Moose / Unit 22

Extend the Unit 22A Central resident fall moose season

Recommendation: Support

Southern Norton Sound AC Proposal

Northern Norton Sound AC Southern Norton Sound AC Take No Action Support

Moose / Unit 22

Current Regulations

- Residents
 - ➢ RM841
 - September 1- 14
 - 1 Antlered Bull
 - ≻ RM844
 - December 1- 31
 - 1 Antlered Bull
 - Season May Be Announced
- Non Residents
 - No Open Season



Moose / Unit 22

Proposal 26

Unit 22A Central Moose Population (History and Current Status)

- In 2004, local residents requested a moose season closure due to depressed moose numbers.
- The moose season was closed RY2005- RY2007, and resident hunting opportunity began again in RY2008

2012 GSPE Results

- 545 moose (90% Cl: 452-639)
- 19% Short Yearlings
- 2008-2012: Increased 13% Annually
- Poor survey conditions 2015 and 2016

Moose / Unit 22

Extend RM841 Season

Proposed season closure date:
 September 20

Provides adequate protection for breeding bulls

Registration permit
 Harvest Quota in Place

Moose / Unit 22

Extend RM841 Season

Season Extensions

Requested and authorized: 2011-2015

RY	Quota	Harvest	Season	RM844
2008	14	15	Sept 1-14	
2009	14	15	Sept 1-14	
2010	14	14	Sept 1-13	
2011	14	16	Sept 1-17	
2012	22	16	Sept 1-20	Yes
2013	22	21	Sept 1-20	

Moose / Unit 22

Extend the Unit 22A Central resident fall moose season

Recommendation: Support

Southern Norton Sound AC Proposal

Northern Norton Sound AC Southern Norton Sound AC Take No Action Support

Moose / Unit 22

Extend the Unit 22A North Nonresident fall moose season

Recommendation: Neutral

This is Public Proposal

Northern Norton Sound AC Southern Norton Sound AC Take No Action Opposed

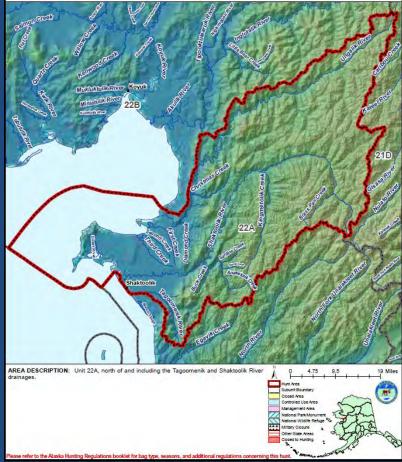
7

Moose / Unit 22

Current Regulations

- Residents
 - > GM000
 - August 1-September 30
 - One Bull
- Nonresidents
 - > GM000
 - September 1- 14
 - one bull moose 50-inch antlers or 4 or more brow tines





Moose / Unit 22

22A North Moose Population

- ➤ ≈400-500 Moose
 - Extrapolated from adjoining area with similar habitat

22A North Harvest

- Total Harvest
 - > 10-15 moose annually
 - 2-4% harvest rate

Moose / Unit 22

Extend non-resident season

- Proposed season closure date:
 September 20
- Provides adequate protection for breeding bulls
- Continue to monitor harvest
 Harvest not to exceed 5%-6% without additional population information

Moose / Unit 22

Extend the Unit 22A North Non-resident fall moose season

Recommendation: Neutral

This is Public Proposal

Northern Norton Sound AC Southern Norton Sound AC Take No Action Opposed

Moose / Unit 22

Close Nonresident Moose Hunting in Unit 22D Remainder and 22E

Recommendation: Neutral

This is a Seward Peninsula RAC Proposal

Northern Norton Sound AC Southern Norton Sound AC Amend and Adopt Amend and Adopt

Moose / Unit 22



Nonresident Registration Moose Permit RM855 Seasons and Bag Limits

Unit 22D Remainder

Nonresidents:

- ➢ September 1 − 14
- One bull moose 50-inch antlers or 4 or more brow tines
- Harvest Quota: 3 Bulls

Unit 22E

Nonresidents:

- September 1 14
- One bull moose 50-inch antlers or 4 or more brow tines
- Harvest Quota: 13 Bulls

Northern Norton Sound Advisory Committee Proposed Amendment

Unit 22D Remainder

Residents

- August 10 September 1;
- > one bull moose
- October 1 November 30;
- one bull moose
- December 1 January 31;
- > one antiered bull moose

Nonresidents:

No Open Season

Unit 22E

Residents

- August 10 December 31;
- > one bull moose
- January 1 March 15;
- one antiered bull moose

Nonresidents:

- September 1 14;
- one bull moose 50-inch antlers or 4 or more brow tines
- Registration permit RM855 (Harvest Quota: 13 Bulls)

Moose Population

Unit 22D Remainder

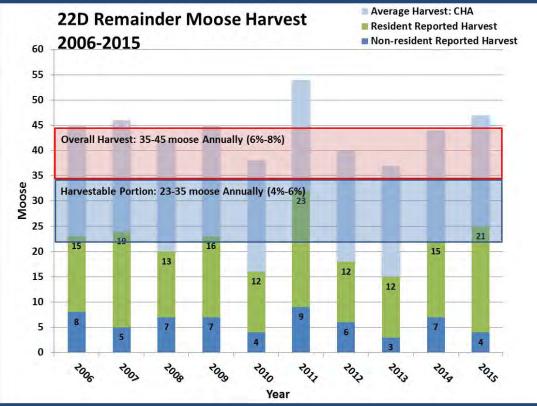
- 2014 GSPE Results
 - ➢ 491 moose (90% Cl: 422-560)
 - 18% Short Yearlings
 - ▶ 2011-2014
 - Declined 14% Annually
- Composition Survey Results
 - 2011: 35 Bulls: 100 Cows
 - > 2016: 23 Bulls: 100 Cows

Unit 22E

- 2014 GSPE Results
 - ➢ 701 moose (90% Cl: 603-799)
 - 13% Short Yearlings
 - ▶ 2006-2014
 - Increased 2% Annually
- Composition Survey Results
 2014: 41 Bulls: 100 Cows
 2016: 38 Bulls: 100 Cows

Moose / Unit 22

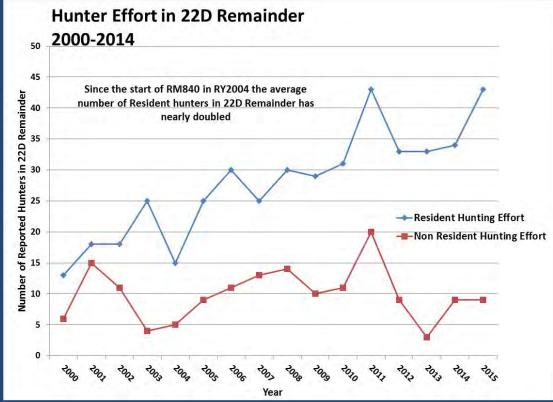
Unit 22D Remainder– Moose Harvest



- Average Annual Reported Harvest: 22 Moose
- Community Harvest Assessment Surveys
 - Average Harvest 2000-2015
 - Teller: 5 Moose
 - Brevig Mission: 17 Moose

Moose / Unit 22

Unit 22D Remainder – Hunter Effort

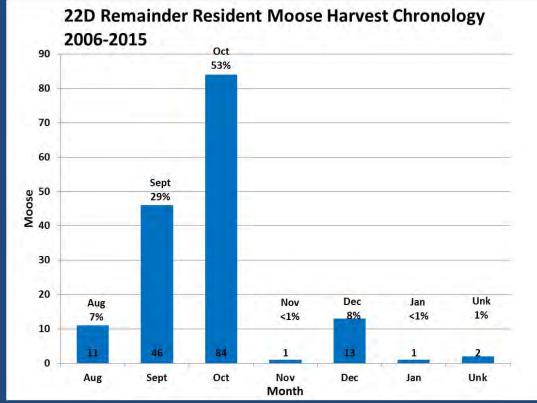


Resident Hunter effort increasing

Restrictions may be necessary in order to maintain harvest at sustainable levels.

Moose / Unit 22

Unit 22D Remainder – Harvest Chronology

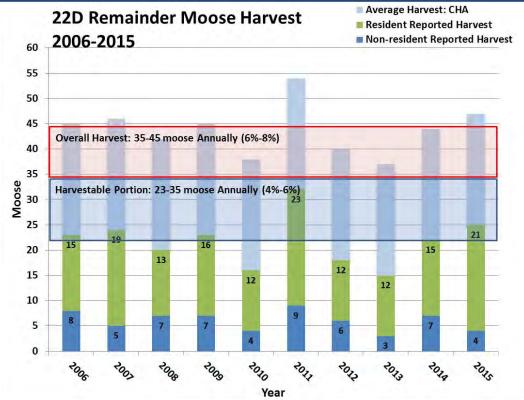


Residents

- Aug. 10 Sept. 1; one bull moose
- Oct.1 Nov. 30; one bull moose
- Dec.1 Jan. 31; one antiered bull moose

Moose / Unit 22

Unit 22E – Moose Harvest



- Average Annual Reported Harvest: 16 Moose
- Community Harvest Assessment Surveys
 - Average Harvest 2000-2015
 - Shishmaref: 28 Moose
 - Wales: 5 Moose

Moose / Unit 22

Close Nonresident Moose Hunting in Unit 22D Remainder and 22E

Recommendation: Neutral

This is a Seward Peninsula RAC Proposal

Northern Norton Sound AC Southern Norton Sound AC Amend and Adopt Amend and Adopt

Open a hunting season for caribou in Unit 22A South of and including the Golsovia River drainage by emergency order.

Recommendation: Neutral

Public Proposal

Northern Norton Sound AC Southern Norton Sound AC Take no action Take no action

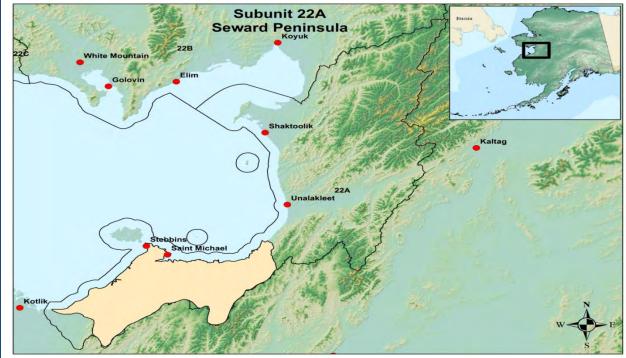
Caribou / Unit 22A

Caribou Regulations

Unit 22A South Current Season and Bag Limit

Residents: May be announced

Nonresidents: May be announced



Open a hunting season for caribou in Unit 22A South of and including the Golsovia River drainage by emergency order.

Recommendation: Neutral

Public Proposal

Northern Norton Sound AC Southern Norton Sound AC Take no action Take no action

Brown Bear/Unit 22C

Lengthen the spring season date in Unit 22C to April 1.

Recommendation: Neutral

Kawerak, Inc., Nome Eskimo Community

Northern Norton Sound AC Southern Norton Sound AC Support (13-0) Support (5-0)

Brown Bear/Unit 22C

Unit 22C Current Season and Bag Limit

- Fall: August 1 October 31
- Spring: May 1 May 31
- Residents: 1 bear every regulatory year
- Residents (subsistence): 1 bear every regulatory year by registration permit (RB699)
- Nonresidents: 1 bear every regulatory year by drawing permit



Proximity to Nome

Road accessible

Brown Bear/Unit 22C

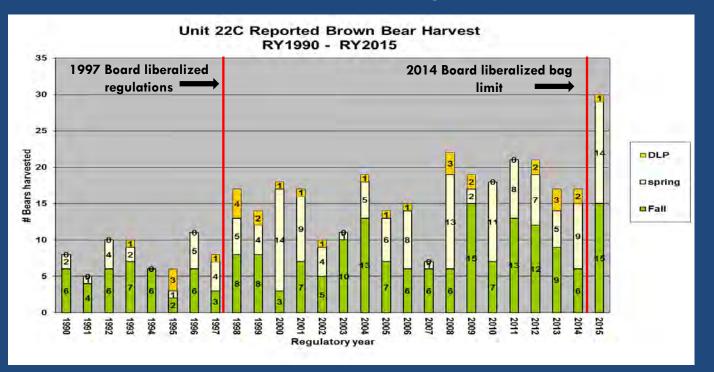
Unit 22C Bear Harvest

1990 – 1997

Average annual harvest = 8 bears

Average annual harvest = 16 bears

1998 - 2014



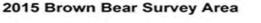
The liberalized bag limit adopted in 2014 has only been in effect for 1 year

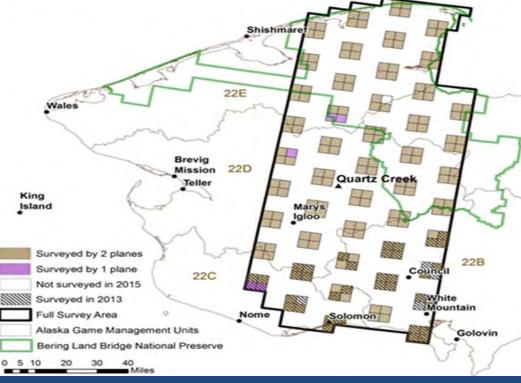
 \succ The average annual 22C harvest for RY2015 increased 87%

Brown Bear/Unit 22C

2015 Unit 22 Bear Survey

National Park Service cooperative project





Survey area 20,000 km²

> 36.5 bears/ 1000 km²

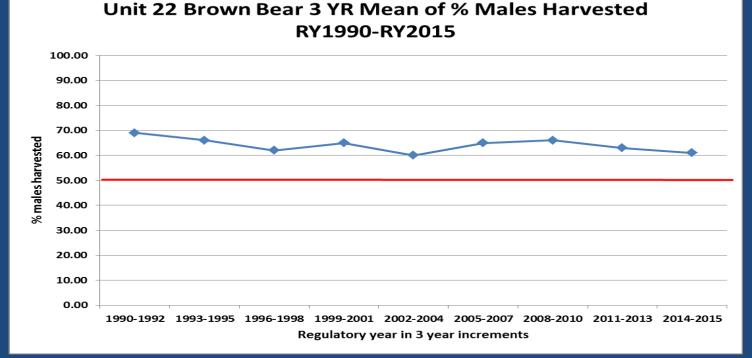
1991 ADF&G Survey

Survey area 2,067 km²

> 29.1 bears/ 1000 km²

Brown Bear/Unit 22C

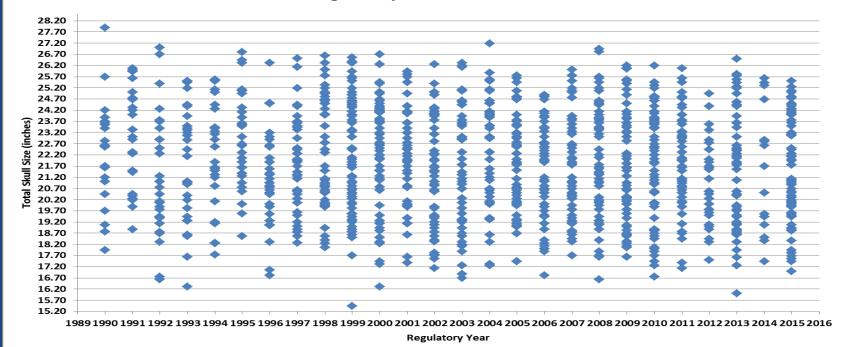
Unit 22 Brown Bear Male Harvest



Sub Unit	1990-1997	1998-2015
22A	70%	69%
22B	68%	63%
22C	52%	58%
22D	59%	63%
22E	77%	76%

Brown Bear / Unit 22C

Unit 22 Boar Brown Bear Skull Size by Regulatory Years 1990-2015



1990 – 1997 Average skull size = 22 inches R Square = 0.0052

Average harvest age = 6 years old

1998 - 2015 Average skull size = 22 inches R Square = 0.0055

Average harvest age = 7 years old

Non-selective harvest allows for a wide range of sizes to be consistent year after year

Brown Bear / Unit 22C

Unit 22 Sow Brown Bear Skull Size by **Regulatory Years 1990-2015** 24.25 23.75 23.25 22.75 22.25 21.75 21.25 20.75 20.25 19.75 Total Skull Size (inches) 19.25 18.75 18.25 17.75 17.25 16.75 16.25 15.75 ÷ 15.25 14.75 14.25 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 1989 1990 1991 1992 1993 1994 2010 2011 2012 2013 2014 2015 2016 **Regulatory Year**

1990 – 1997 Average skull size = 20 inches R Square = 0.0001

Average harvest age = 6 years old

1998 – 2015 Average skull size = 20 inches R Square = 0.0045

Average harvest age = 7 years

Brown Bear/Unit 22C

Nome Urban Wildlife

- Increase in human-muskox interactions in Nome
- Document movement of muskox into City of Nome area
- Attribute to avoid bear predation
- Preliminary study documented brown bear predation on muskox calves
- Use Department authority to take game to promote public safety as defined in AS 16.05.050 (a)(5)
- Opportunity to hunt bears earlier may have a positive effect for



ANGIE GORN / THE ASSOCIATED PRESS September 2011 photo



Brown Bear/Unit 22C

Lengthen the spring season date in Unit 22C to April 1.

Recommendation: Neutral

Kawerak, Inc., Nome Eskimo Community

Northern Norton Sound AC Southern Norton Sound AC Support (13-0) Support (5-0)

Brown Bear / Unit 22B

Change the bag limit in Unit 22B to 2 bears every regulatory year

Recommendation: Neutral

Kawerak, Inc., Nome Eskimo Community

Northern Norton Sound AC Southern Norton Sound AC Support (12-1) Support (5-0)

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Brown Bear / Unit 22B

Brown Bear Regulations

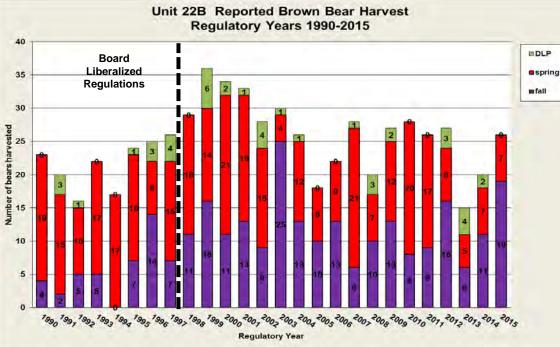
Unit 22B Current Season and Bag Limit

- Fall: August 1 May 31
- Residents: 1 bear every regulatory year
- Residents (subsistence): 1 bear every regulatory year by registration permit (RB699)
- > Nonresidents: 1 bear every regulatory year by drawing permit (DB685)



Brown Bear / Unit 22B

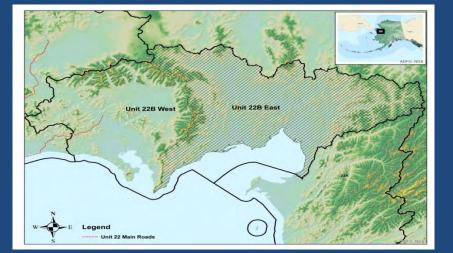
Unit 22B Brown Bear Harvest



1990 – 1997 Average annual harvest = 22 bears

1998 – 2015 Average annual harvest = 26 bears Harvest increased 18%

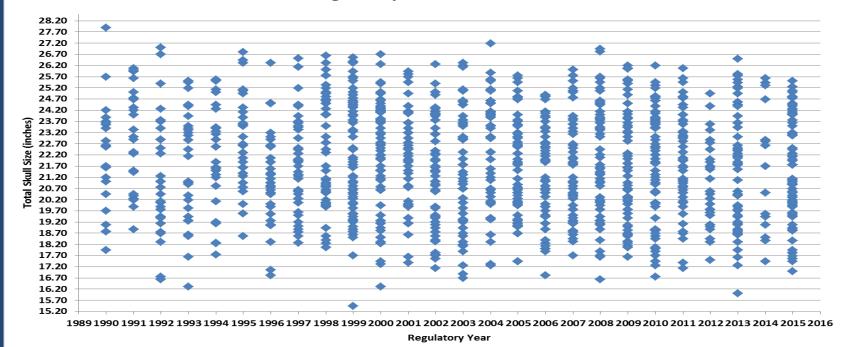
Spatial Harvest



- 60-88% of the annual 22B brown bear harvest is taken from West of the Darby Mountains.
- Unit 22B West average annual harvest = 20 bears/year
- Unit 22B East average annual harvest = 5 bears/year

Brown Bear / Unit 22B

Unit 22 Boar Brown Bear Skull Size by Regulatory Years 1990-2015



1990 – 1997 Average skull size = 22 inches R Square = 0.0052

Average harvest age = 6 years old

1998 – 2015 Average skull size = 22 inches R Square = 0.0055

Average harvest age = 7 years old

Non-selective harvest allows for a wide range of sizes to be consistent year after year

Brown Bear / Unit 22B

Unit 22 Sow Brown Bear Skull Size by Regulatory Years 1990-2015 24.25 23.75 23.25 22.75 22.25 21.75 21.25 20.75 20.25 19.75 Total Skull Size (inches) 19.25 18.75 18.25 17.75 17.25 16.75 16.25 15.75 ÷ 15.25 14.75 14.25 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 1989 1990 1991 1992 1993 1994 2010 2011 2012 2013 2014 2015 2016 **Regulatory Year**

1990 – 1997 Average skull size = 20 inches R Square = 0.0001

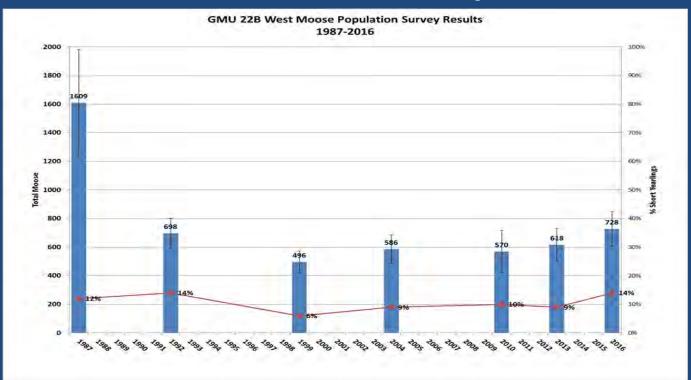
Average harvest age = 6 years old

1998 – 2015 Average skull size = 20 inches R Square = 0.0045

Average harvest age = 7 years old

Brown Bear / Unit 22B

Unit 22B West: Moose Population



- 2016 population estimate: of 728 observable moose (90% Cl: 609 847 moose)
- 2016 spring recruitment: 14% short yearlings
- Highest recruitment 22B West has seen since 1992



Brown Bear / Unit 22B

Change the bag limit in Unit 22B to 2 bears every regulatory year

Recommendation: Neutral

Kawerak, Inc., Nome Eskimo Community

Northern Norton Sound AC Southern Norton Sound AC Support (12-1) Support (5-0)

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Brown Bear / Unit 22A

Lengthen the Unit 22A South brown bear hunting season to June 15.

Recommendation: Oppose

Public Proposal

Northern Norton Sound AC Southern Norton Sound AC Take no action Support (5-0)

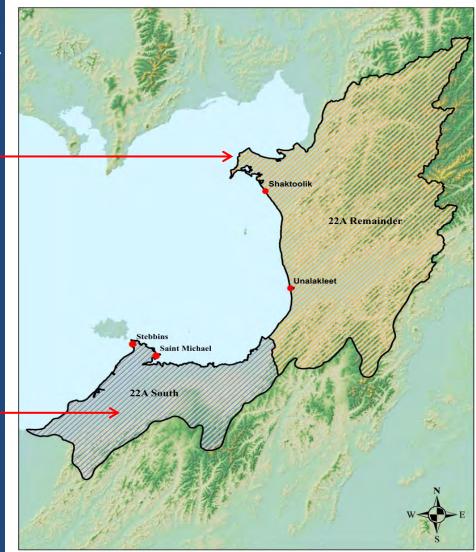
41

Brown Bear / Unit 22A



Nonresident: 1 brown bear/ regulatory years

regulatory year

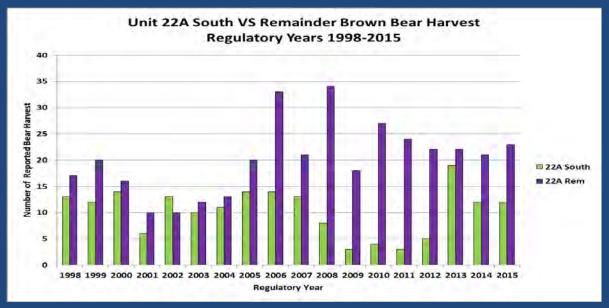


22A South moose population:

- The Department does not have a population estimate for this area. Unit 22A South has supported liberal hunting seasons.
- > Resident: 90 day season by HT (has existed for 31 years)
- Nonresident: 30 day season by HT (has existed for 8 years)
- Brown bears do not appear to be adversely impacting the Unit 22A South moose population

Brown Bear / Unit 22A

Unit 22A South and Remainder Brown Bear Harvest



Harvest Summary by Hunt Area 1998-2015

22A South: 34% (n = 186 bears)

>75% by nonresidents

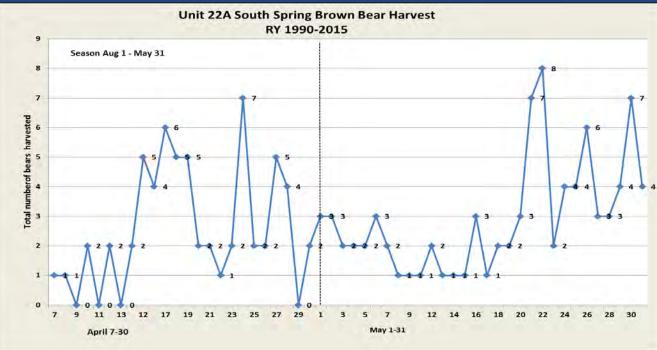
>25% by residents

22A Remainder: 66% (n = 362 bears)

>82% by nonresidents

Brown Bear / Unit 22A

22A South: Chronology of Spring Harvest



Brown bears congregate along the coast to feed on spawn-on kelp and spawning herring in early June.

Bears are more visible and vulnerable to harvest when feeding on herring.

>Potential over harvest of brown bears with season extended 45

Brown Bear / Unit 22A

Lengthen the Unit 22A South brown bear hunting season to June 15.

Recommendation: Oppose

Public Proposal

Northern Norton Sound AC Southern Norton Sound AC Take no action Support (5-0)

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