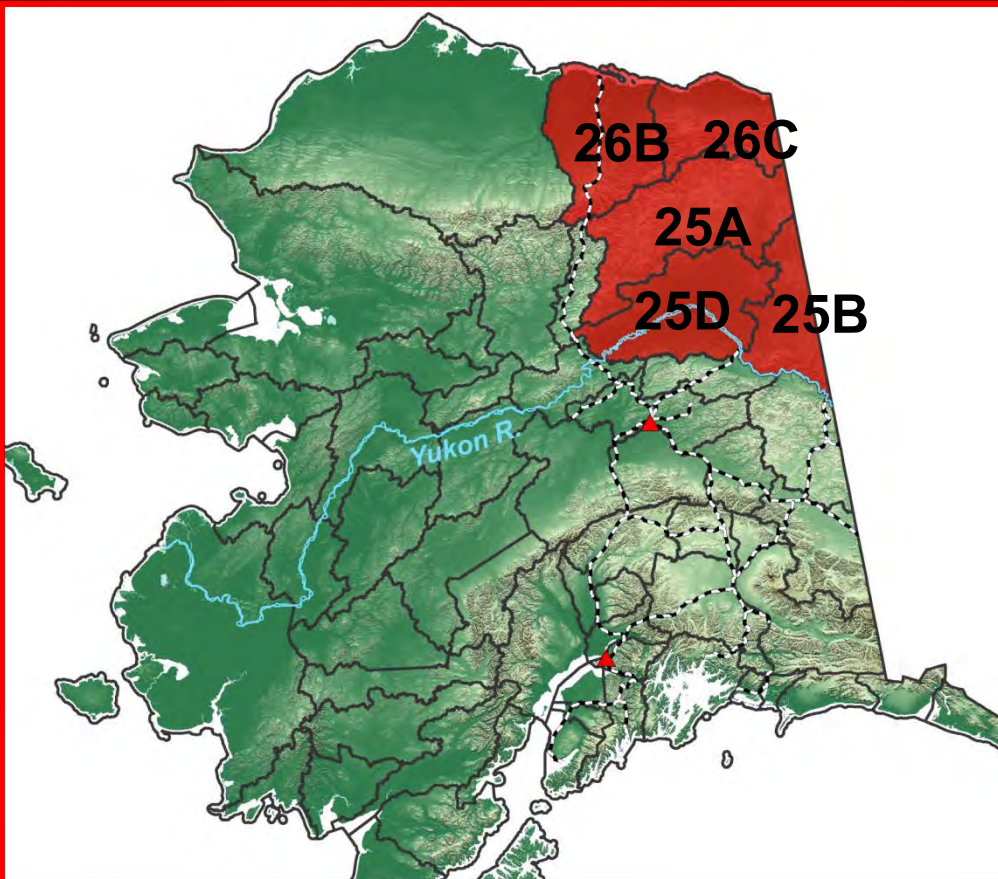


Northeast Alaska Area

Area Biologist: Beth Lenart, Fairbanks

Asst. Area Biologist: Jason Caikoski, Fairbanks



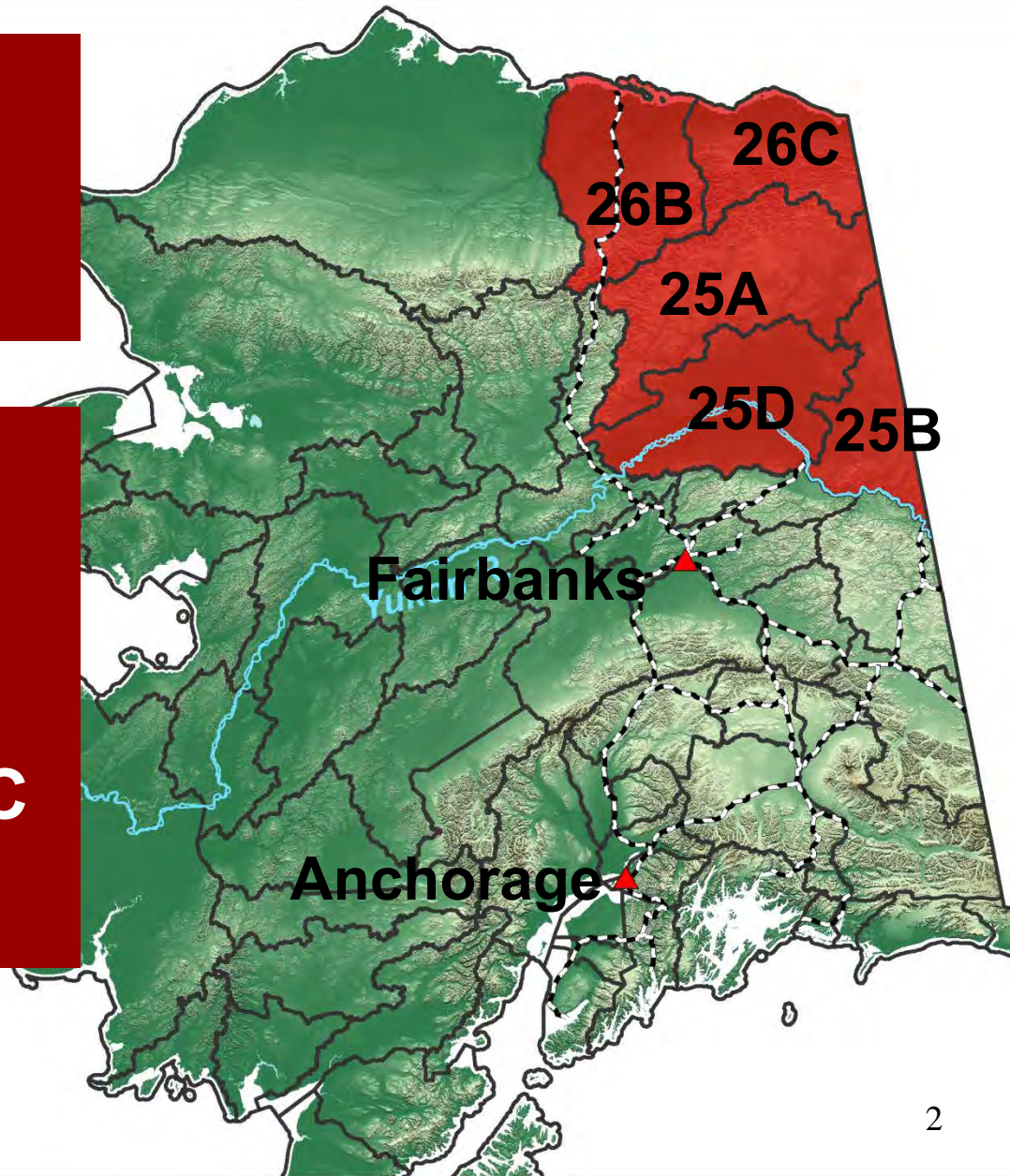
Units: 25A, 25B, 25D,
26B & 26C

Upper Yukon drainage
Central & Eastern North Slope

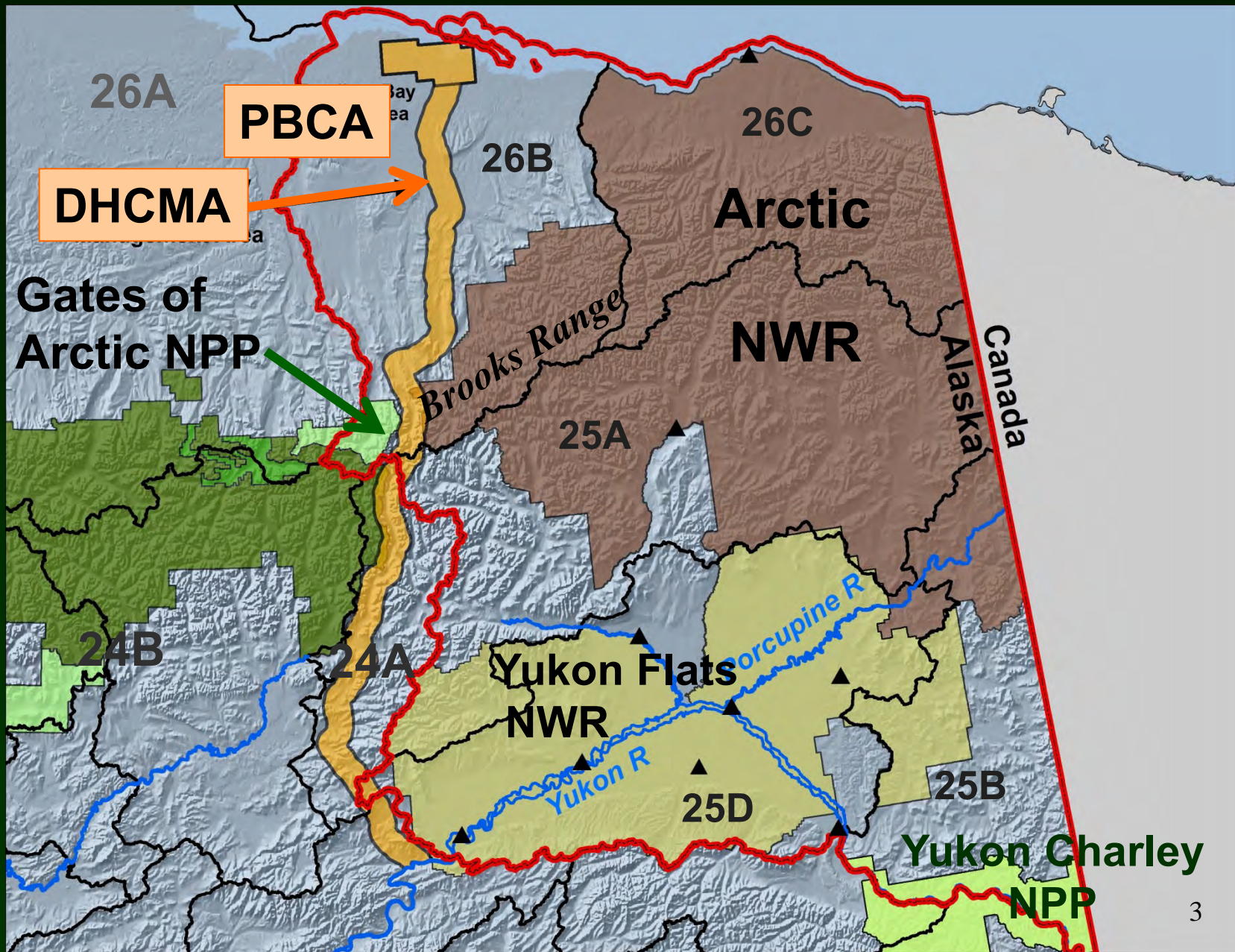
Northeast Alaska Area

- 74,000 mi²
- 1,700 people
- 9 communities

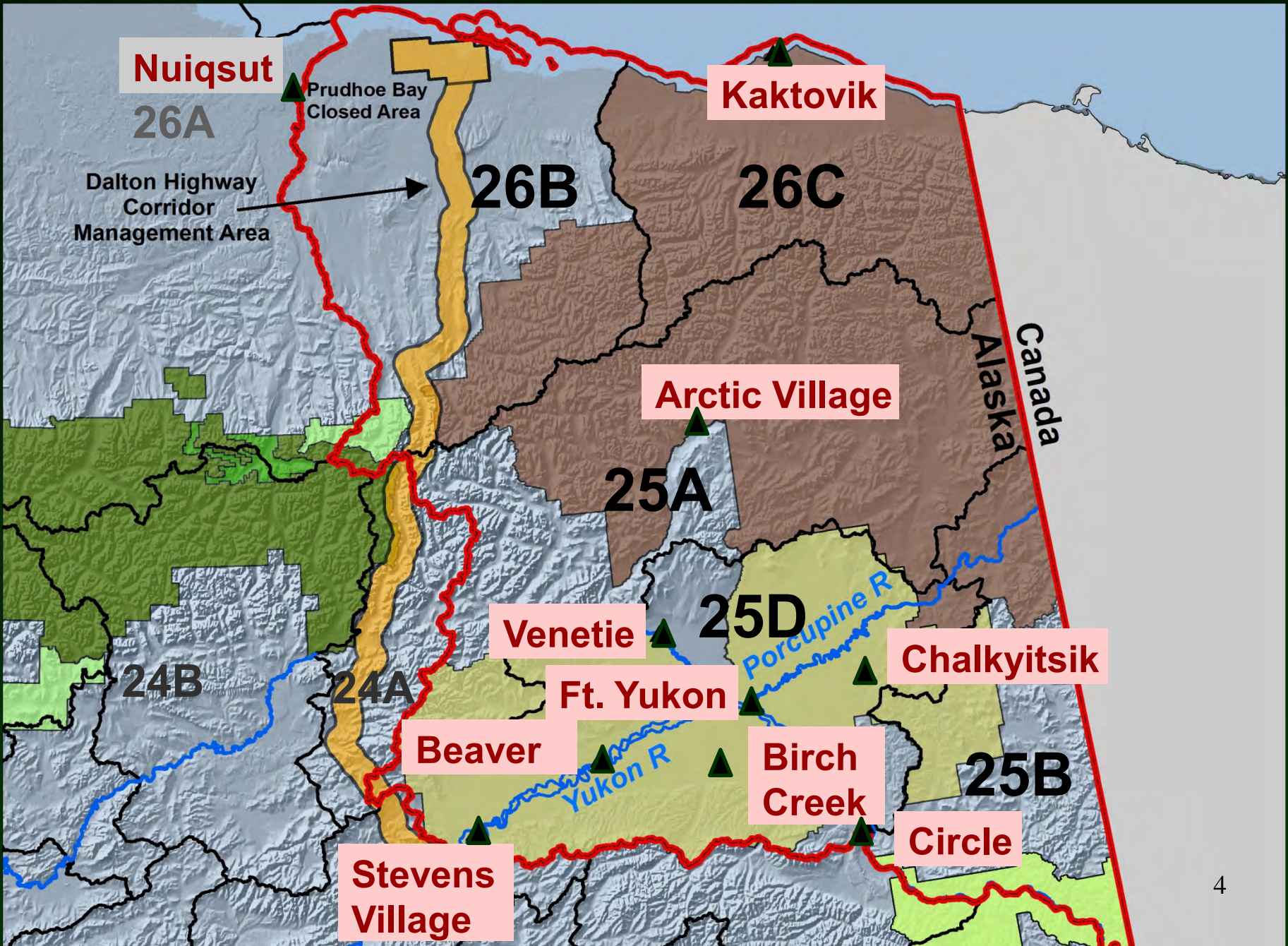
- Yukon Flats AC
- Arctic AC
- Eastern Interior RAC
- North Slope RAC



Northeast Alaska Area



NEAK Communities



NEAK BLACK BEAR



Unit 25B & D (27,000 mi²)

- High density; 2010 survey = 425 bears/1000mi²
- Estimated harvest ~ 50–100 annually



Issues: Predation on moose calves

Proposal 110, 111

NEAK BLACK BEAR cont'd



Unit 25A (21,000 mi²)

- Low density
- Not required to be sealed
- Low harvest

Unit 26B & C

- No black bears



NEAK BROWN BEAR



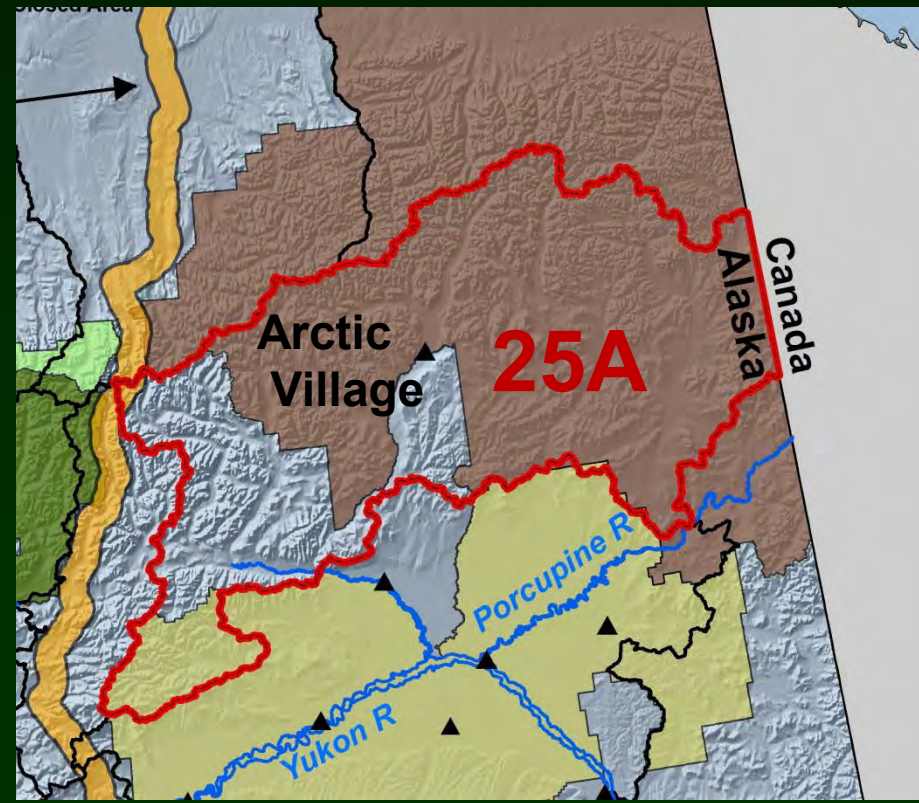
Unit 25A

Medium density (28/1000 mi²)

~ 600 bears

Harvest RY10–RY15:

- 26 (8 females)



NEAK BROWN BEAR



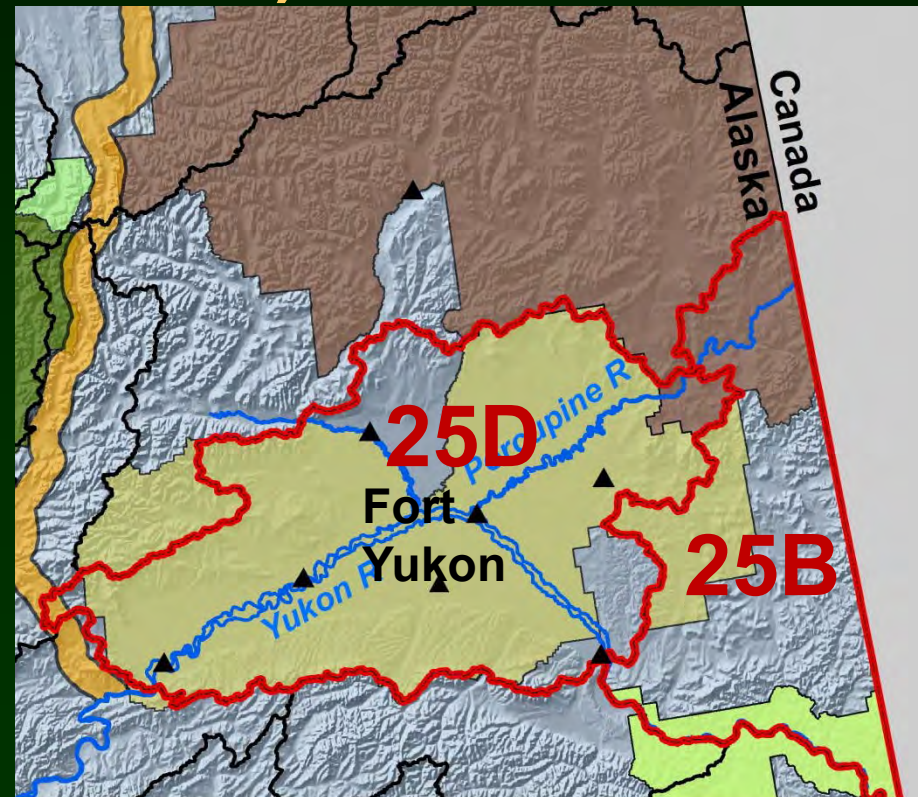
Unit 25B & D

Medium density (22/1000 mi²)

~ 600 bears

Harvest RY11–RY15

- 6 (2 females)
- ≤ 20 unreported



Proposal 108, 109, 111

~27,000 mi²

NEAK BROWN BEAR



Unit 26B

Medium density (21/1000 mi²)

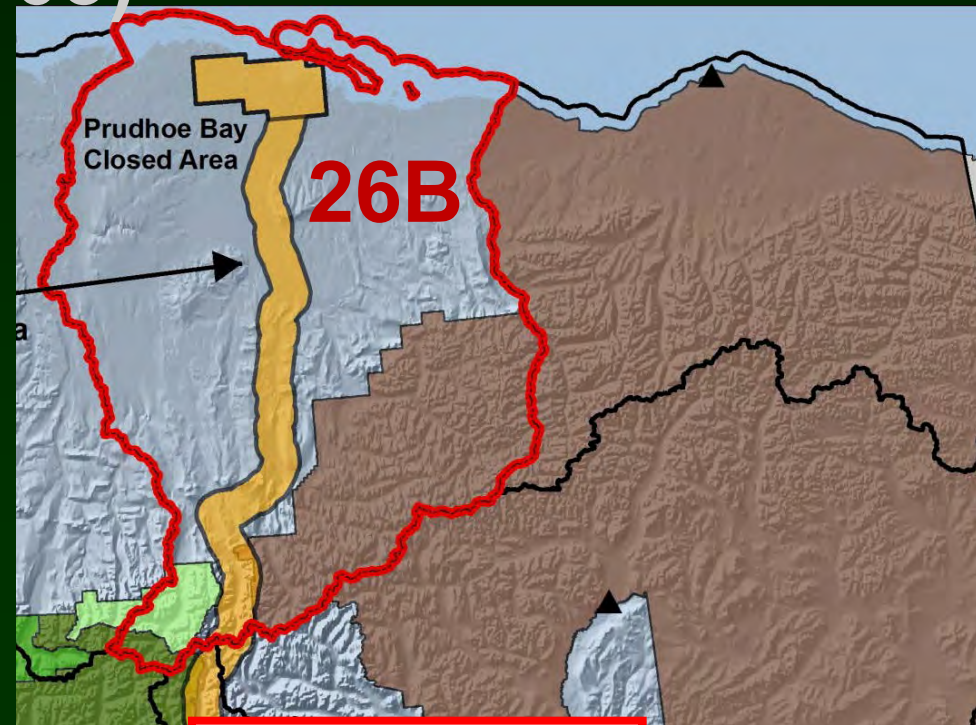
~ 250–450 bears (RY03)

Harvest RY11–RY15

- 24 (6 females)

Issues: Predation on muskoxen

Proposals 106, 107, 109



~15,500 mi²

NEAK BROWN BEAR



Unit 26C

Medium density (35/1000 mi²)

~ 260–490 bears

Harvest RY11–RY15

- 18 (7 females)



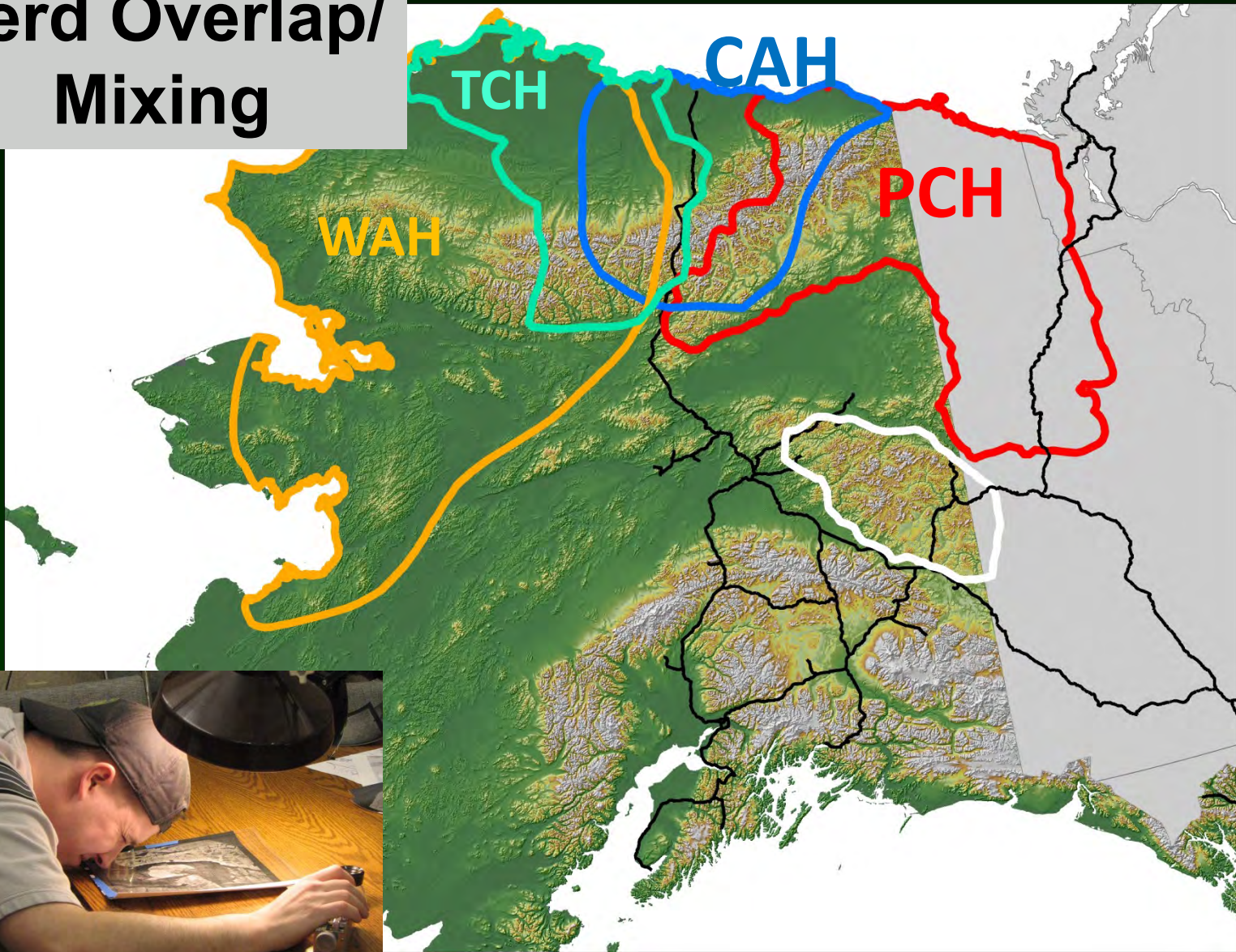
Proposal 109

~10,000 mi²

10

NEAK CARIBOU

Herd Overlap/
Mixing



NEAK CARIBOU



Porcupine Caribou Herd

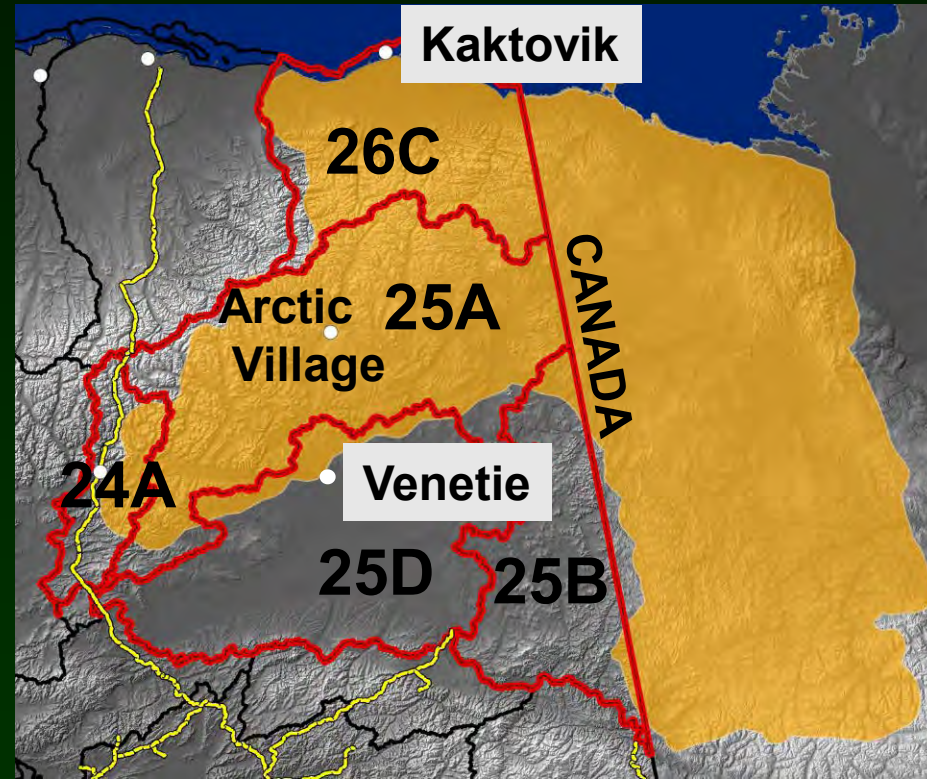
- **Stable or increasing**

2013 ✓ 197,000 caribou
(169,000–226,000)

- **Low harvest in AK**

✓ 500–800 (AK)

✓ 2000–4000 (Canada)



International Cooperative Mgmt

NEAK CARIBOU

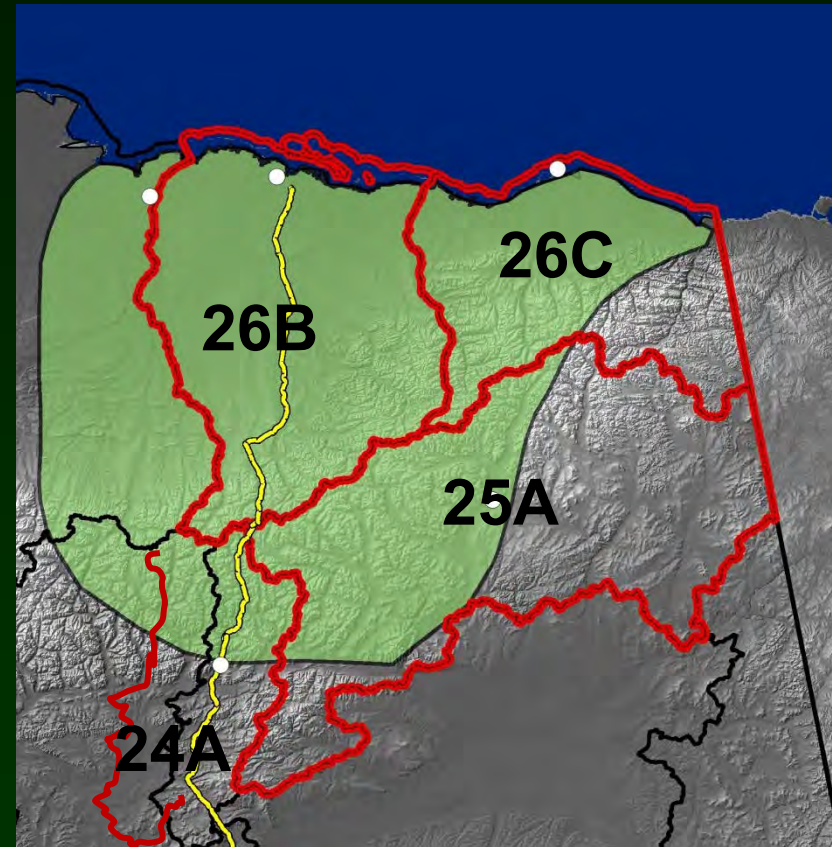


Central Arctic Caribou Herd

- Declining

2016 ✓ 22,630 caribou
(20,000–25,000)

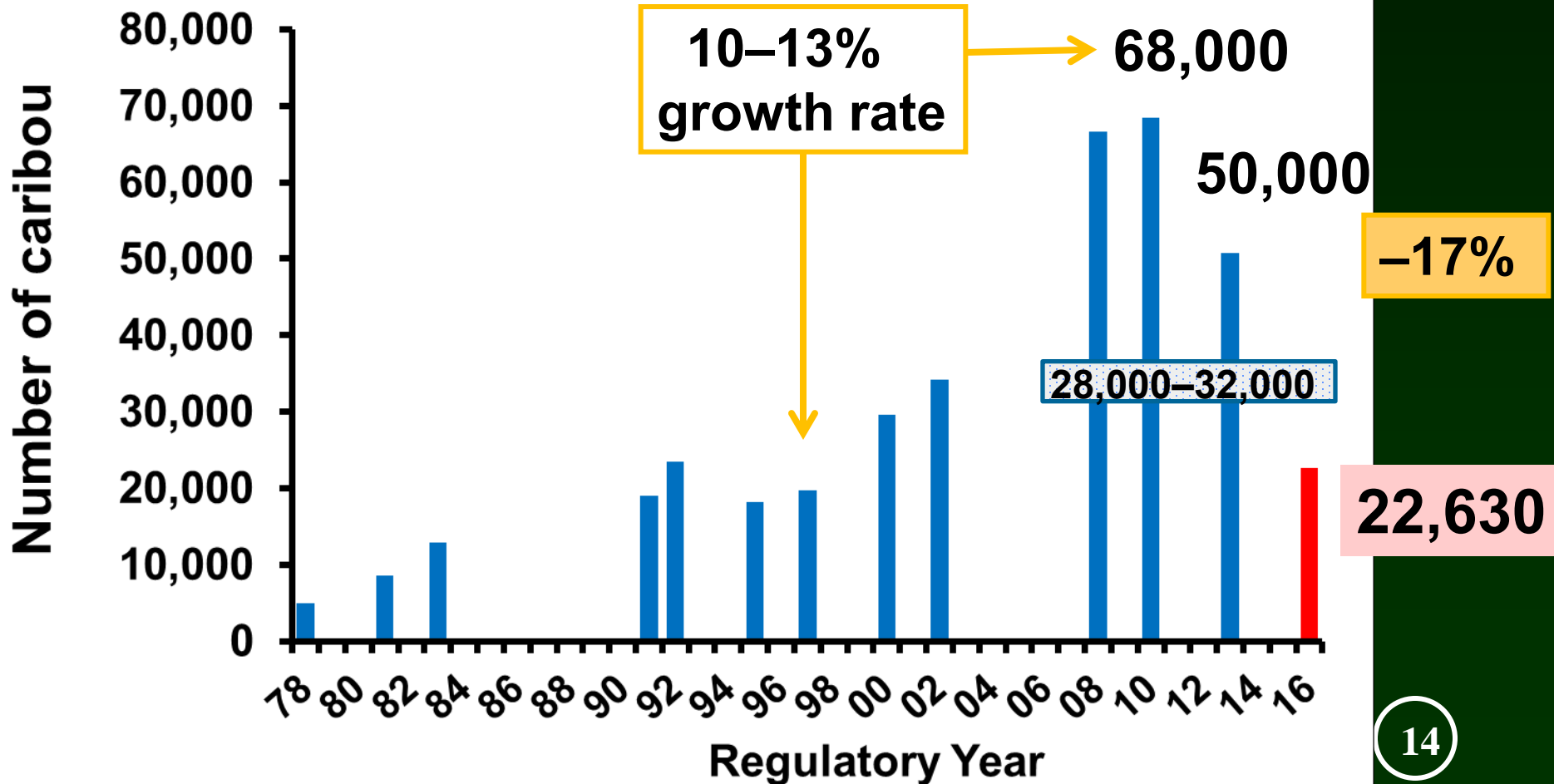
- Need to reduce harvest by 250 caribou
✓ 1000 (5-yr mean)



Central Arctic Caribou Herd

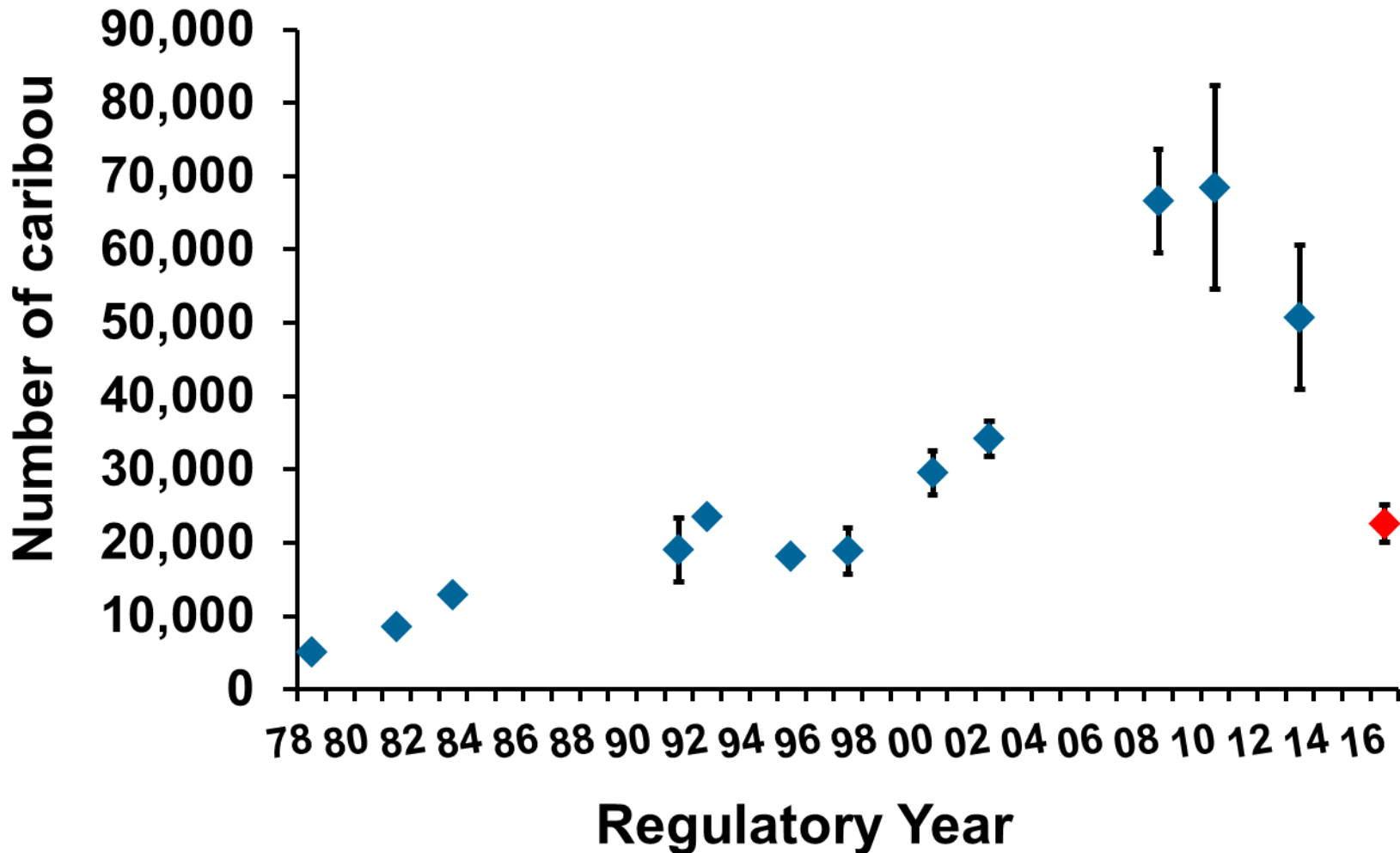
CAH Population Objective: 28,000–32,000

CAH Population Size



Central Arctic Caribou Herd

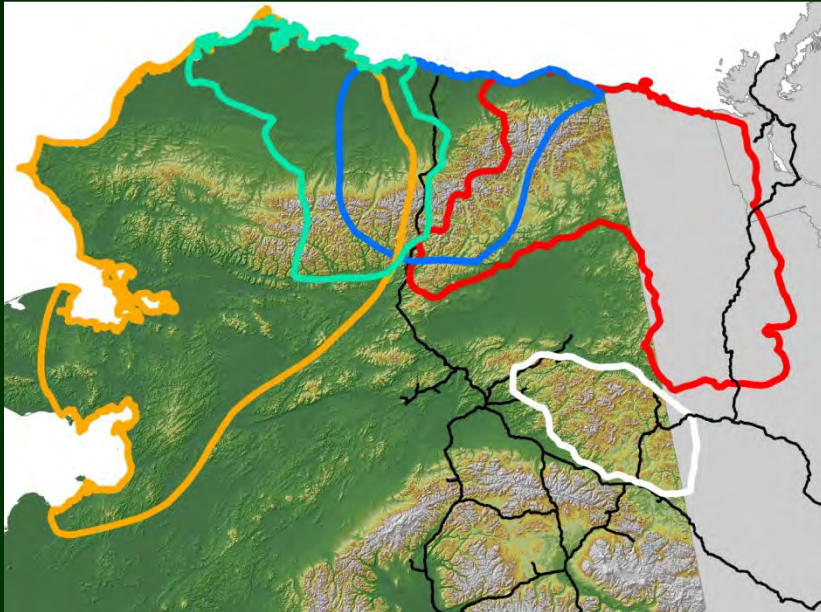
CAH Population Size with 95% CI



Central Arctic Caribou Herd

Causes of Decline

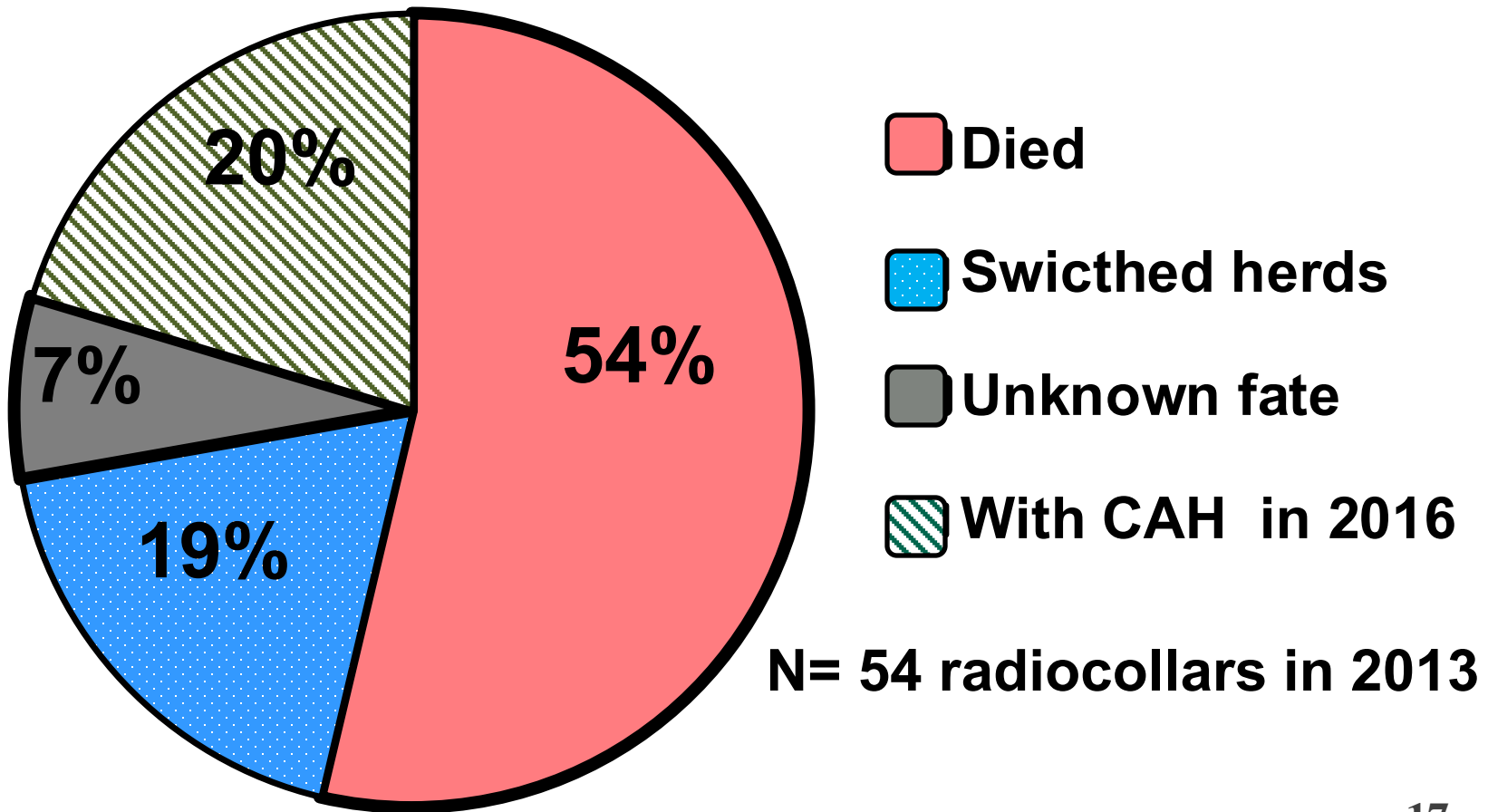
1. High mortality in adult females
2. Herd switching/Emigration



Central Arctic Caribou Herd

2 Major factors influencing decline:

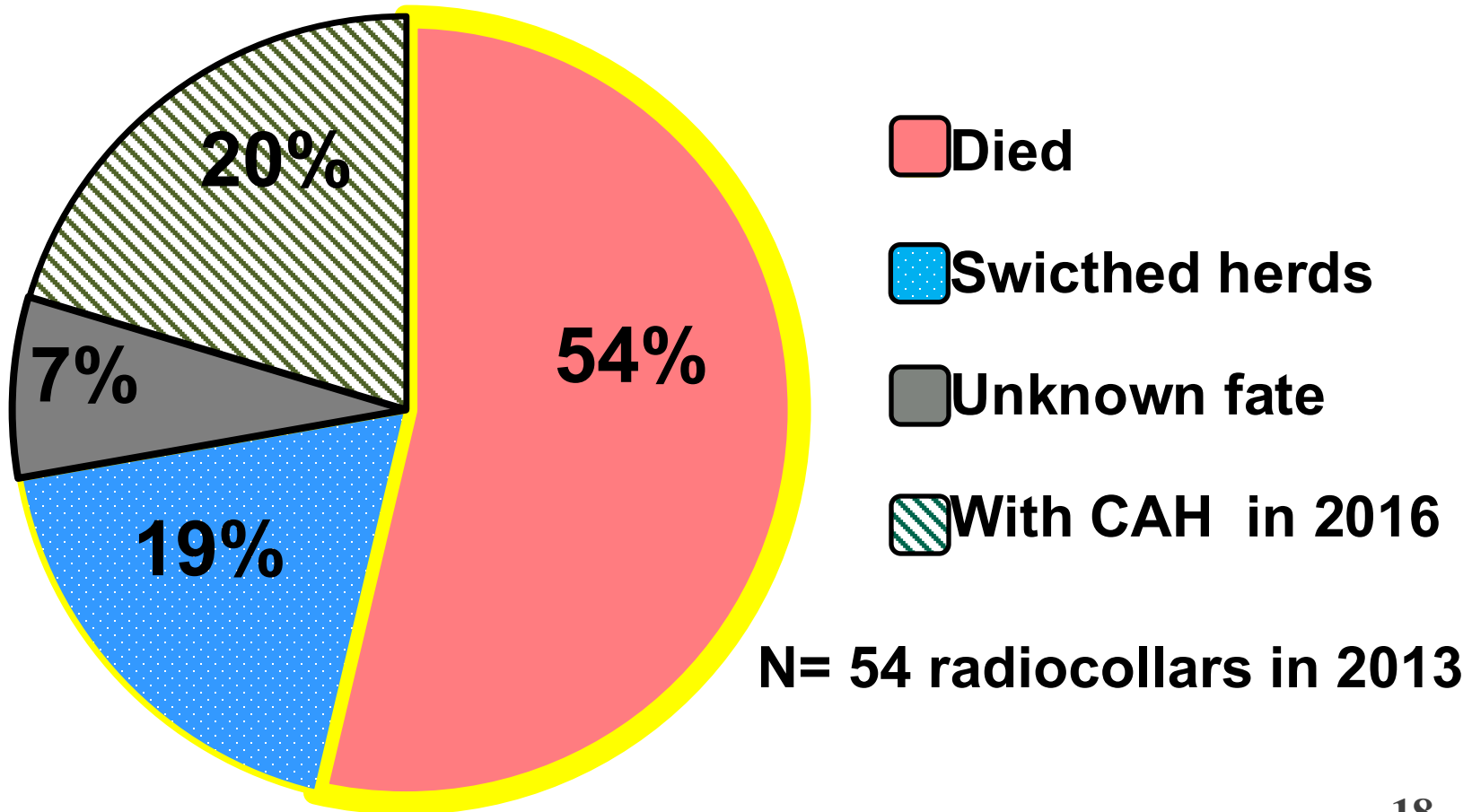
Fate of radiocollars between 2013 & 2016 censuses:



Central Arctic Caribou Herd

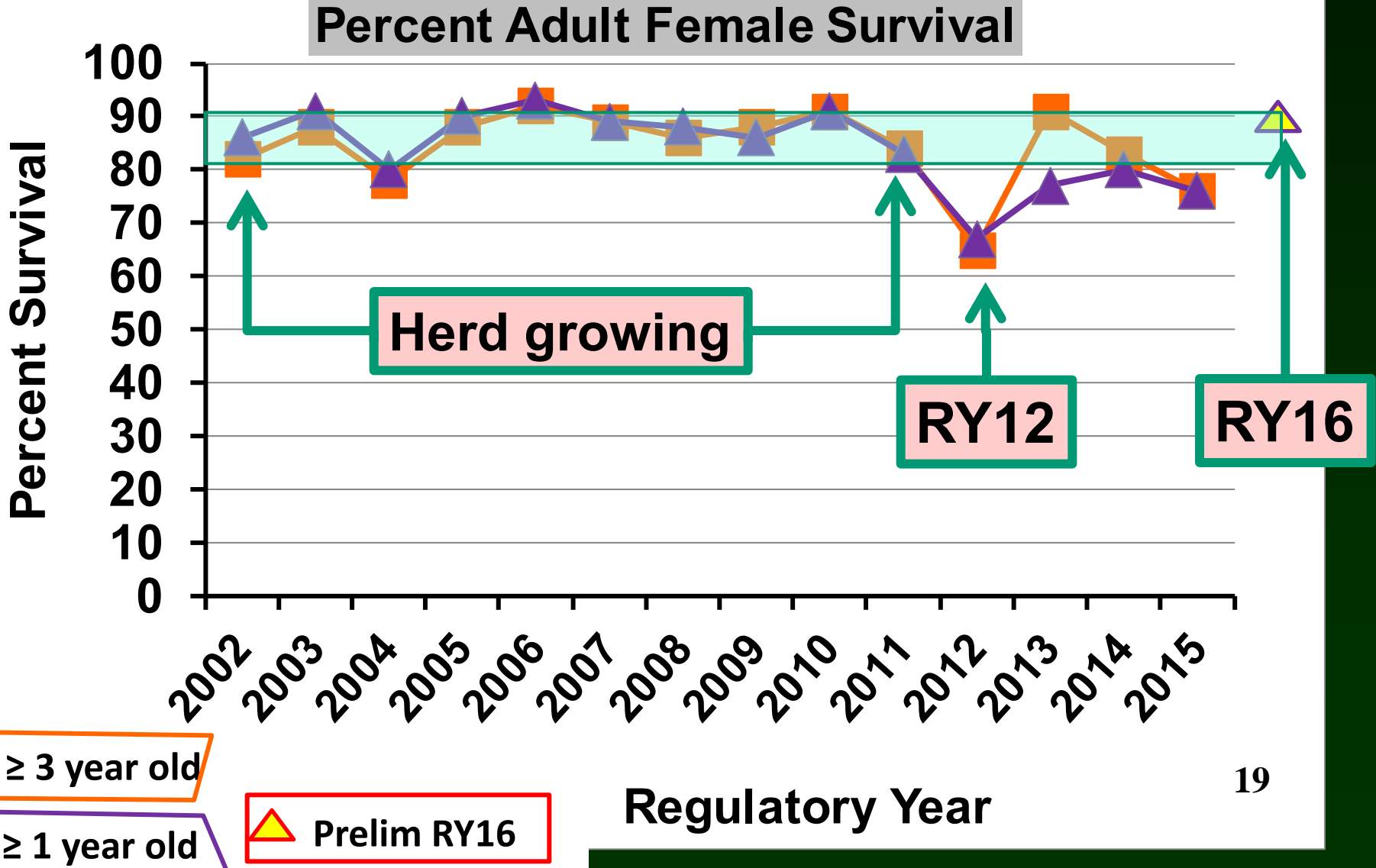
2 Major factors influencing decline:

Fate of radiocollars between 2013 & 2016 censuses:



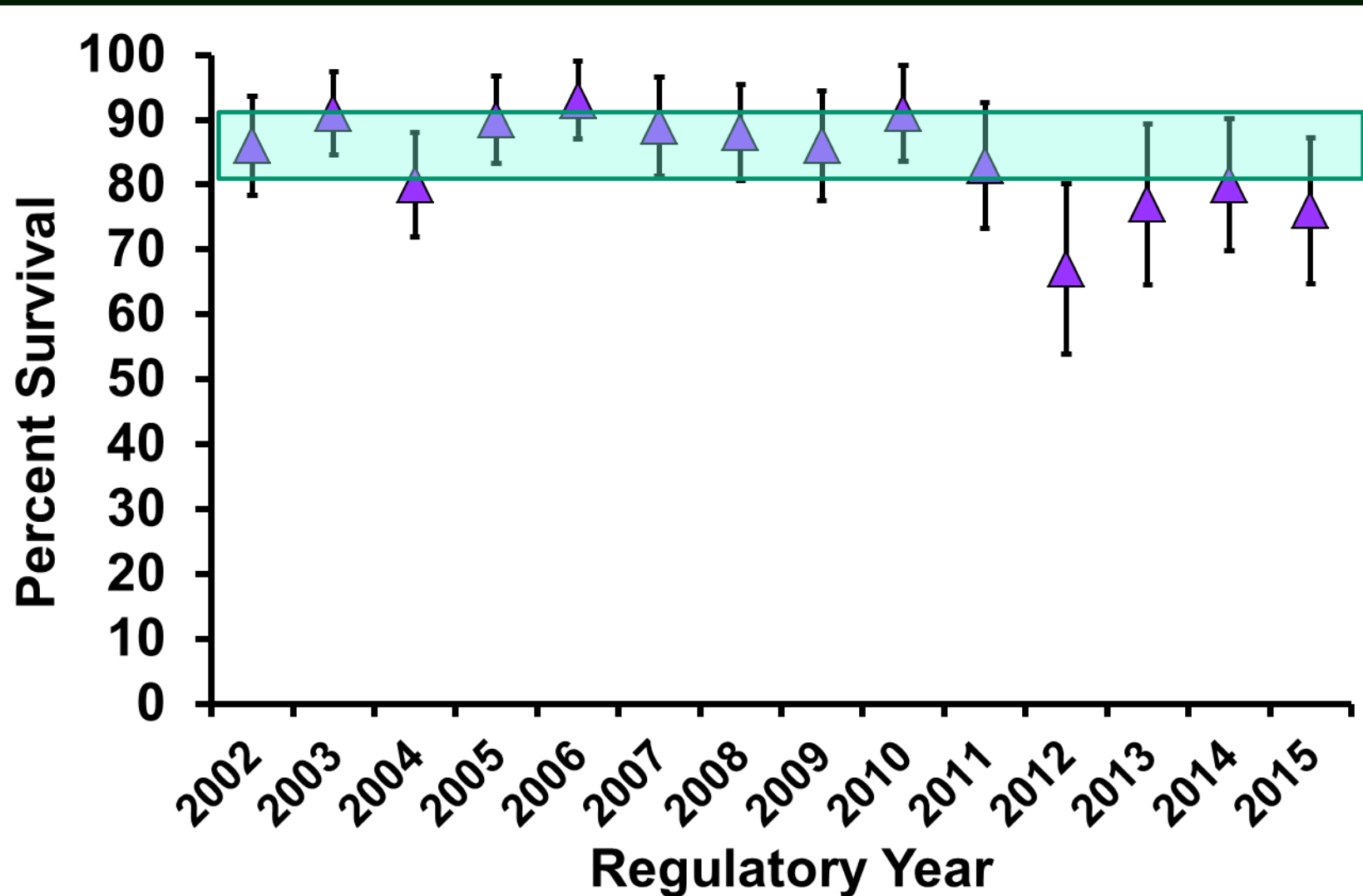
Central Arctic Caribou Herd

Adult female survival



Central Arctic Caribou Herd

Percent Adult female ≥ 1 year old Survival with 95% CI



Central Arctic Caribou Herd

Causes of Mortality

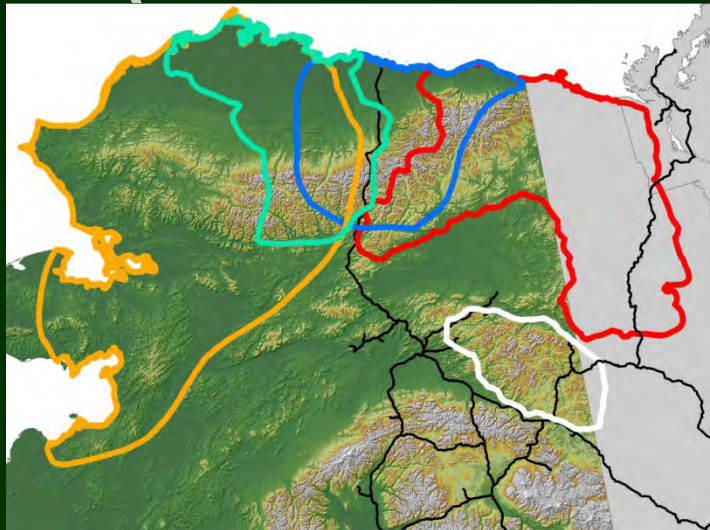
- ✓ Larger proportion of older females in population that died of old age
- ✓ Late spring in 2013
- ✓ Predation rates on winter grounds unknown
- ✓ No icing or starvation events

Central Arctic Caribou Herd

Herd switching:

From 2013 to 2016

- 7 were with PCH
- 3 were with TCH
- ✓ (1 was with WAH for 2 years)



Central Arctic Caribou Herd

Other Factors examined:

- Range quality
- Pregnancy rates/early calf survival
- Bull:cow ratio/Calf:cow ratio in fall
- Predation
- Disease



Central Arctic Caribou Herd

Range

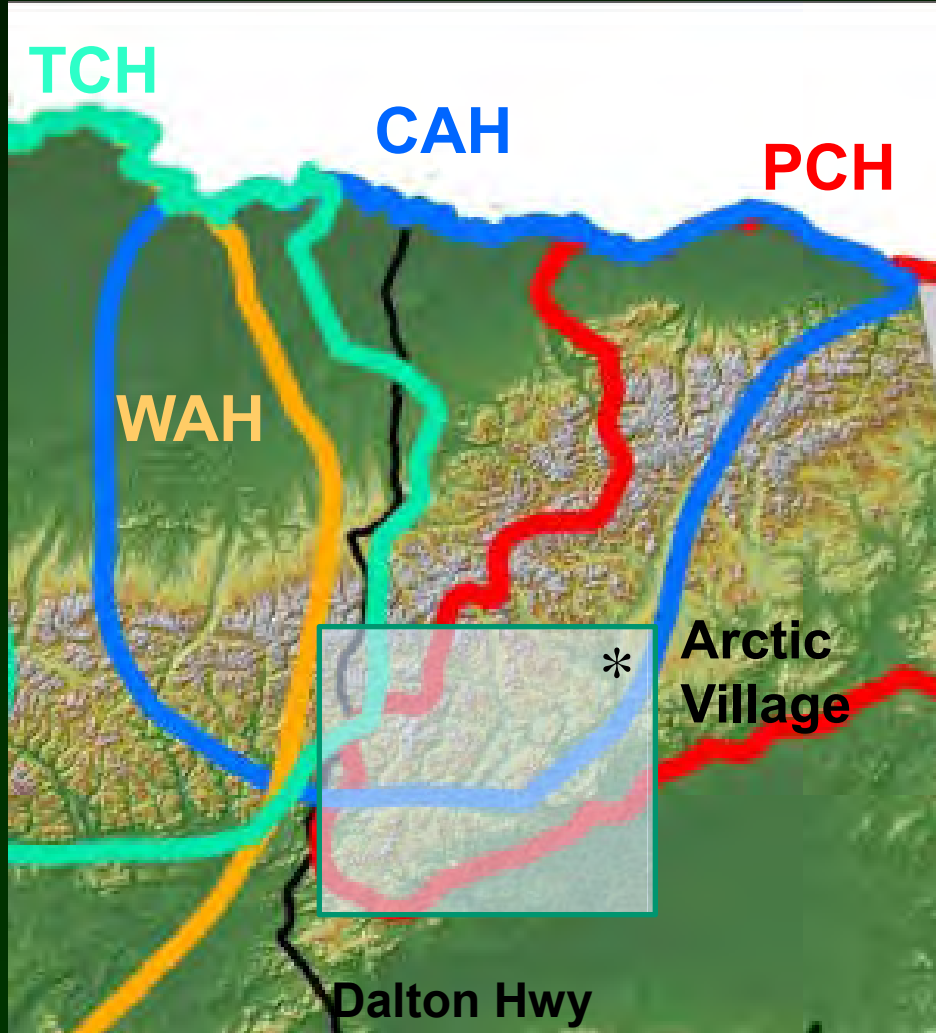
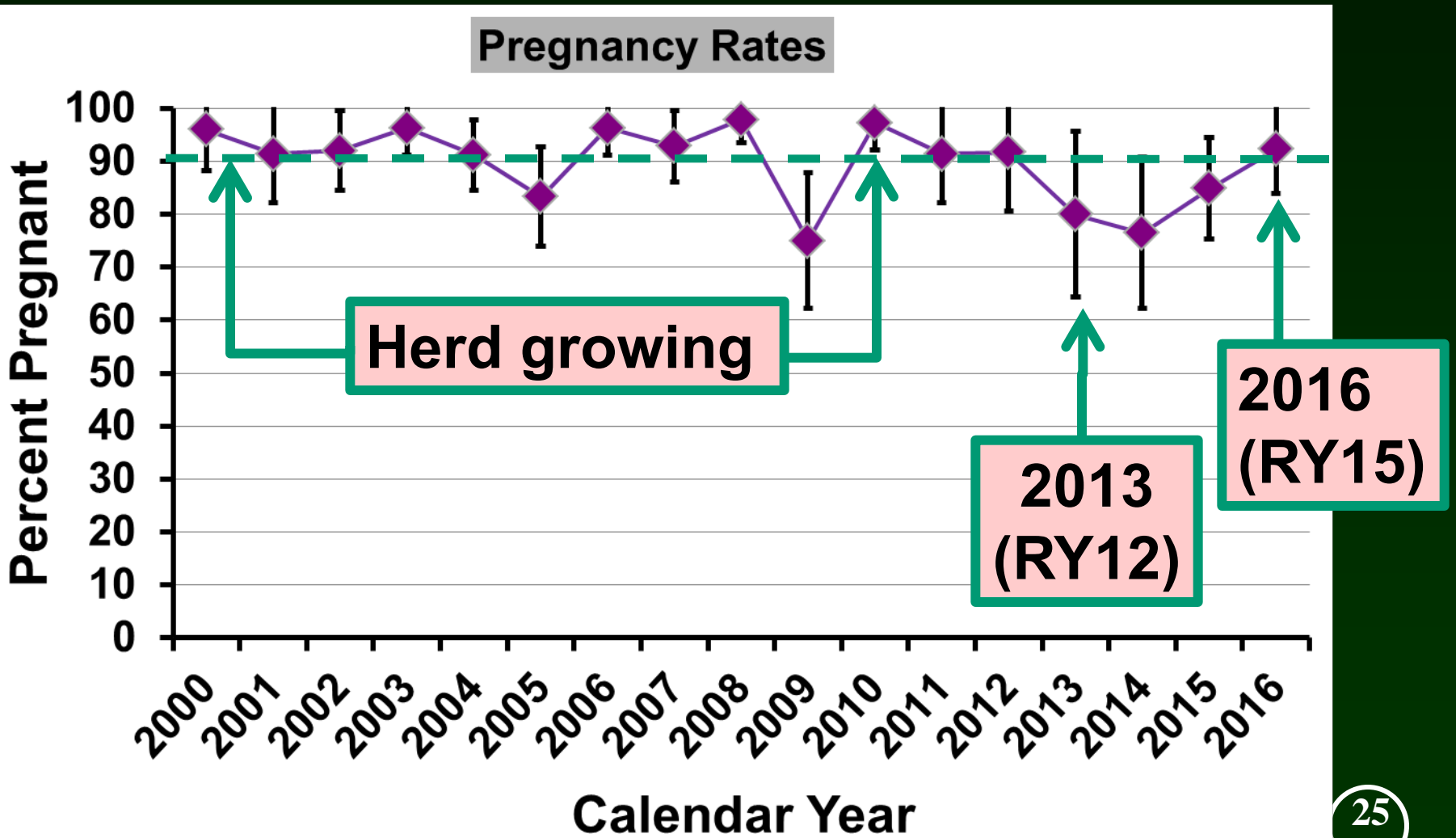


Photo by Nate Pamperin 2016

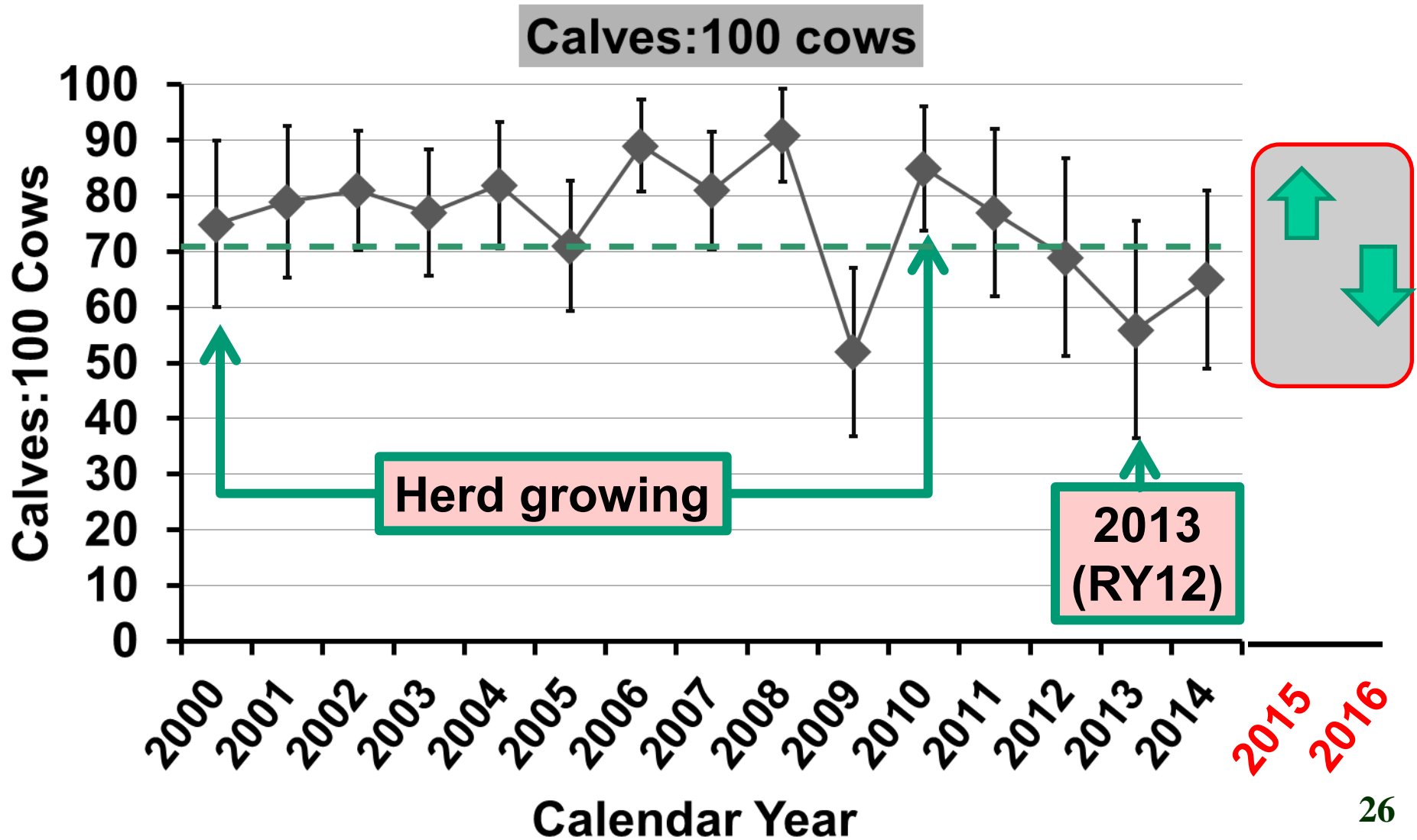
Central Arctic Caribou Herd

Pregnancy rates of cows ≥ 4 years old:



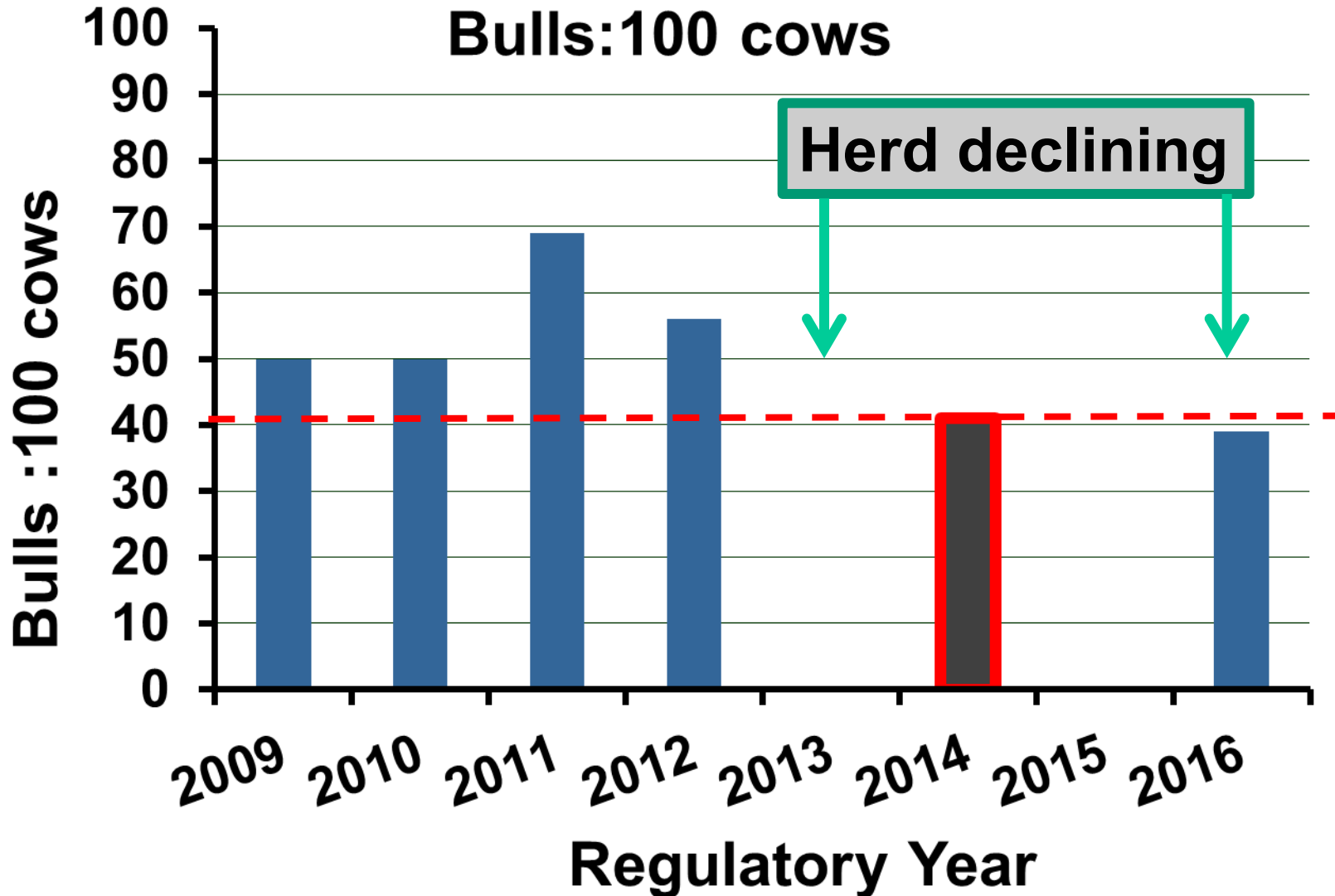
Central Arctic Caribou Herd

Calf:100 Cow ratios for ≥ 4 years old:



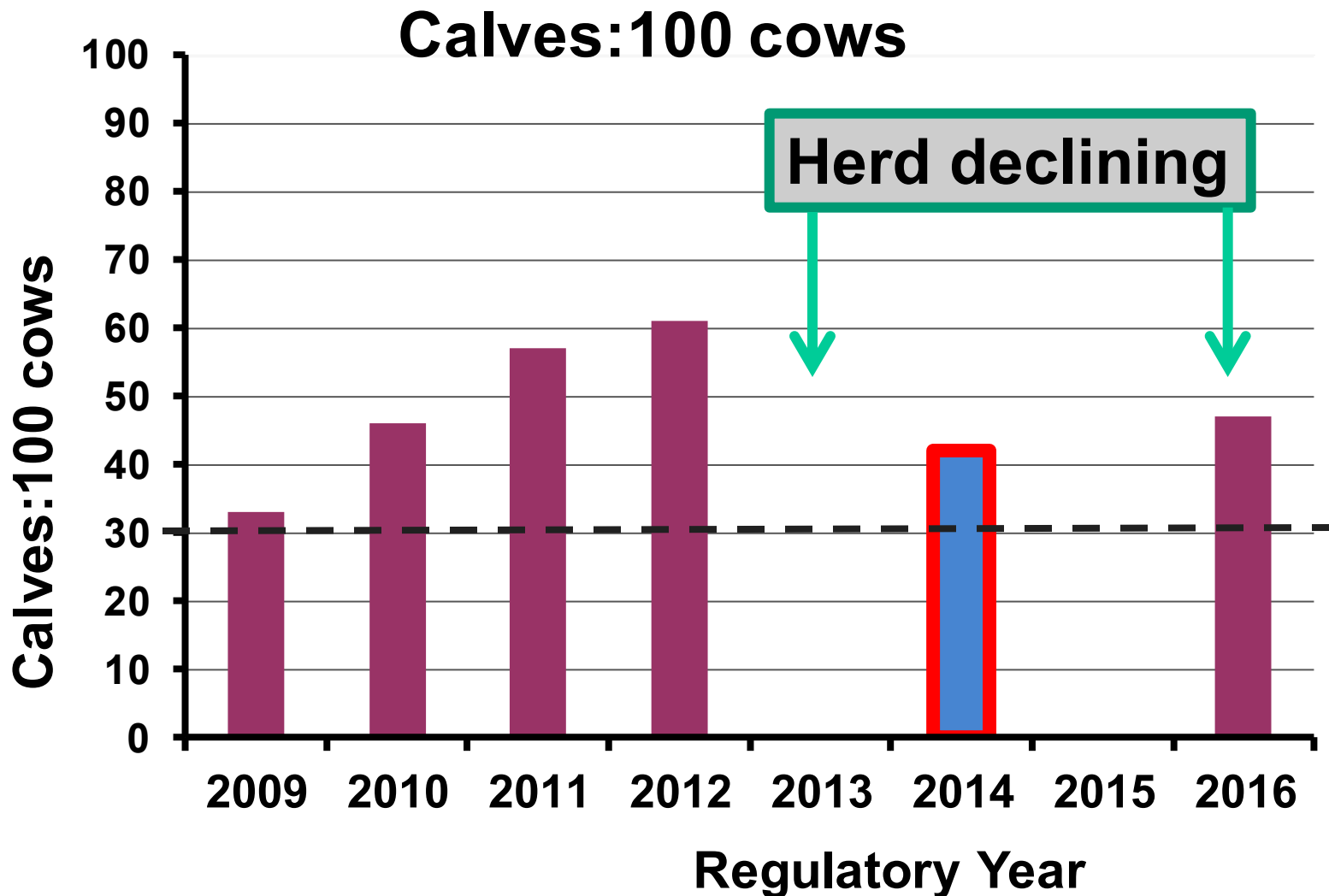
Central Arctic Caribou Herd

Composition Surveys:



Central Arctic Caribou Herd

Composition Surveys:



Central Arctic Caribou Herd

Predation:

- ✓ Did not think it was a major factor in decline
 - ❖ Prior research indicates not a major role in calf mortality
- ✓ A predation study was not conducted
- ✓ May require research in future

Disease:

- ✓ Not implicated; more monitoring in future

Central Arctic Caribou Herd

Future Research:

- **Photocensus in 2017!**
- **Continue calf weight & survival study**
- **Transition to all satellite collars**
- **Analyze data to determine sensitive indices**
- **Work with biometrician on modeling**

Central Arctic Caribou Herd

Future Research cont'd:

Collaboration:

- **ConocoPhillips & ABR**
 - ✓ Analysis of herd switching, mixing & movements
- **Exxon Mobile & ABR**
 - ✓ Geofencing
- **USGS**
 - ✓ Evaluate summer conditions & insect harassment on movements

NEAK MOOSE

Units 25A

- **Low densities (≤ 0.25 moose/mi²)**
 - ✓ Surveyed eastern 25A in RY12
- **High bull:cow ratios**
- **RY11–RY15 harvest = 43 bulls**



NEAK MOOSE

Units 25B

- **Low densities ~0.3–0.5 moose/mi²**
 - ✓ Extrapolate from Unit 25D survey in RY15
- **Good bull:cow ratios**
- **RY11–RY15 harvest = 30 bulls**
 - ✓ Some moose unreported



NEAK MOOSE

Unit 25D

- **Low densities 0.32–0.52 moose/mi²**
~5,700–9,000 moose in RY15
- **Harvest RY11–RY15 = 28 bulls**
~ 100–150 moose unreported

Issues:

- **Low densities in good habitat**
- **Black bear predation on calves**
- **Challenging to survey because of low snow**



NEAK MOOSE

Units 26B & 26C

- Unit 26B, Spring 2016= 138 moose
- Unit 26C, Spring 2016 = 42 moose

**Seasons
are
closed**



Issues: Live too far north

NEAK MUSKOX

Northeast Alaska Muskox (Units 26B & C, eastern 26A)

- Substantial decline during early 2000s
- All hunts closed by 2006

228 in April 2016!

**Muskox Recovery Program
ends June 2018**

Population objective = 300



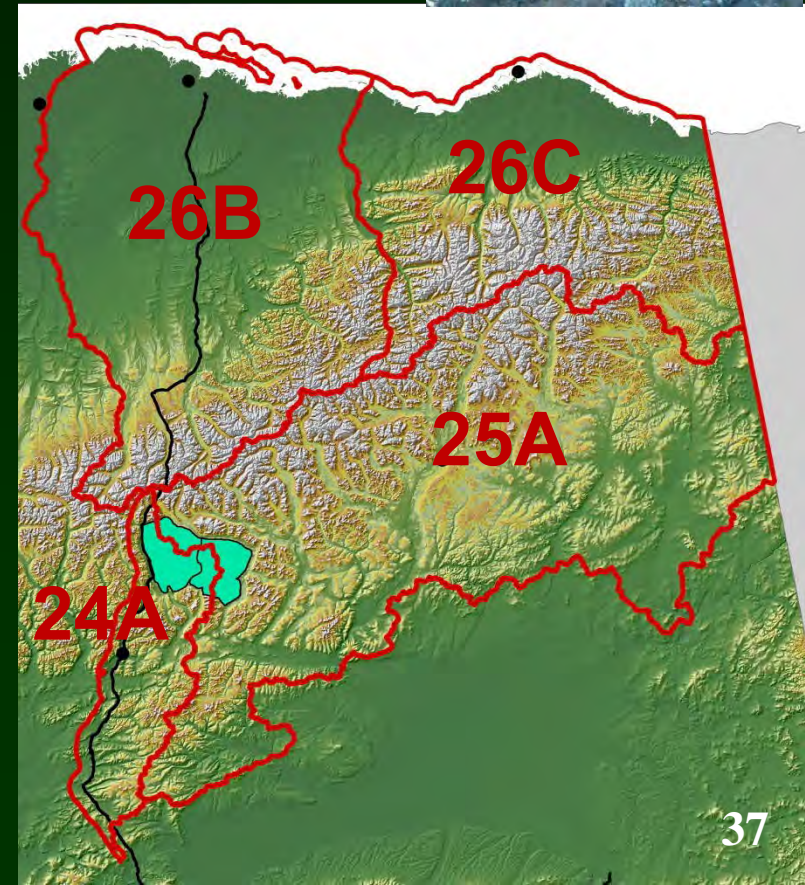
During 2007–2015, ranged 187–198

NEAK DALL SHEEP

Eastern Brooks Range: Units 24A, 25A, 26B, 26C



- Population stable at reduced density
- RY11–RY15 harvest
 - ✓ 207 sheep; ranged 118–247
 - ✓ Success rates = 39%

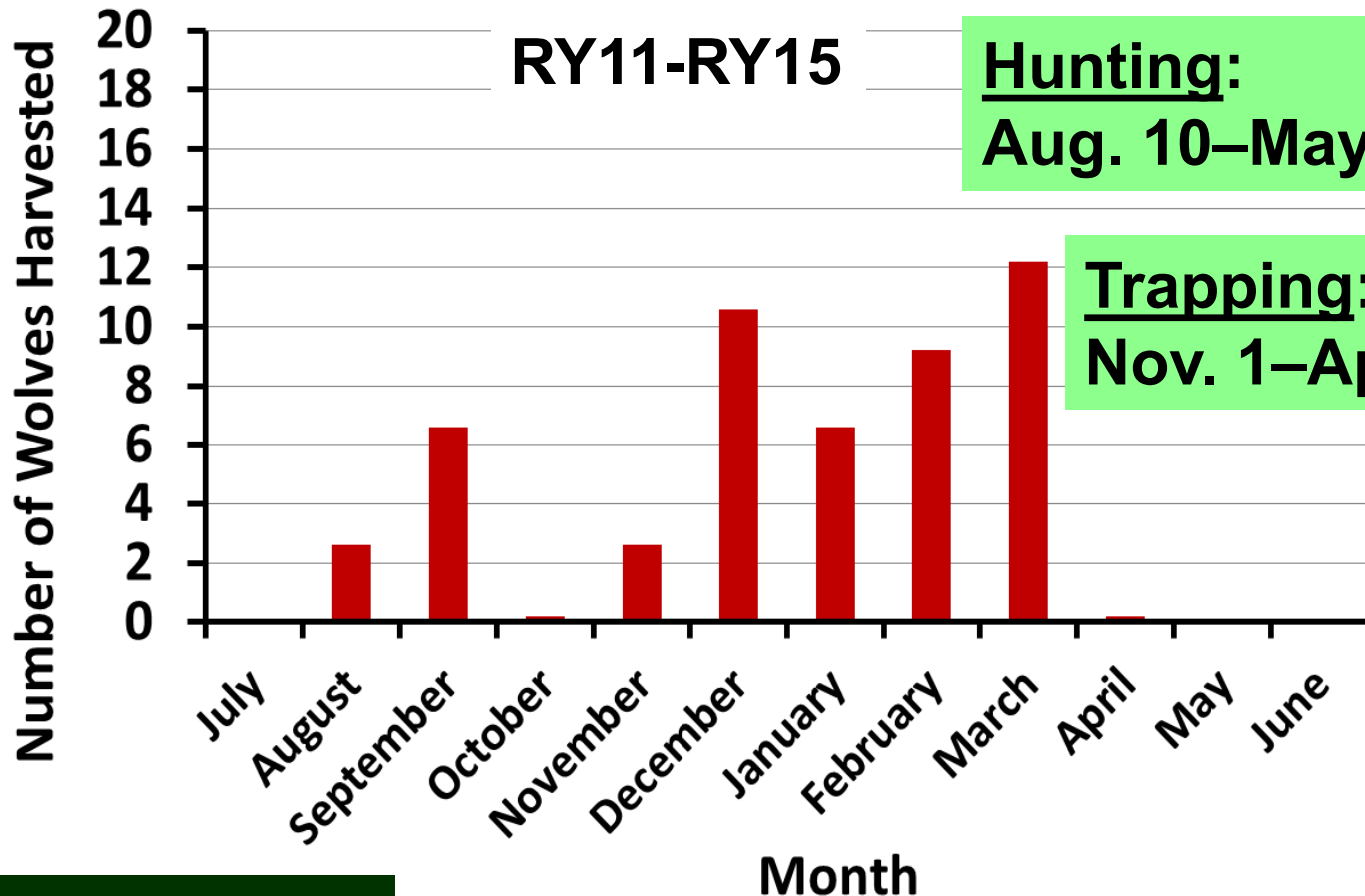


NEAK WOLF



Units 25A, B, D

5-year average wolf harvest by month



Hunting:

Aug. 10–May 31; 10 wolves

Trapping:

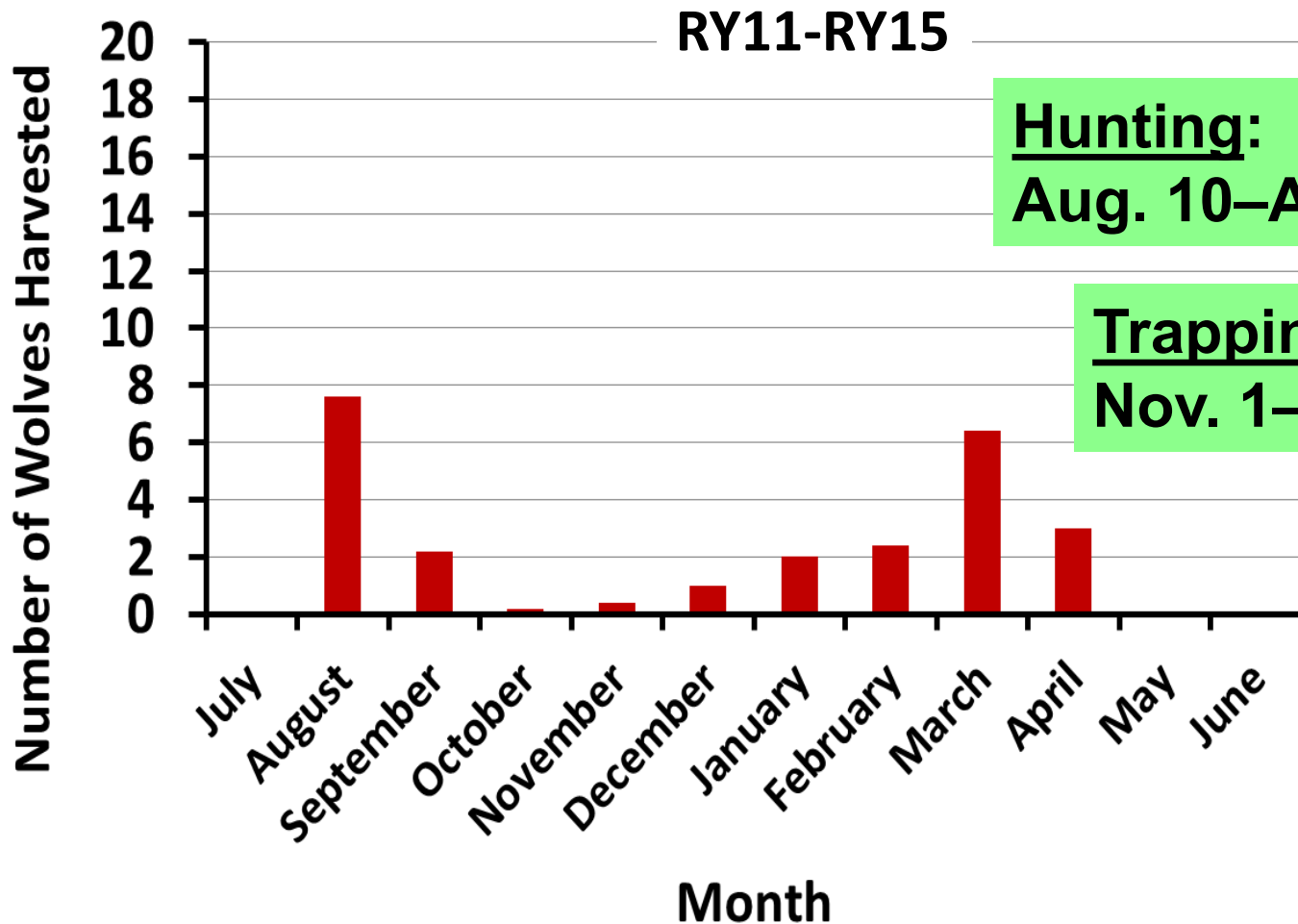
Nov. 1–Apr. 30; no limit

NEAK WOLF



Units 26B, C

5-year average wolf harvest by month



Hunting:
Aug. 10–Apr. 30; 10 wolves

Trapping:
Nov. 1–Apr. 30; no limit

NEAK FUR

Units 25A, B, D: Sealing data

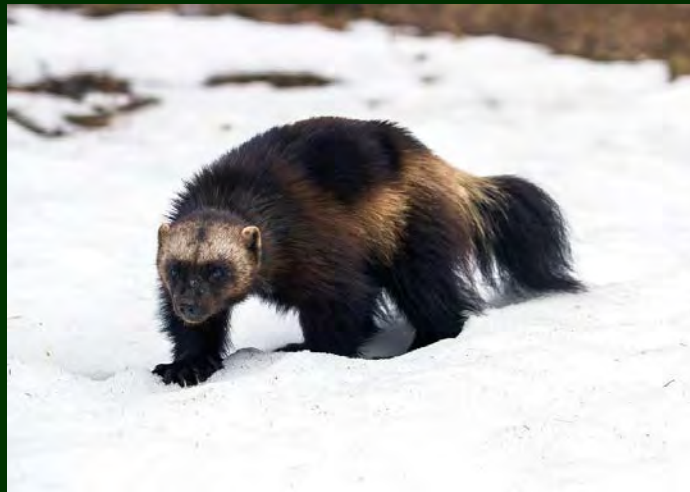
<u>RY11–RY15</u>	<u>Total harvest</u>	<u>Mean</u>
Lynx	2,454	491
Otter	7	1
Wolverine	290	58



NEAK FUR

Units 26B, C: Sealing data

<u>RY11–RY15</u>	<u>Total harvest</u>	<u>Mean</u>
Lynx	10	2
Otter	0	0
Wolverine	45	9



NEAK SMALL GAME

- **Abundant snowshoe hares, grouse & ptarmigan**
- **Harvest is low relative to populations**



END of NEAK Overview

Any Questions?

