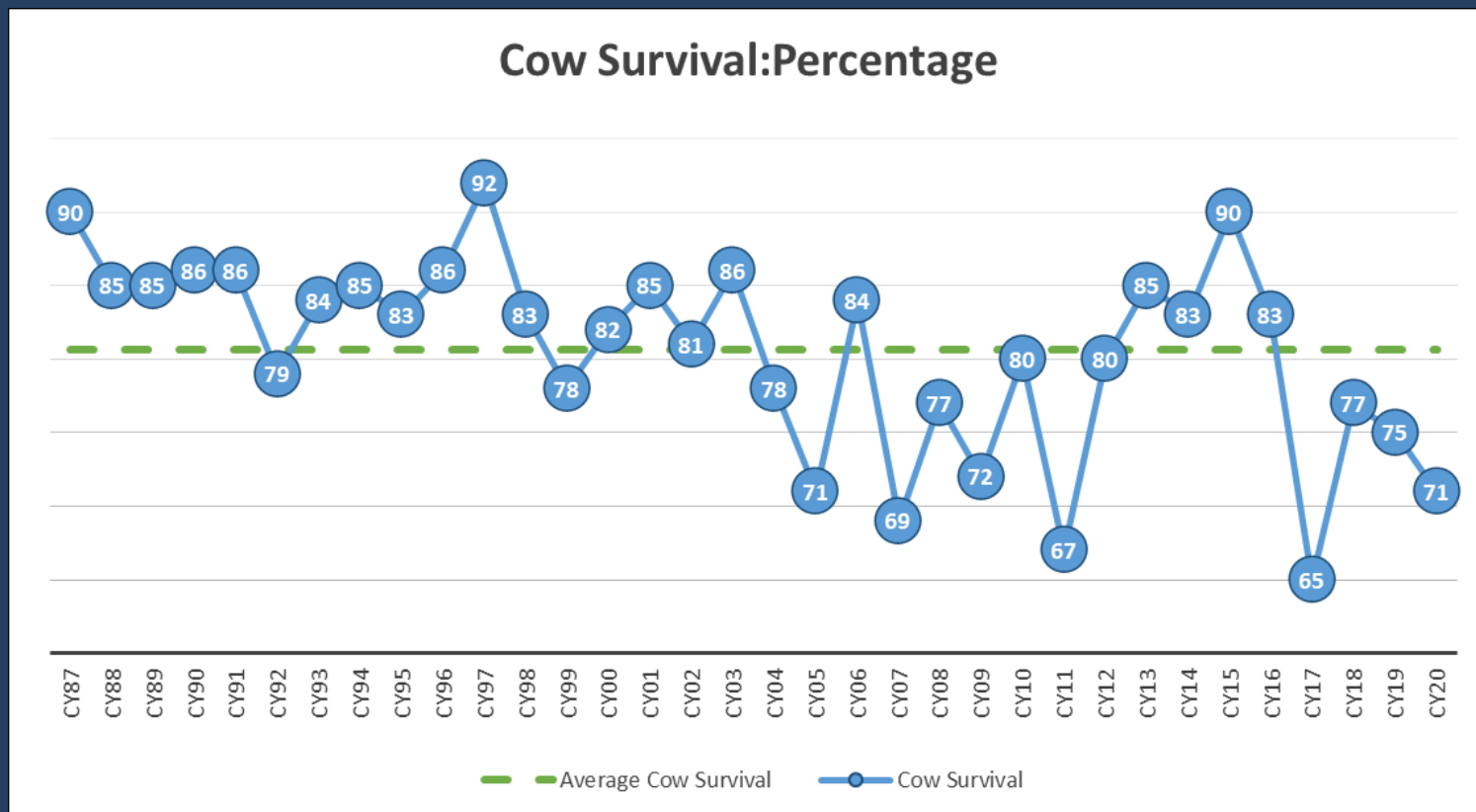
Recruitment

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



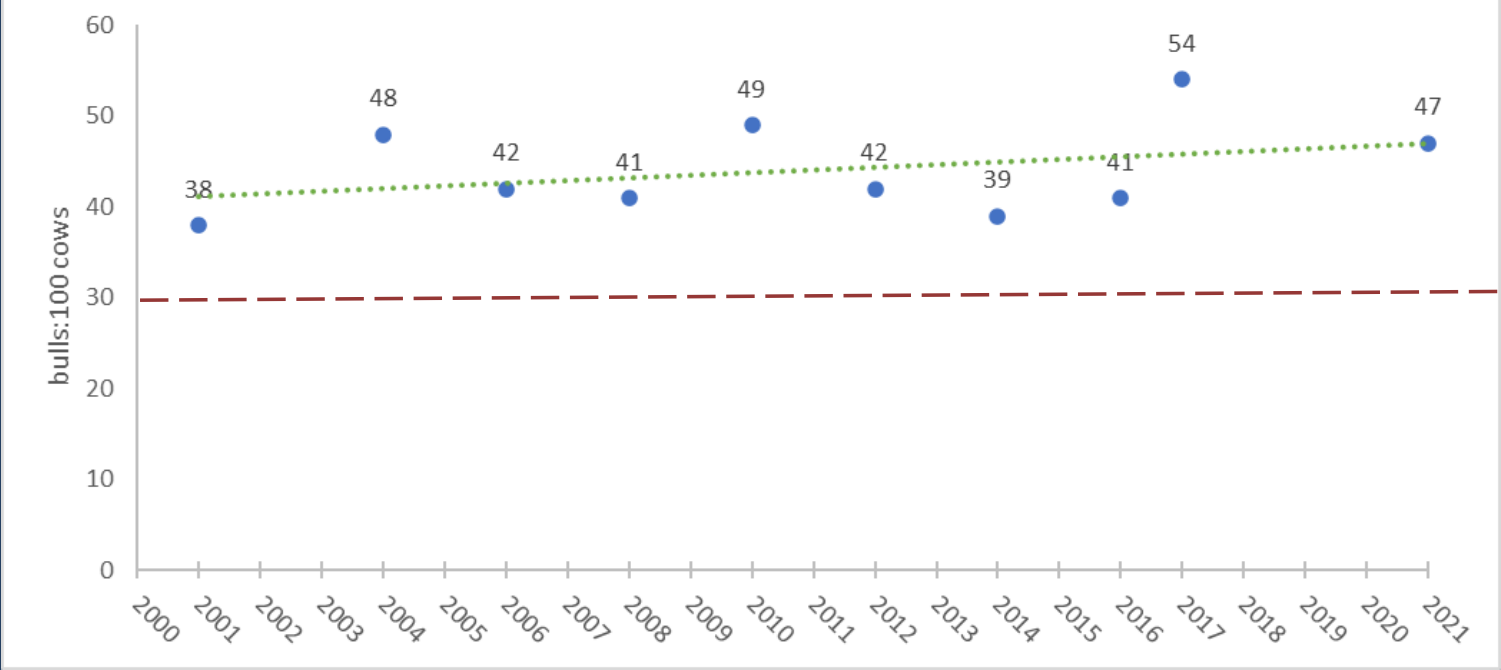
Adult Survival

- Adult Female Survival – 71% (below average)
 - Long term average = 81%





Fall Bull: Cow Ratios 2001-2021



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

Recommended Harvest

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+
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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

- Recommended harvest rate at the preservative declining level
 - ~ 4.6% at 130,000
 - ~ 5% at 200,000
- 4.8% harvest of 164,000 = 7,872 combination of bulls/cows/calves
- What about harvest ratios?
 - GMU 23 harvest is approximately 70% bulls and 30% cows
- Based on current harvest ratios, if we treat calves as adults, the plan recommends a harvest of up to...
 - 5511 bulls
 - 2361 cows
 - = 7,872 maximum harvest

Management Level

Management Plan: Harvest Recommendations

Conservative Management (orange)

1. Encourage voluntary reduction in calf harvest...✓
2. No non-resident 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)

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 7,872 (bulls/cows/calves)

Management Actions

Net reduction of harvest likely necessary

- Cow harvest – highest priority
- Bull harvest – maintain healthy bull:cow

Get accurate harvest data

- Through permits
- Other tools as needed

Increase understanding of mortality causes

- Mitigate if possible

Continued Monitoring

Management Actions

Now is the time to take action...

- Ideas?
- Suggestions.
- Proposals!
- Kotzebue Sound AC and WAH WG, draft proposals

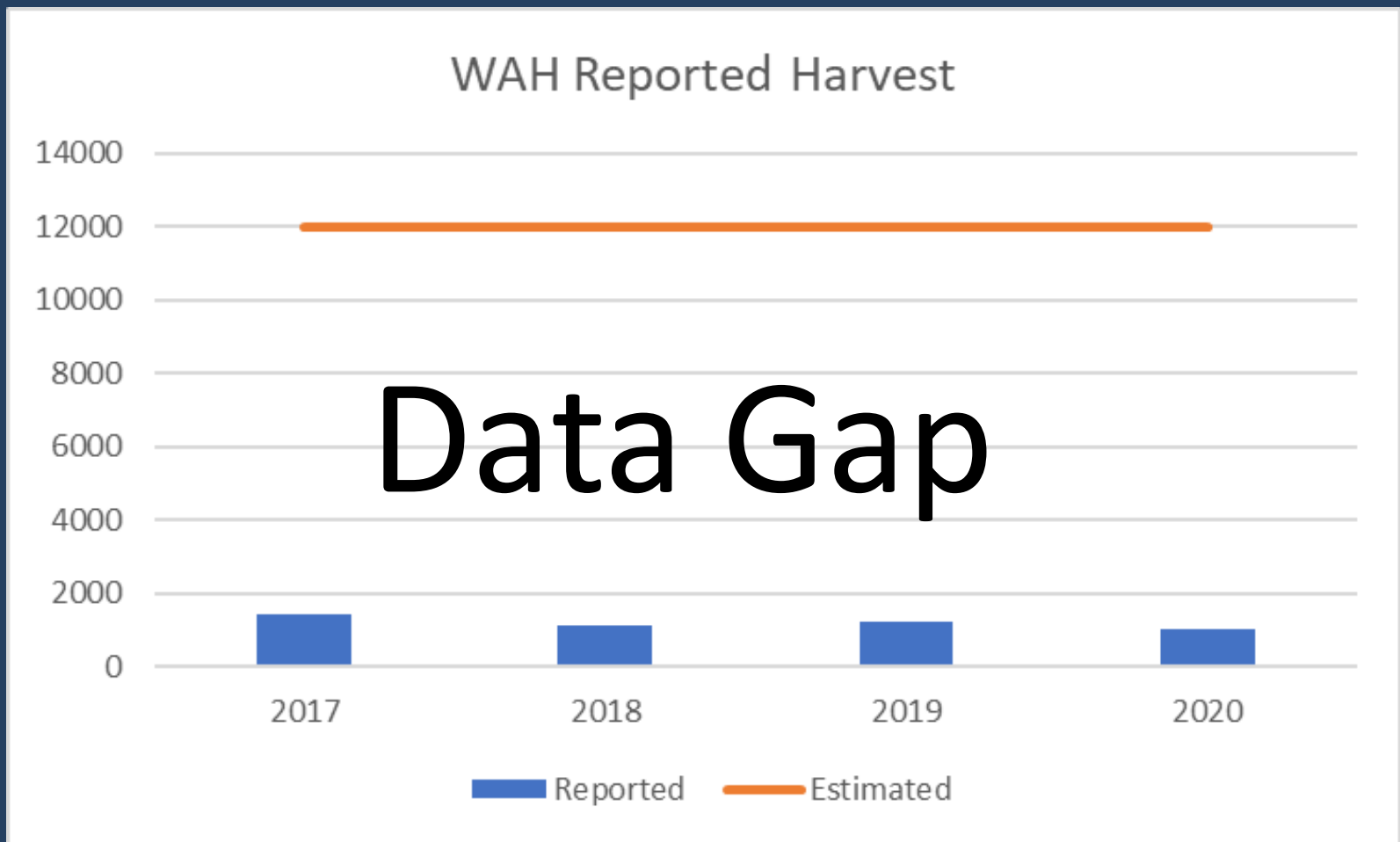
WAH Management Challenges

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 Reporting



Summary

Biological Concerns:

- Hovering around critical thresholds (WAH WG Plan)
 - Short-yearling recruitment – average
 - Calving – below average
 - Adult cow survival – below average
 - Harvestable Surplus – need data
 - NFQU harvest is a known and very small part of total harvest
better local data is needed
 - Better understanding of resident harvest is necessary

Questions/Comments...

Alex Hansen – Alaska Department of Fish & Game

