

Region V Caribou Overview

January 6, 2017
Board of Game
Bethel, Alaska



Region V Caribou Overview

PRESENTATION OUTLINE

- **Western Arctic Caribou Herd**
- **User Conflict Issues**
- **Teshekpuk Caribou Herd**
 - **Calf Survival Study**
- **Summary**

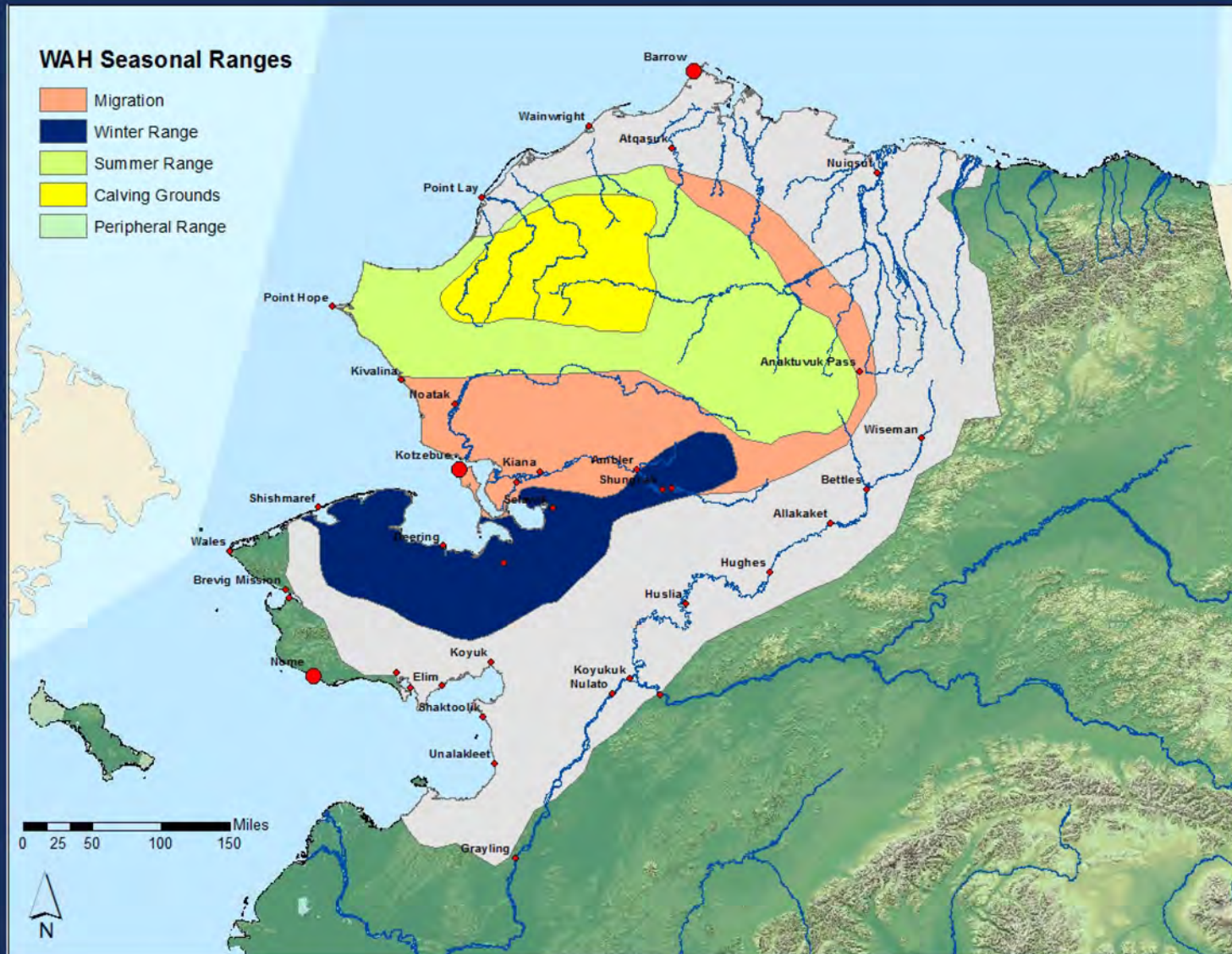
WAH Caribou Overview

Western Arctic Caribou Herd

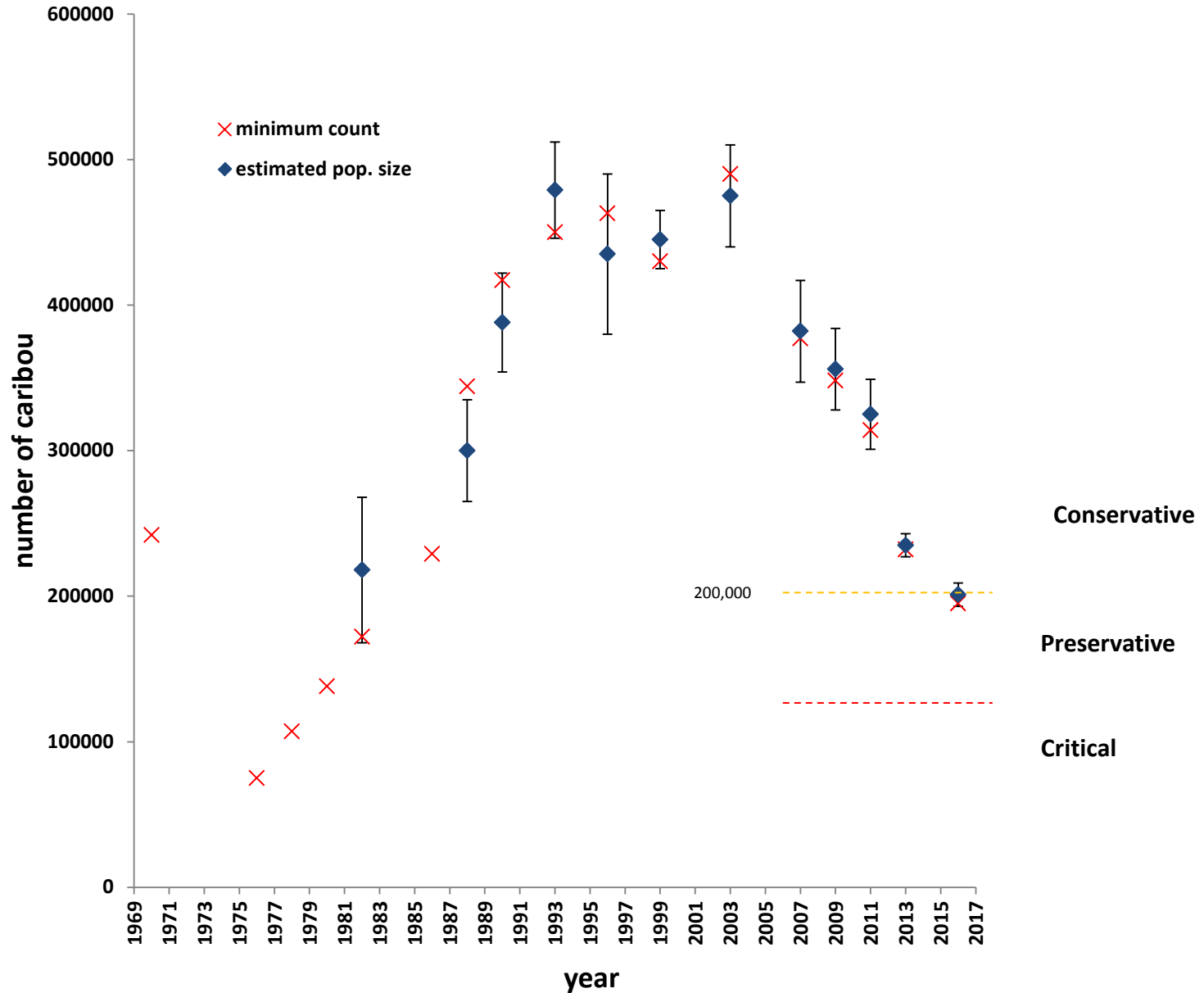
- **Range/Abundance**
- **WAHWG Management Plan**
- **Historical Harvest**
- **Harvestable Surplus**
- **Additional Biological Data**



WAH Caribou Ranges



WAH Abundance



WAH Caribou Overview

C&T Finding: Positive

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

Annual Harvest: ~12,000 (+/- 1,750)

- Includes a harvest of ~3,600 cows

Harvestable Surplus:

- Approximately 12,000 at 6% harvest rate

Intensive Management Objectives:

Population: 200,000

Harvest: 12,000-20,000

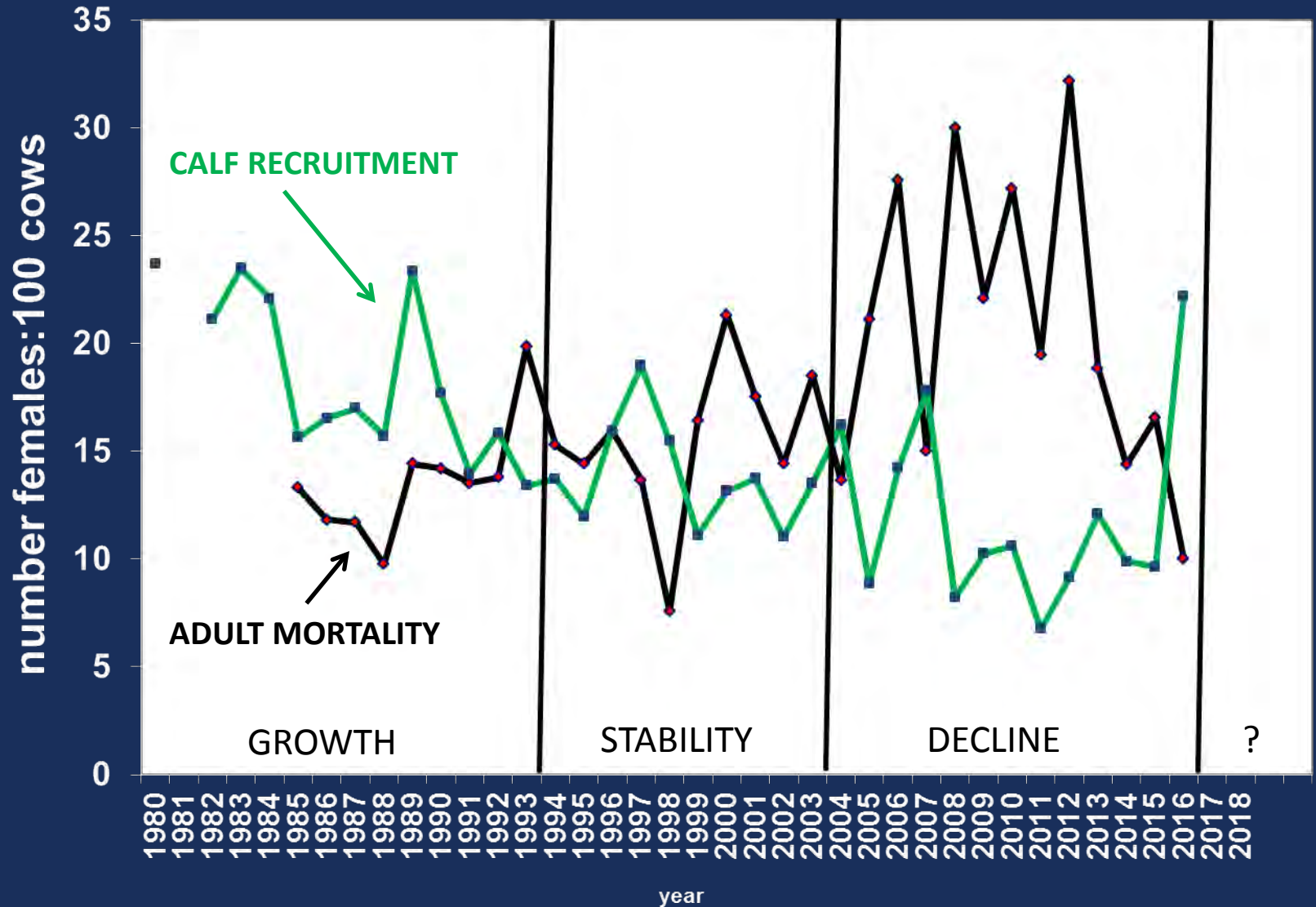
WAH Caribou Overview

WAHWG Management Plan; Table 1

| Management Level and Harvest Level | Population Trend | | |
|---|--|--|--|
| | Declining Low: 6% | Stable Med: 7% | Increasing High: 8% |
| Liberal | Pop: 265,000+ Harvest: 16,000+ | Pop: 230,000+ Harvest: 16,000+ | Pop: 200,000+ Harvest: 16,000+ |
| Conservative | Pop: 200,000-265,000 Harvest: 12,000-16,000 | Pop: 170,000-230,000 Harvest: 12,000-16,000 | Pop: 150,000-200,000 Harvest: 12,000-16,000 |
| Preservative | Pop: 130,000-200,000 Harvest: 8,000-12,000 | Pop: 115,000-170,000 Harvest: 8,000-12,000 | Pop: 100,000-150,000 Harvest: 8,000-12,000 |
| Critical Keep Bull:Cow ratio ≥40 Bull:100 Cow | Pop: <130,000 Harvest: <8,000 | Pop: <115,000 Harvest: <8,000 | Pop: <100,000 Harvest: <8,000 |

WAH Caribou Overview

Where is this herd headed?



WAH Caribou Overview

WAHWG Management Plan; Appendix 2

Appendix 2: Management Recommendations

Conservative Management (orange)

- No harvest of calves
- No nonresident cow harvest
- Restrict nonresident bull harvest
- Encourage voluntary reduction in resident cow harvest
- Limit subsistence harvest of bulls only if <40 bulls:100 cows

Preservative Management (yellow)

- No harvest of calves
- Limit harvest of cows by residents through permit hunts and/or village quotas
- Limit subsistence harvest of bulls only if <40 bulls:100 cows
- Harvest restricted to residents only according to State and federal law – closure of some federal public lands may be necessary

WAH Caribou Overview

WAHWG Management Plan; Appendix 2

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WAH Caribou Overview

WAHWG Management Plan; Appendix 2

Appendix 2: Management Recommendations

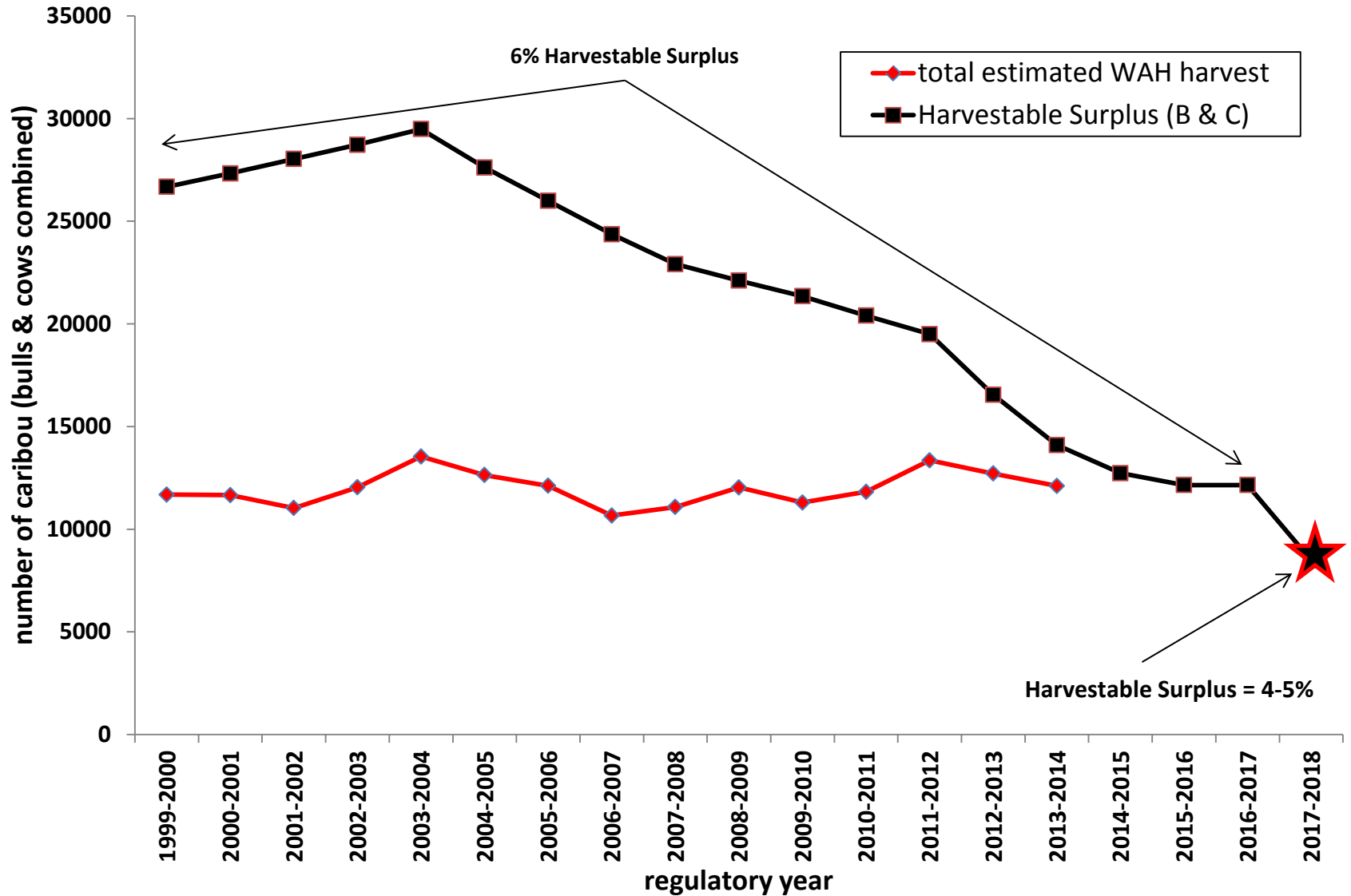
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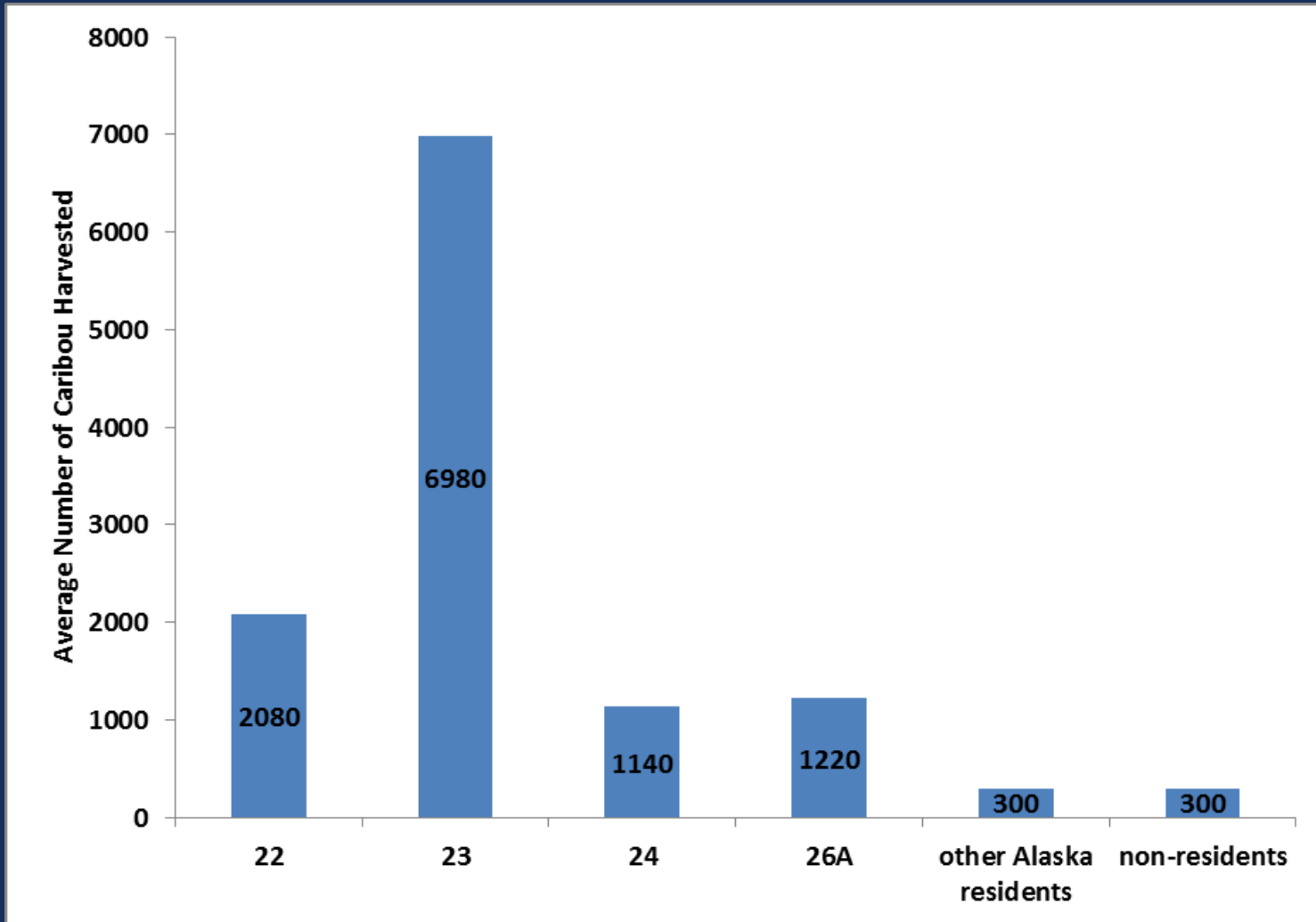
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WAH Caribou Overview



WAH Caribou Overview

WAH Caribou harvested, 1998-2015



WAH Caribou Overview

Other Biological Data

- **2015-16 Adult Female Survival – high (90%)**
- **2016 Yearling Recruitment – high (23:100 adults)**
- **Oct '15 –Jun '16 Calf Survival – high (84%)**
- **2016 Calf Production – high (85%)**
- **Sep 2016 body condition – high**
 - calf weights (97 pounds)
 - adult body condition – high (92% average+)
- **Oct 2016 Herd Composition**
 - 41 bulls:100 cows - high
 - 54 calves:100 cows - high

WAH Caribou Overview

These pieces of data are a combination of good news and bad news

GOOD:

- **There are still a lot of caribou in the WAH**
- **The decline appears to have slowed**
- **Other biological metrics look good**

BAD:

- **We are getting closer and closer to some critical values:**
 - **WAHWG preservative management threshold**
 - **Upper level of the Amount Necessary for Subsistence**
 - **State Intensive Management population and harvest objectives**
 - **Harvest, as we understand it, may soon exceed Harvestable Surplus**

User Conflict Issues

Ongoing User Conflict Issues

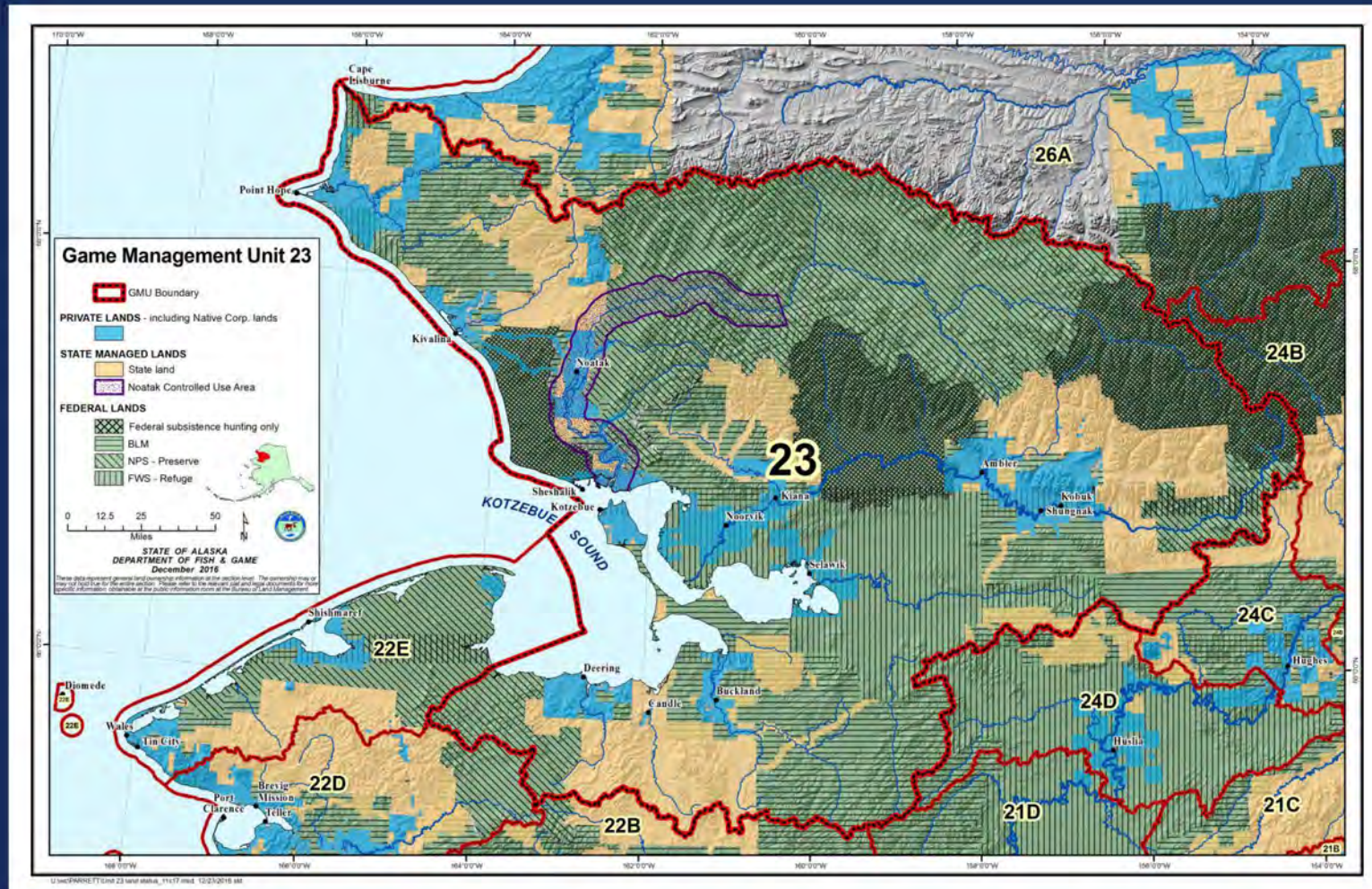
- **The WAH range has 2 Controlled Use Areas**
- **Unit 23 User Conflict Working Group**
- **2016 Unit 23 Federal Closure**

User Conflict Issues

2016 Federal Closure in Unit 23

- Preliminary data suggest that the total number of visiting hunters in GMU 23 was reduced by 50%
- Some hunters were displaced to large tracts of state lands; many others used state lands within federal tracts (i.e. gravel bars)
- Federal closure in 2016 seemed to have a large effect on the perception of conflict

User Conflict Issues



Region V Caribou Overview

Teshekpuk Caribou Herd

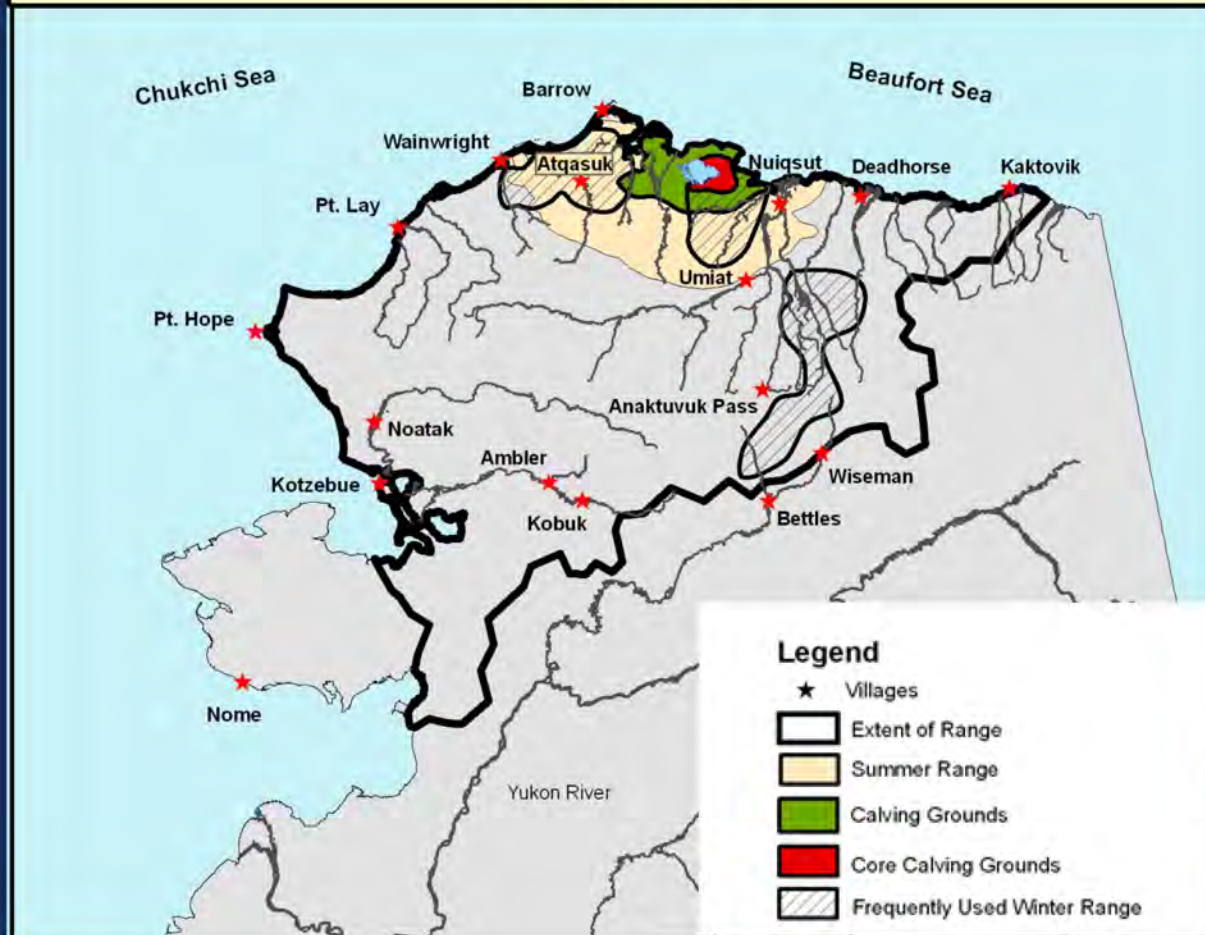
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- **Historical Harvest**
- **Harvestable Surplus**
- **Additional Biological Data**

- **Calf Survival Study**

Teshekpuk Caribou Overview

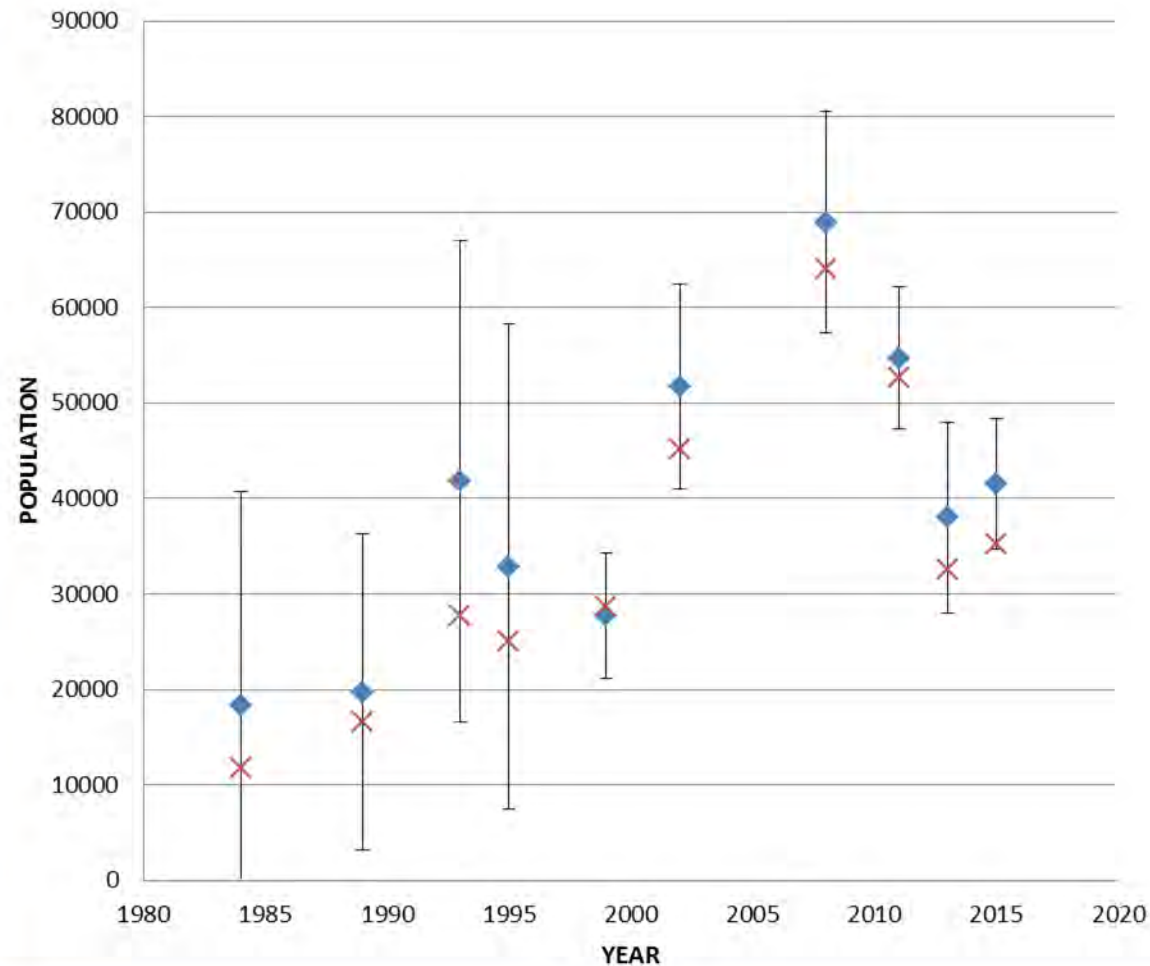
Teshekpuk Caribou Herd Seasonal Ranges

Revised September 2010



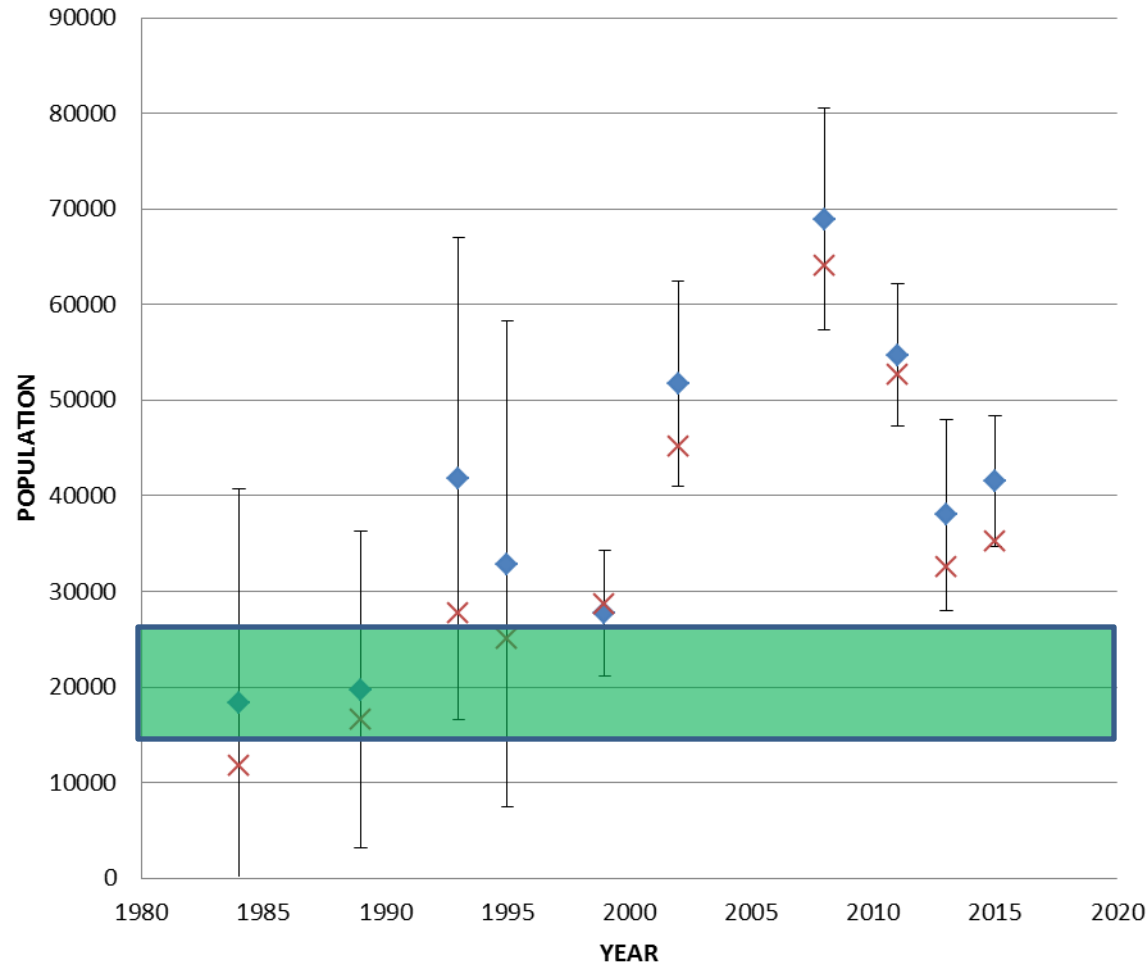
Teshekpuk Caribou Overview

TCH Abundance Estimates



Teshekpuk Caribou Overview

TCH Abundance Estimates



IM Objective
15,000-28,000

Teshekpuk Caribou Overview

C&T Finding: Positive

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

Annual Harvest: ~2,350-2,900

- Includes a harvest of ~500 cows

Harvestable Surplus:

- Approximately 2,500 at 6% harvest rate

Intensive Management Objectives:

Population: 15,000-28,000

Harvest: 900-2,800

Teshekpuk Caribou Overview

Potential Change in Harvest Strategy:

- If herd declines $< 35,000$
- Transition from 6% overall to 4-5%
 - 4-5% depends upon herd composition
 - 15% of the bulls, 2% cows

Teshekpuk Caribou Overview

Other Biological Data

- **Adult Female Survival – high (92%)**
- **Yearling Recruitment – high (29:100 adults)**
- **Yearling Weights– average (109# and 112#)**
- **Calf Production – high (81%)**
- **Oct 2016 Herd Composition**
 - **28 bulls:100 cows - low**
 - **48 calves:100 cows - high**

Teshekpuk Caribou Research

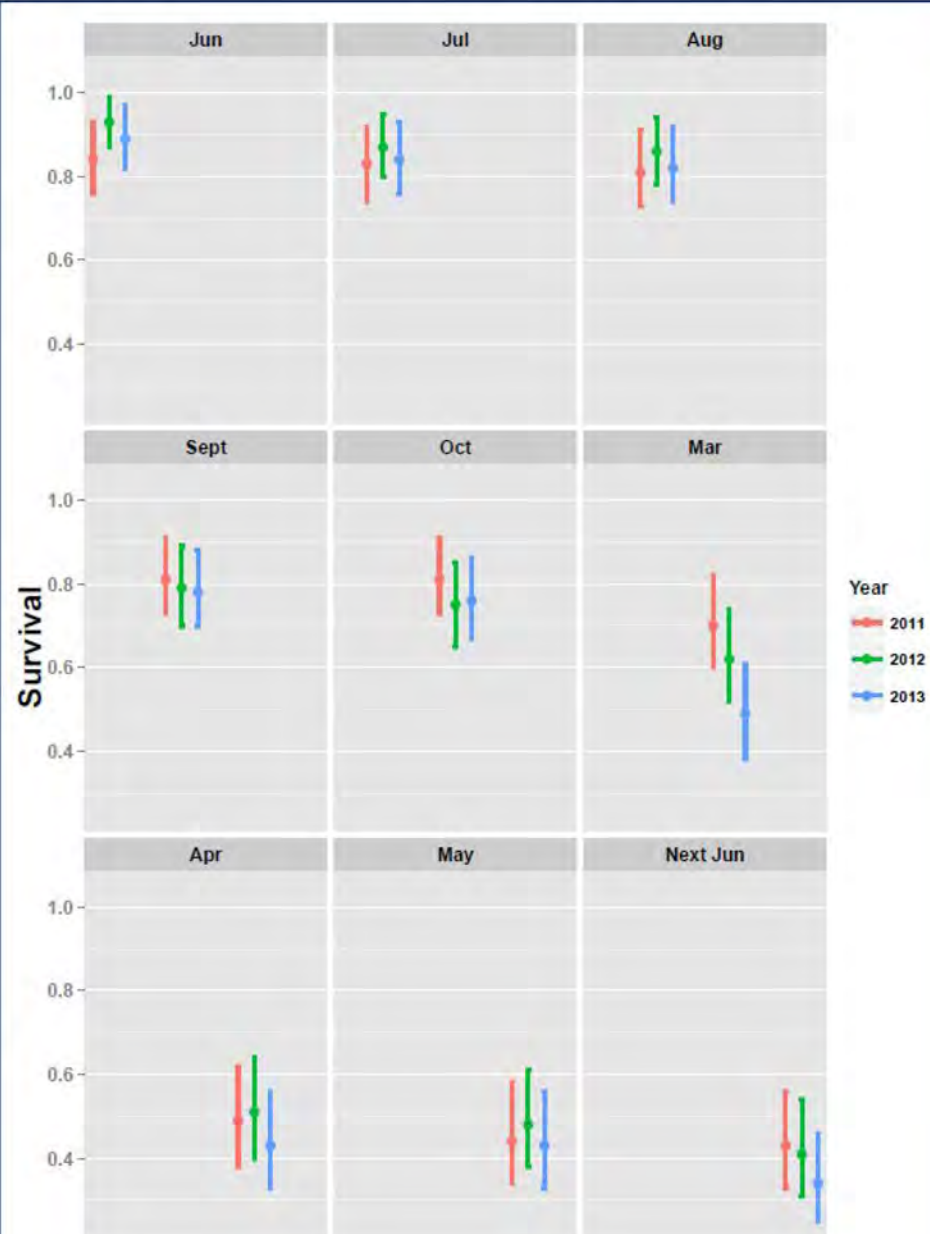
Calf Survival Research Objectives

- **Comparative Calf Weights**
- **Mortality: Timing and Cause**
- **Spatial Relationships**

Teshekpuk Caribou Research

TCH calf survival

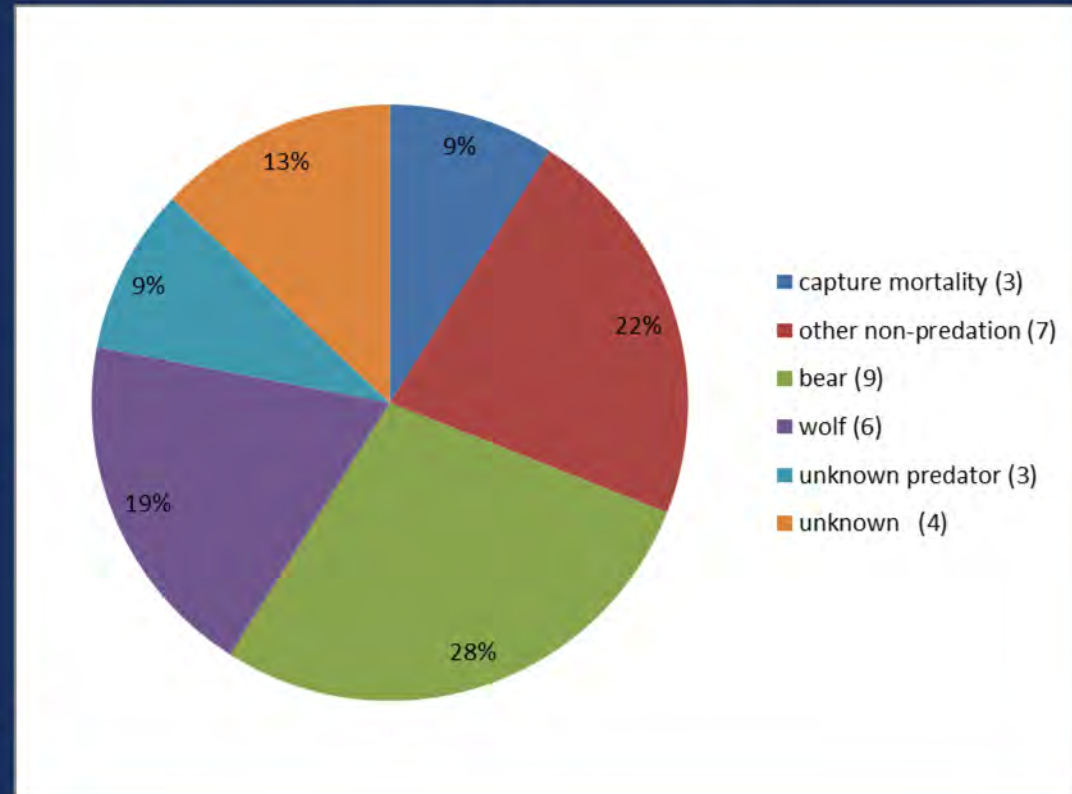
- Summer survival high
- Winter survival poor
- Annual survival poor



Teshekpuk Caribou Research

TCH causes of mortality – calving grounds

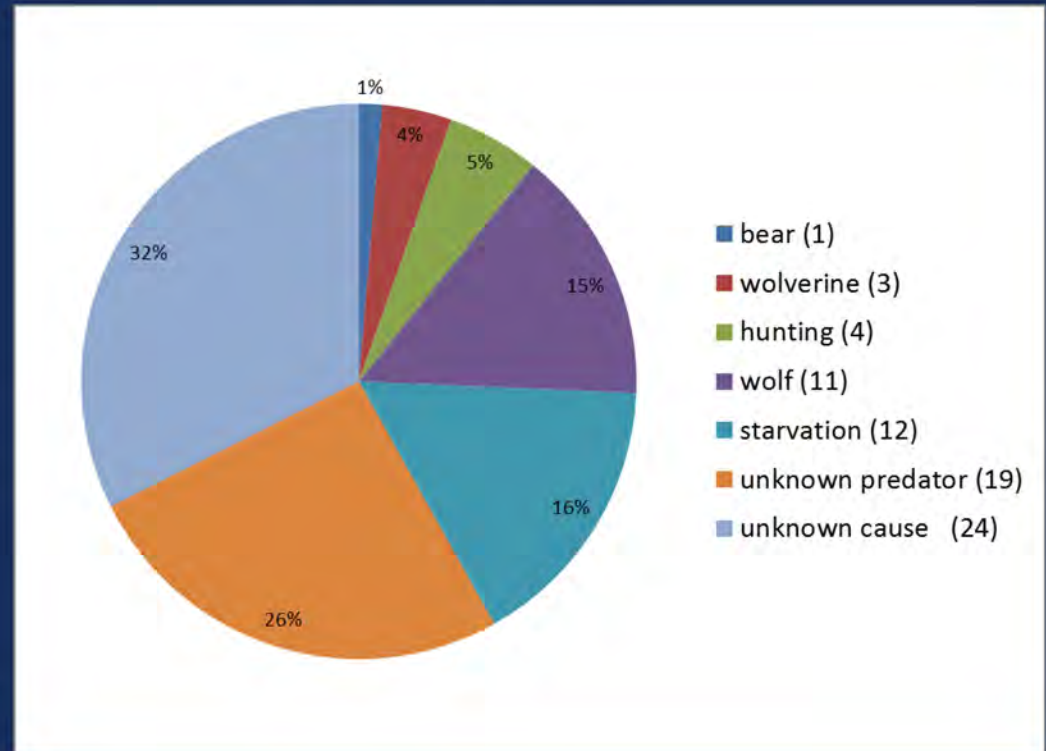
- Split fairly evenly between causes
- Grizzly bears highest
- “Other non-predation” second highest
- Overall, survival high



Teshekpuk Caribou Research

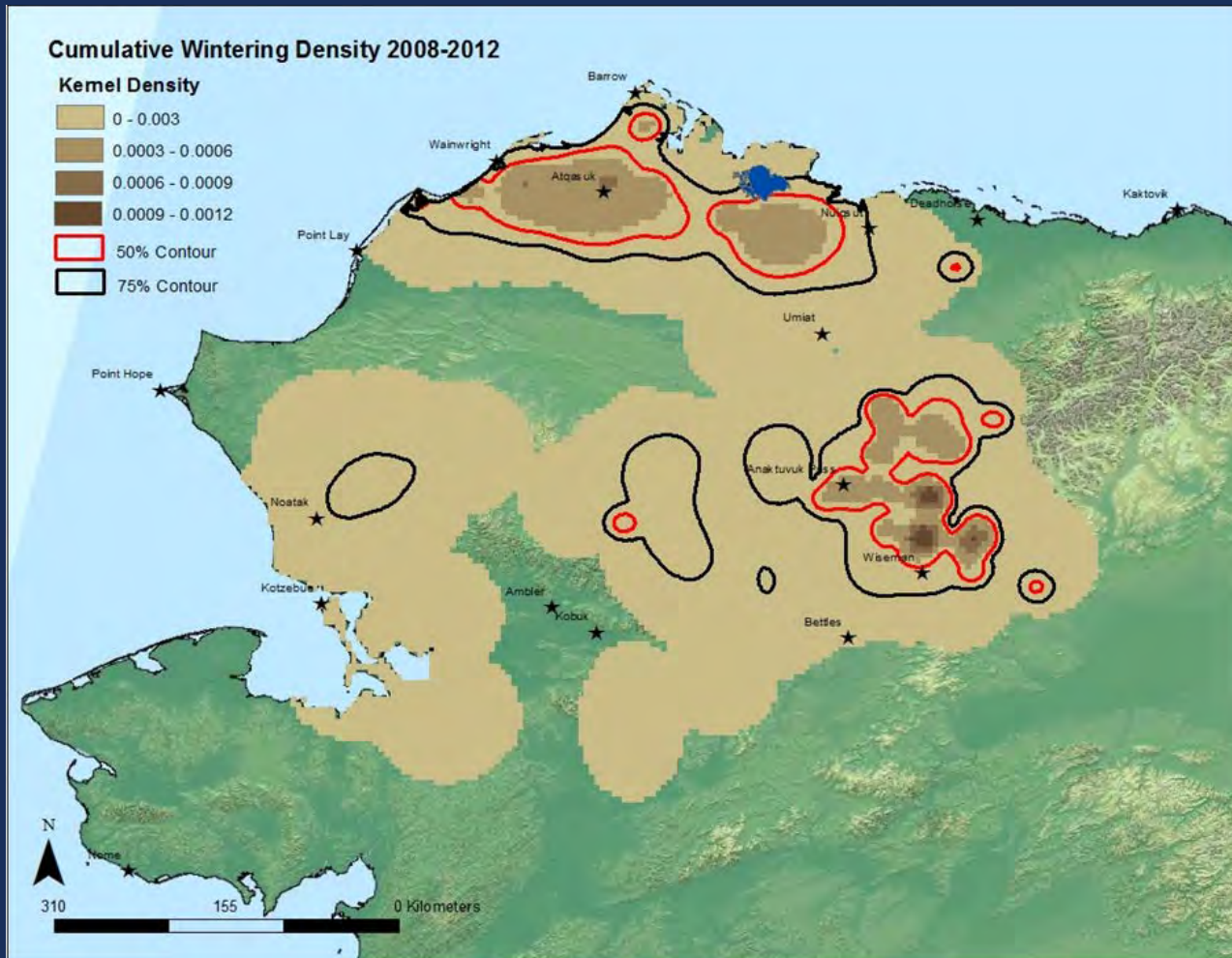
TCH causes of mortality – over winter

- High number of “unknown”
- “Unknown predator” starvation, and wolf were also important
- Overall, survival poor



Teshekpuk Caribou Research

TCH Spatial Patterns in Calf Survival: Winter



- Survival for calves that wintered in the Brooks Range was much higher than for calves on the north slope
- Weight gain for calves that wintered in the Brooks Range was 10% higher

Teshékpuuk Caribou Research

Pertinent Research Findings:

- As of the conclusion of the study (2014), it was difficult to envision a predator reduction program that was likely to substantially increase calf recruitment
- Calf production was low
- Calf survival on calving grounds was high
- 40% of the concentrated wintering range was on NPS land
- Starvation was a significant mortality factor on non-NPS lands

Region V Caribou Overview

WAH and TCH Summary:

- Standing on the threshold of needing more active hunt management in both herds

- On the verge of state Intensive Management thresholds for WAH

- Most recent biological data shows positive signs

- There are 6 caribou proposals at the 2017 BOG meeting; 3 related to hunt management, and 3 related to user conflicts

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