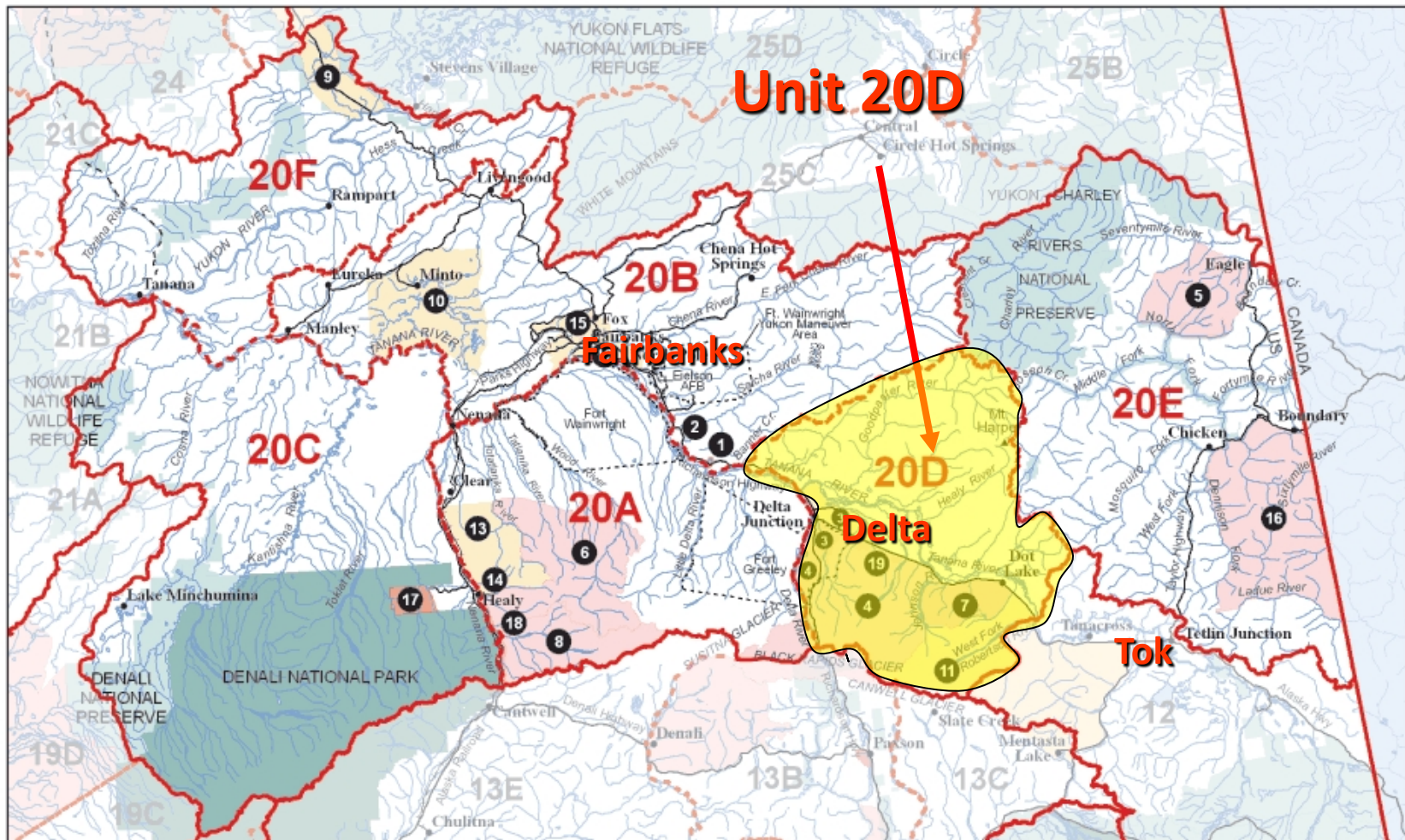


March 2011 Southwest Unit 20D Antlerless Moose Reauthorization



Where Are We?



Unit 20
Fairbanks - Central Tanana

Region 3

0 15 30 60 Miles



Game Management Units / Special Management Areas

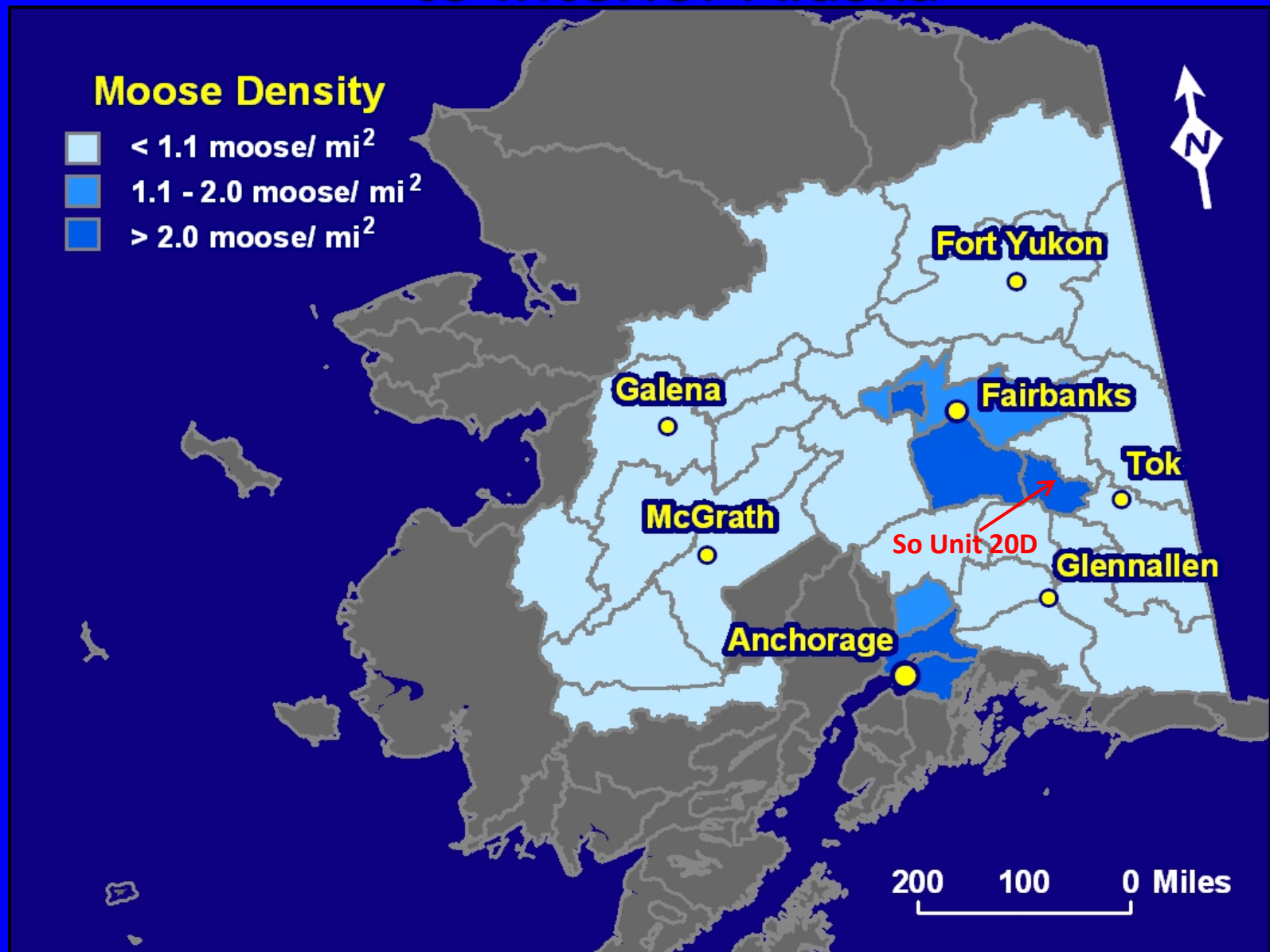
- | | | |
|--|--|---|
| Closed Areas | Other State Lands | Unit Boundaries |
| Controlled Use Areas | National Parks | Unit Sub-Boundaries |
| Management Areas | National Preserves & Other Federal Lands | Roads |
| State Refuges, Sanctuaries, & Critical Habitat Areas | | Railroads |

Unit 20D Moose Management Objectives

- Board of Game adopted Unit 20D Intensive Moose Management objectives in 1995
 - Population objective = 8,000-10,000
 - Harvest objective = 500-700/year



Comparison of SW20D Moose Density to Interior Alaska



Unit 20D Moose Population Size

Game Management Unit 20D

Northern Unit 20D

20B 3,174 mi²

2004 = 2,411 moose

0.8 moose/mi²

Big Delta

Delta Jct

Southwest 20D

1,260 mi²

2006 = 7,556 moose

@ 6.0 moose/mi²

2010 = 4,355 moose

@ 3.5 moose/mi²

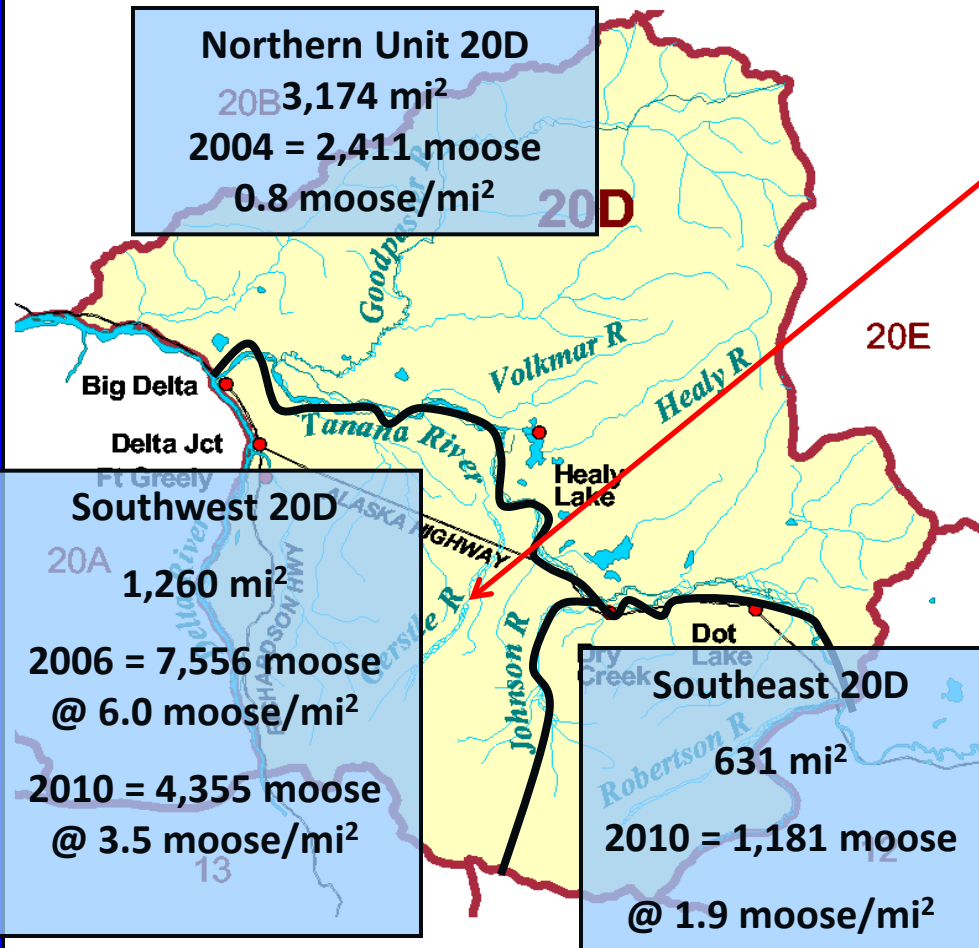
Southeast 20D

631 mi²

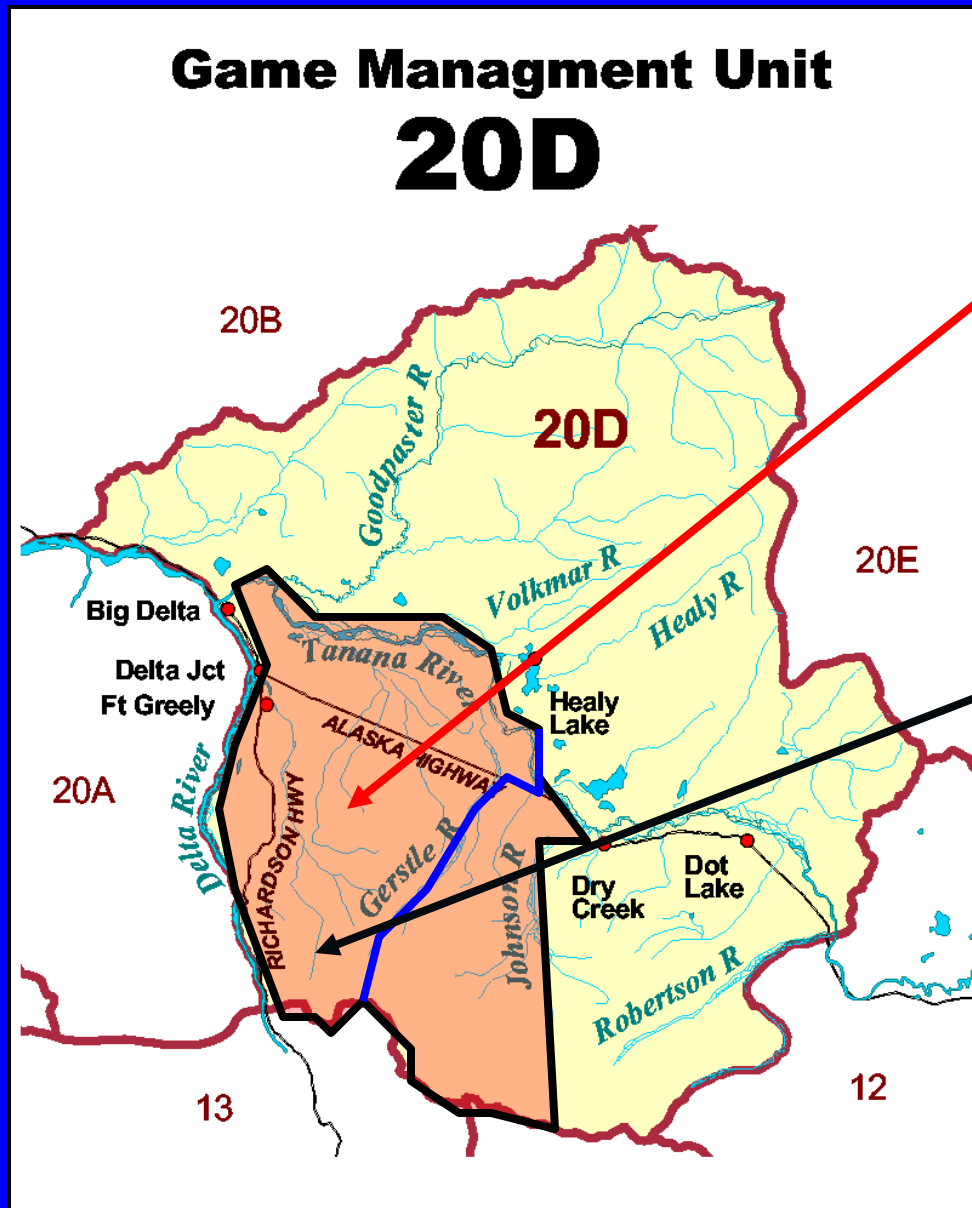
2010 = 1,181 moose

@ 1.9 moose/mi²

- Unit 20D moose density is highest in SW 20D
 - South of Tanana River & west of Johnson River



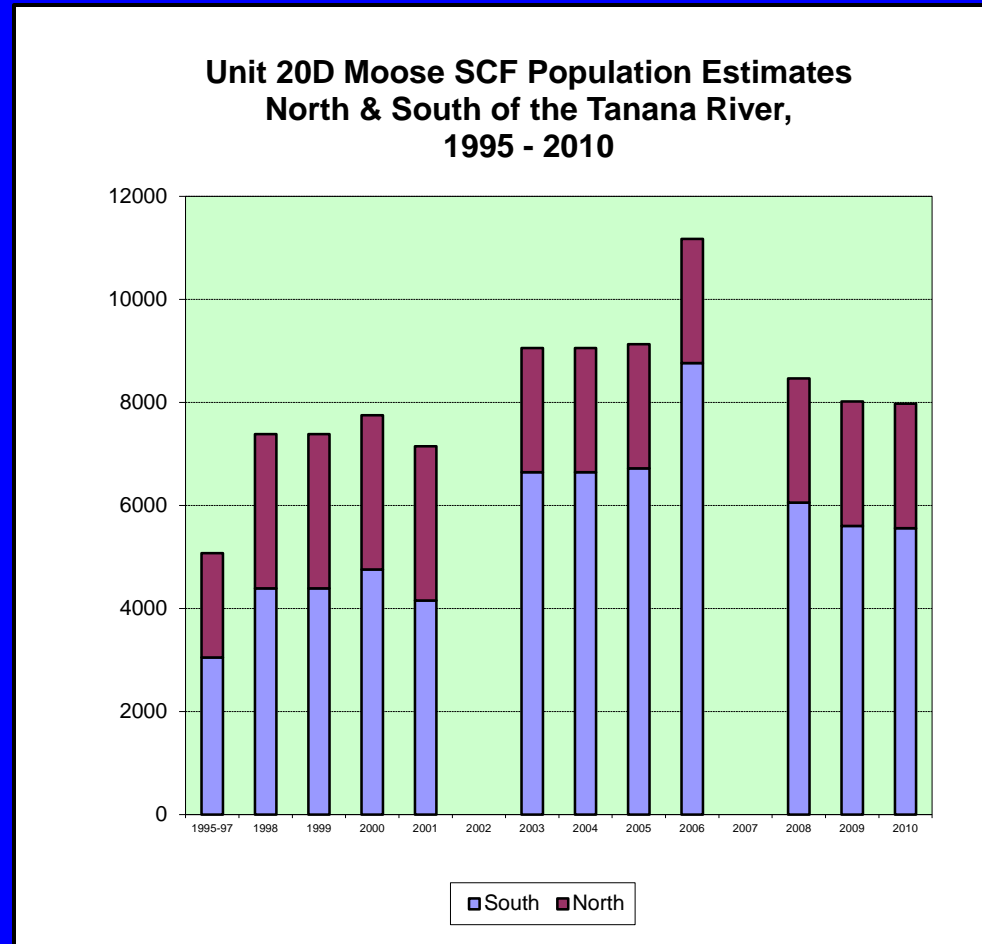
IM Research Area In SW20D



- Area of discussion is southwest Unit 20D
 - South of Tanana River
 - West of Johnson Rv
- SW20D=1,260 mi²
- Cow hunting has been west of Gerstle River

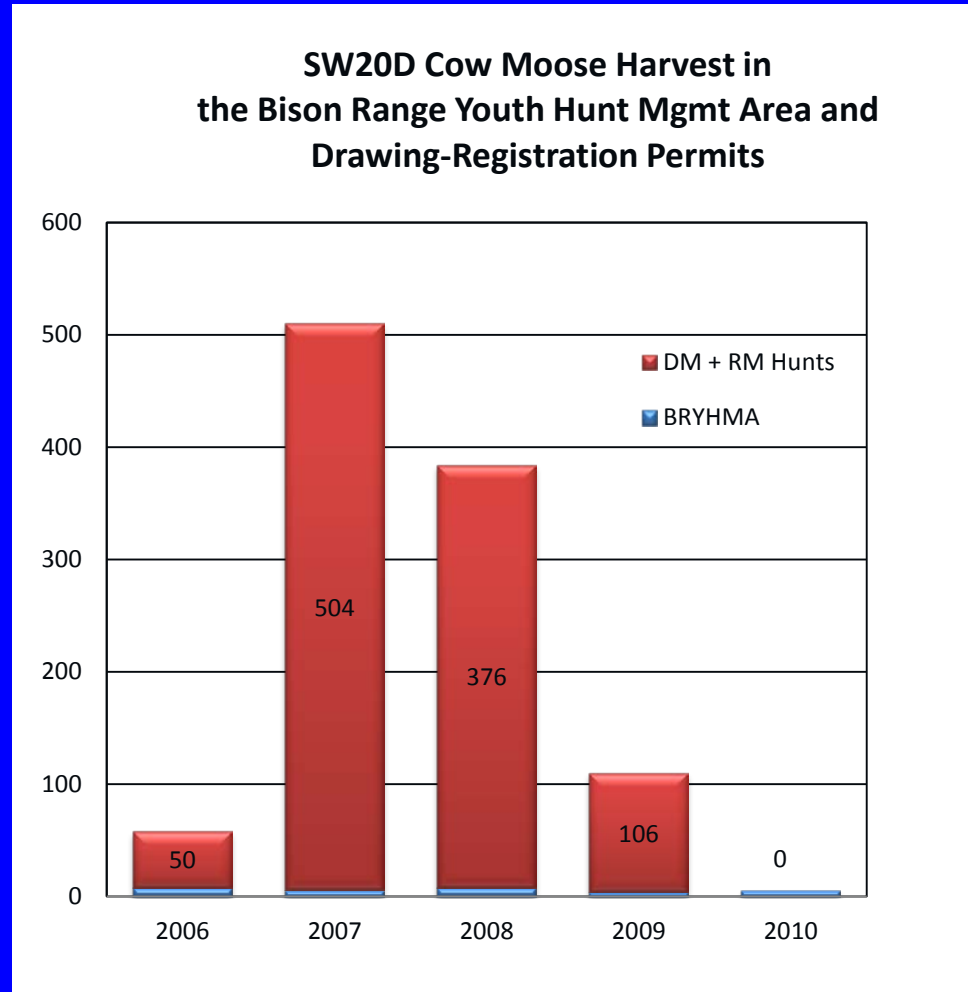
Unit 20D Population Size & Trend

- Unit 20D moose pop increased 1995-2006 & then started planned decline with cow hunting (without calves)
- Last Northern 20D est. is 2004 @ 1,929 moose
 - N20D is likely increasing with recent large burns & Fortymile predator control
- 2010 Southern20D est = 5,562 moose
 - 2.9 moose/mi²
- Unit 20D is likely meeting BOG population objective of 8,000-10,000 with most moose in the south



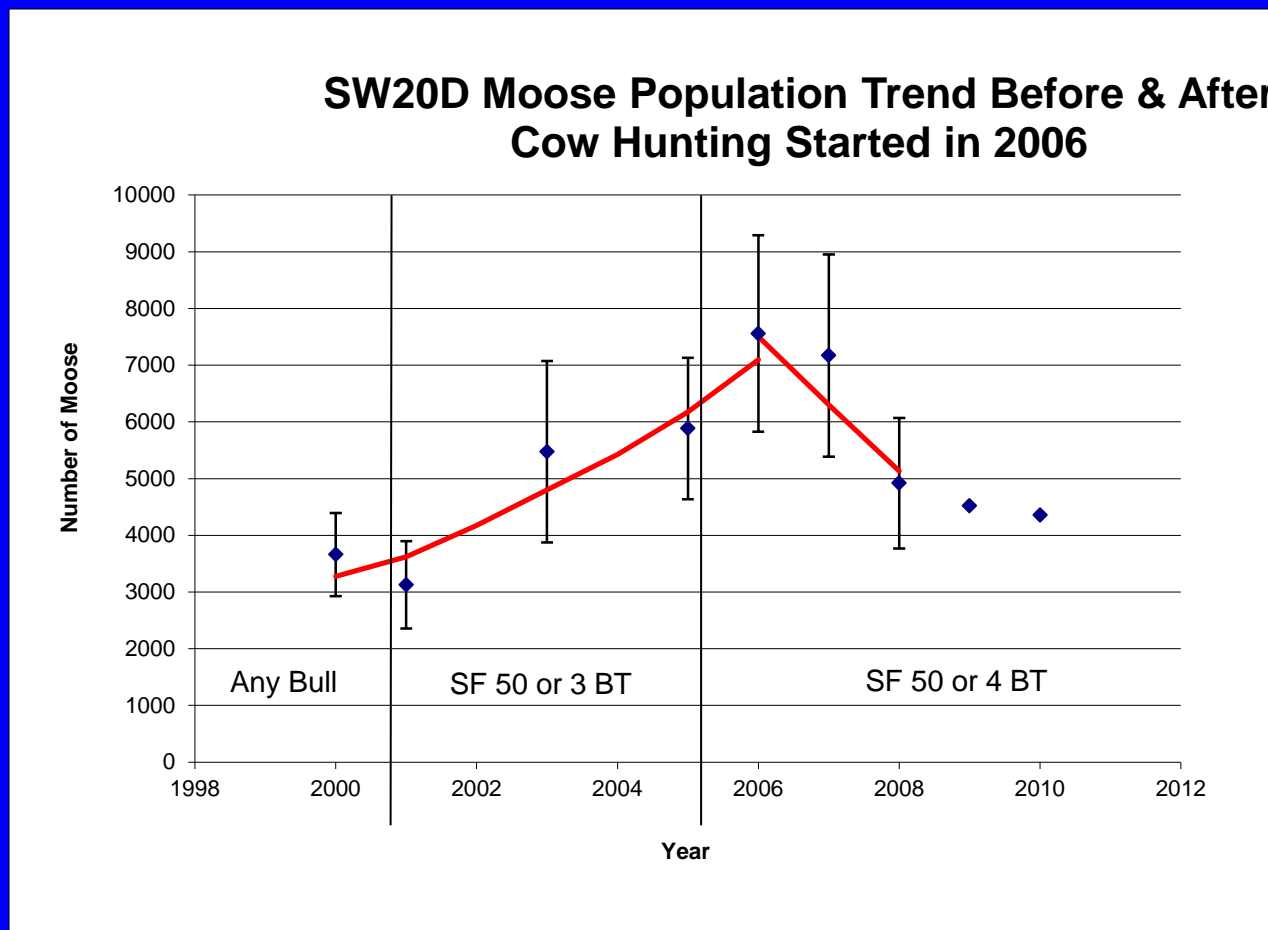
SW20D Cow Moose Harvest

- There were several indicators of nutritional stress in SW20D & cow hunting started in 2006
- 1,056 cow moose killed 2006-2009
- Goal was to reduce SW20D moose population & stabilize at a population level with twinning rates between 11-20%

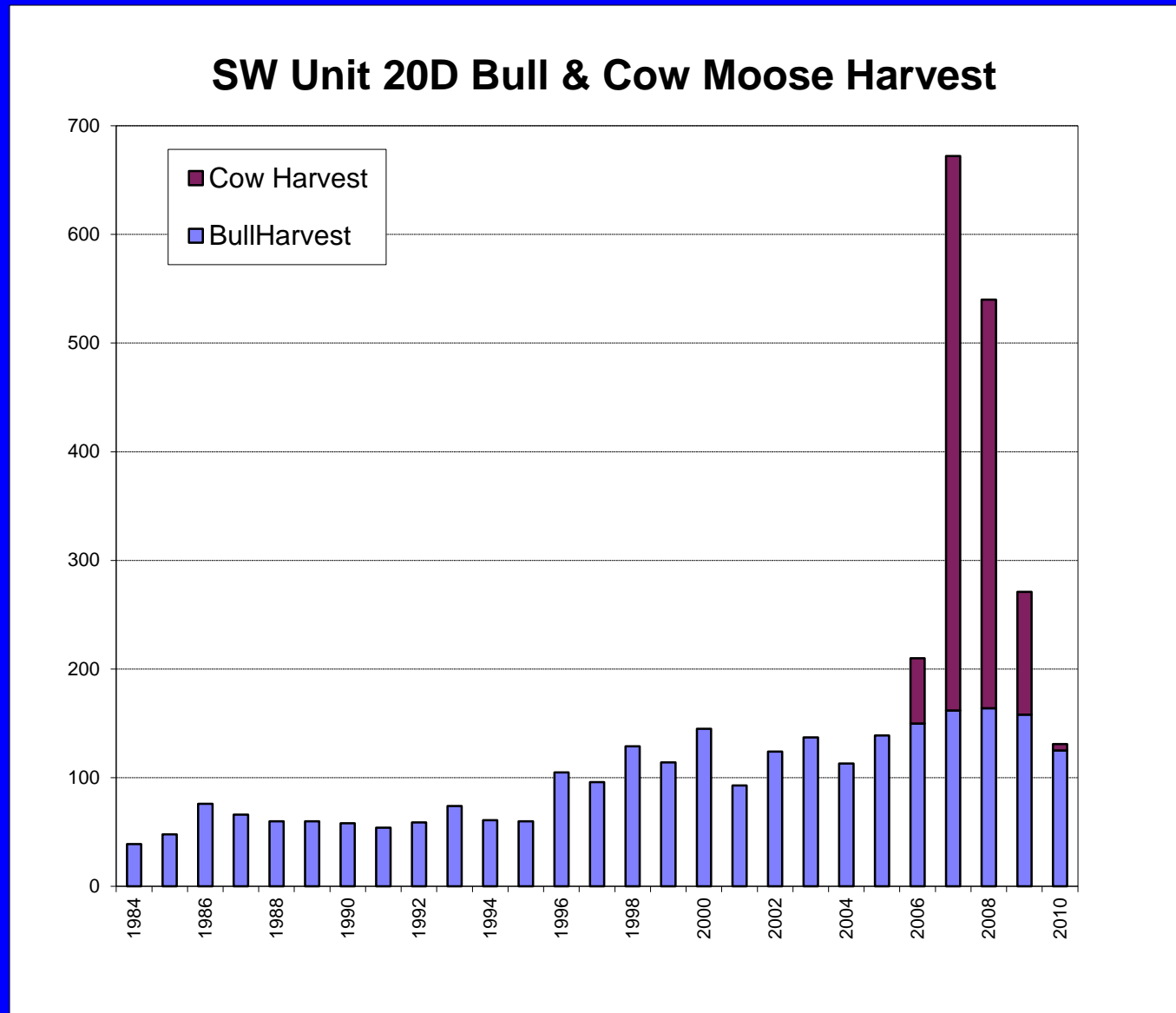


SW20D Population Size & Trend

- Will concentrate review on SW20D (south of Tanana & west of Johnson Rv)

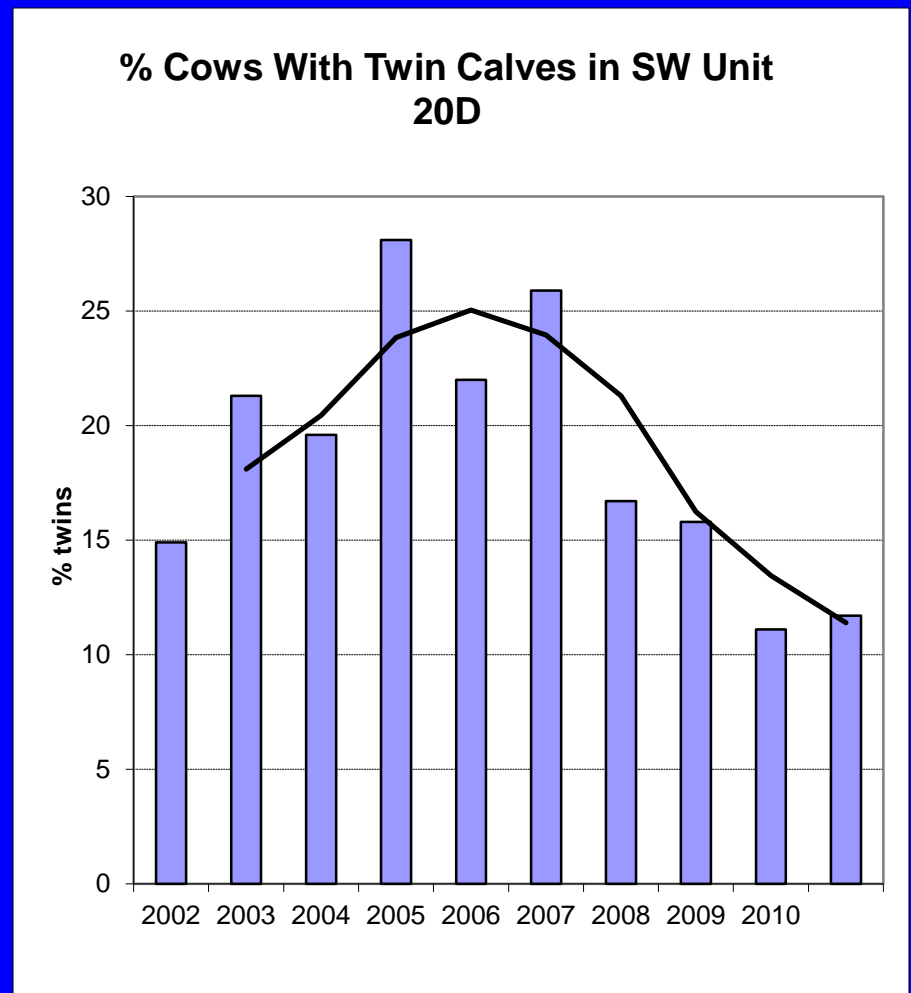


SW20D Bull + Cow Moose Harvest



SW20D Calf Twinning Surveys

Year	% Cows w twins	2 year average
2001	14.9	
2002	21.3	26
2003	19.6	21
2004	28.1	24
2005	22	25
2006	25.9	24
2007	16.7	21
2008	15.8	16
2009	11.1	13
2010	11.7	11



2-year average twinning = 11-20% indicates manage for a stable population

Calf Twinning Surveys

- We do not know how long it takes habitat quality to respond after a population reduction
- We do not know how long it takes twinning rates to respond to
 - Population reduction
 - Habitat response
 - Cow reproductive response



SW20D Data Summary

- 2010 Unit 20D population size $\geq 8,000$
 - Meets objective
- 2010 Unit 20D moose harvest = 230
 - Below objective
- 2010 Southern Unit 20D population size = 5,562 moose
 - Reduced from 8,764 a peak in 2006
- 2010 SW 20D population size = 4,355 moose
 - Reduced from 7,556 at peak in 2006
- 2010 SW20D 2-yr average twinning rate = 11.0%
- 2010 SW20D 2-yr average bull:cow ratio = 31.5%
- Calf weights low at average 340 lbs (AK interior range = 339-450)
- Browse survey = Overwinter browse removal reduced from 25.3% (2007) to 15.3% (2010)

Recommendations

- No change to general season moose regulations or drawing permit hunts including no cow moose hunting in 2011
- Manage for a population with twinning rates = 11-20%
 - No cow moose hunt unless 2-year twinning rates is ~ <10%
 - Maintaining authorization for cow moose hunts allows youth hunters in DM792 Bison Range Youth Hunt to continue shooting cow moose (ave. = 6.4/yr)
- Continue to monitor twinning rates
- Continue to measure population trend in Southern Unit 20D
- Repeat browse utilization survey in 3-5 years

Reauthorization of Unit 20D

Brown Bear Tag Exemption

- Harvest objective = 5-15 bears/yr
- Average kill/yr has increased since tag fees eliminated in 1994 as part of IM
- Unit 20D kill with \$25 tag 1987-1993 = 7.4 bears/yr
- Unit 20D kill when tag fees eliminated in 1994-2009 = 12.2/yr
- Harvest w/o tag fees meeting objective

