

Unit Summary – Figure 1





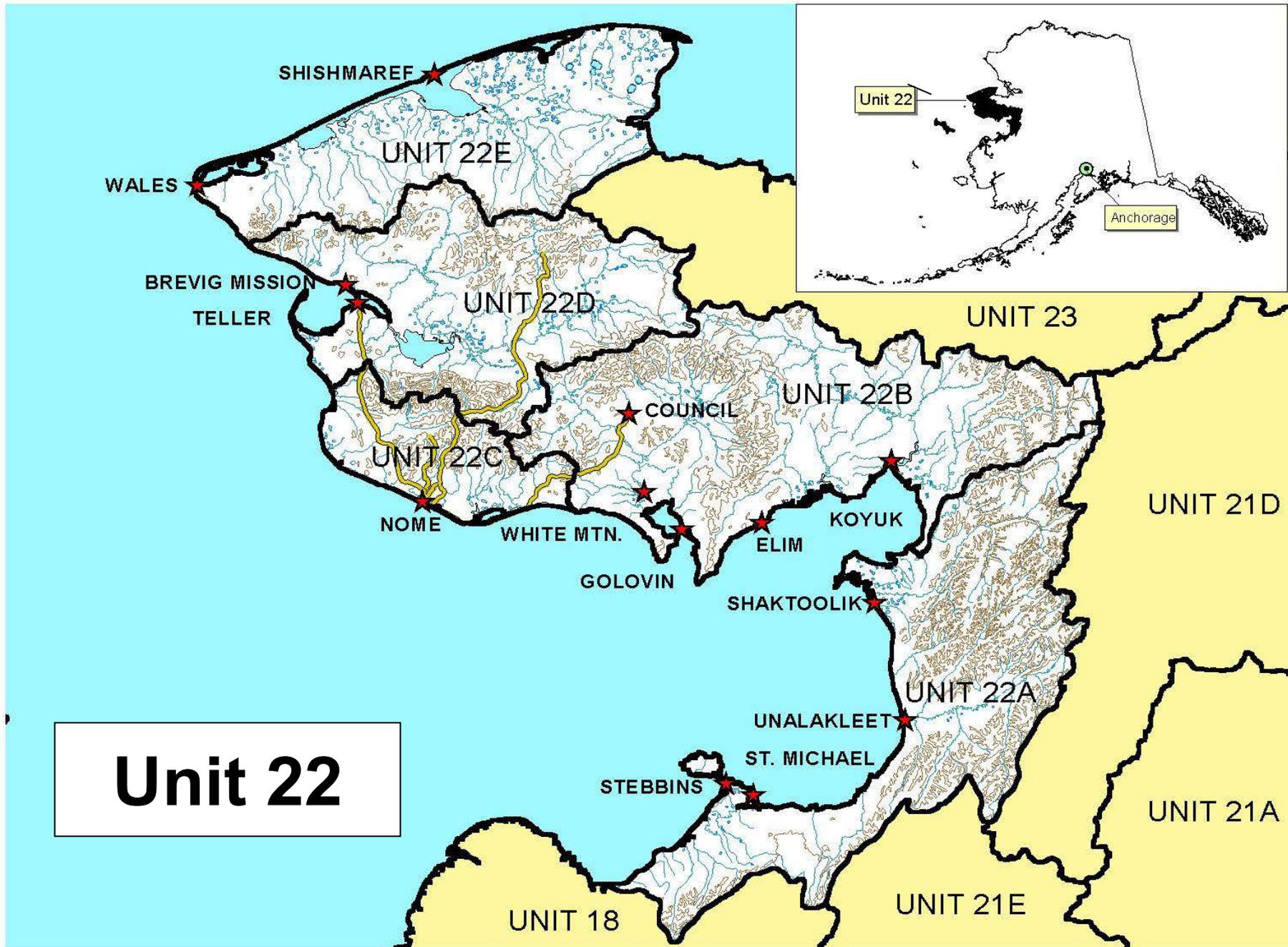












Unit Summary – Figure 1



Unit 22: Moose

2011 Population

Unit 22 estimate = 3,550– 5,621 moose

Harvestable surplus = 323 moose

Subsistence

Amount necessary = 250 – 300 moose

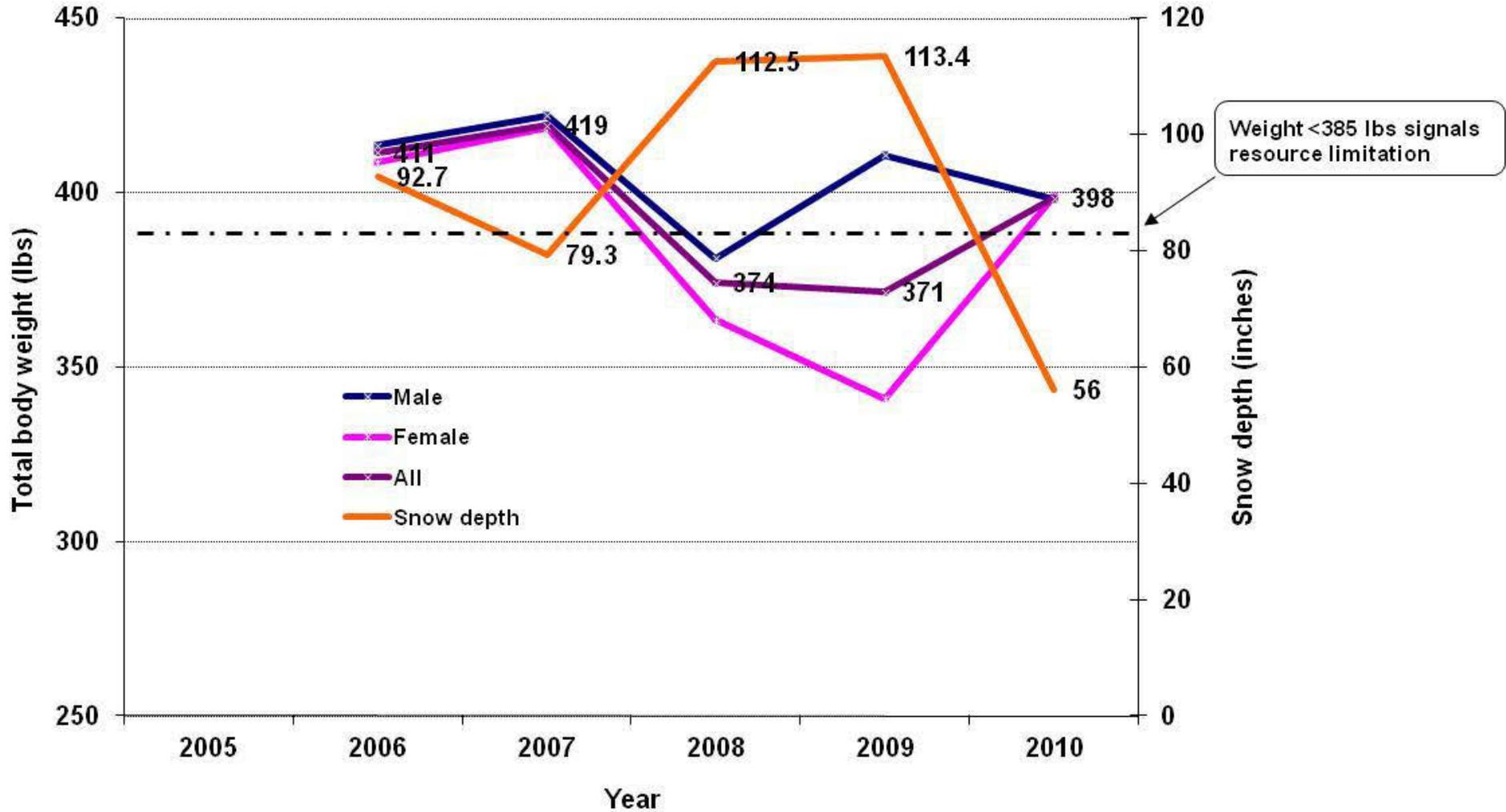
Intensive Management

Population objective = 5,100 – 6,800 moose

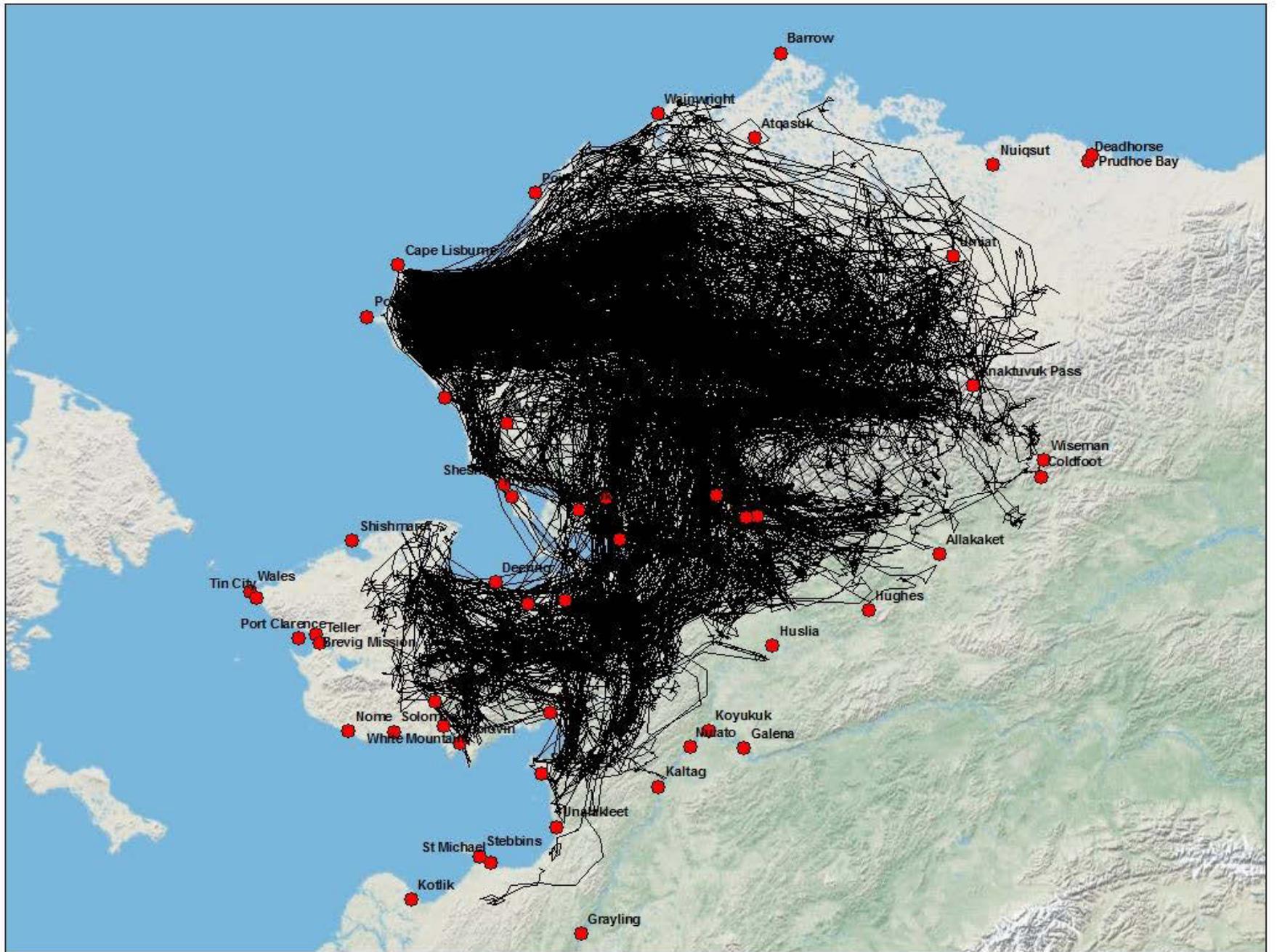
Harvest objective = 300 – 680 moose



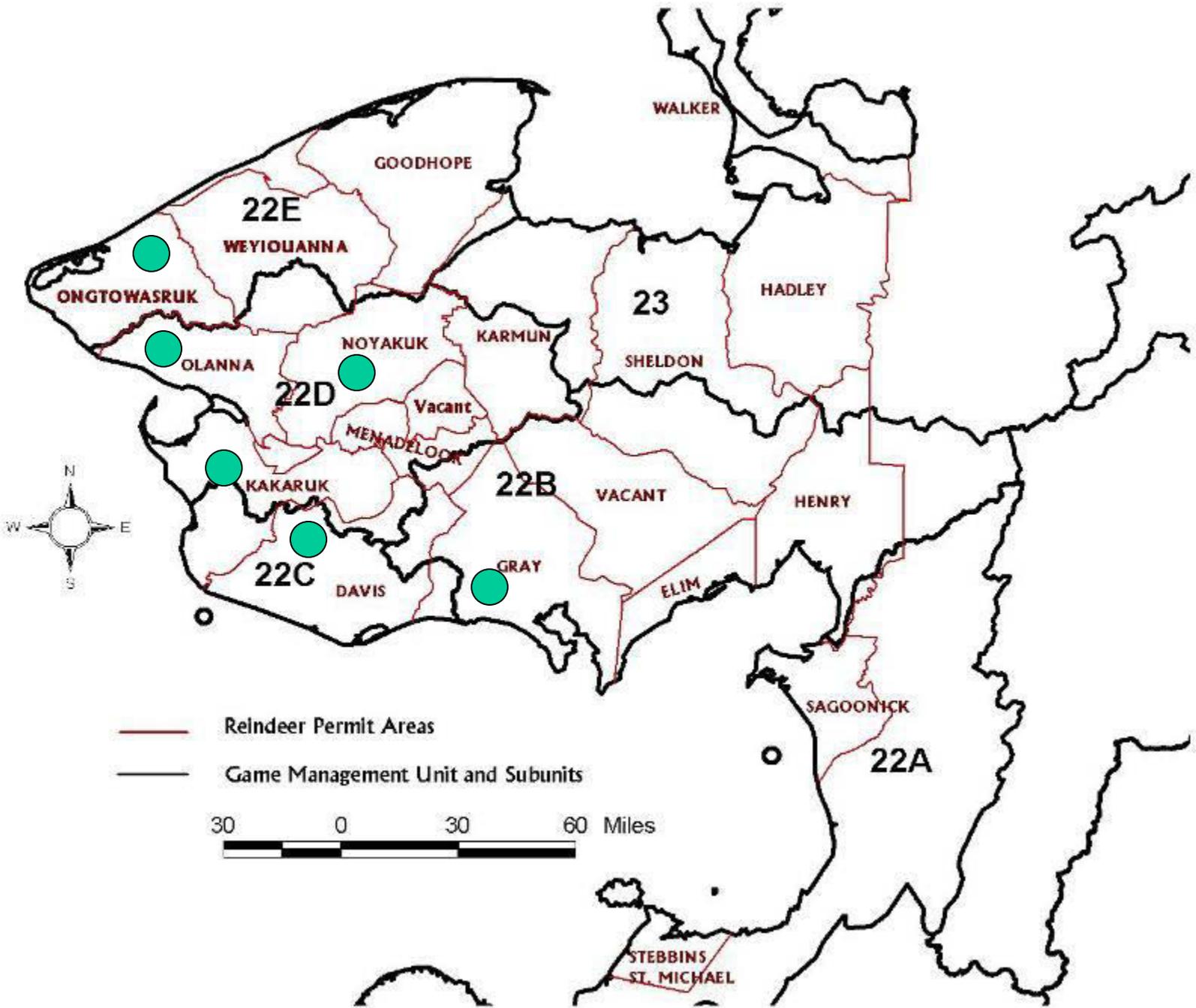
**Moose Calf Weights and Annual Snow Depth
Unit 22C: 2005-2010**



Unit Summary – Figure 3

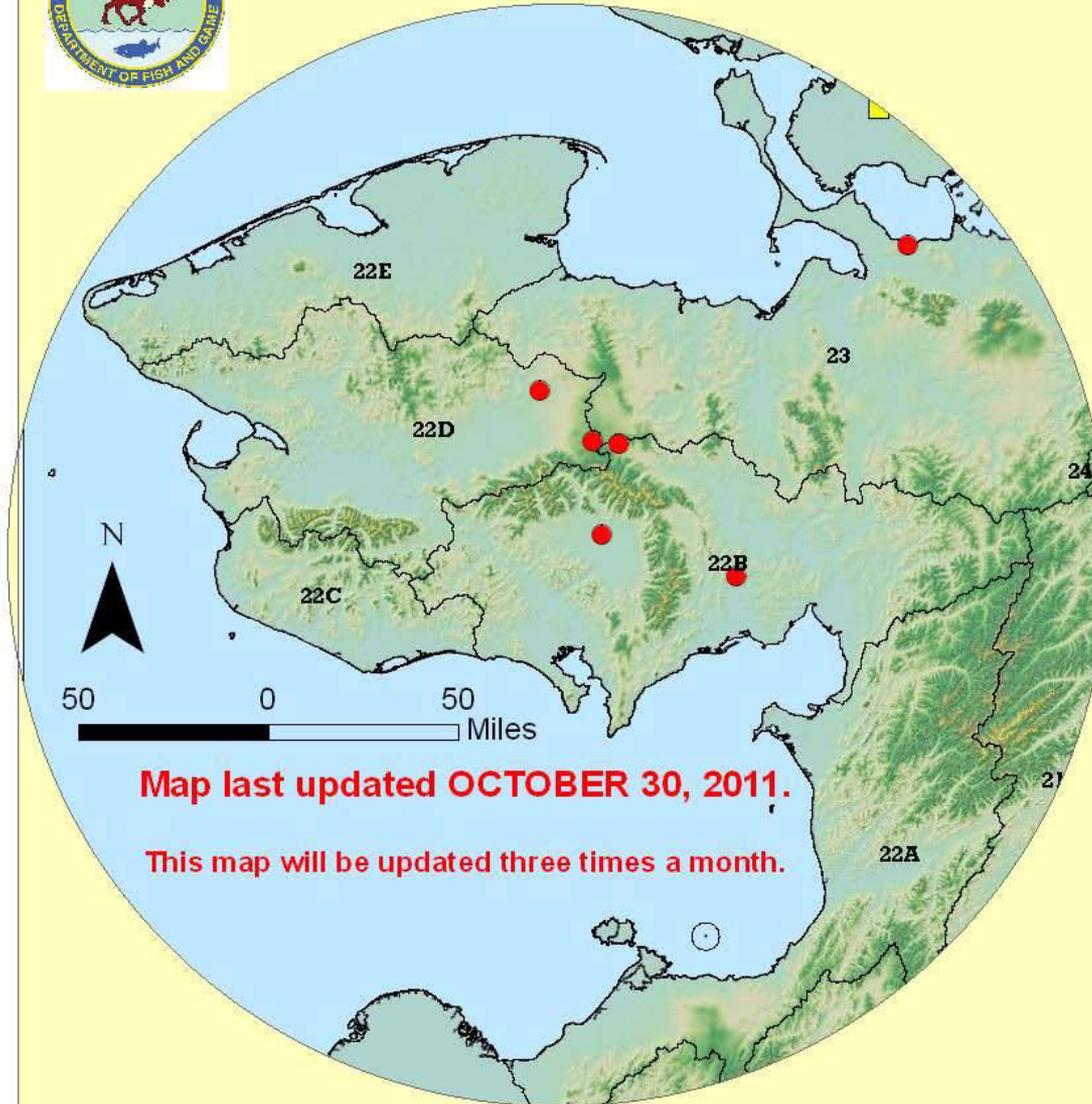


Unit Summary – Figure 4



Unit Summary – Figure 5

Western Arctic Caribou on the Seward Peninsula



Map last updated OCTOBER 30, 2011.

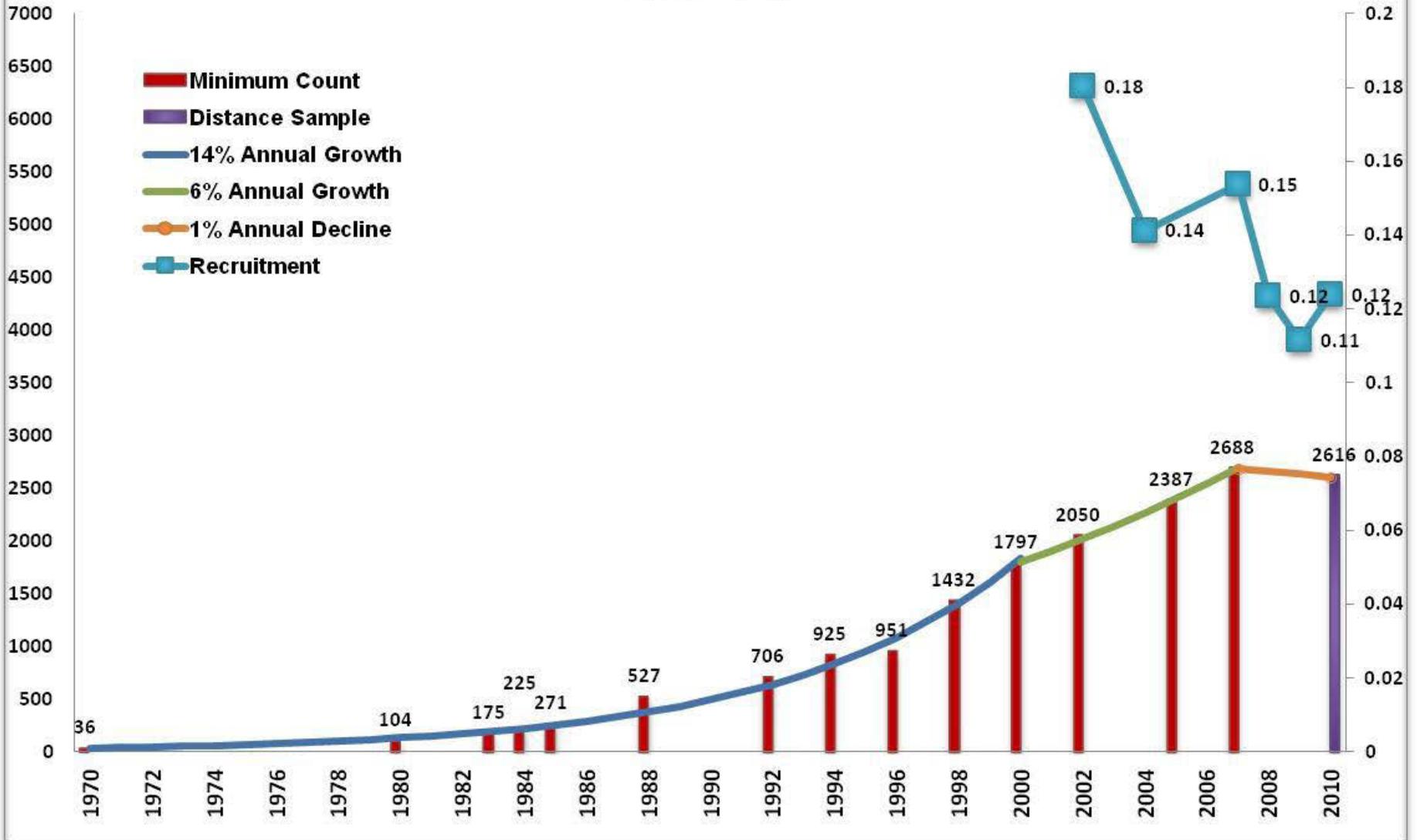
This map will be updated three times a month.

Note: Each symbol represents one collared caribou.

This map represents generalized locations of satellite collars deployed on caribou ranging throughout northwest Alaska. These data are courtesy of ADF&G, and may not be transmitted, reproduced, published, or distributed in any manner without written permission from: ADF&G, Box 1148, Nome, AK 99762

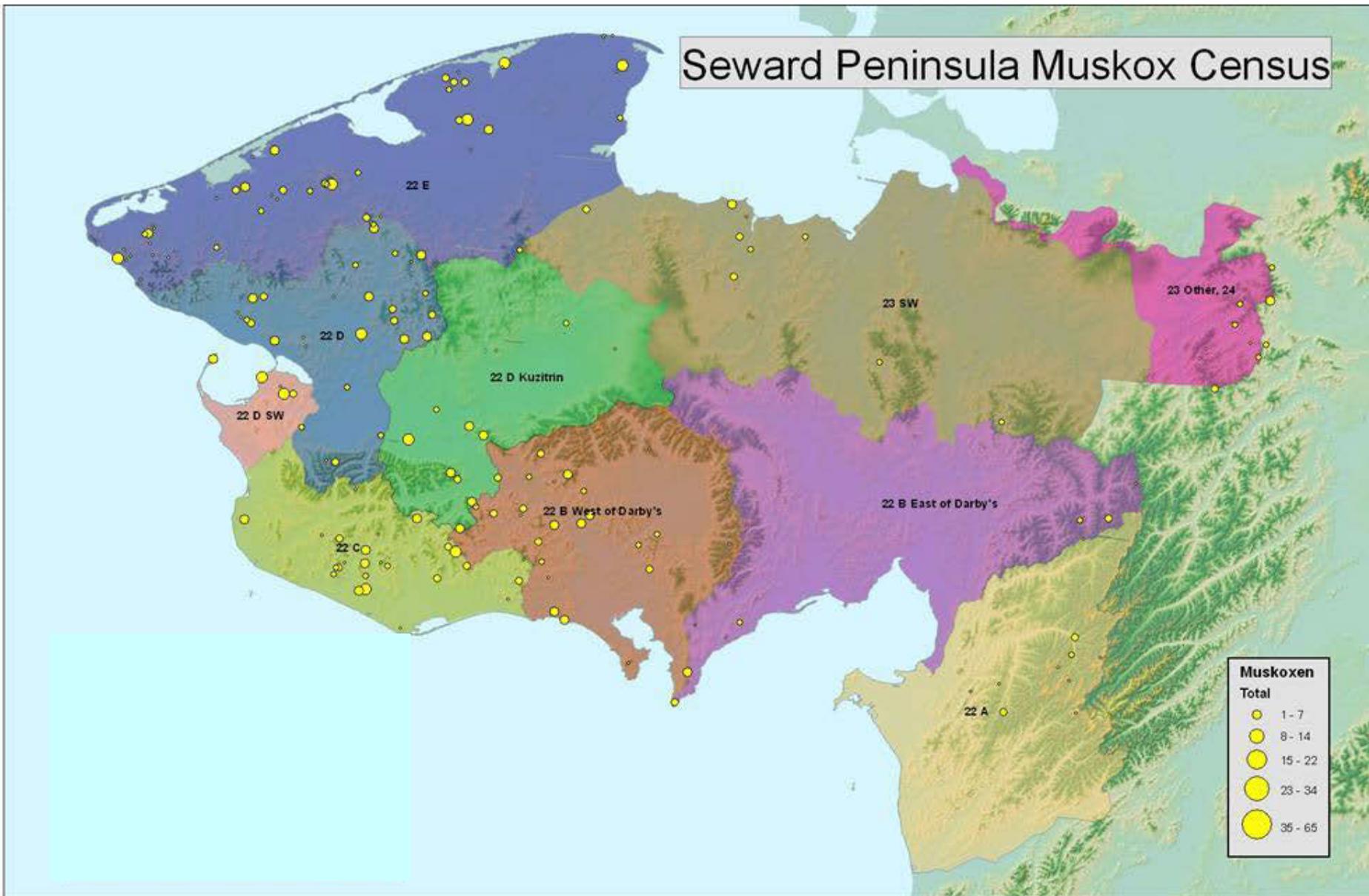


Seward Peninsula Muskox Population Count Results 1970-2010



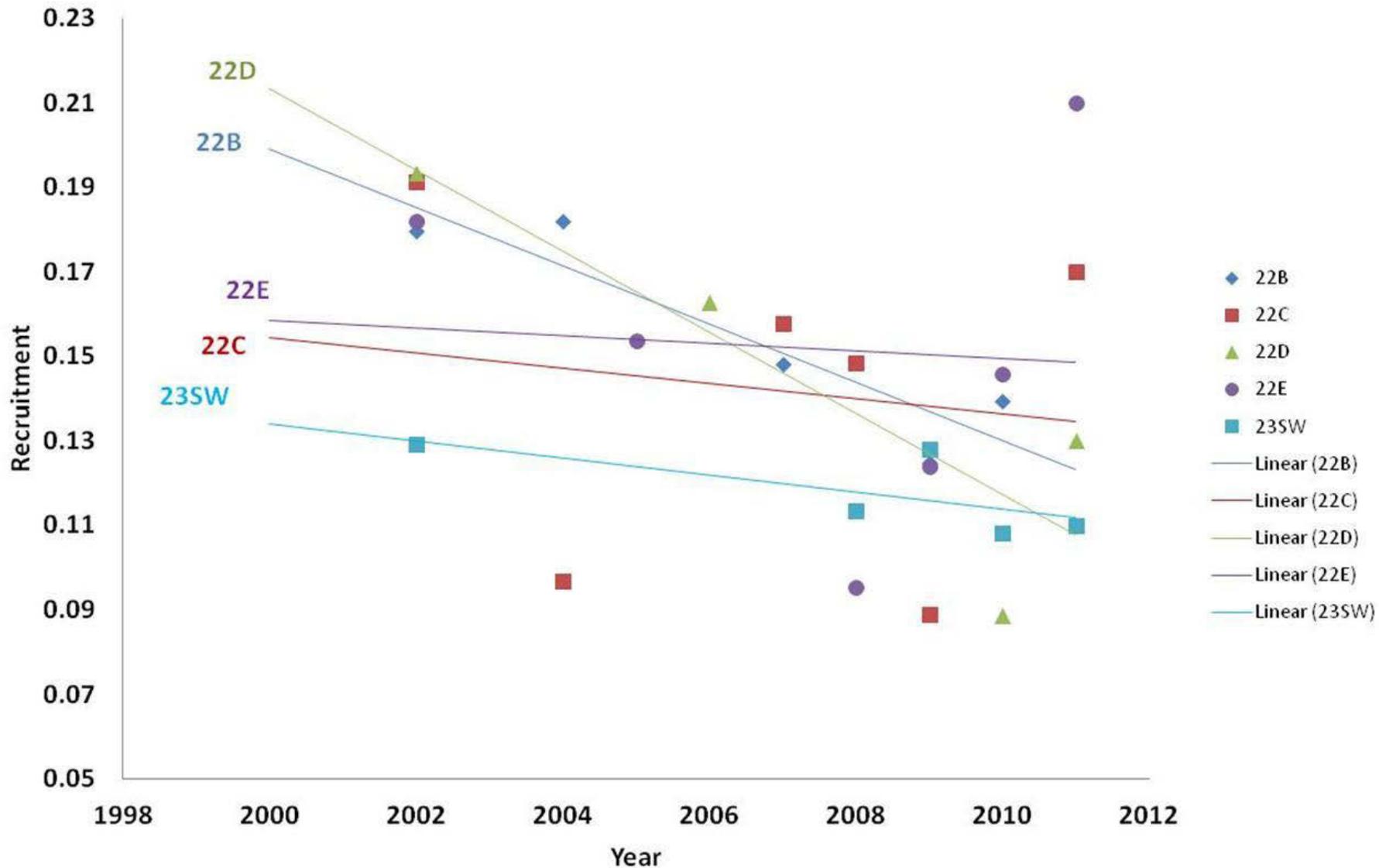
Unit Summary – Figure 7

Location of Seward Peninsula Muskox Groups, Spring 2010



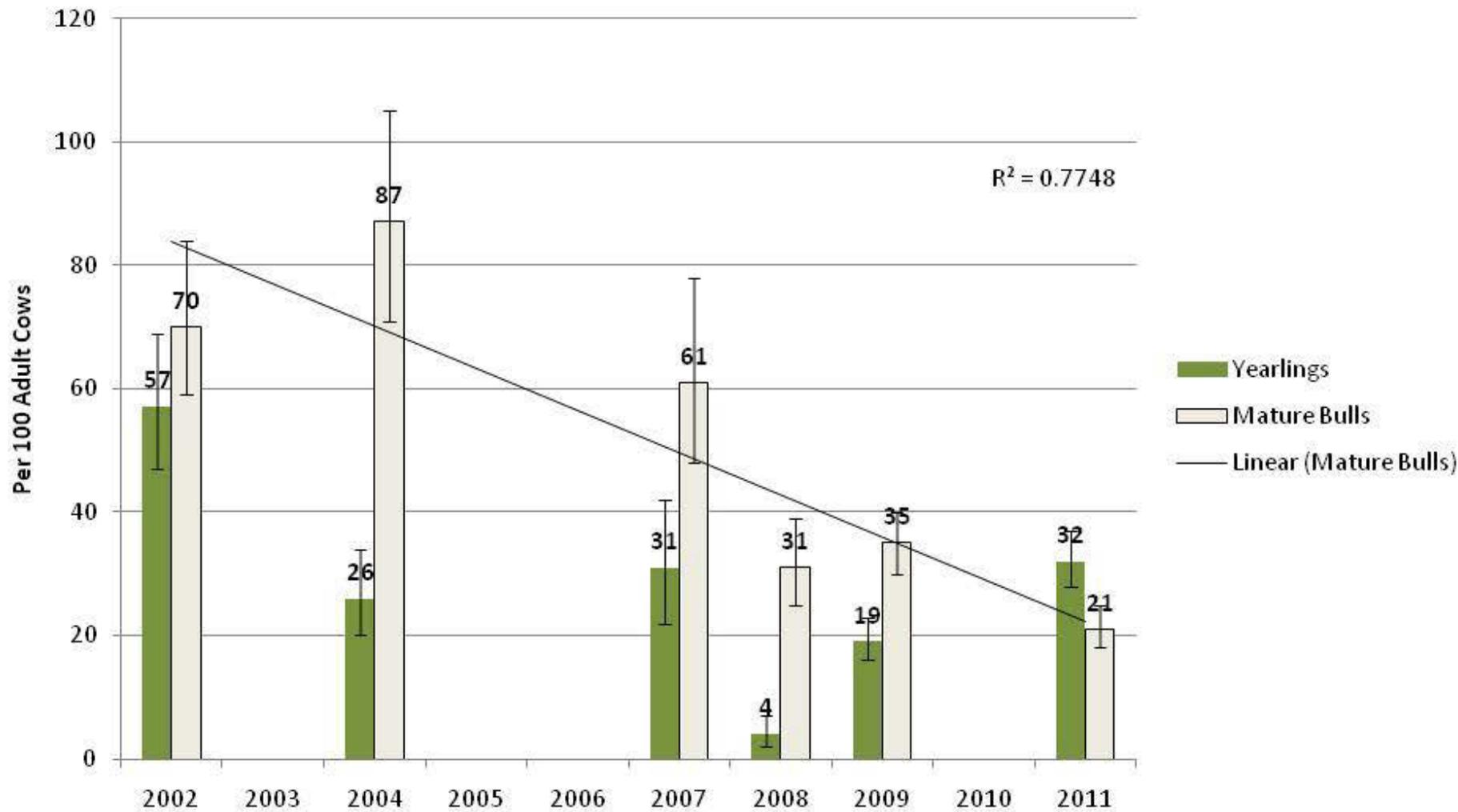
Unit Summary – Figure 8

Recruitment Rates from Seward Peninsula Composition Surveys 2002- 2011



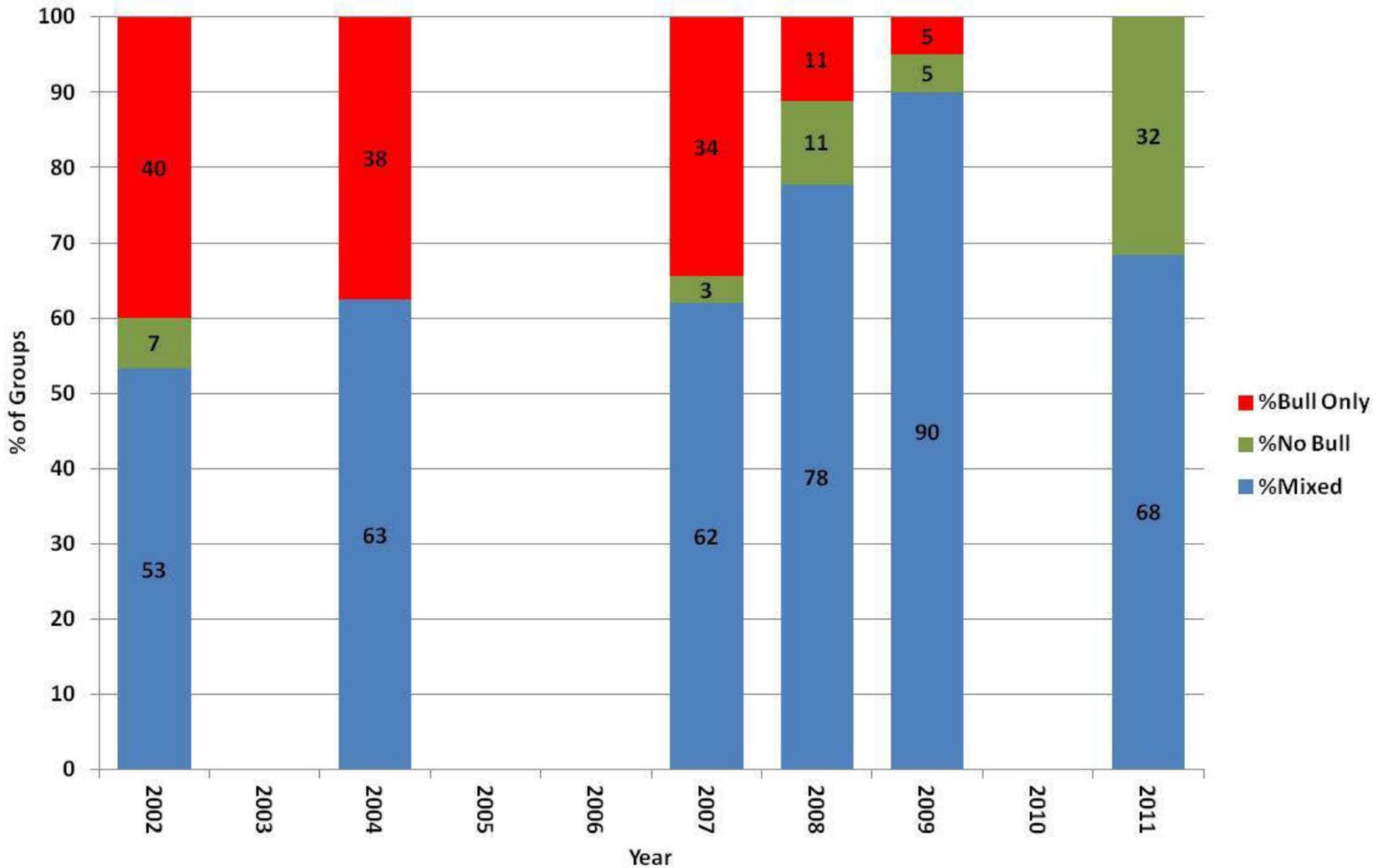
Unit Summary – Figure 9

Unit 22C Mature Bull: Cow Ratios and Yearling: Cow Ratios



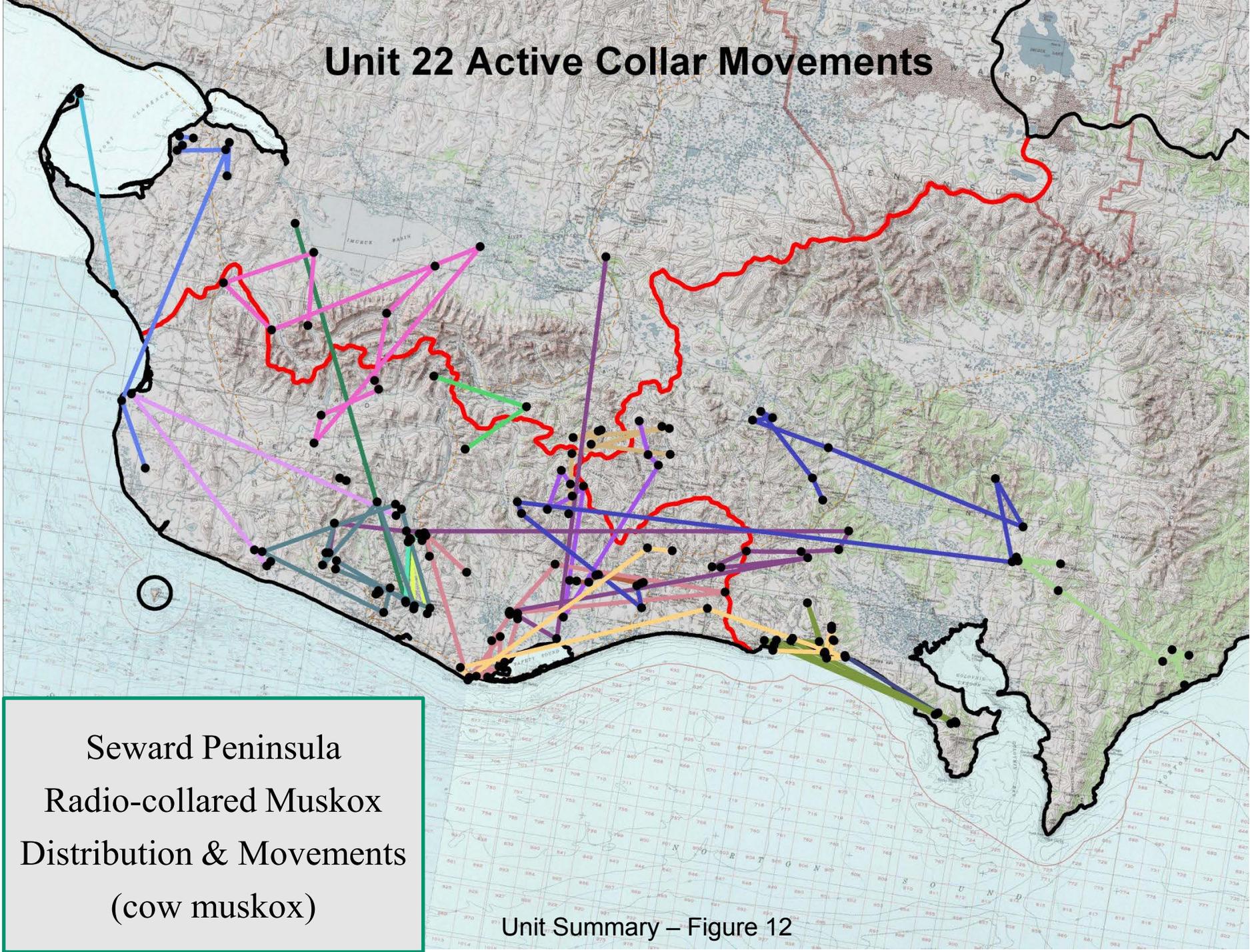
Unit Summary – Figure 10

Unit 22C Composition Survey Group Types 2002-2011



Unit Summary – Figure 11

Unit 22 Active Collar Movements



Seward Peninsula
Radio-collared Muskox
Distribution & Movements
(cow muskox)

Unit Summary – Figure 12

Brown Bear Predation



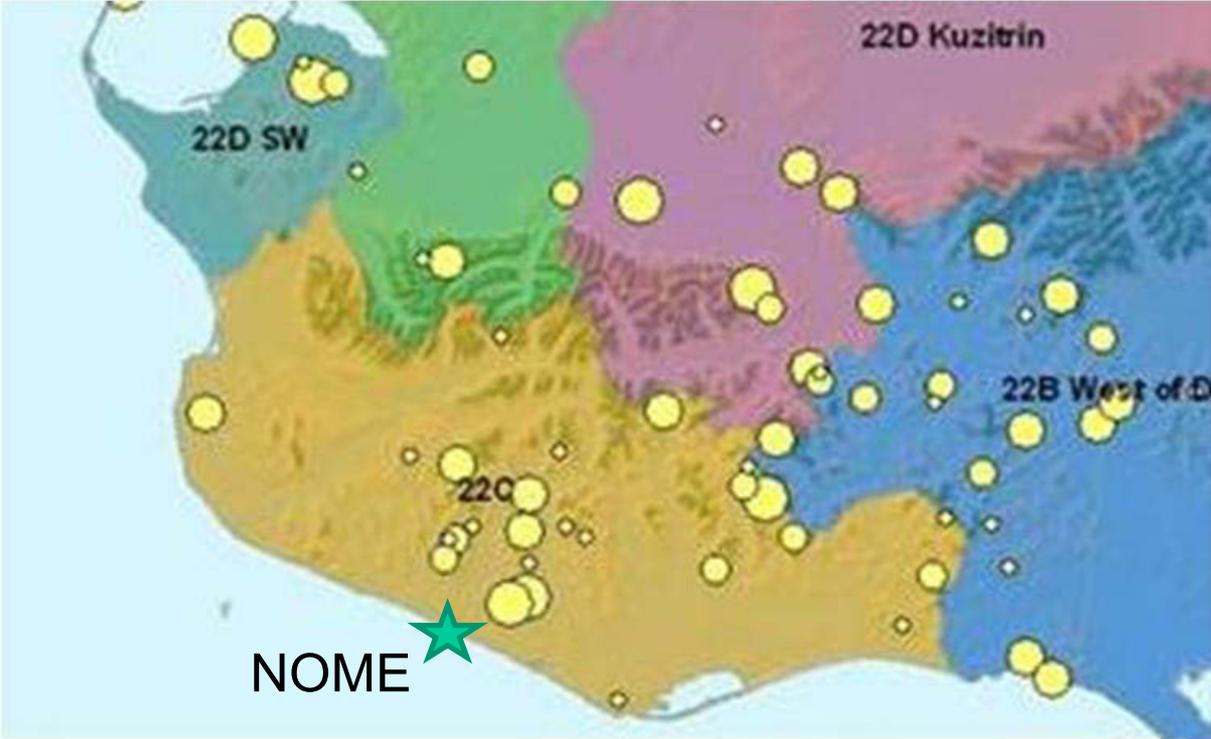
Porcupine Quills



Weather Related



Redistribution of Nome Area Muskofox Groups



Redistribution of Nome Area Muskox Groups



Seward Peninsula Muskox Hunts, 1995-1997

Unit 22E

Quota: 9 bulls
Federal Subsistence Permit

Unit 22D

Quota: 8 bulls
Federal Subsistence Permit

Unit 23 SW

Quota: 6 bulls
Federal Subsistence Permit

Unit 22D

No Hunt

Unit 22C

No Hunt

Unit 22B

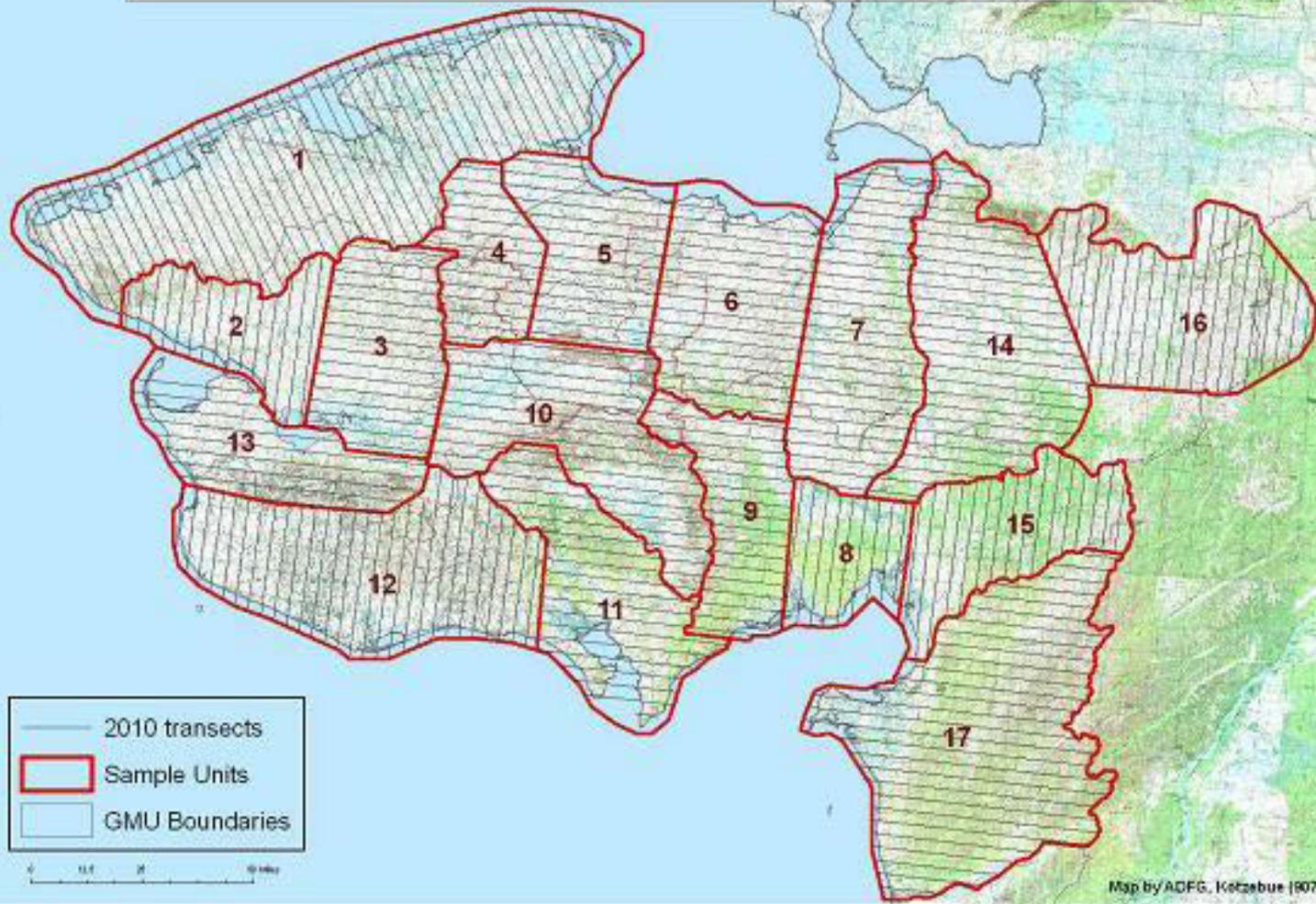
No Hunt

Unit 22A

No Hunt

Unit Summary – Figure 14

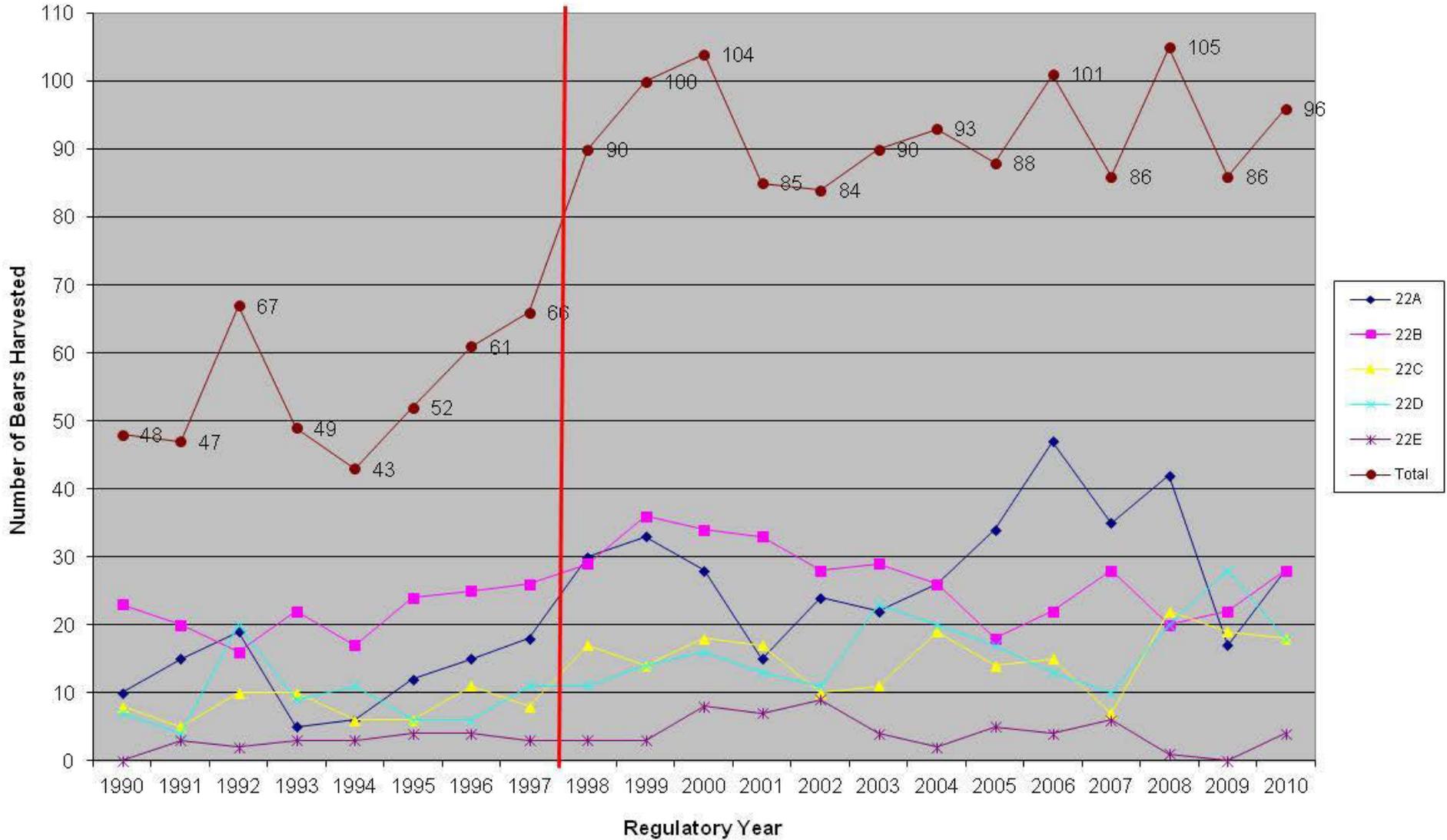
Seward Peninsula Muskox Census Count Area



Unit Summary – Figure 16



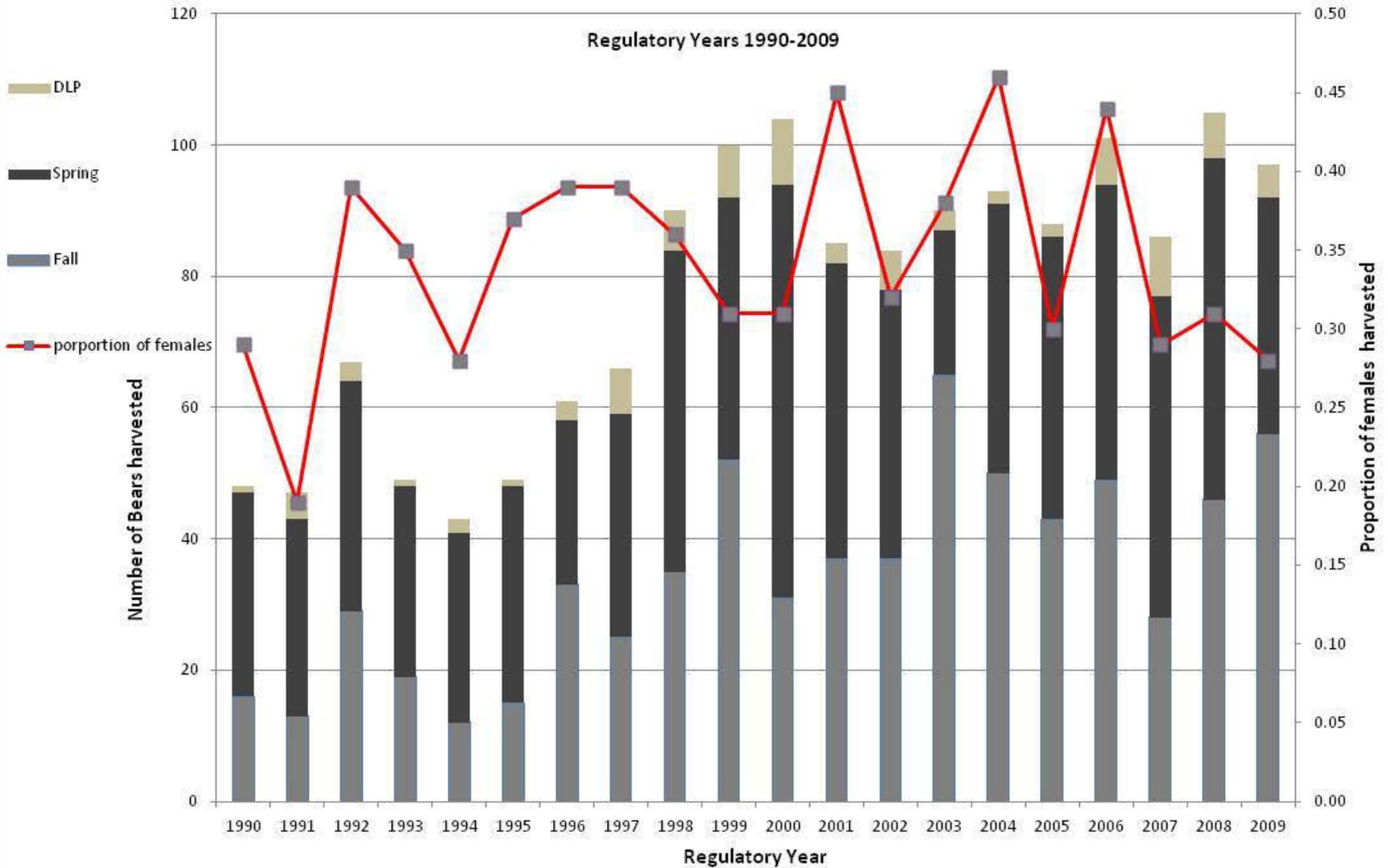
Unit 22 Brown Bear Harvest 1990-2010



Unit Summary – Figure 17

Unit 22 Brown bear Spring & Fall Harvest

Regulatory Years 1990-2009

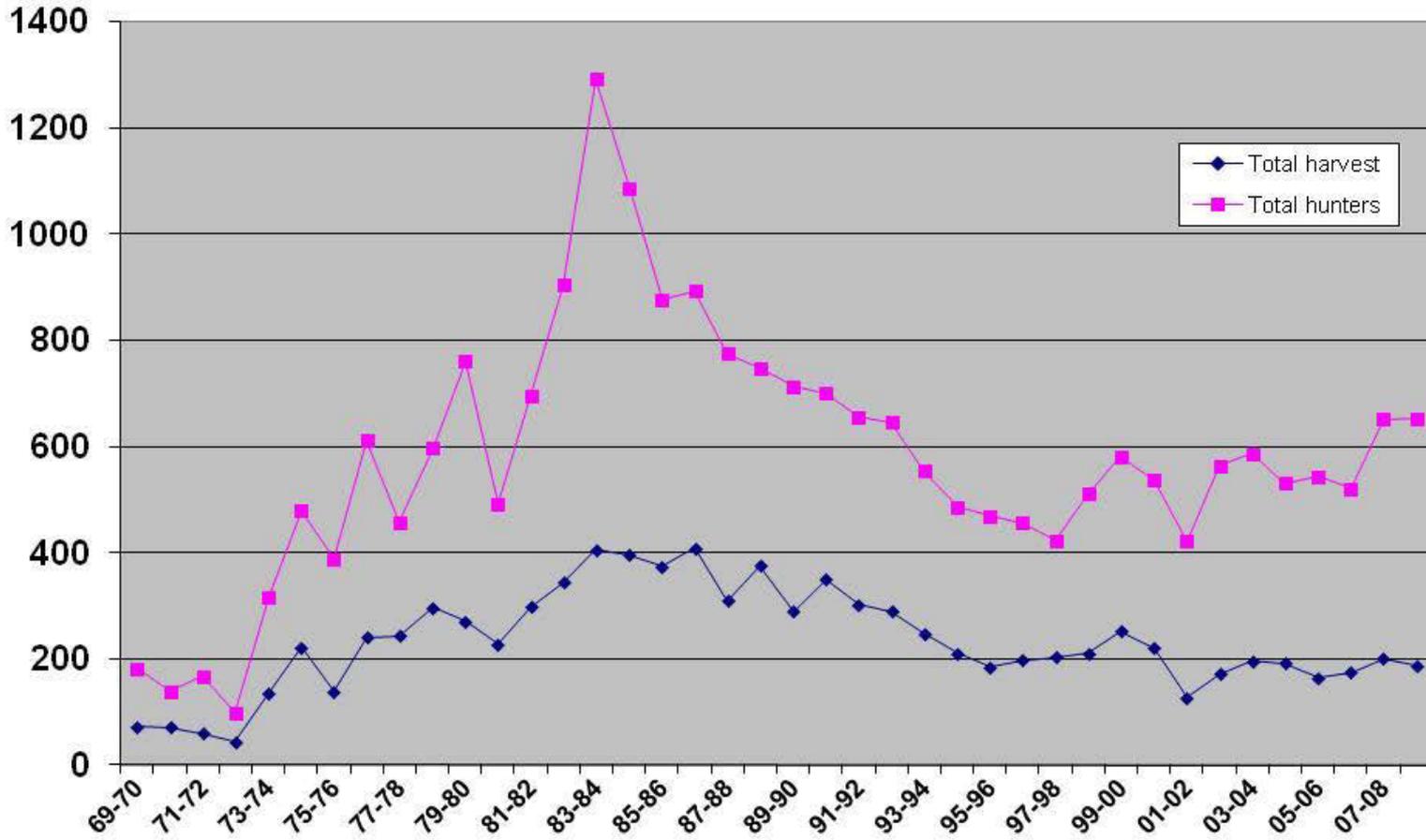


Unit Summary – Figure 18

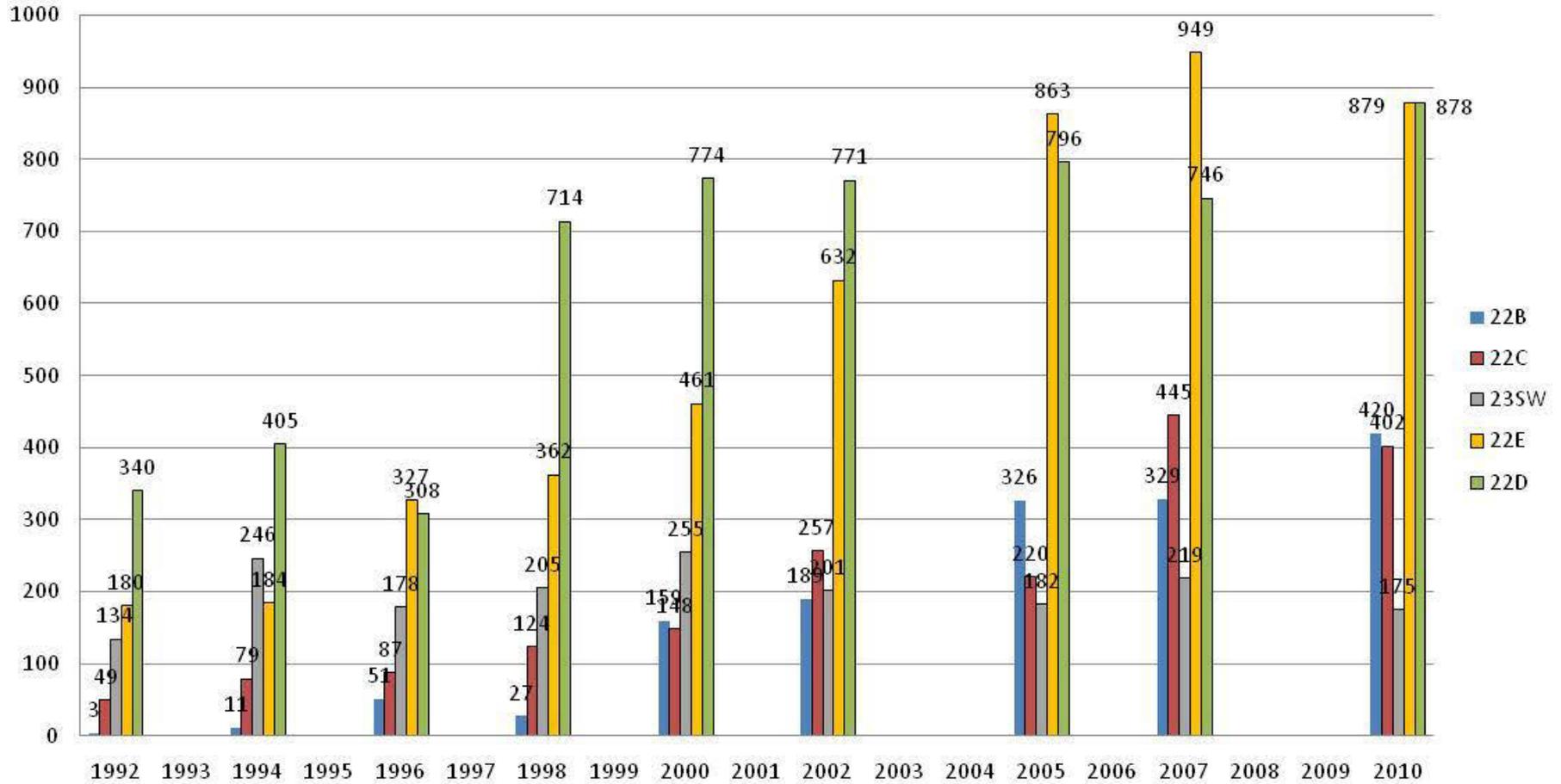




Unit 22 Moose Hunt Effort and Harvest 1969-2009 (Regulatory Year)



Seward Peninsula Subunit Muskox Counts 1970-2010



Muskox Identification

For more muskox hunting tips visit:

www.wildlife.alaska.gov/index.cfm?adfg=hunting.muskox



Fig. 1

2-year-old bulls in spring



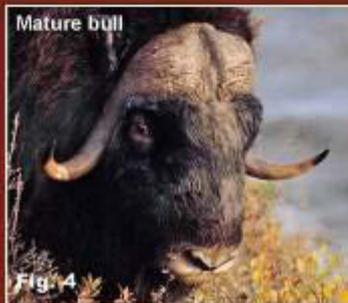
Fig. 2

2-year-old bull in spring (left)
3-year-old bull in spring (right)



Fig. 3

3-year-old bull develops large boss horn by fall



Mature bull

Fig. 4



Mature cow

Fig. 5



Fig. 6

Bull muskox horn characteristics:

- Mature bulls (4-years-old and older) develop a thick boss at the base of each horn with very little hair between the bosses. Horn tips may be worn or the entire hook broken off. (Fig. 4)
- All bulls have horns that are thicker and more massive than cows.
- Young bulls have incomplete growth of boss horn, and considerable amount of white hair between the horn bases. (Figs. 1 & 2)
- Dark or black horn tips are found on some cows and are not reliable characteristics to identify bulls.

Cow muskox horn characteristics:

- Cows do not grow a boss at the base of their horns as bulls do. Horn bases on mature cows (4-years-old and older) are small, dark and visible. (Fig. 5)
- Horn diameter is smaller and less massive than on bulls. From a distance the length of the hook on cows may seem similar to bulls.
- Young cows have incomplete growth of horn bases and considerable white hair between the horns.
- Dark or black horn tips are found on some cows.

How many legs do you see? (Fig. 6)

- Know what lies behind your target before you shoot.
- Muskoxes cluster together as herd animals which many hunters are not accustomed to hunting.
- Calves, yearlings, and 2 year olds often stand behind larger animals for protection.
- Take your time! The group will eventually disperse giving you a clean shot.

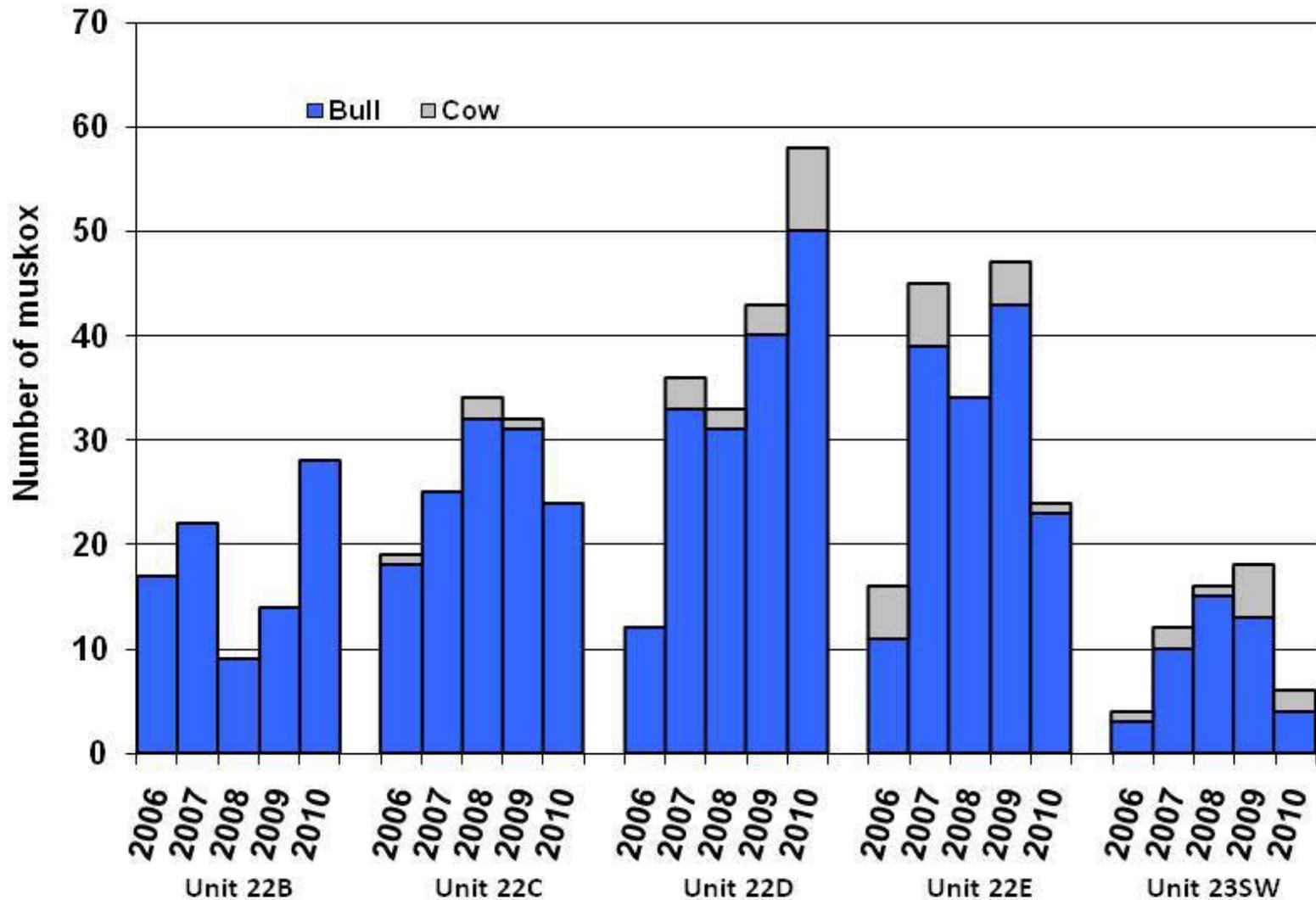
Trophy destruction required for Unit 22 & 23 registration hunts

The distal portion of each horn will be cut at or above the position of the eye on the skull. Refer to the specific hunting regulations for Units 22 and 23 for more details.

Photos courtesy of:
Fig. 1, 3 & 4: Claudia Ihl
Fig. 2: Peter Bernto
Fig. 5: Sae Steinacher
Fig. 6: Patrick Jones



**2006-2010
Unit 22/23 Muskox harvest
Subunits 22B, 22C, 22D, 22E, and 23SW**



Proposal 22: Unit 22 Antlerless Moose Hunts

This proposal reauthorizes antlerless moose hunts in Unit 22 (Unit 22C and Unit 22D Remainder):

Department Recommendation: **Adopt.**

Supported by:

- Northern Norton Sound Advisory Committee

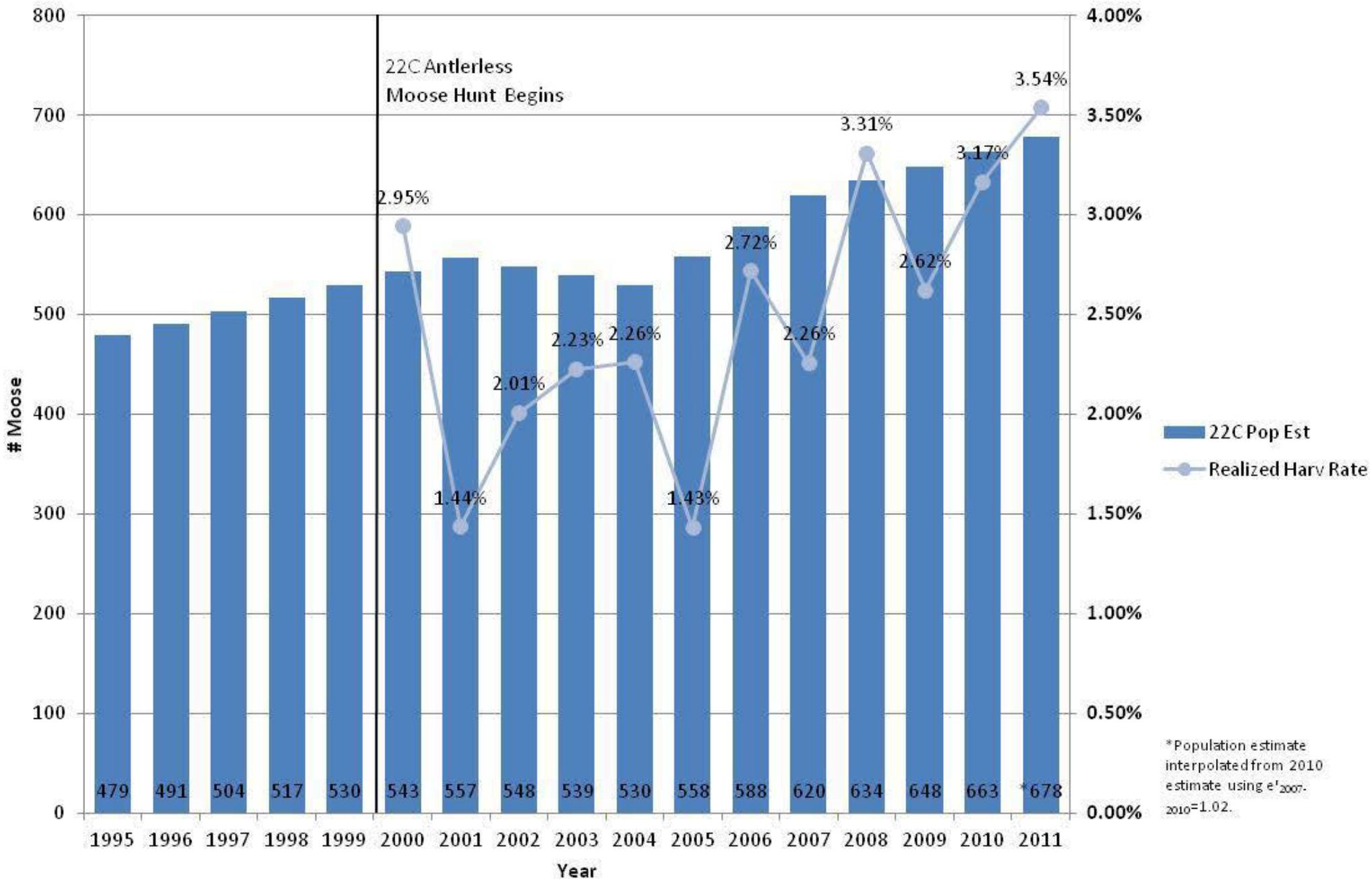
Proposal 22: Unit 22 Antlerless Moose Hunts

Unit 22C

- ✓ Antlerless moose hunting began in Unit 22C in 2000
- ✓ Concerns over Unit 22C increased moose densities
- ✓ Current hunts are by registration permit with harvest quota (RM850 and RM852)
- ✓ Research suggests 22C moose population is nearing limits of winter moose range.
- ✓ Productive population
- ✓ Population surveys found calf: adult ratios between 16 and 34 calves:100 adults (average of 24 calves:100 adults since 1990, n= 6)
- ✓ Lacks natural disturbances that stimulate habitat growth (e. g. river-ice scour, fire)

Proposal 22: Unit 22 Antlerless Moose Hunts

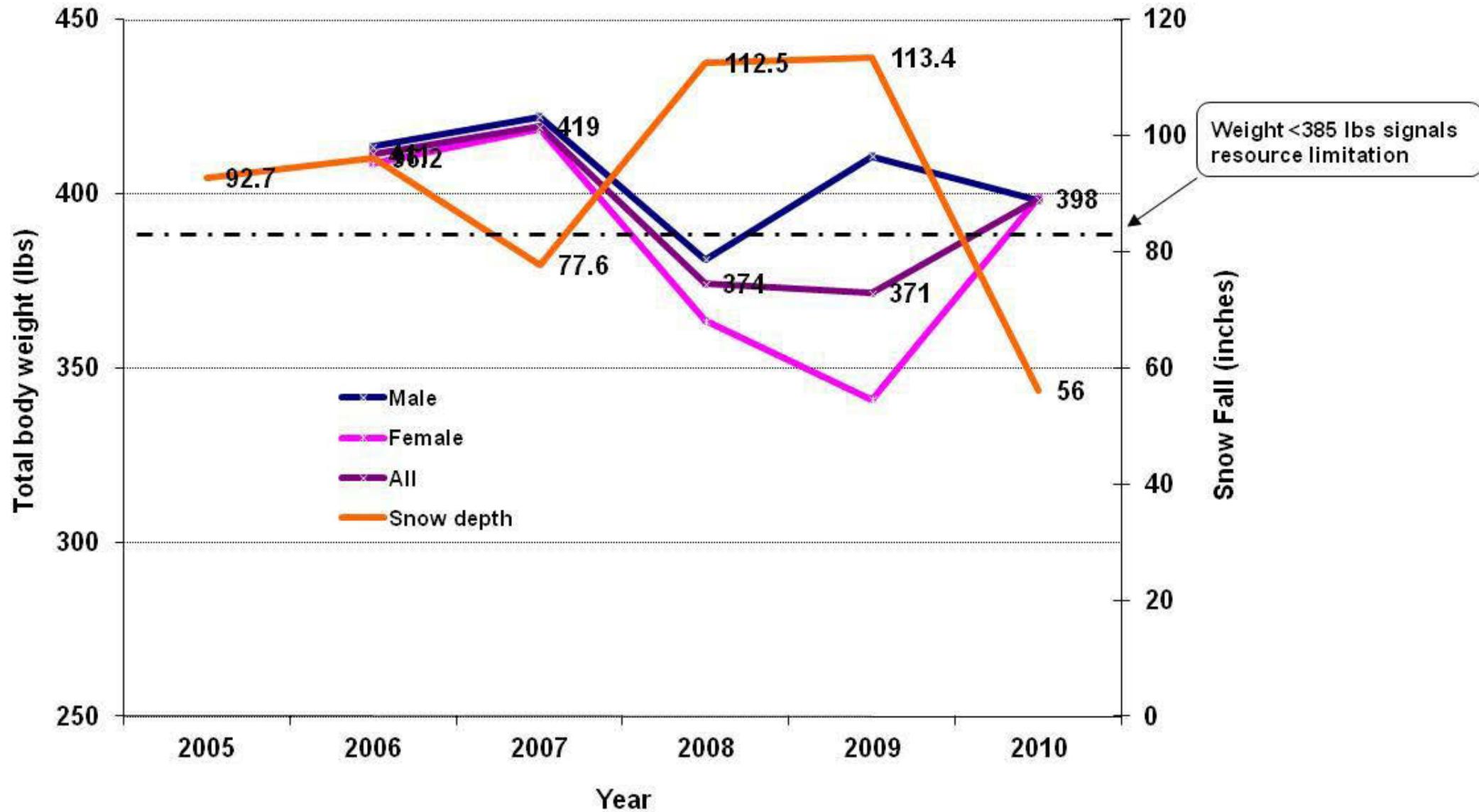
22C Antlerless Moose Hunt (RM850, RM852) Realized Harvest Rate, 2000-2011



✓ Unit 22C moose population increased 2% annually from 2000-2010

Proposal 22: Unit 22 Antlerless Moose Hunts

Moose Calf Weights and Annual Snow Fall
Unit 22C: 2005-2010



✓ 1907-2010 snow depth average is 62 inches per year

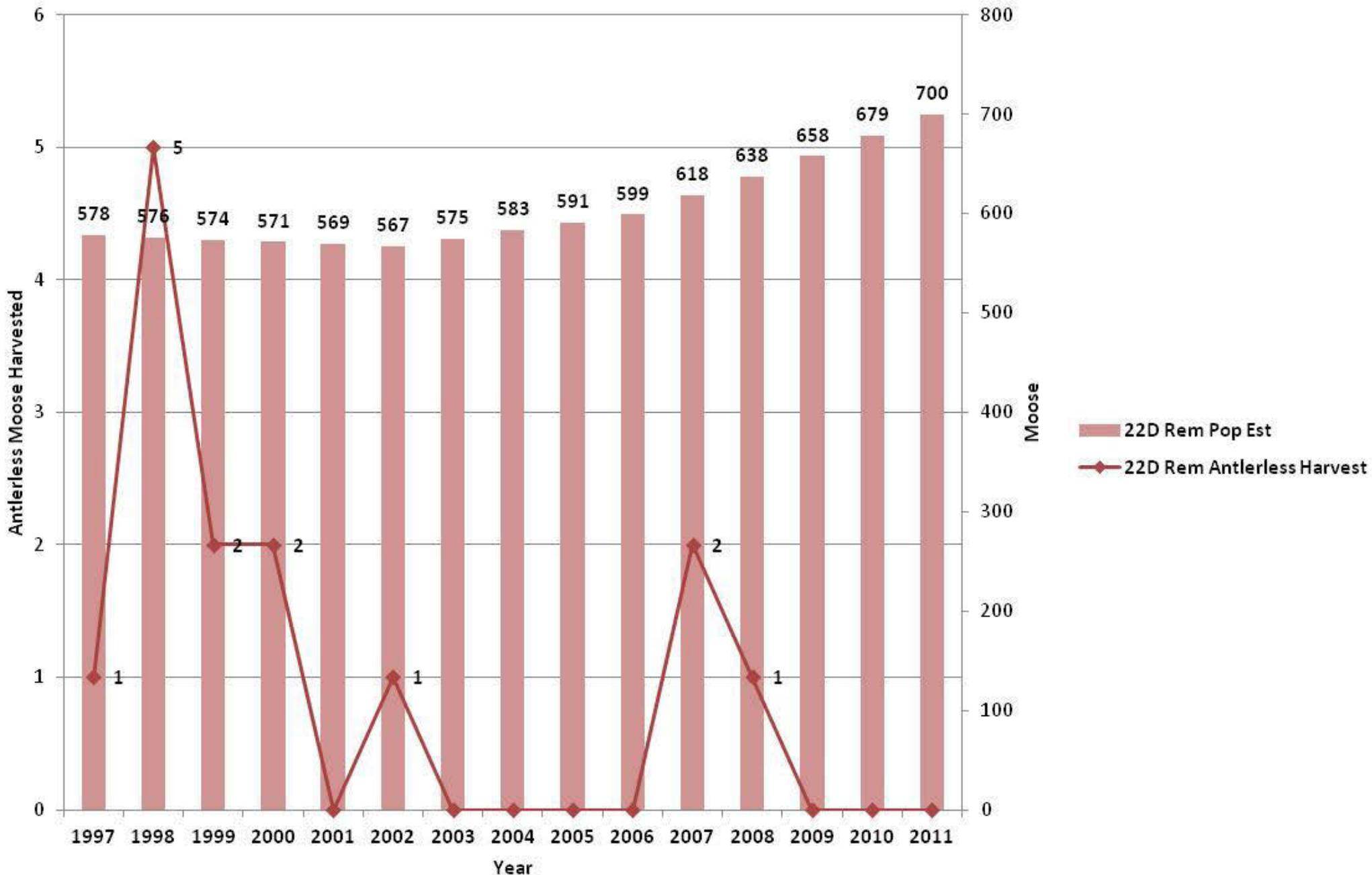
Proposal 22: Unit 22 Antlerless Moose Hunts

Unit 22D Remainder

- ✓ Antlerless moose hunting began in 1997
- ✓ Exists today as an artifact of a period when Unit 22 moose regulations were more liberal
- ✓ Current antlerless season is Dec 1- Dec 31 for one moose
- ✓ Few people take advantage of the hunt, but it provides opportunity to some who choose to do so
- ✓ Harvest data show that since 1997 less than 1 antlerless moose is harvested annually
- ✓ Population surveys found calf: adult ratios between 14 and 35 calves:100 adults (average of 23 calves:100 adults since 1988, n= 5)

Proposal 22: Unit 22 Antlerless Moose Hunts

Unit 22D Remainder Antlerless Moose Harvest (GM000, Dec 1-Dec 31), 1997-2010



✓ Unit 22D Remainder population increased 1% annually from 1997-2011

Proposal 22: Unit 22 Antlerless Moose Hunts

-END-

Proposal 13: Wolf

This proposal develops a Unit specific Amount Necessary for Subsistence (ANS) in Units 18, 22, 23, 26A.

This presentation covers Unit 22.

This is a public proposal.

Dept. Recommendation: **No Recommendation.**

Allocation to be determined by the Board.

Wolf Season and Bag Limits

Unit 22 Wolf Trapping

Season: Nov 1 – Apr 30

Bag limit: No limit

Unit 22 Wolf Hunting

Season: Aug 1 – Apr 30

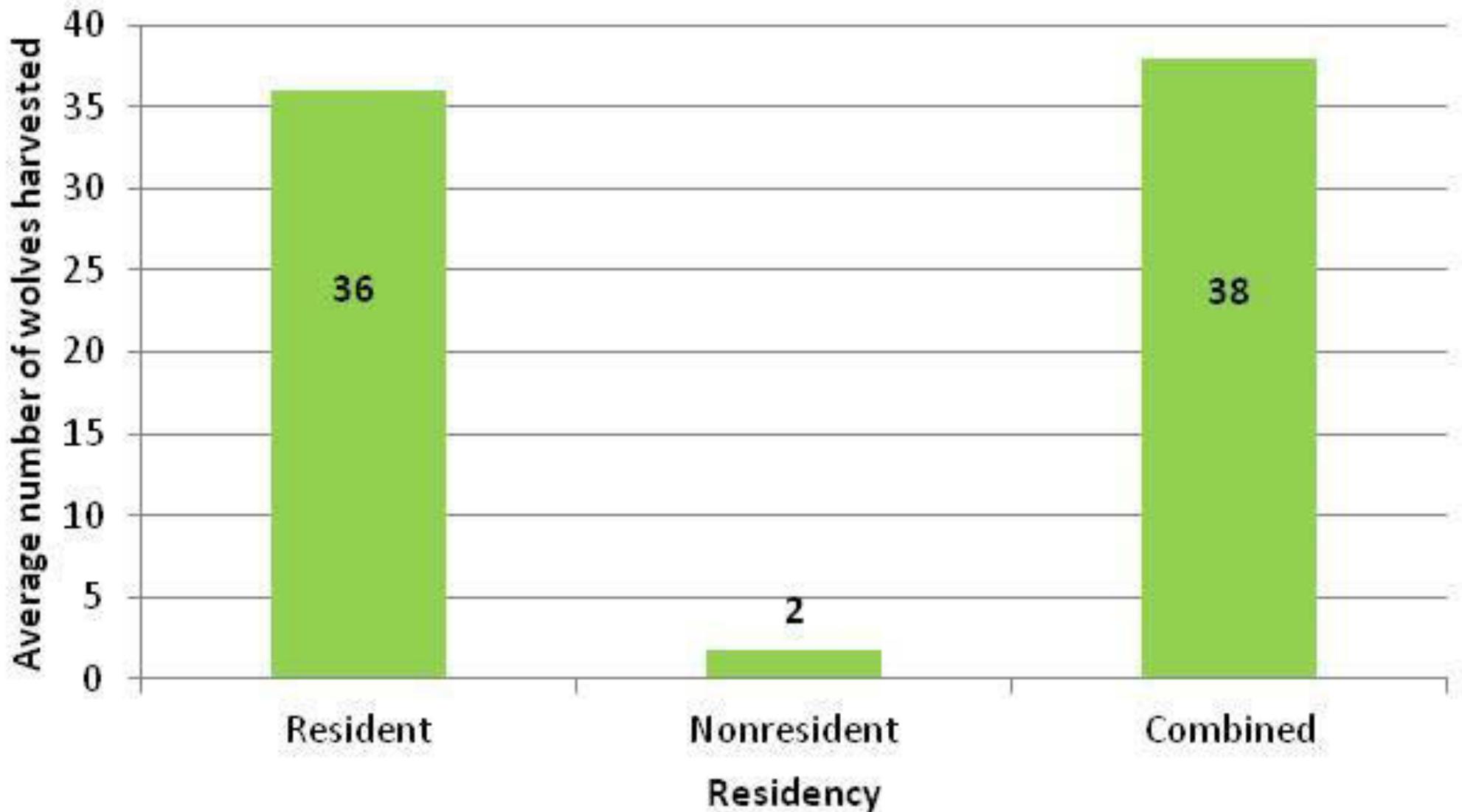
Bag limit: Twenty wolves

Unit 22 Wolf Harvest

- Sealing records 2000-2010:
Mean annual harvest = 38 wolves
- Harvest numbers range from 20-65
2000 was highest harvest of 65
- Low harvest compared to increased sightings suggest minimal effect on the population

Unit 22 Wolf Harvest

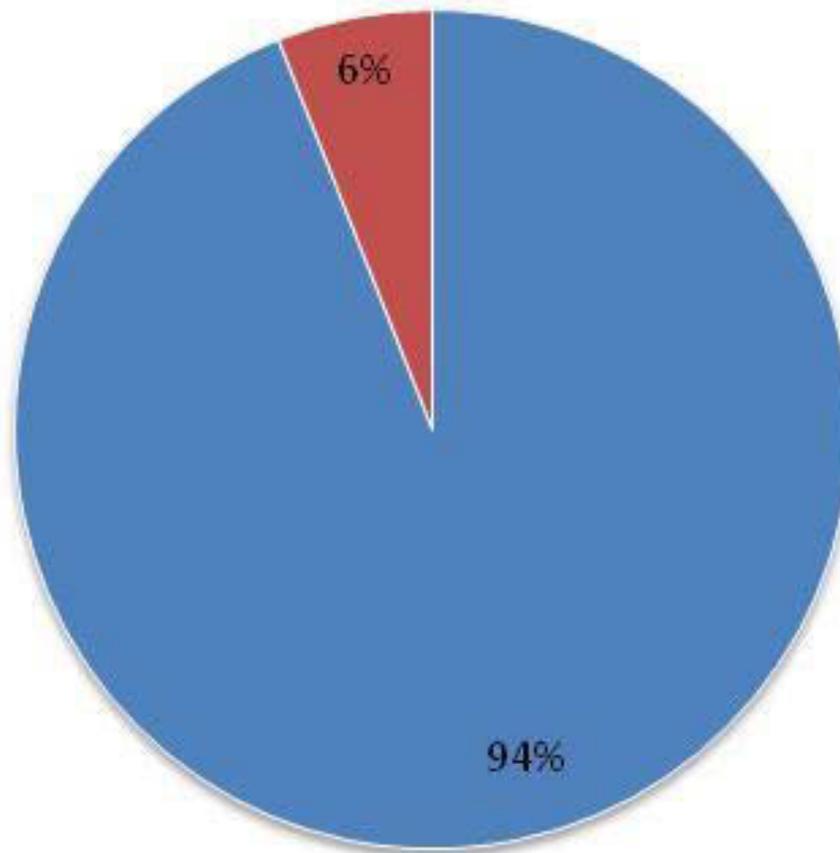
Unit 22 average wolf harvest 2000-2010



Unit 22 Wolf Harvest

Alaska Resident Wolf harvest 2000-2010

■ Unit 22 Resident ■ other AK Resident



Proposal 13: Wolf

- End -

Proposal 27: Unit 22 Ptarmigan

This proposal changes ptarmigan hunting in Unit 22:

- Lengthen the season to Aug 10– April 30
- No change to bag limit

This is a public proposal.

Department Recommendation: **Adopt**

Supported by:

- Northern Norton Sound Advisory Committee

Unit 22: Ptarmigan Season

Current Season and Bag Limit

- Sept. 1 – April 30
- Bag limit: Twenty per day; forty in possession

Proposed Season and Bag Limit

- **Aug 10** – April 30
- Bag limit :Twenty per day; forty in possession (no change)

Unit 22 Ptarmigan Information

Species in Unit 22

- Willow Ptarmigan
- Rock Ptarmigan

Populations in Unit 22

- No surveys for estimates of abundance
- Breeding bird census routes on the Nome Road system (25 mile routes)
 - Willow Ptarmigan are abundant
 - Rock Ptarmigan are common

Unit 22 Ptarmigan

Summary Information

- Lengthening season provides additional opportunity to hunters
- Hunting pressure will likely be localized and not unit-wide
- Fall harvests are considered compensatory as those not harvested by hunting are subjected to natural winter mortality
- Early fall hunting has minimal effect on the population

Proposal 27: Ptarmigan

- End -

Proposal 26: Unit 22 Brown Bear

This proposal changes brown bear hunting in Unit 22:

- No closed season for Brown bears in Unit 22

This is a public proposal.

Department Recommendation: **Do Not Adopt**

GMU 22 Brown Bear Season Dates



Units 22A remainder:

➤ Aug. 1 – June 15

Unit 22C:

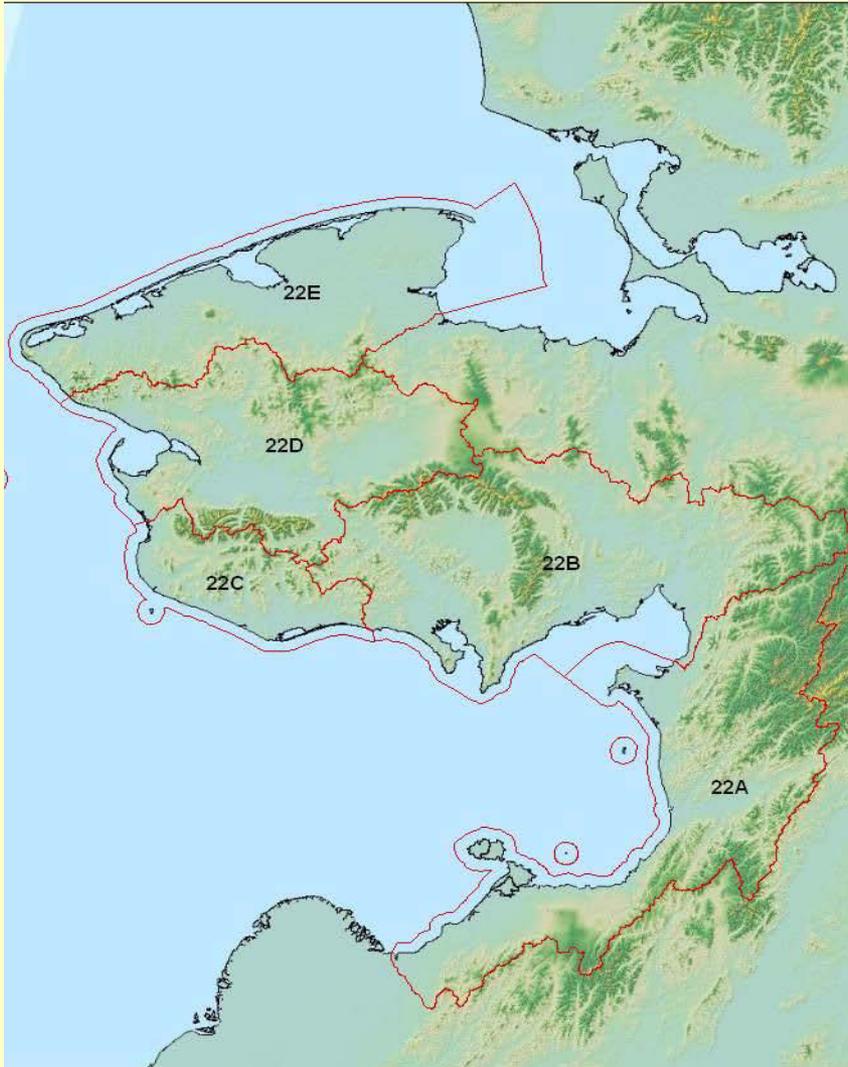
➤ Fall: Aug. 1 – Oct. 31

➤ Spring: May 10 – May 25

Remainder of Unit 22

➤ Aug. 1 – May 31

GMU 22 Brown Bear Bag Limit



Unit 22A :

- Resident: 2 bears / reg year
- Nonresident: 1 bear / reg year

Unit 22C resident & nonresident:

- 1 bear / 4 reg years

Remainder of Unit 22:

- 1 bear / reg year

GMU 22 Subsistence Brown Bear



Registration Hunt RB699

- Season dates are consistent with Unit 22 general hunts.

Bag limit

Unit 22A :

- 2 bears/ regulatory year

Remainder of Unit 22

- 1 bear/ regulatory year

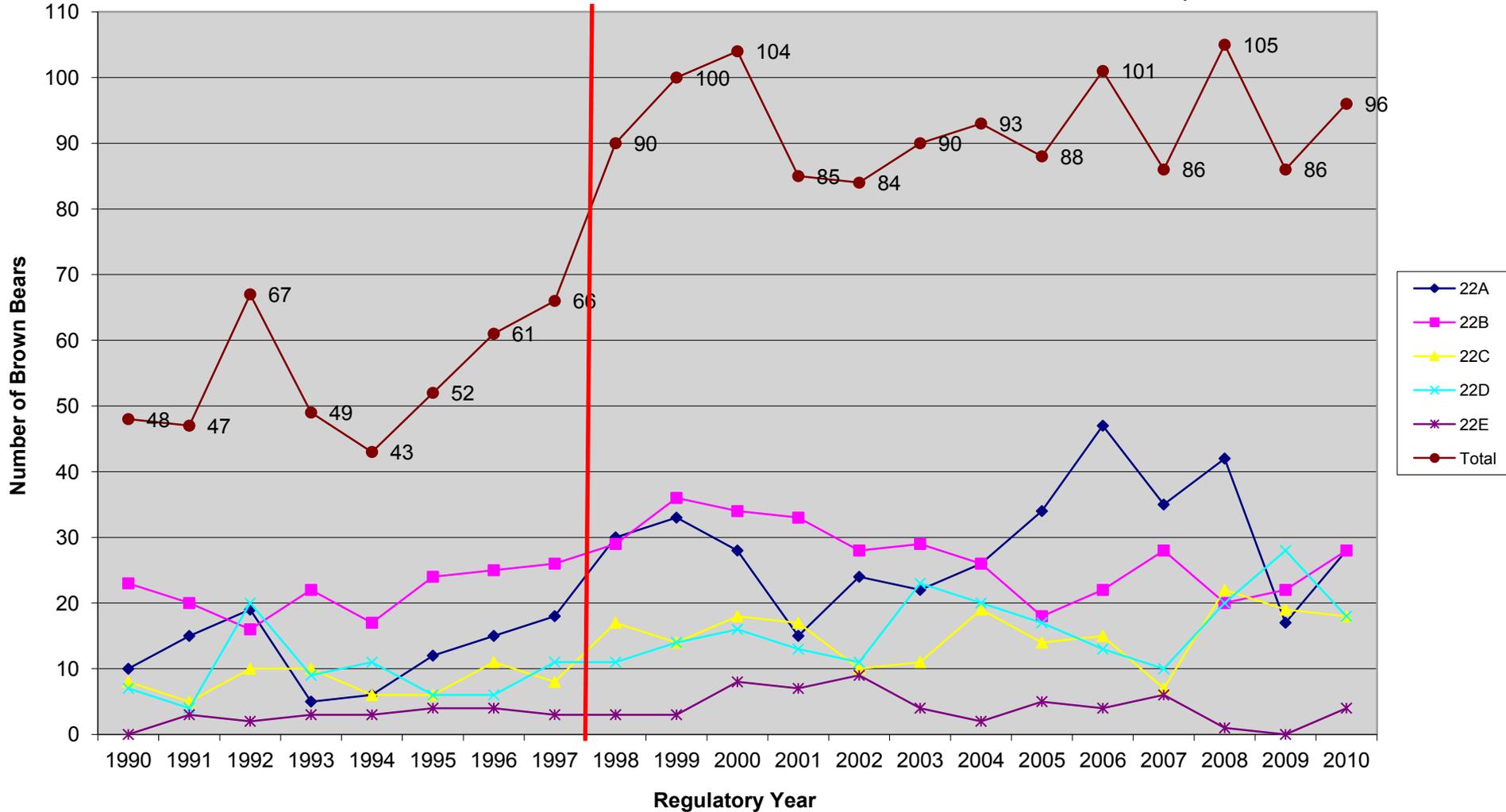
Unit 22 Brown Bear Harvest Trend

Average annual harvest
of 54 bears

Unit 22 Brown Bear Harvest
1990-2010

Board Liberalized
regulations

Average annual harvest
of 91 bears; 70% increase



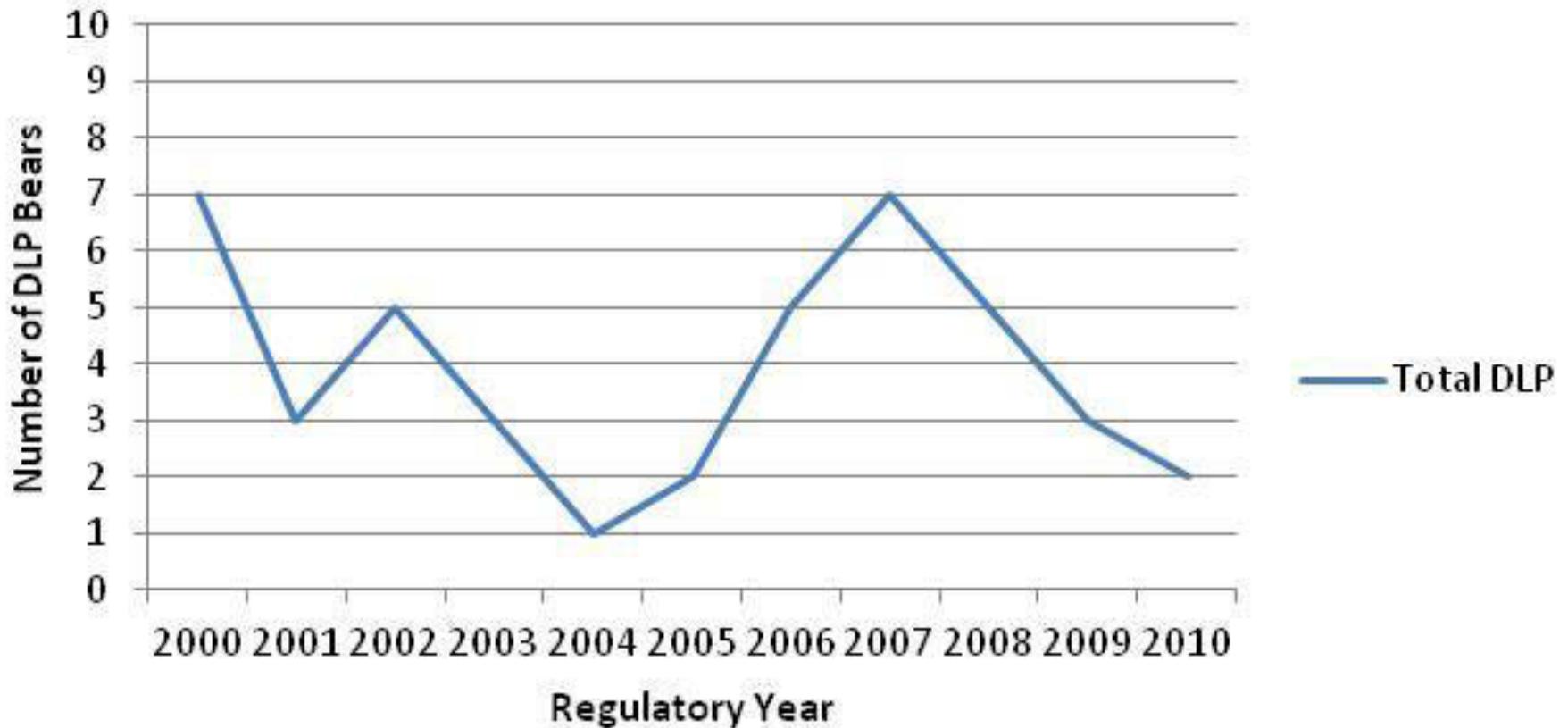
Unit 22 Brown Bear

- The Nome road system includes nearly 400 miles of roads and allows access to Units 22C, 22B, and 22D.
- Seward Peninsula has a vast river system and allows access into remote areas of Unit 22.
- We believe a no closed season in Unit 22 will significantly increase brown bear harvest.
- Until population data is gathered we do not want to put any regulation in place which will increase harvest like post 1997.
- Brown bears are an important component to wildlife viewing along the Nome road system

Unit 22 Defense of Life and Property

Unit 22 DLP Brown Bears 2000-2010

Average 4 DLP bears annually



Unit 22 Brown Bear: Summary

- The Department has a resident subsistence brown bear hunt, Registration permit hunt RB699.
- The Defense of life & property regulation is recommended if a problem bear occurs outside of an established season. An average of 4 DLP annually.
- Harvest will likely significantly increase
 - 400 mile road system allowing access to Units 22C, 22B, and 22D.
 - Vast river system and allows access into remote areas of Unit 22.
- Until population data is gathered we do not want to put any regulation in place which will increase harvest like post 1997.

Proposal 26: Brown Bear

- End -

Proposal 24: Brown Bear

This proposal changes brown bear hunting in Unit 22C :

- Lengthen the season to Aug 1– May 31
- One bear every regulatory year

This is a public proposal.

Department Recommendation: **Amend & Adopt**

- Northern Norton Sound Advisory Committee: Supports their own independent amendment to this proposal.

Unit 22: Brown Bear Season

Unit 22C Current Season and Bag Limit

- Fall: Aug 1 – Oct 31
- Spring : May 10 – May 25
- Resident: one bear / four regulatory years
- Nonresident: one bear / four regulatory years by drawing permit
- Subsistence Resident: one bear / regulatory year

Department Amendment

Season Dates

- Retain fall season Aug 1- Oct. 31
- Lengthen spring season **May 1 – May 31**
- Apply to the general resident, and nonresident draw hunt, and resident subsistence registration hunt (RB699)

Bag Limit

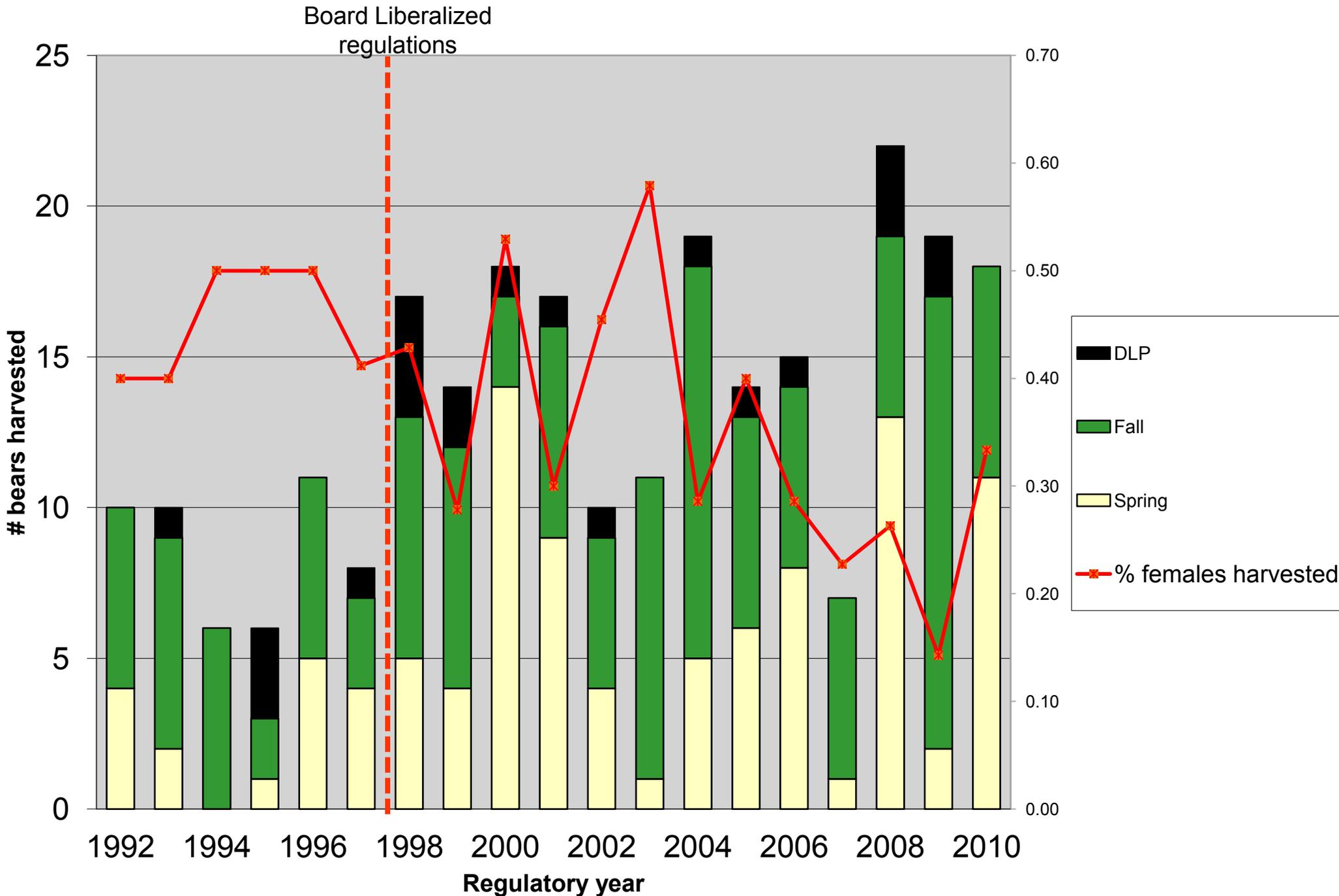
- Retain general hunt **bag limit of 1 bear / four regulatory years**
- Retain subsistence hunt bag limit of 1 bear/regulatory year.

Unit 22C Brown Bear Harvest

Pre-1997
Mean annual harvest = 8 bears

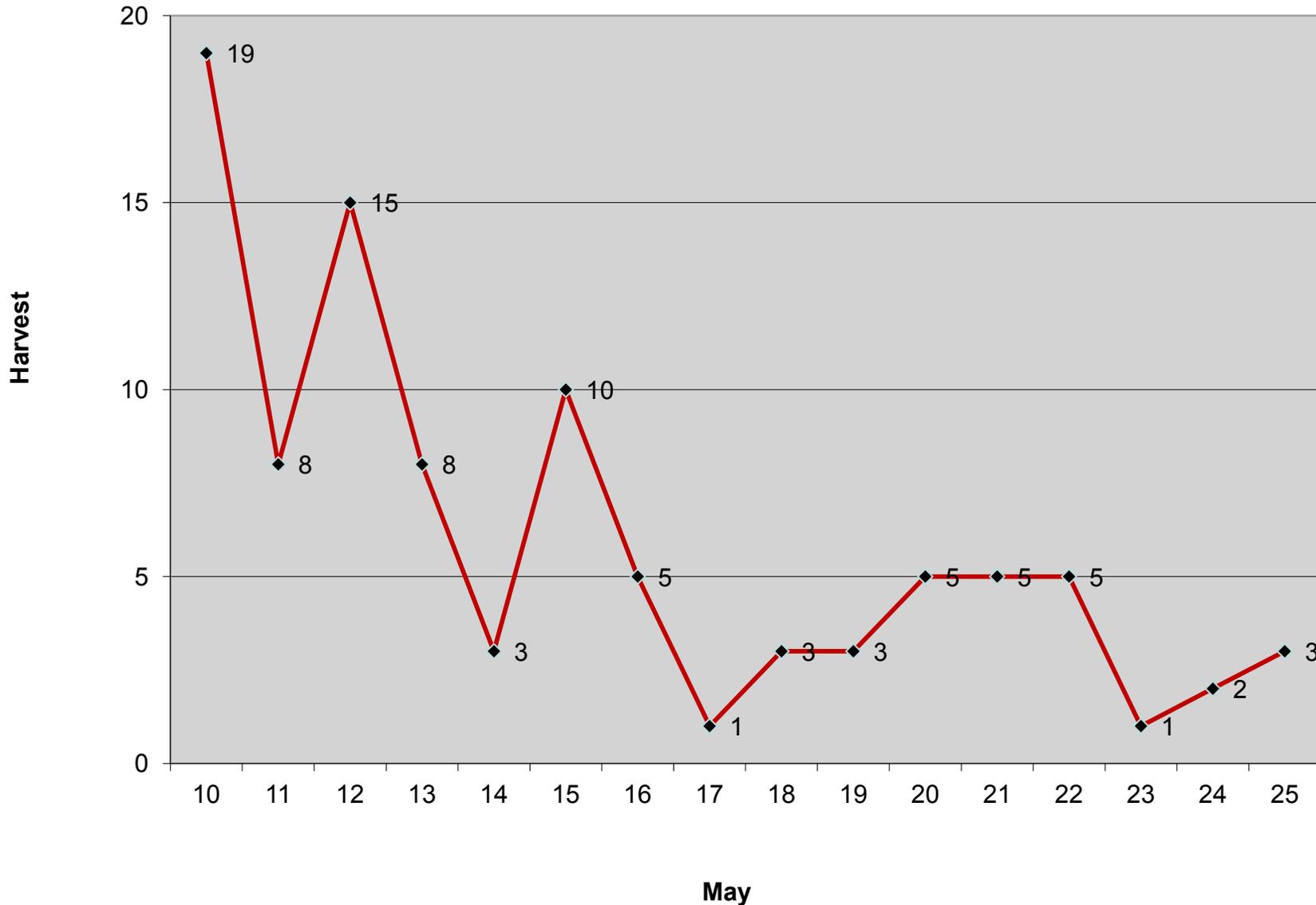
Post-1997 harvest increased 88%
Mean annual harvest = 15 bears

22C Brown Bear Harvest 1992-2010
Regulatory Year July 1- June 30



Unit 22C Chronology of Spring Harvest

Unit 22C Bear Spring Harvest Timing Regulatory Years 1990-2010



Lengthening the Unit 22C spring seasons dates to May 1- May 31

- Provides additional opportunity for hunters
- Helps concentrate brown bear harvest in 22C during muskox calving

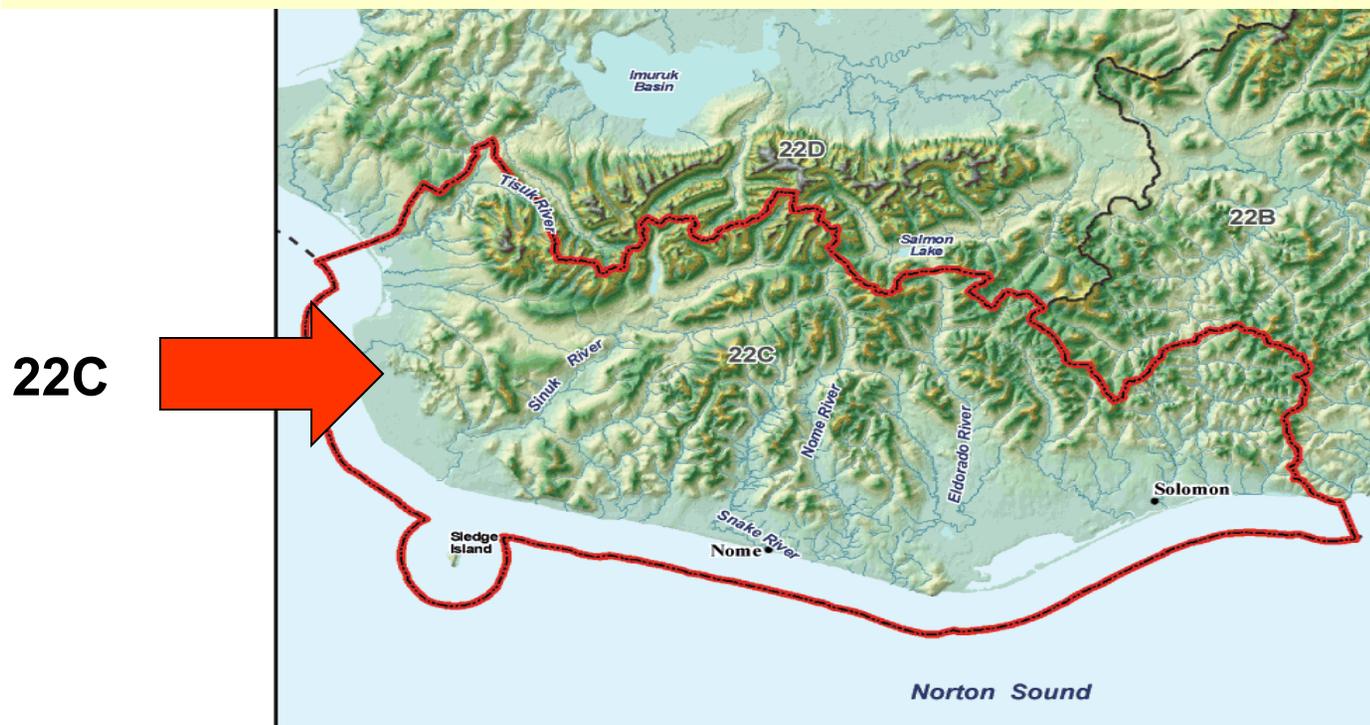
Moose Population Status



Unit 22 Moose Information

Unit 22C Moose Population

- Population estimate = 663 17% at 90% C.I.
range = 551-774 (counted in 2010)
- Density= 0.40 moose/mi²
- Recruitment rate = 11-19% since 2004
- Registration permit hunt for 54 moose
- Harvest rate = 8 %



Unit 22 Moose Information

Unit 22D Moose Population

- Adjacent to Unit 22C to the north
- 2011 population estimate = 1601 21.8% at 90% C.I.
- Density= 0.60 moose/mi²
- Recruitment rates of 10-19% since 2002
- Bull: cow ratios are at management objective: 30 bulls:100 cows



Unit 22 Moose Information

Unit 22B West Moose Population

- West of the Darby Mountains, adjacent to Unit 22C to the east
- 2010 population estimate = 570 17% at 90% C.I.
- Density = 0.23 moose/mi²
- Low recruitment rates of 6-9% since 1997



Unit 22C – Brown Bear

Unit 22B West Moose Information

22B West of the Darby Mountain Population

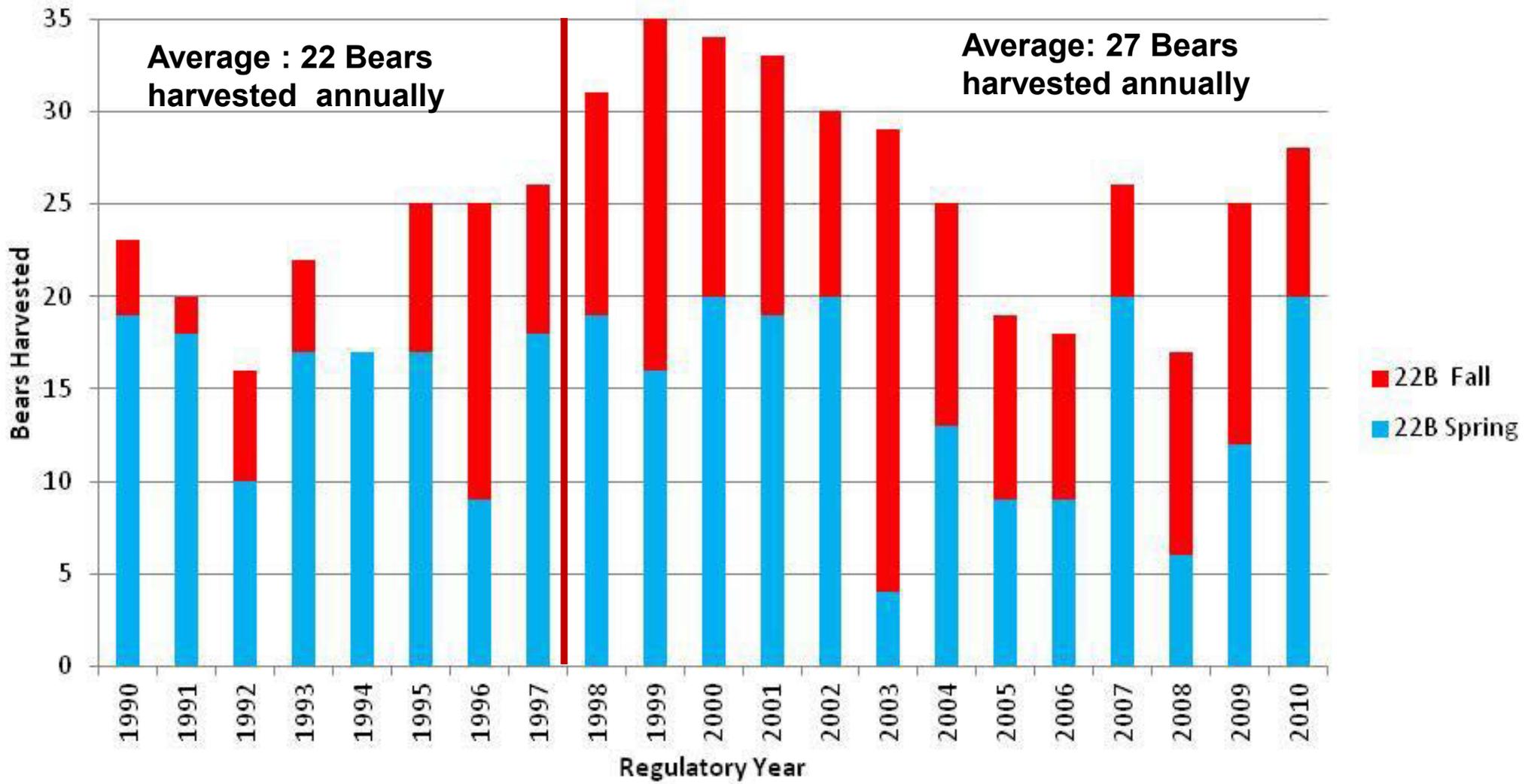
- 1987 population estimate: 1894 moose (0.90 moose/mi²)
- 2010 population estimate: 570 moose (0.23 moose/mi²)

Alaska moose research

- Extensive research shows moose do not move from one area to another based on density alone.
- The exception being when moose colonize a new area of previously unoccupied habitat with few predators.
- Research show that moose actually select against moving into areas that have high number of predators.
- Moose populations are unlikely to recover in areas with single digit recruitment rates; even if surrounding areas have high numbers of moose.
- Unit 22B West 1990s cow collaring project: 71% of calf mortality occurred within one month of calving. Brown bears are the major contributing factor.
- The Department wants to focus bear hunting pressure in Unit 22B West of the Darby Mountains during the last two weeks of April. (Keep season closed in Unit 22C)

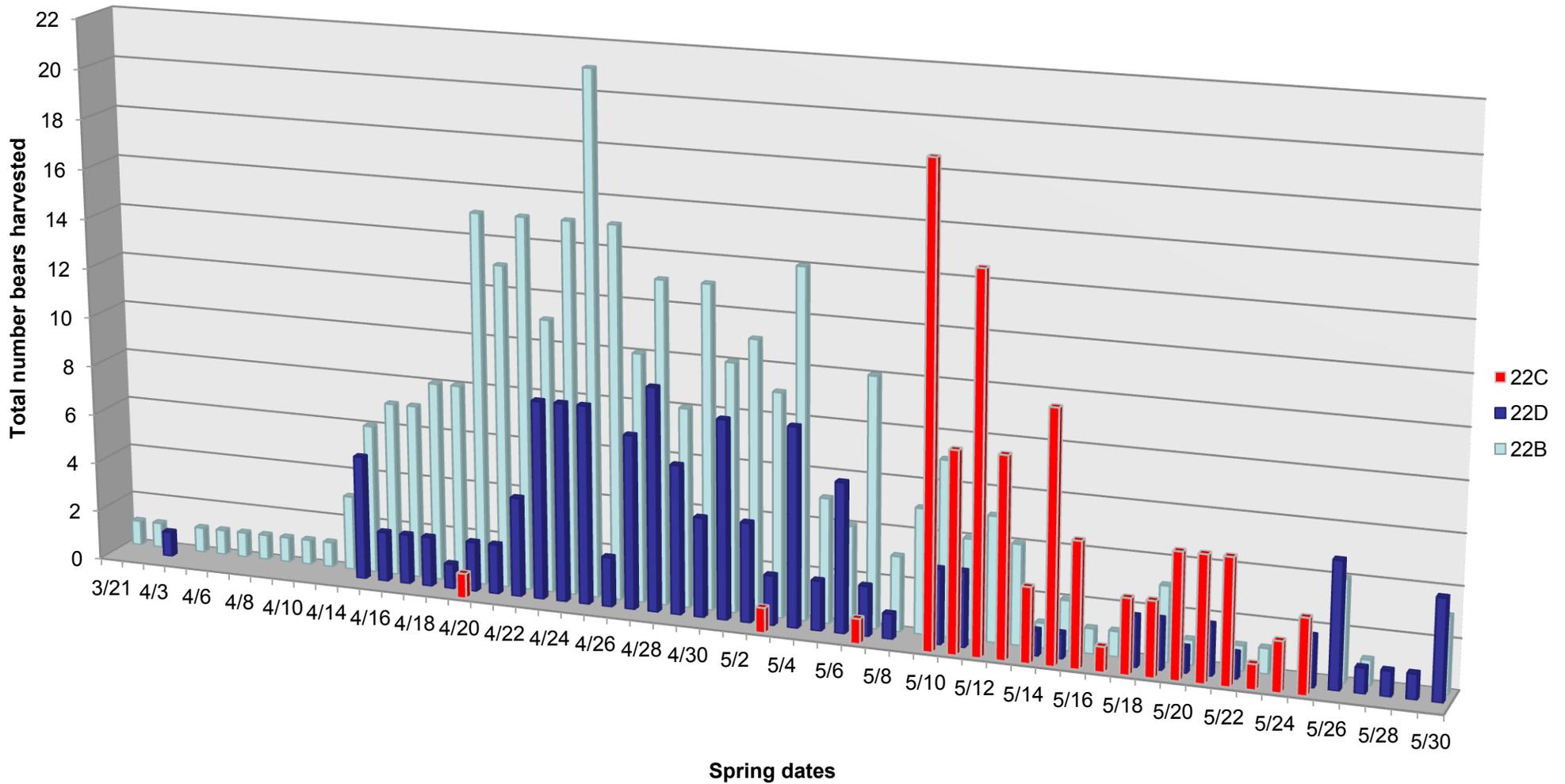
Unit 22B Brown Bear: Harvest

Unit 22B Brown Bear Harvest 1990-2010



Unit 22 Chronology of Spring Harvest

Unit 22 spring bear harvest timing
 Total number of bears harvested by day 1990-2010



Proposal 24: Brown Bear

- End -

Proposal 23: Discretionary Permit Hunt Conditions and Procedures: Trophy Nullification

This proposal requests review of the Department's discretionary authority to destroy the trophy value of animals taken under a subsistence permit, and considers two changes to management:

- 1) No horn cutting in Seward Peninsula subsistence hunts
- 2) Changing the subsistence bag limit to exclude the take of mature bull muskox

It is a Board of Game proposal that affects subsistence muskox hunts in Units 22 and 23:

- Seward Peninsula, Units 22 and 23 SW (Tier I)

Department Recommendation: **Do Not Adopt.**

Regional advisory committee responses:

Retain department discretion;

Maintain status quo hunt management

- Unit 22: Northern Norton Sound AC
- Unit 23: Kotzebue Sound AC

Proposal 23: Department Procedures

- ✓ The Department uses discretionary authority to destroy trophies under 5 AAC 92.052 (5).
- ✓ Applied to game populations with:
 - Positive C&T
 - High trophy value
 - Low harvestable surplus (quota-based hunts)
 - Liberal seasons for subsistence
 - Liberal bag limits (any bull)
 - No tag fee (\$500 fee exempted by Board)
 - Lower overall cost for subsistence hunting
- ✓ These factors have been applied to all subsistence musk ox hunts.
 - Trophy nullification was applied to the first subsistence hunts in Unit 26C (1986).
 - All subsistence muskox hunts to date have had trophy destruction.
- ✓ Removing high-value trophy hunting in subsistence hunts is accomplished by trophy nullification.

Proposal 23: Seward Peninsula Muskox

- ✓ **Subsistence Hunts:** Currently in Units 22/23, musk ox horns are cut and retained by department to destroy trophy value of animals taken in subsistence hunts.
 - 1) No trophy use of horns was recognized in the 1997 Board record related to the positive C&T finding for Seward Peninsula muskox.
 - 2) \$500 resident tag fees exempted by Board; trophies are nullified to prevent trophy hunting for 'no tag fee'.
 - 3) Trophy destruction is used to discourage hunters seeking trophies from participating in subsistence hunts.
 - 4) Horn cutting is an effective management tool to control the number of hunters participating in quota-limited Tier I subsistence hunt.
 - 5) Provides maximum opportunity for users.
- ✓ **Drawing Hunts:**
 - 1) Trophy hunting for harvestable surplus above ANS.
 - 2) \$500 resident tag fee.

Proposal 23: Seward Peninsula – Hunter Participation

Subsistence Registration Hunts (quota = ANS)

274 permits – local Seward Peninsula

116 permits – visiting residents

390 permits – total issued (30% visiting residents)

Drawing Applications for Seward Peninsula hunts

1926 – residents (applied in 2010)

147 – nonresidents

2073 – total applications

10-year average drawing application rate 1700/yr

Current Seward Peninsula registration hunting allows:

- Greatest opportunity to the widest number of users
- 80% of registration permits are internet available
- Tier I has provided 3301 days of hunting opportunity since 2008

Proposal 23: Seward Peninsula – Muskox Population

Population Management Overview:

- ✓ In 1970, 36 muskoxen from Nunivak Island were introduced to the southwest portion of the Seward Peninsula.
- ✓ In 1981, an additional 35 muskoxen from Nunivak Island were trans-located to this same area.
- ✓ Since 1970, the population has grown and expanded its range eastward into GMUs 22, 23, and 24.
- ✓ The population grew 14% annually from 1970 to 2000 (first 30 years).
- ✓ The population grew 6% annually from 2000 and 2008.
- ✓ The 2010 population estimate suggests the population has stabilized or may declining.

Proposal 23: Seward Peninsula – Muskox Population

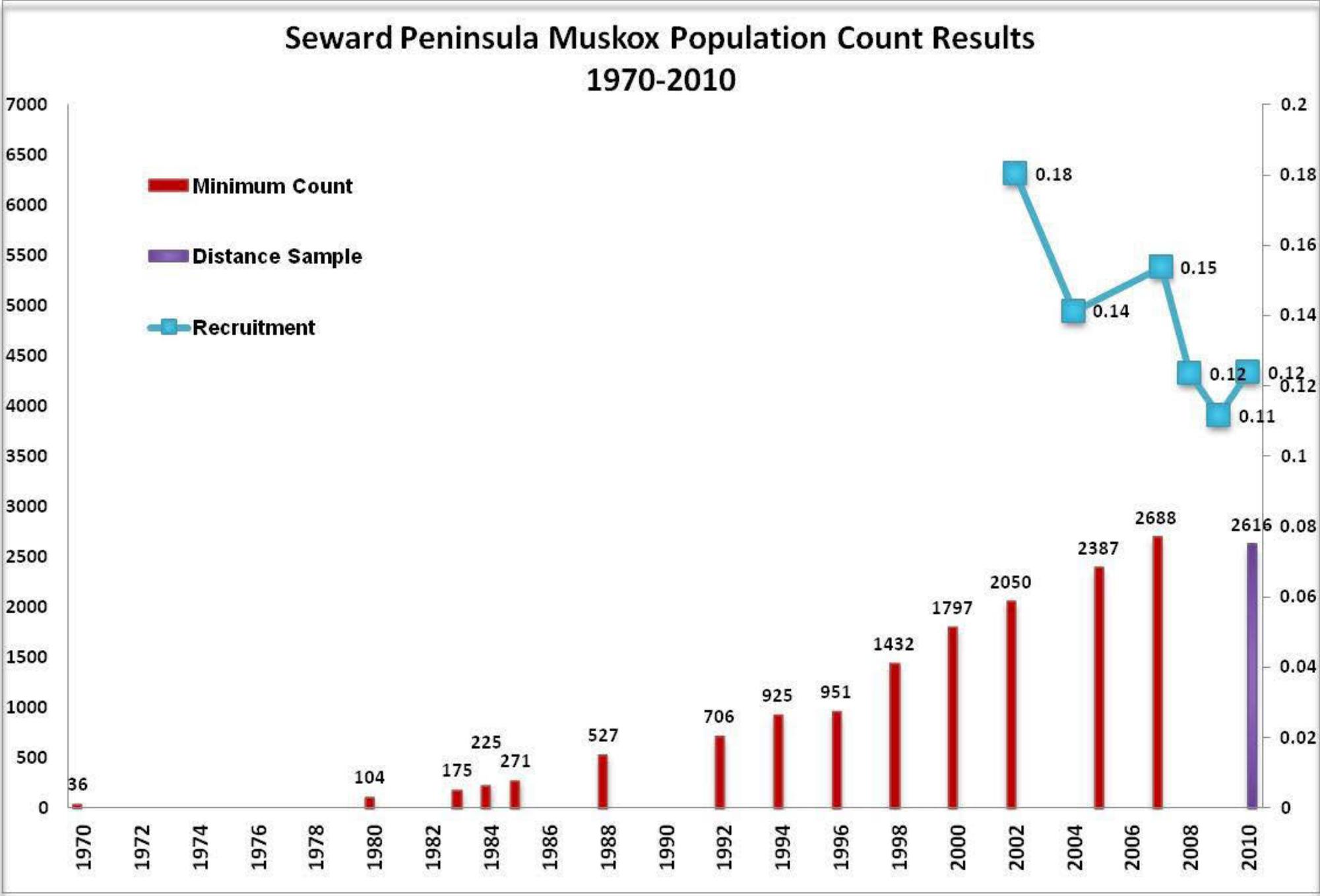
Population Management Overview (continued):

In addition to a decline in the growth of the population, there are several other 'red flags' related to the current status of the Seward Peninsula muskox population.

1. **Calves:100 adults** and **recruitment rates** have declined in Units 22B, 22C, 22D, and 23SW.
2. **Mature Bull:Cow ratios** have declined in Units 22B, 22C, and 23SW.
3. Since 2008, radio collars show a 22% annual mortality rate.
4. Population structure is changing compared to early years of hunting.
5. Reduced harvest rates are used compared to past hunts.

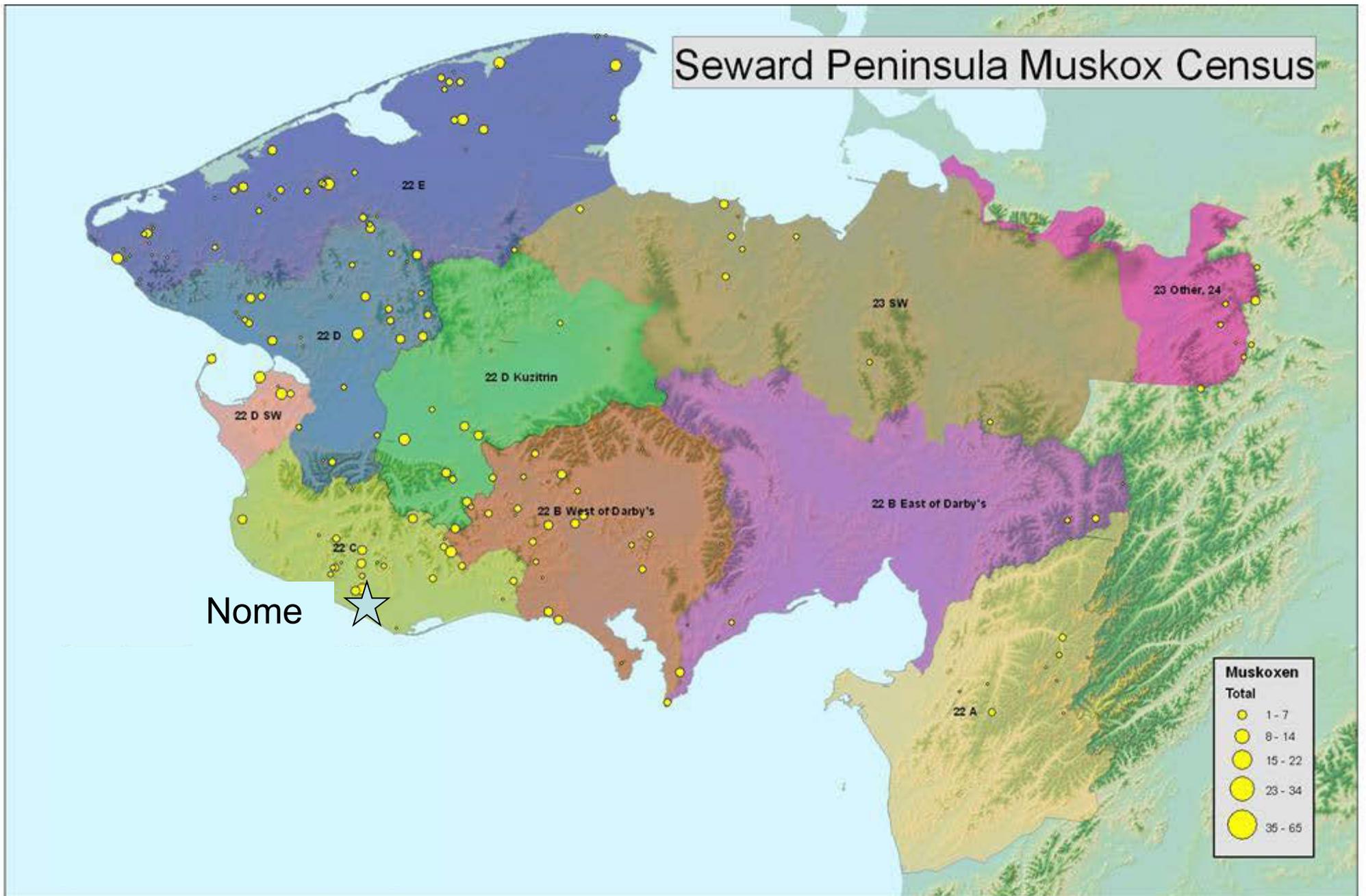
Proposal 23: Seward Peninsula – Muskox Population

History of Seward Peninsula Population Growth 1970 - 2010



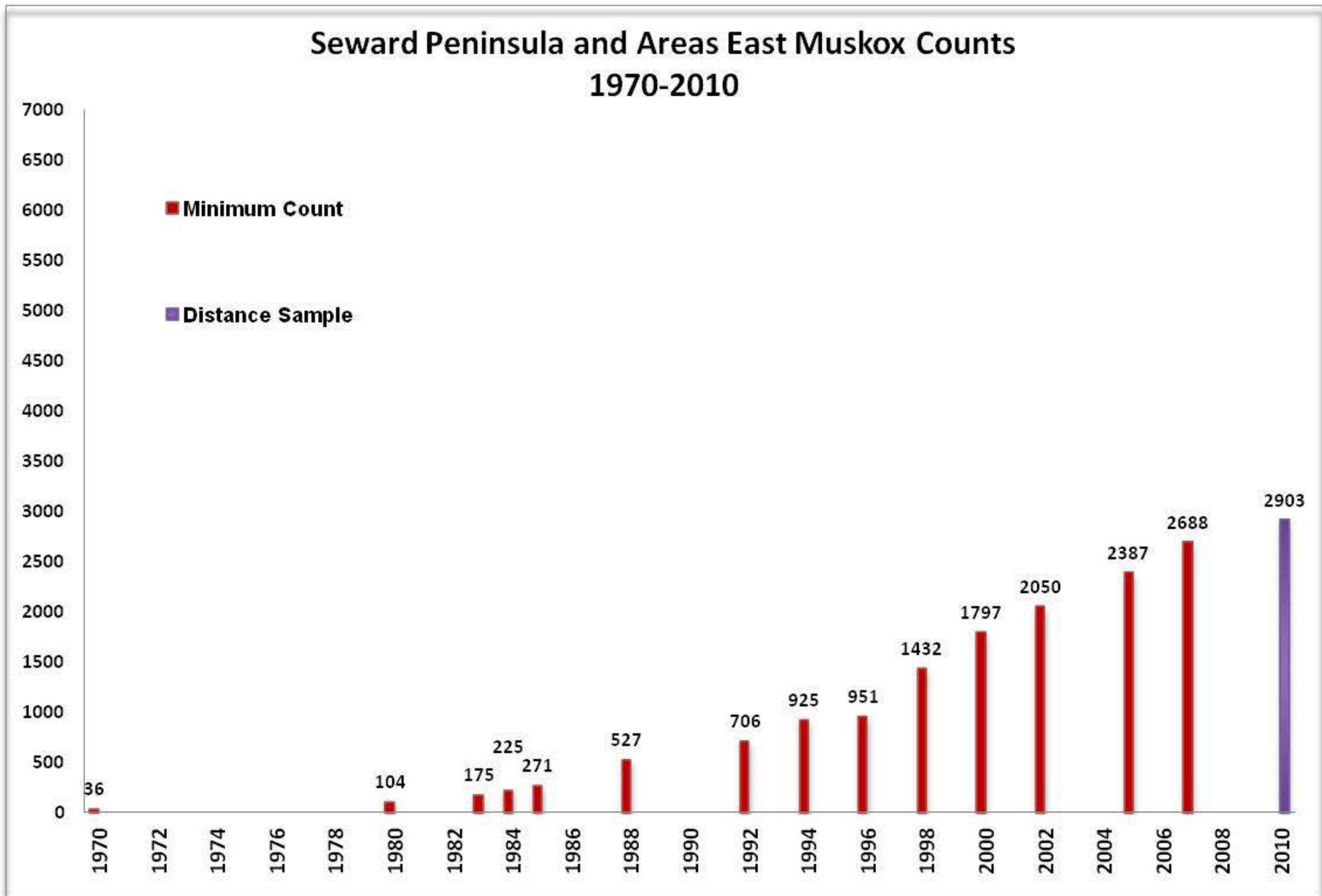
Proposal 23: Seward Peninsula – Muskox Population

2010 Muskox Counts - Group Locations



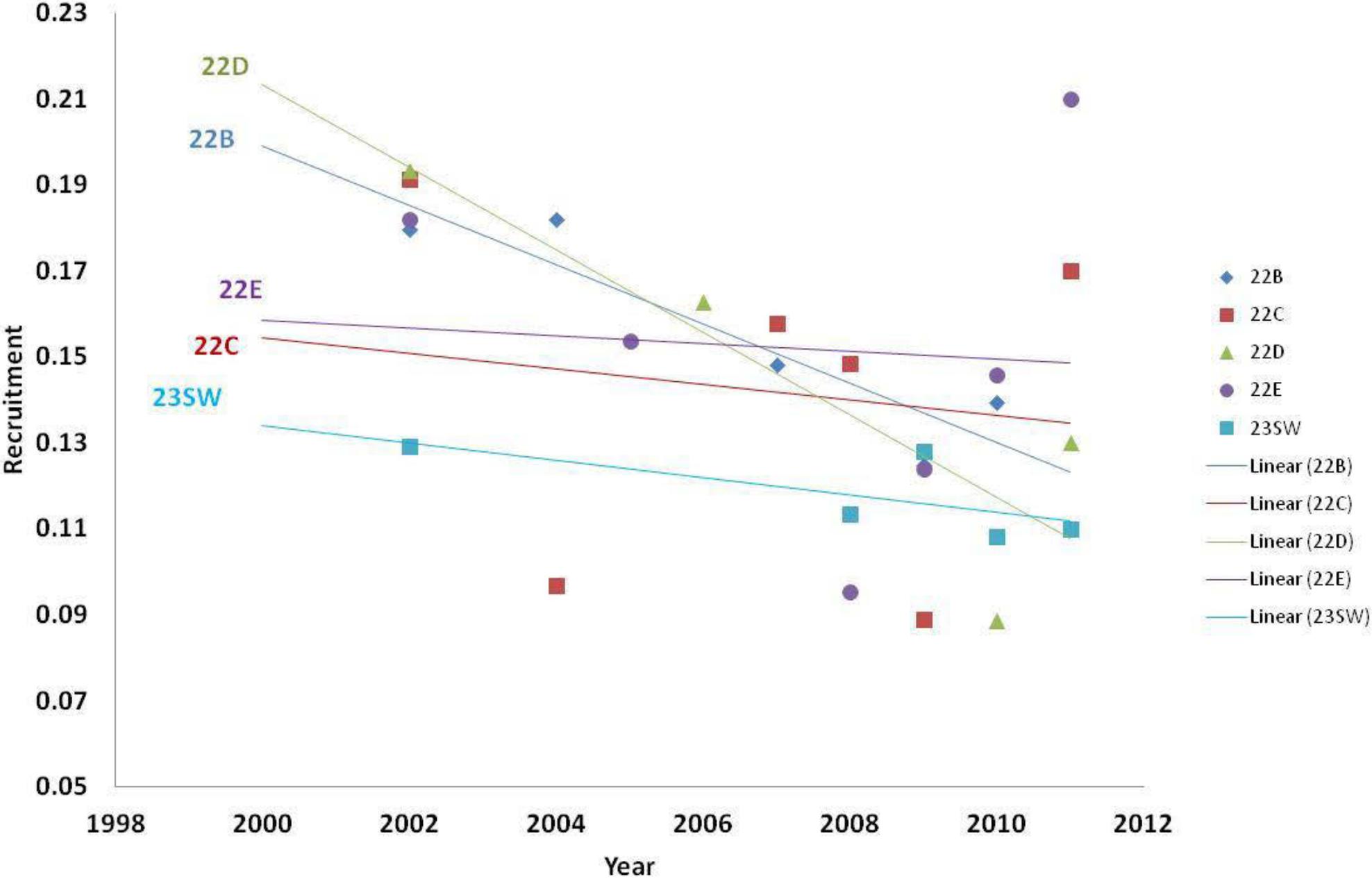
Proposal 23: Seward Peninsula – Muskox Population

History of Seward Peninsula Population Growth 1970 - 2010

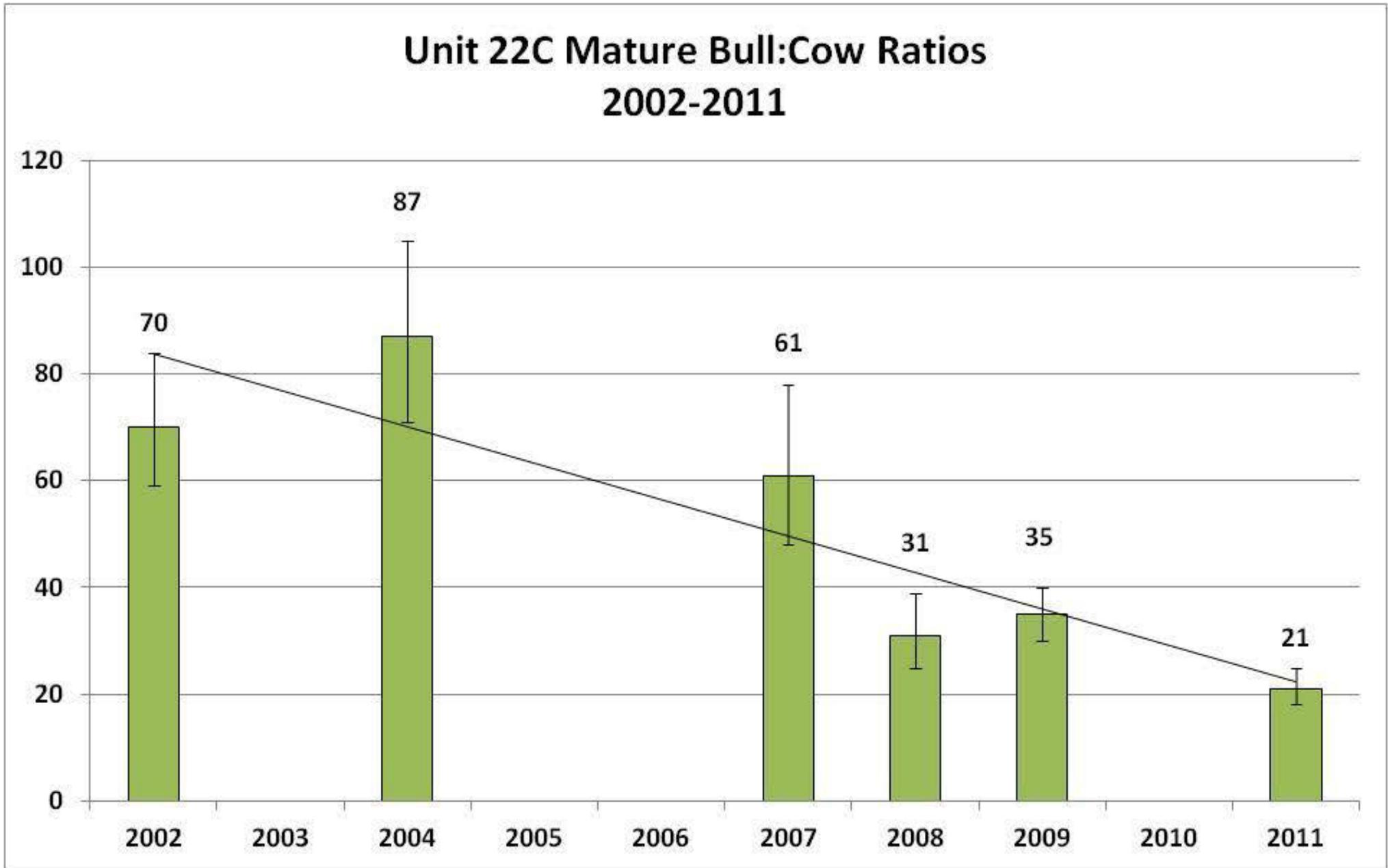


Proposal 23: Seward Peninsula – Muskox Population

Recruitment Rates from Seward Peninsula Composition Surveys
2002- 2011

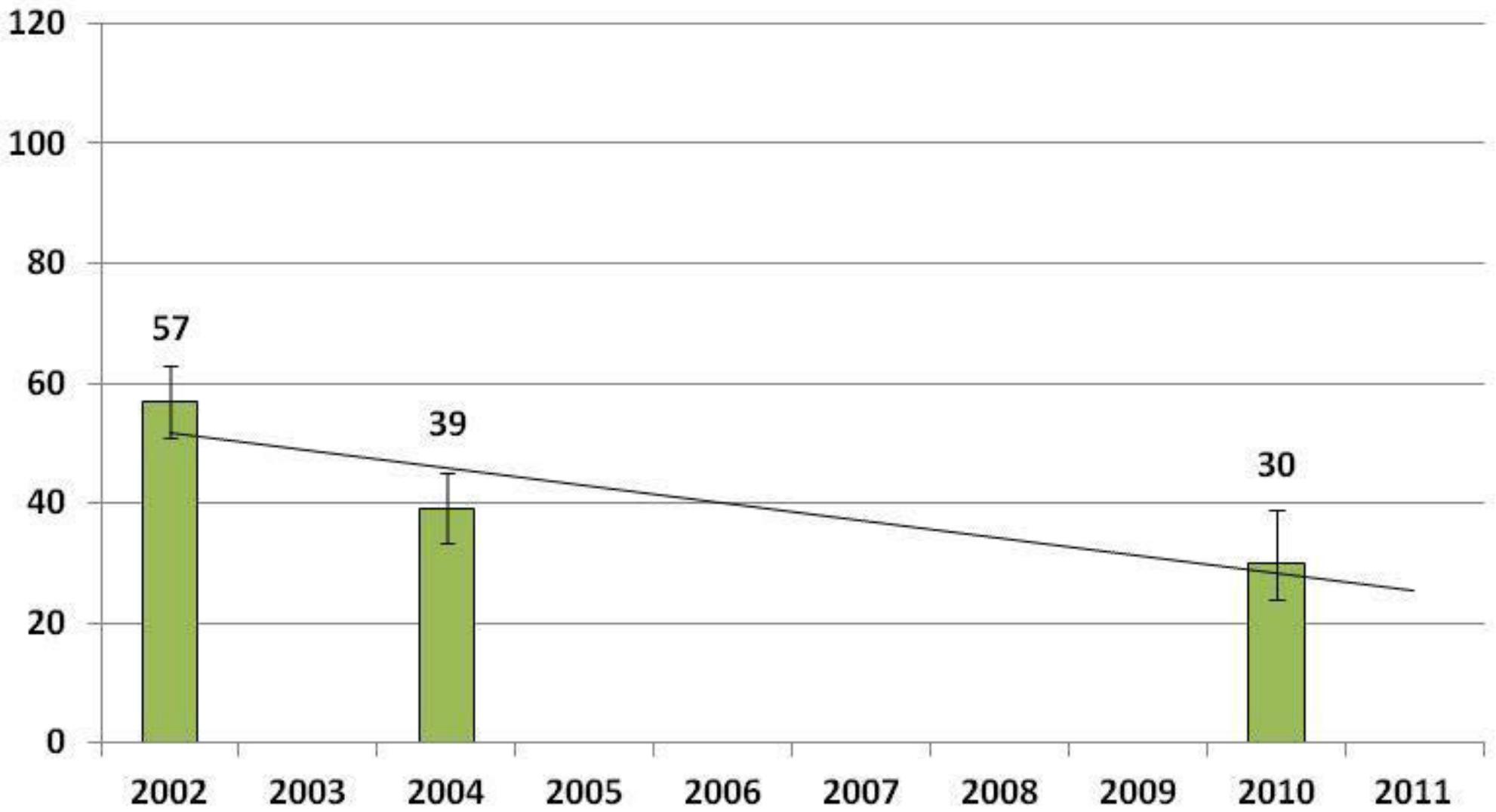


Proposal 23: Seward Peninsula – Muskox Population



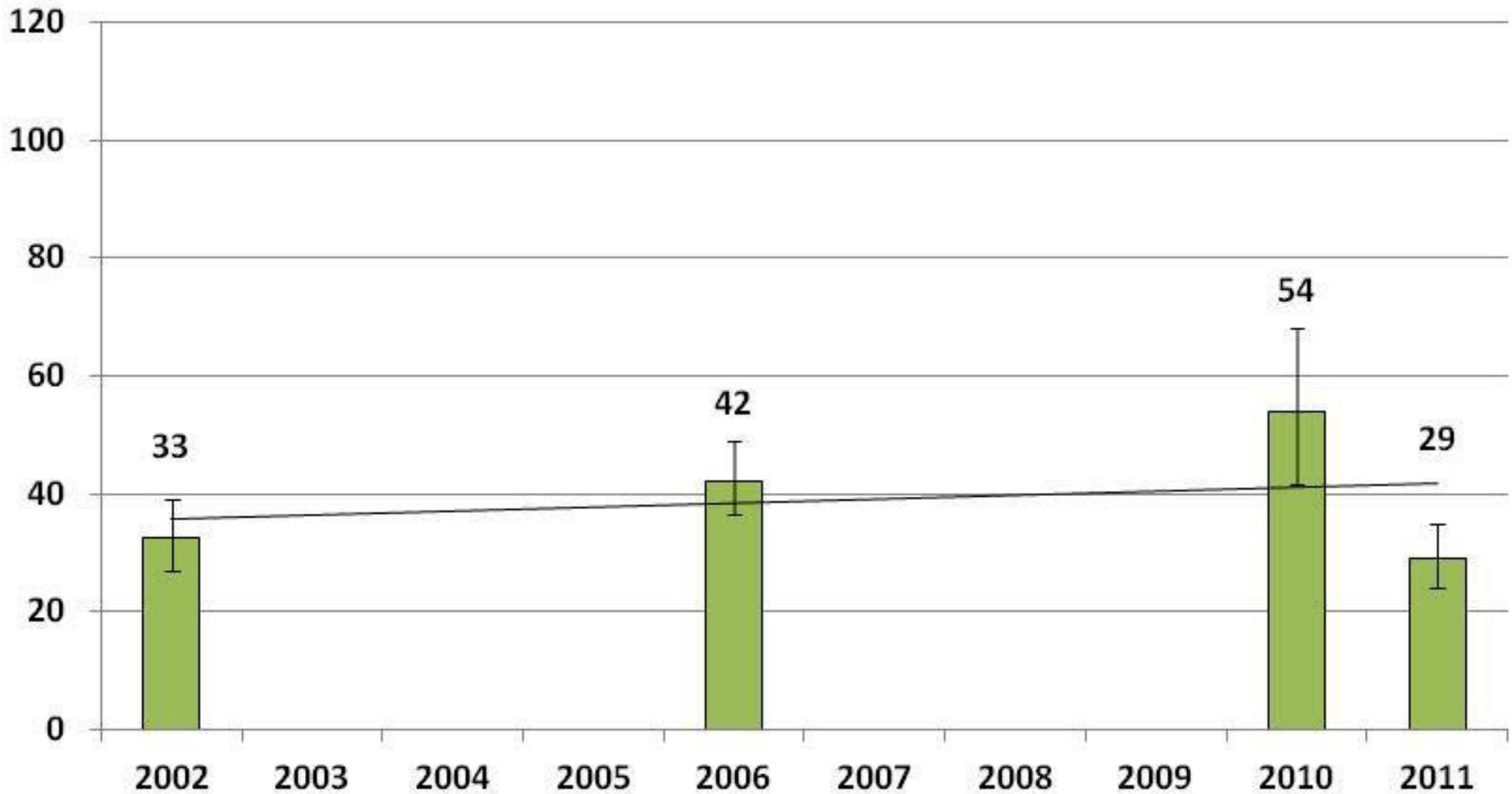
Proposal 23: Seward Peninsula – Muskox Population

Unit 22B Mature Bull: Cow Ratios 2002- 2010



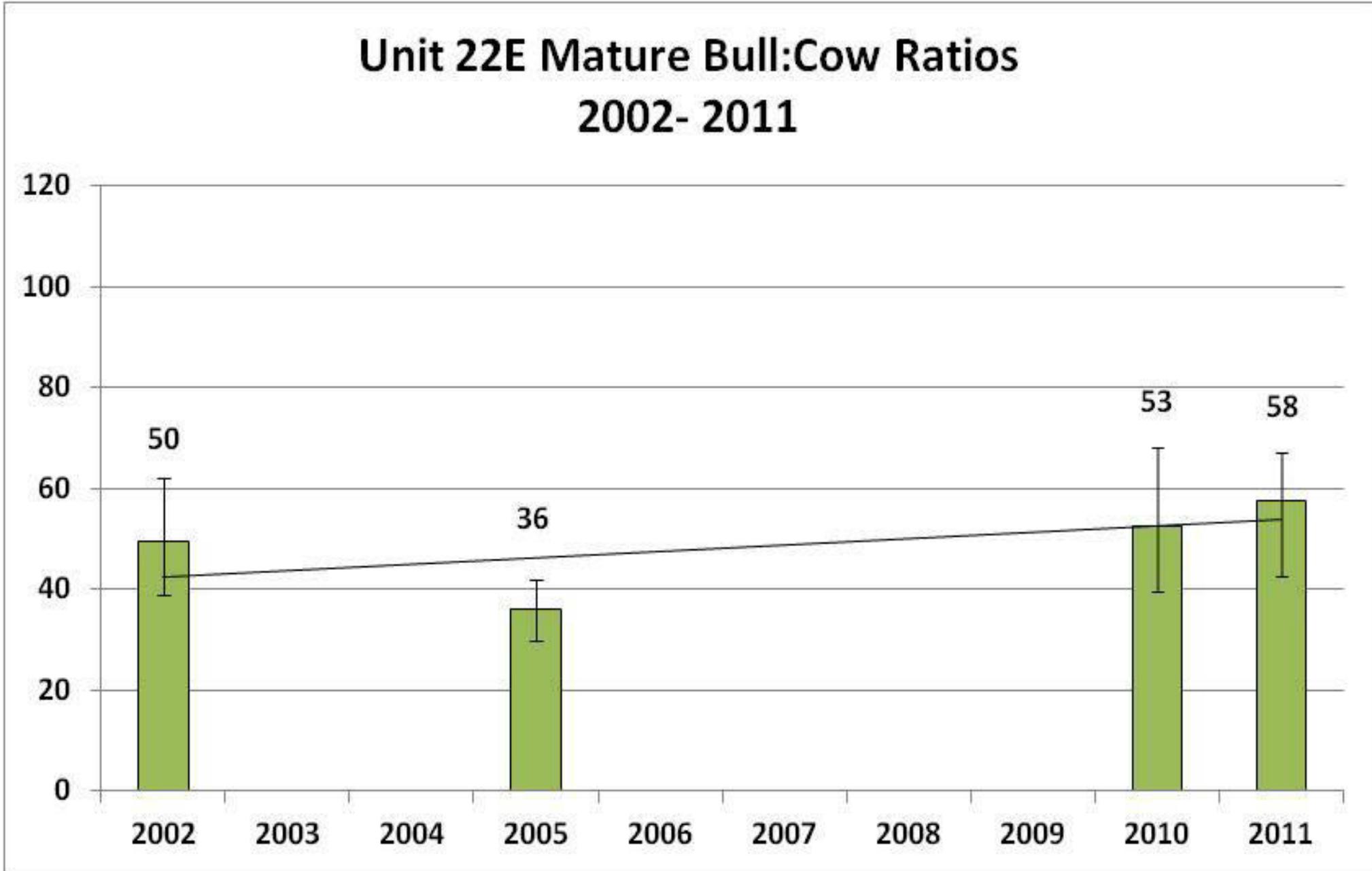
Proposal 23: Seward Peninsula – Muskox Population

Unit 22D Mature Bull: Cow Ratios 2002- 2011



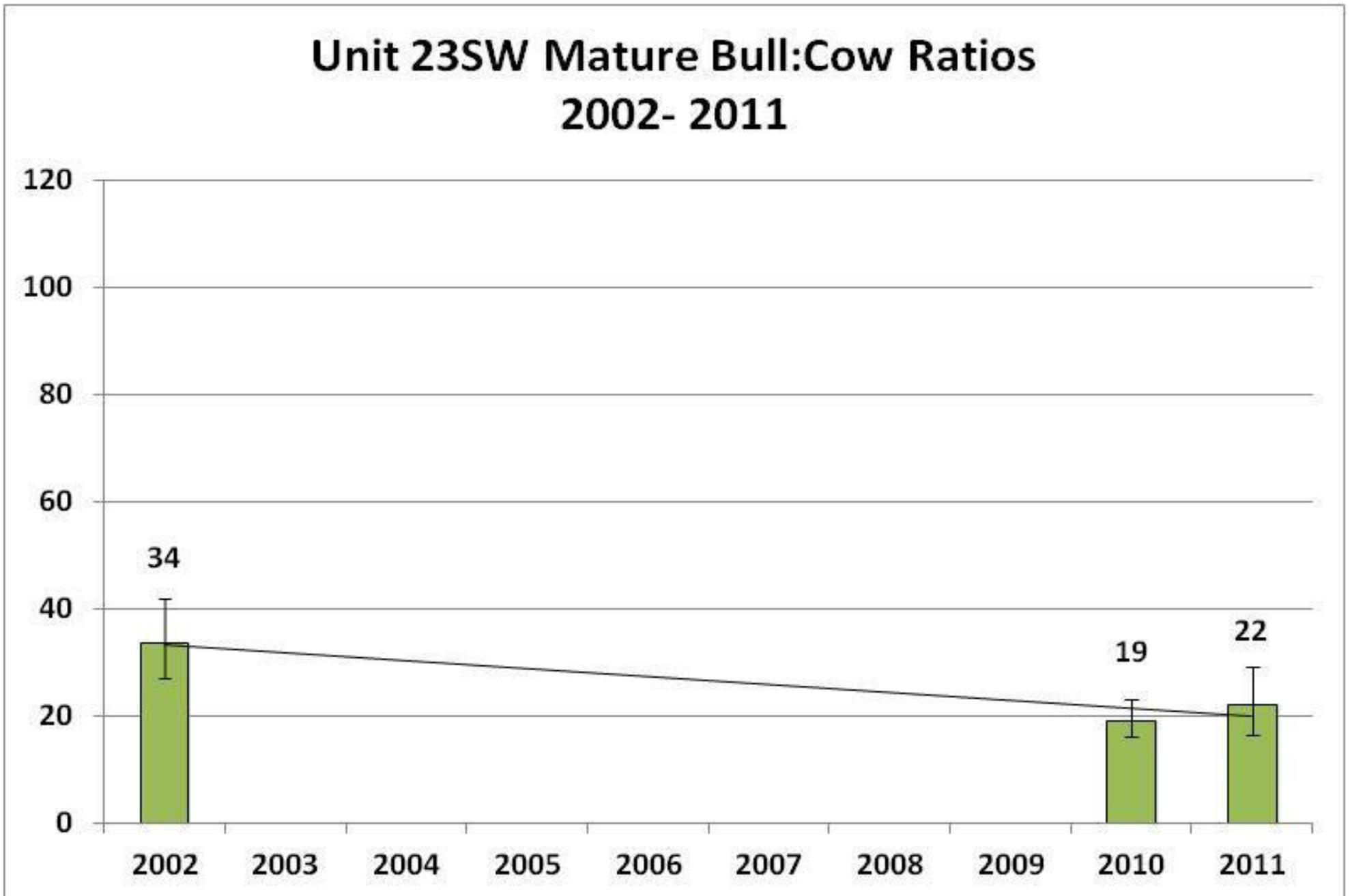
Proposal 23: Seward Peninsula – Muskox Population

Unit 22E Mature Bull: Cow Ratios 2002- 2011



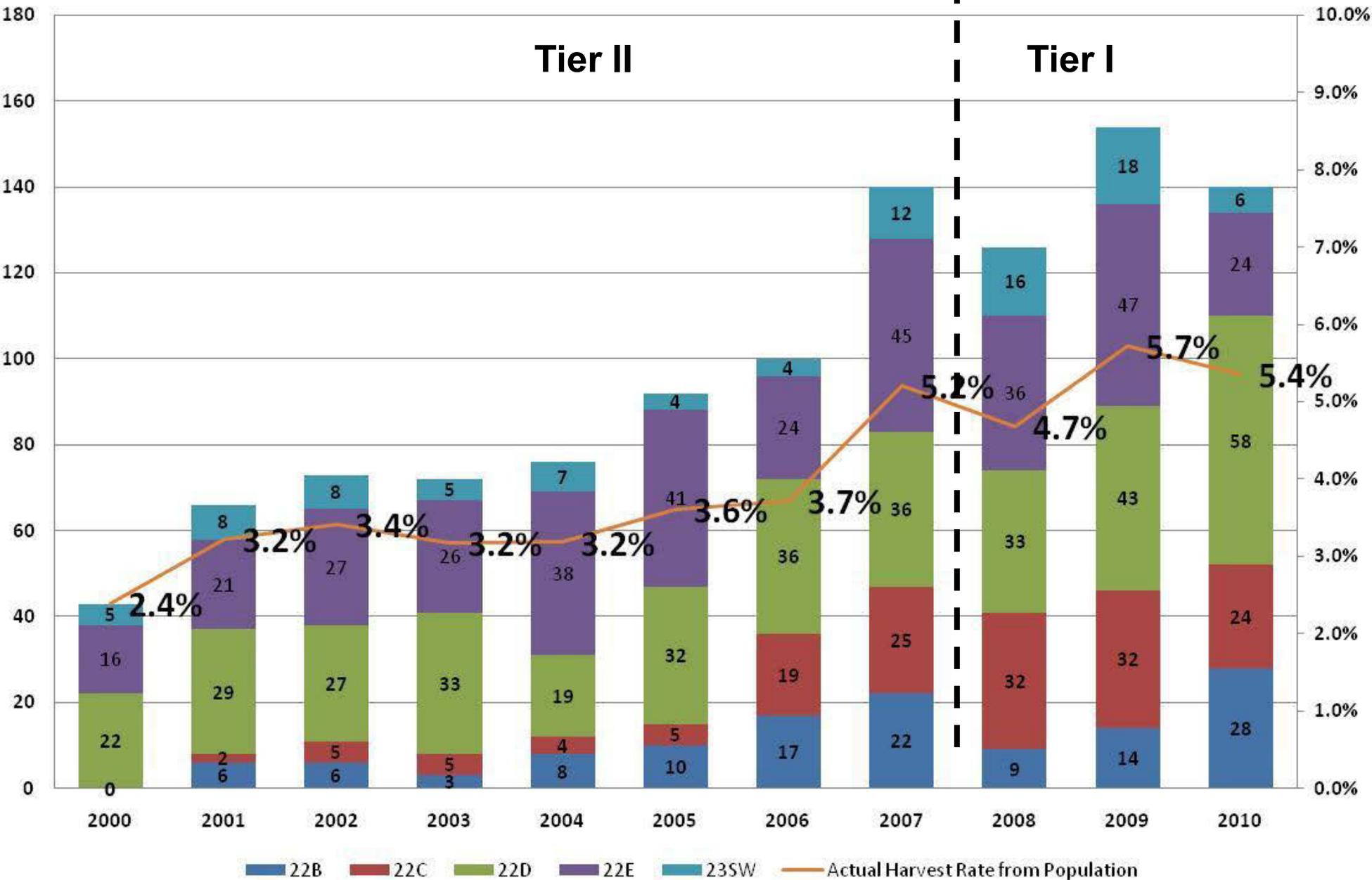
Proposal 23: Seward Peninsula – Muskox Population

Unit 23SW Mature Bull: Cow Ratios 2002- 2011



Proposal 23: Seward Peninsula – Muskox Population

Seward Peninsula Reported Muskox Harvest and Harvest Rates
Regulatory Years 2000-2010



Proposal 23: Seward Peninsula – Muskox Population

Population Management Overview (continued):

ANS = 100-150 (40-50 nested in Unit 22E) muskox

- ✓ 2010 harvestable surplus was 177 muskox (of which 66 muskox were available in Unit 22E)
- ✓ 2011 harvestable surplus is 122 muskoxen (of which 46 muskox are available in Unit 22E).
- ✓ **2011 Harvest Quota: Tier I= 99, Drawing= 23**
- ✓ **2012 Harvest Quota (assuming a stable population): Harvestable Surplus= ~85 (~30-35 in 22E), Drawing= 0**

Regulatory Year	Harvest
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2009	154
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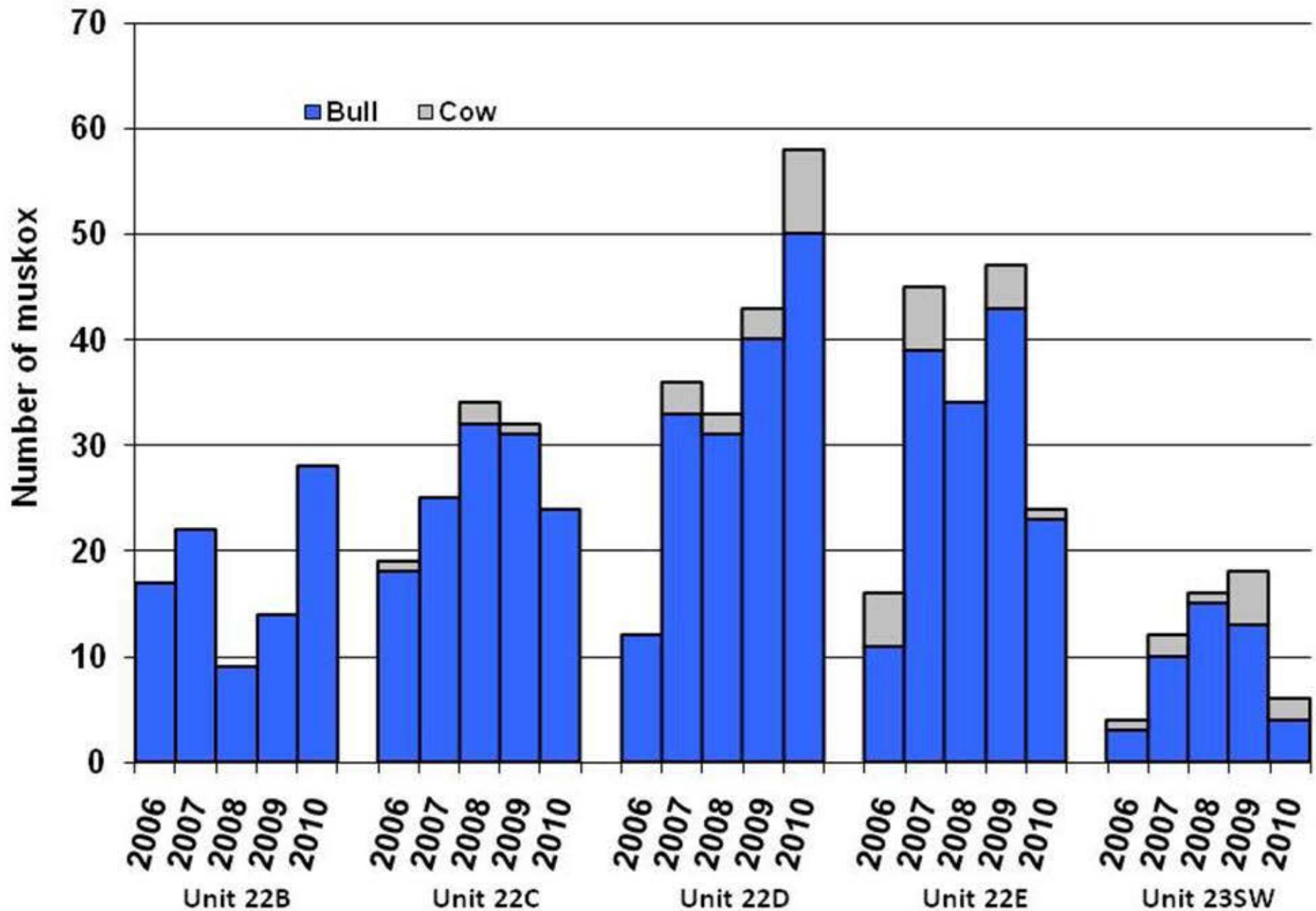
Proposal 23: Seward Peninsula – Muskox Population

What types of muskox are hunters harvesting?

1. Evidence suggests a selective harvest pattern to mature bull muskox.
 - A. hunters uncertain with sex and age classification
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 - C. hunters want to be legal
 - D. mature bulls present themselves for easier harvest compared to younger animals and cows
 - E. hunters want the biggest animal for the most meat
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2. 88% of the animals harvested during the 2010 RX099 hunt were mature bulls
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Proposal 23: Seward Peninsula – Muskox Population

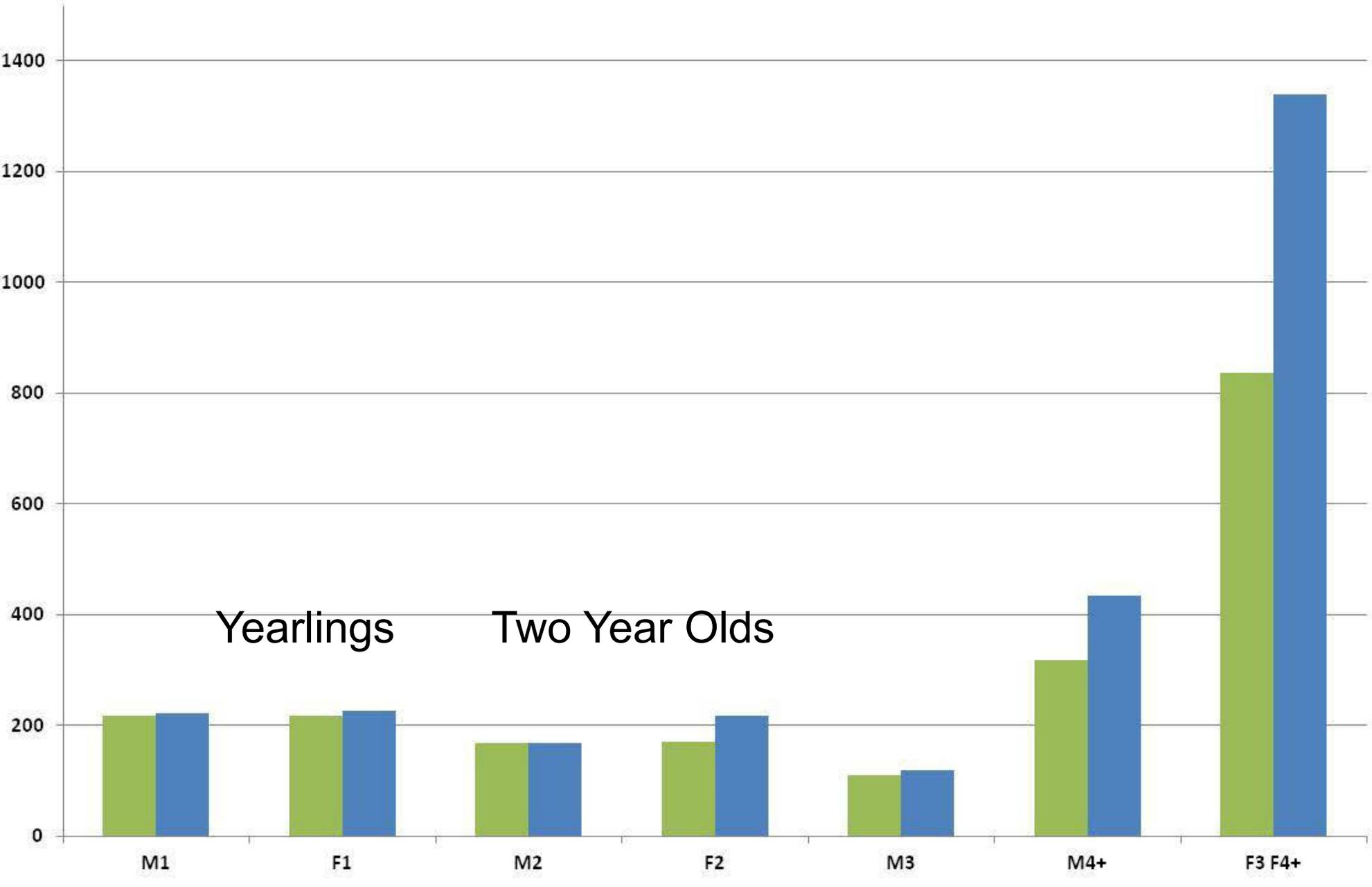
2006-2010
 Unit 22/23 Muskox harvest
 Subunits 22B, 22C, 22D, 22E, and 23SW



Proposal 23: Seward Peninsula – Muskox Population

SPP Sex and Age Class Distribution 2002 and 2010-11

■ 2002 Estimated No of Individuals in Each Age Class ■ 2010 Estimated No of Individuals in Each Age Class



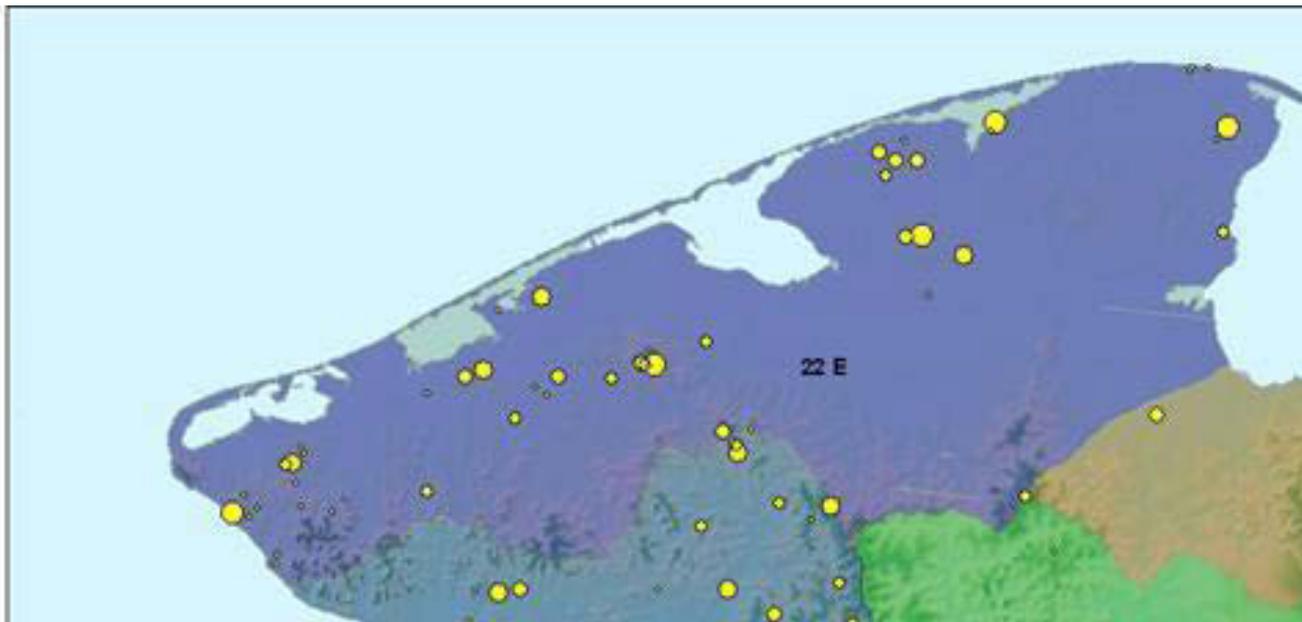
Yearlings

Two Year Olds

Proposal 23: Seward Peninsula – Muskox Population

What about Unit 22E?

- Unit 22E “appears” to be healthy compared to other areas on the Seward Peninsula.
- Difficulty of access has historically prevented hunters from harvesting what we thought at the time was sustainable harvest.
- Demonstrates that past realized harvest levels were likely more sustainable compared to other Seward Peninsula hunt areas.
- We do not think this is an area where we can focus additional harvest beyond historic harvest (30-35 muskox per year).
- Research from the area shows high natural mortality rates on adult females (April 2009 - Aug 2011) 40% (95% CI 28-52%).



Proposal 23: Questions?



-end-

Proposal 23: Discretionary Permit Hunt Conditions and Procedures: Trophy Nullification

This proposal requests review of the Department's discretionary authority to destroy the trophy value of animals taken under a subsistence permit, and considers two changes to management:

- 1) No horn cutting in Seward Peninsula subsistence hunts
- 2) Changing the subsistence bag limit to exclude the take of mature bull muskox

It is a Board of Game proposal that affects subsistence muskox hunts in Units 22 and 23:

- Seward Peninsula, Units 22 and 23 SW (Tier I)

Department Recommendation: **Do Not Adopt.**

Regional advisory committee responses:

Retain department discretion;

Maintain status quo hunt management

- Unit 22: Northern Norton Sound AC
- Unit 23: Kotzebue Sound AC

Proposal 23: Department Procedures

- ✓ The Department uses discretionary authority to destroy trophies under 5 AAC 92.052 (5).
- ✓ Applied to game populations with:
 - Positive C&T
 - High trophy value
 - Low harvestable surplus (quota-based hunts)
 - Liberal seasons for subsistence
 - Liberal bag limits (any bull)
 - No tag fee (\$500 fee exempted by Board)
 - Lower overall cost for subsistence hunting
- ✓ These factors have been applied to all subsistence musk ox hunts.
 - Trophy nullification was applied to the first subsistence hunts in Unit 26C (1986).
 - All subsistence muskox hunts to date have had trophy destruction.
- ✓ Removing high-value trophy hunting in subsistence hunts is accomplished by trophy nullification.

Proposal 23: Seward Peninsula Muskox

- ✓ **Subsistence Hunts:** Currently in Units 22/23, musk ox horns are cut and retained by department to destroy trophy value of animals taken in subsistence hunts.
 - 1) No trophy use of horns was recognized in the 1997 Board record related to the positive C&T finding for Seward Peninsula muskox.
 - 2) \$500 resident tag fees exempted by Board; trophies are nullified to prevent trophy hunting for 'no tag fee'.
 - 3) Trophy destruction is used to discourage hunters seeking trophies from participating in subsistence hunts.
 - 4) Horn cutting is an effective management tool to control the number of hunters participating in quota-limited Tier I subsistence hunt.
 - 5) Provides maximum opportunity for users.
- ✓ **Drawing Hunts:**
 - 1) Trophy hunting for harvestable surplus above ANS.
 - 2) \$500 resident tag fee.

Proposal 23: Seward Peninsula – Hunter Participation

Subsistence Registration Hunts (quota = ANS)

274 permits – local Seward Peninsula

116 permits – visiting residents

390 permits – total issued (30% visiting residents)

Drawing Applications for Seward Peninsula hunts

1926 – residents (applied in 2010)

147 – nonresidents

2073 – total applications

10-year average drawing application rate 1700/yr

Current Seward Peninsula registration hunting allows:

- Greatest opportunity to the widest number of users
- 80% of registration permits are internet available
- Tier I has provided 3301 days of hunting opportunity since 2008

Proposal 23: Seward Peninsula – Muskox Population

Population Management Overview:

- ✓ In 1970, 36 muskoxen from Nunivak Island were introduced to the southwest portion of the Seward Peninsula.
- ✓ In 1981, an additional 35 muskoxen from Nunivak Island were trans-located to this same area.
- ✓ Since 1970, the population has grown and expanded its range eastward into GMUs 22, 23, and 24.
- ✓ The population grew 14% annually from 1970 to 2000 (first 30 years).
- ✓ The population grew 6% annually from 2000 and 2008.
- ✓ The 2010 population estimate suggests the population has stabilized or may declining.

Proposal 23: Seward Peninsula – Muskox Population

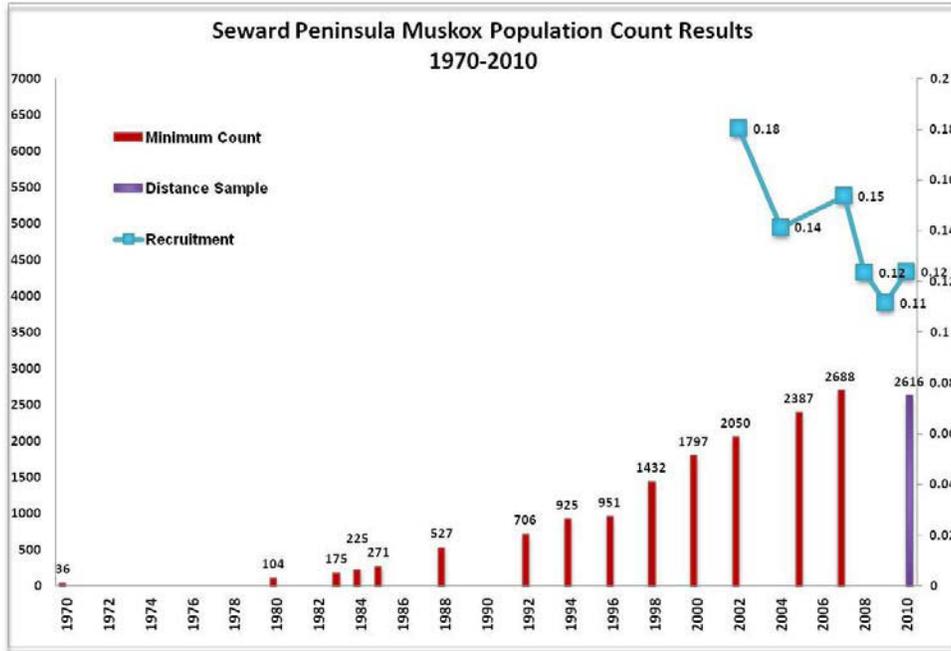
Population Management Overview (continued):

In addition to a decline in the growth of the population, there are several other 'red flags' related to the current status of the Seward Peninsula muskox population.

1. **Calves:100 adults** and **recruitment rates** have declined in Units 22B, 22C, 22D, and 23SW.
2. **Mature Bull: Cow ratios** have declined in Units 22B, 22C, and 23SW.
3. Since 2008, radio collars show a 22% annual mortality rate.
4. Population structure is changing compared to early years of hunting.
5. Reduced harvest rates are used compared to past hunts.

Proposal 23: Seward Peninsula – Muskox Population

History of Seward Peninsula Population Growth 1970 - 2010

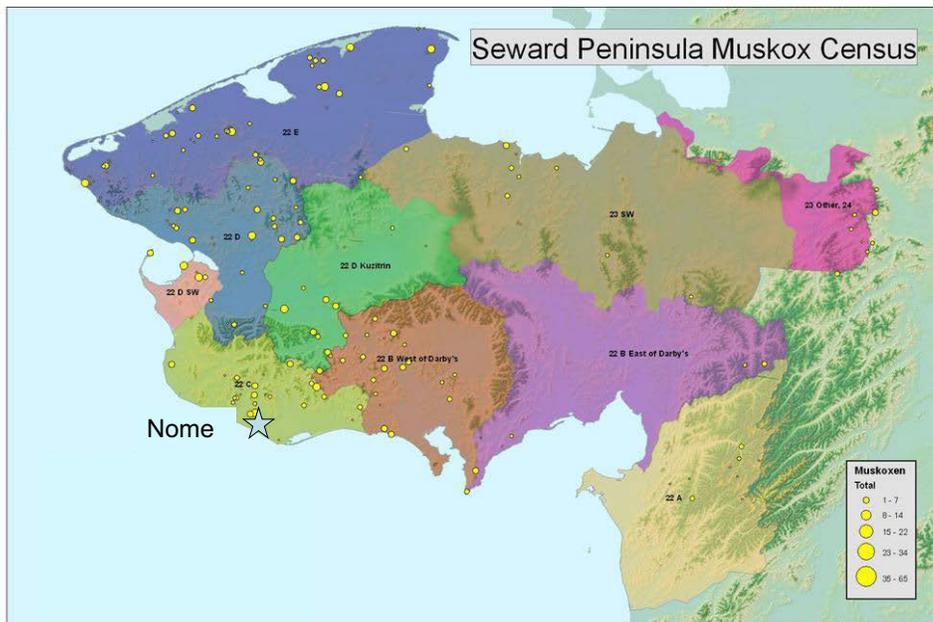


Units 22/23 - Muskox

Proposal 23: Slide 7

Proposal 23: Seward Peninsula – Muskox Population

2010 Muskox Counts - Group Locations

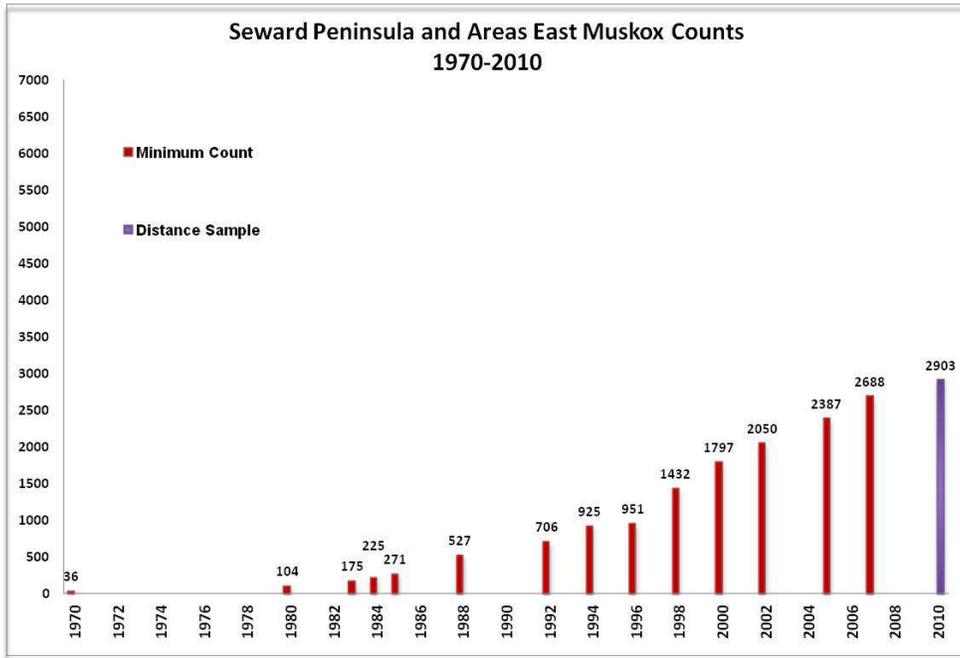


Units 22/23 - Muskox

Proposal 23: Slide 8

Proposal 23: Seward Peninsula – Muskox Population

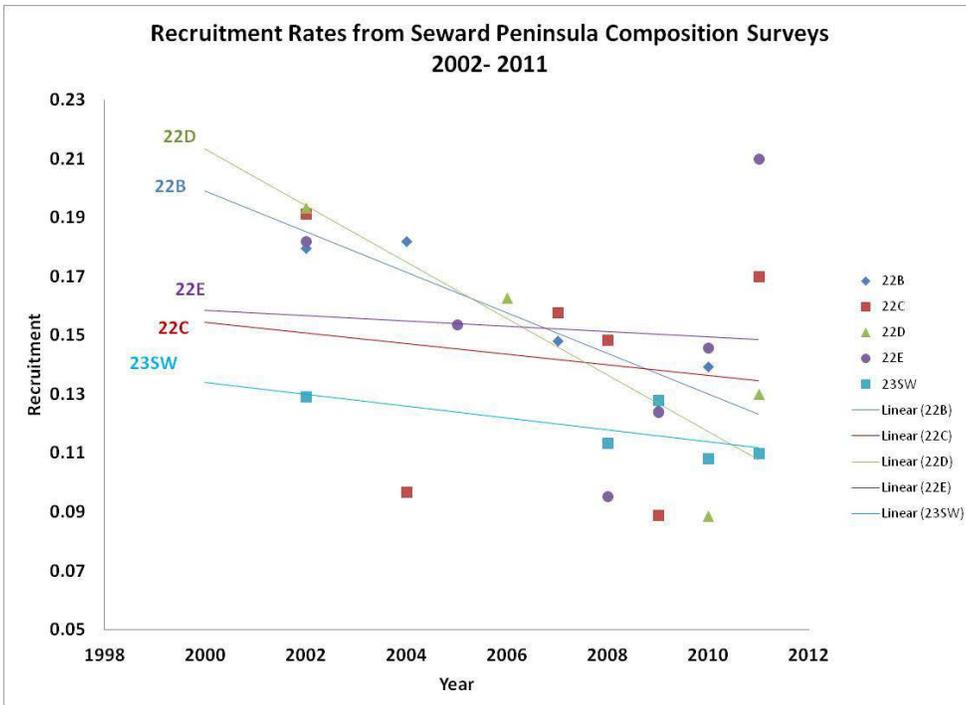
History of Seward Peninsula Population Growth 1970 - 2010



Units 22/23 - Muskox

Proposal 23: Slide 9

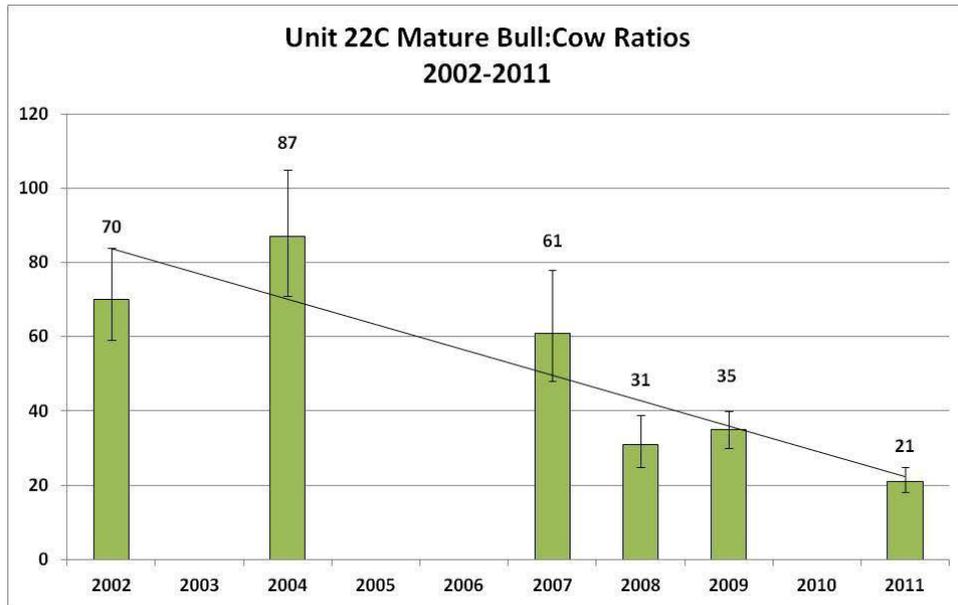
Proposal 23: Seward Peninsula – Muskox Population



Units 22/23 - Muskox

Proposal 23: Slide 10

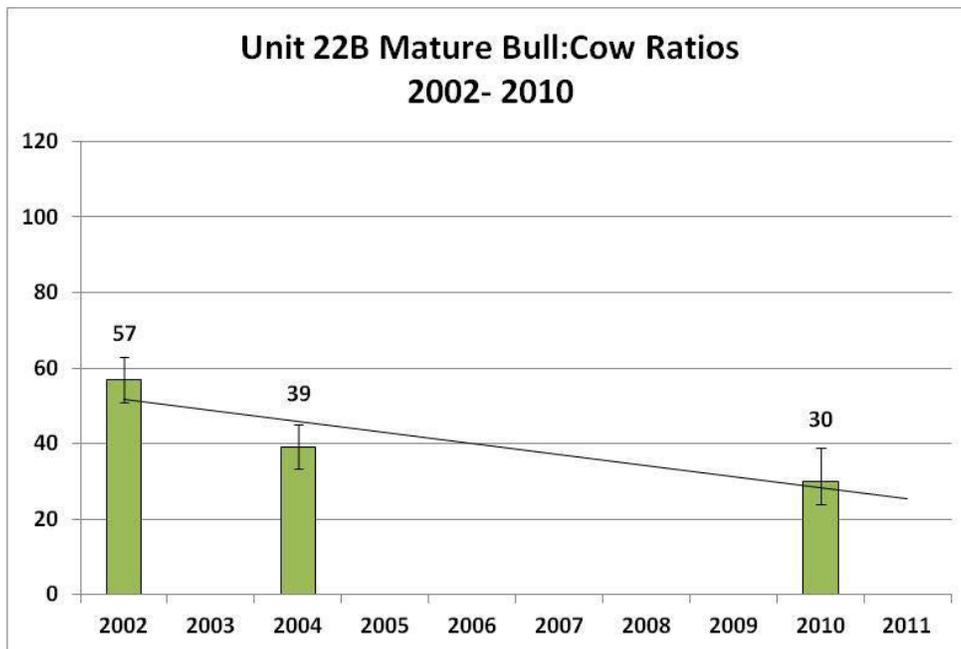
Proposal 23: Seward Peninsula – Muskox Population



Units 22/23 - Muskox

Proposal 23: Slide 11

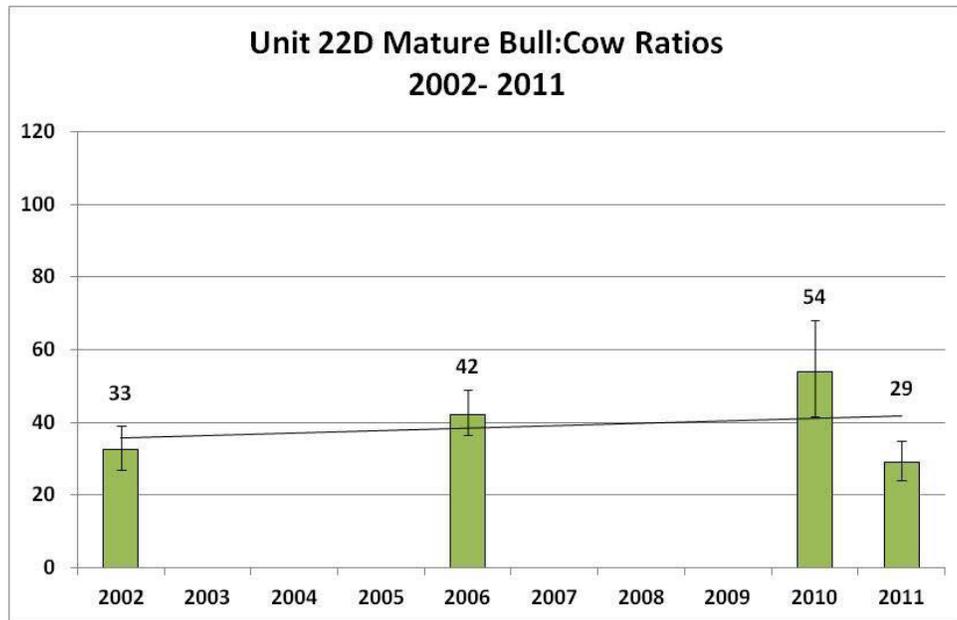
Proposal 23: Seward Peninsula – Muskox Population



Units 22/23 - Muskox

Proposal 23: Slide 12

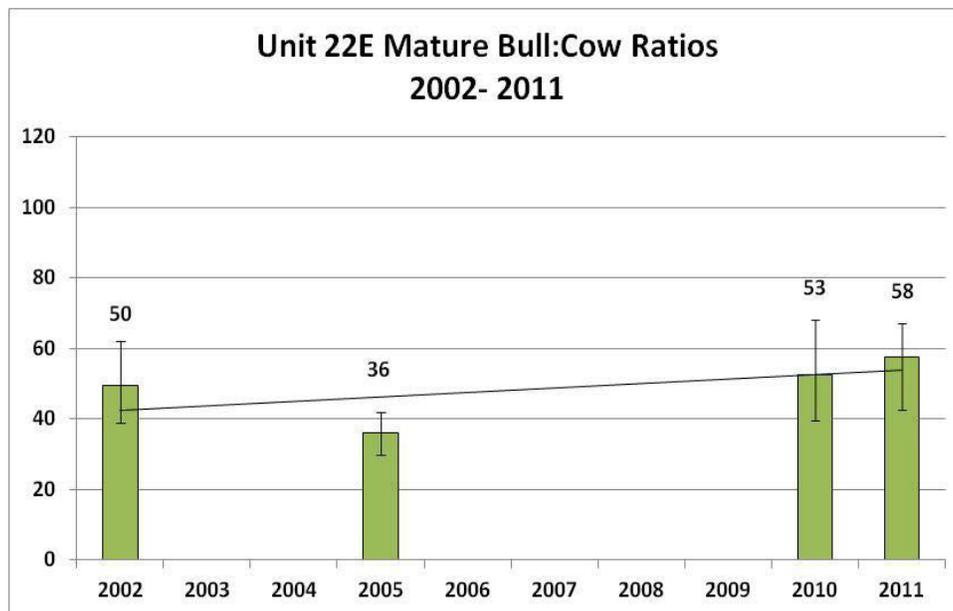
Proposal 23: Seward Peninsula – Muskox Population



Units 22/23 - Muskox

Proposal 23: Slide 13

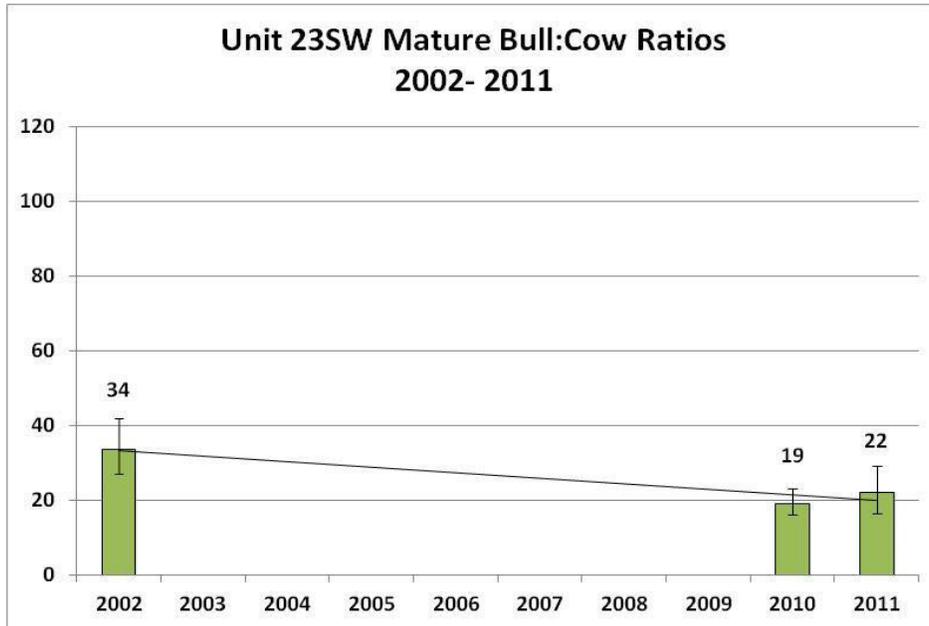
Proposal 23: Seward Peninsula – Muskox Population



Units 22/23 - Muskox

Proposal 23: Slide 14

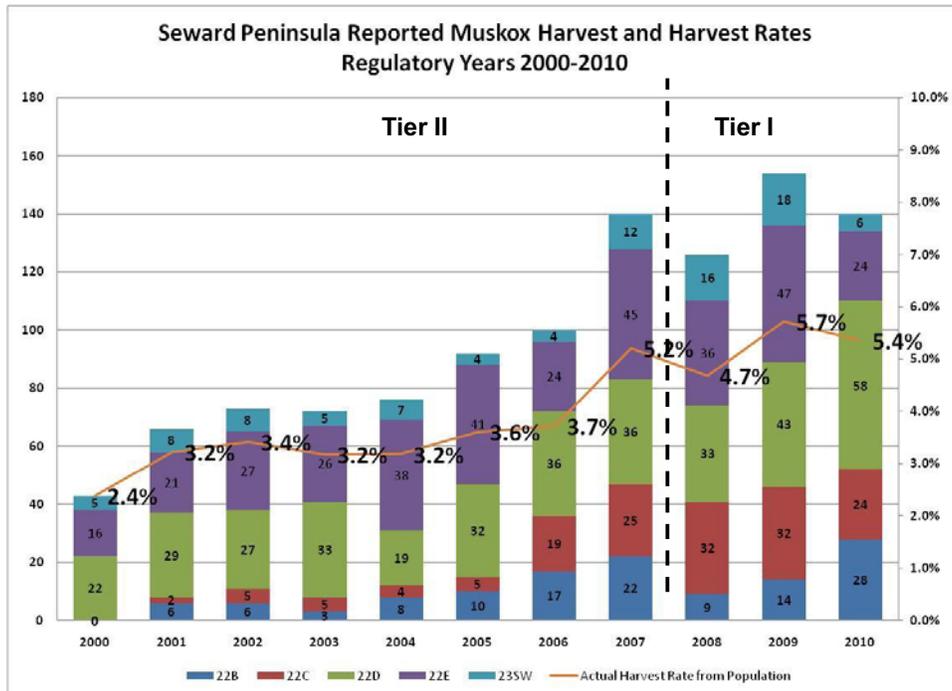
Proposal 23: Seward Peninsula – Muskox Population



Units 22/23 - Muskox

Proposal 23: Slide 15

Proposal 23: Seward Peninsula – Muskox Population



Units 22/23 - Muskox

Proposal 23: Slide 16

Proposal 23: Seward Peninsula – Muskox Population

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Units 22/23 - Muskox

Proposal 23: Slide 17

Proposal 23: Seward Peninsula – Muskox Population

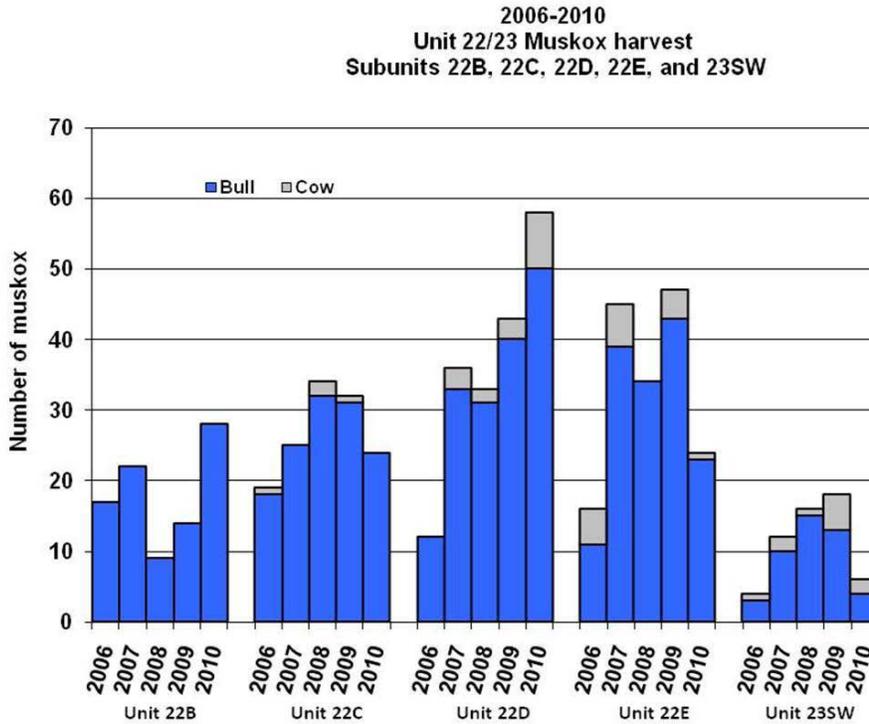
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Units 22/23 - Muskox

Proposal 23: Slide 18

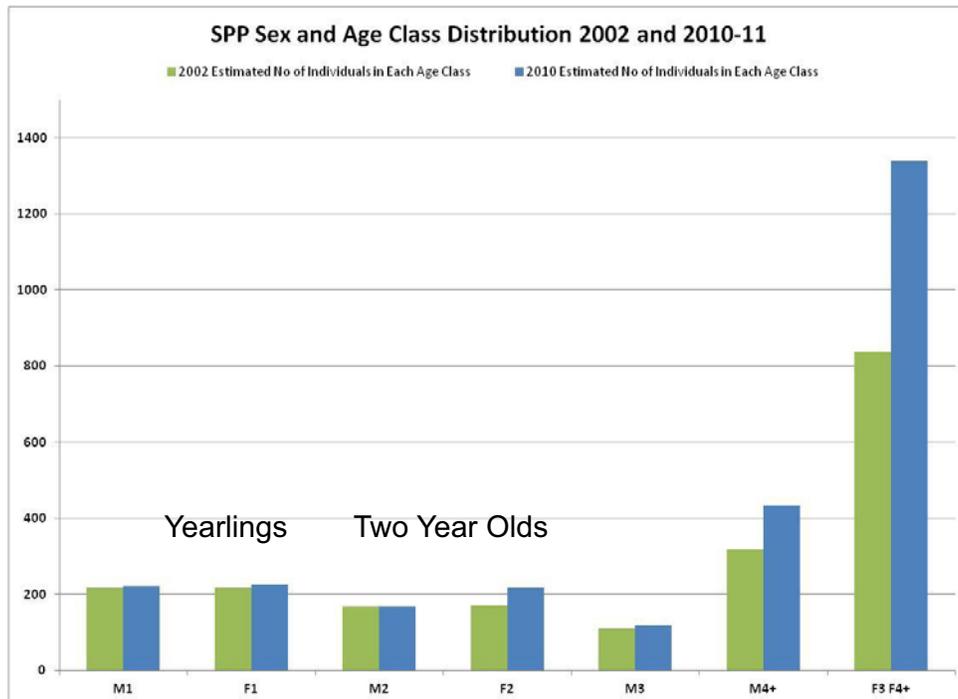
Proposal 23: Seward Peninsula – Muskox Population



Units 22/23 - Muskox

Proposal 23: Slide 19

Proposal 23: Seward Peninsula – Muskox Population



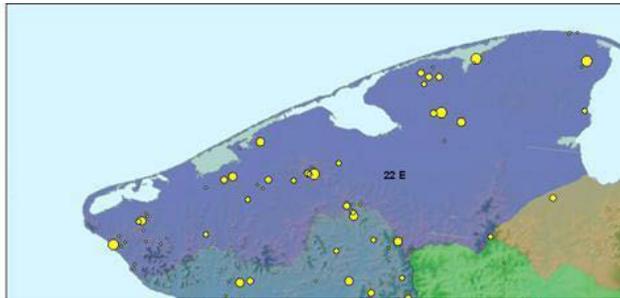
Units 22/23 - Muskox

Proposal 23: Slide 20

Proposal 23: Seward Peninsula – Muskox Population

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Units 22/23 - Muskox

Proposal 23: Slide 21

Proposal 23: Questions?



-end-

Units 22/23 - Muskox

Proposal 23: Slide 22