

# McGrath AC Meeting - ADF&G Updates

Jan 3<sup>rd</sup> ,2025

## ■ Topics

- Moose Harvest
  - RM650, RM835, 19C, Winter Hunts
- Moose Survey Update
- Unit 19 Moose Research Update
- 19C Sheep Update
- 2025 BOG Proposal Overview
- Farewell Bison Update
- Caribou Update



# Moose Harvest Update

## 19D East Hunter Effort

**Total Moose Hunters (19D 'East'): 2015-2024**

*Data preliminary and subject to change*

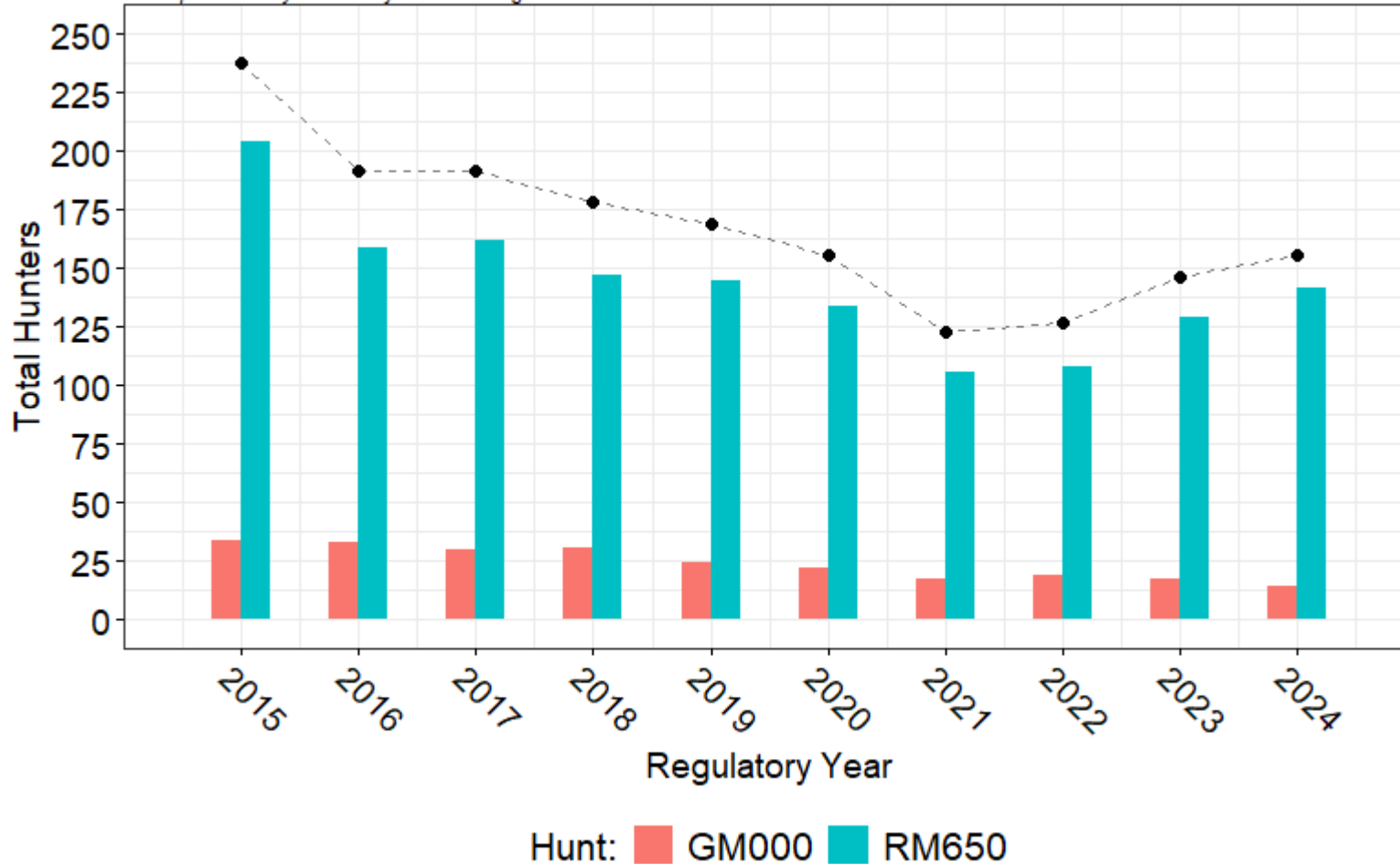


Table 1. 19D East Hunter Effort

<i>Reg Year</i>	<i>Total Hunters</i>	<i>Percent RM650</i>	<i>Percent GM000</i>
2015	238	86%	14%
2016	192	83%	17%
2017	192	84%	16%
2018	178	83%	17%
2019	169	86%	14%
2020	156	86%	14%
2021	123	86%	14%
2022	127	85%	15%
2023	146	88%	12%
2024	156	91%	09%
<i>Avg.</i>	<i>168</i>	<i>86%</i>	<i>14%</i>

# Moose Harvest Update

## 19D East RM650 Hunter Effort

**Total RM650 Moose Hunters (19D 'East'): 2015-2024**

*Data preliminary and subject to change*

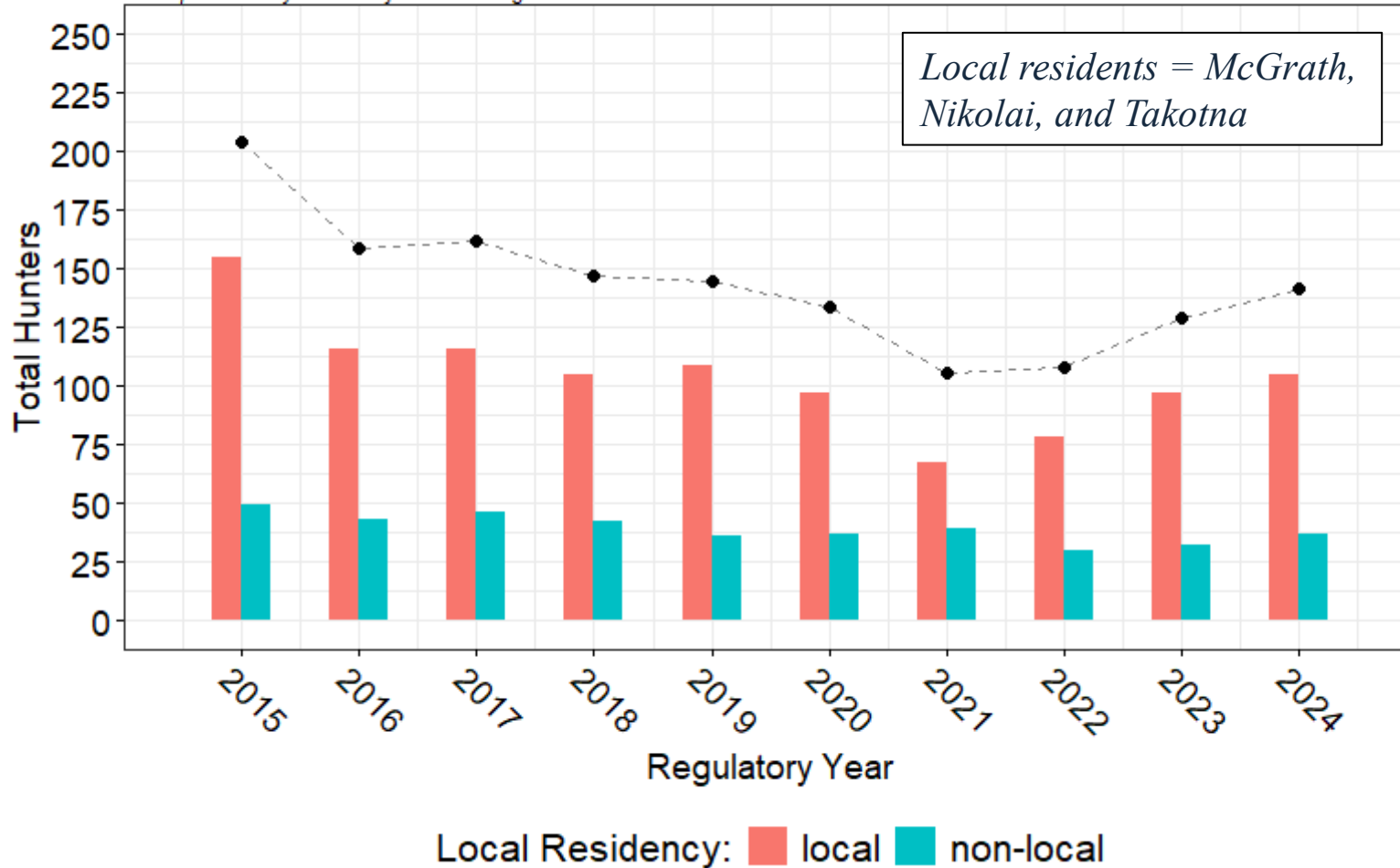


Table 1. RM650 Hunter Effort

Reg Year	Total RM650 Hunters	Percent Local	Percent Non-local
2015	204	76%	24%
2016	159	73%	27%
2017	162	72%	28%
2018	147	71%	29%
2019	145	75%	25%
2020	134	72%	28%
2021	106	63%	37%
2022	108	72%	28%
2023	129	75%	25%
2024	142	74%	26%
<i>Avg.</i>	<i>144</i>	<i>72%</i>	<i>28%</i>

# Moose Harvest Update

## 19D East RM650 Harvest

**Total RM650 Harvest (19D 'East'): 2015-2024**

*Data preliminary and subject to change*

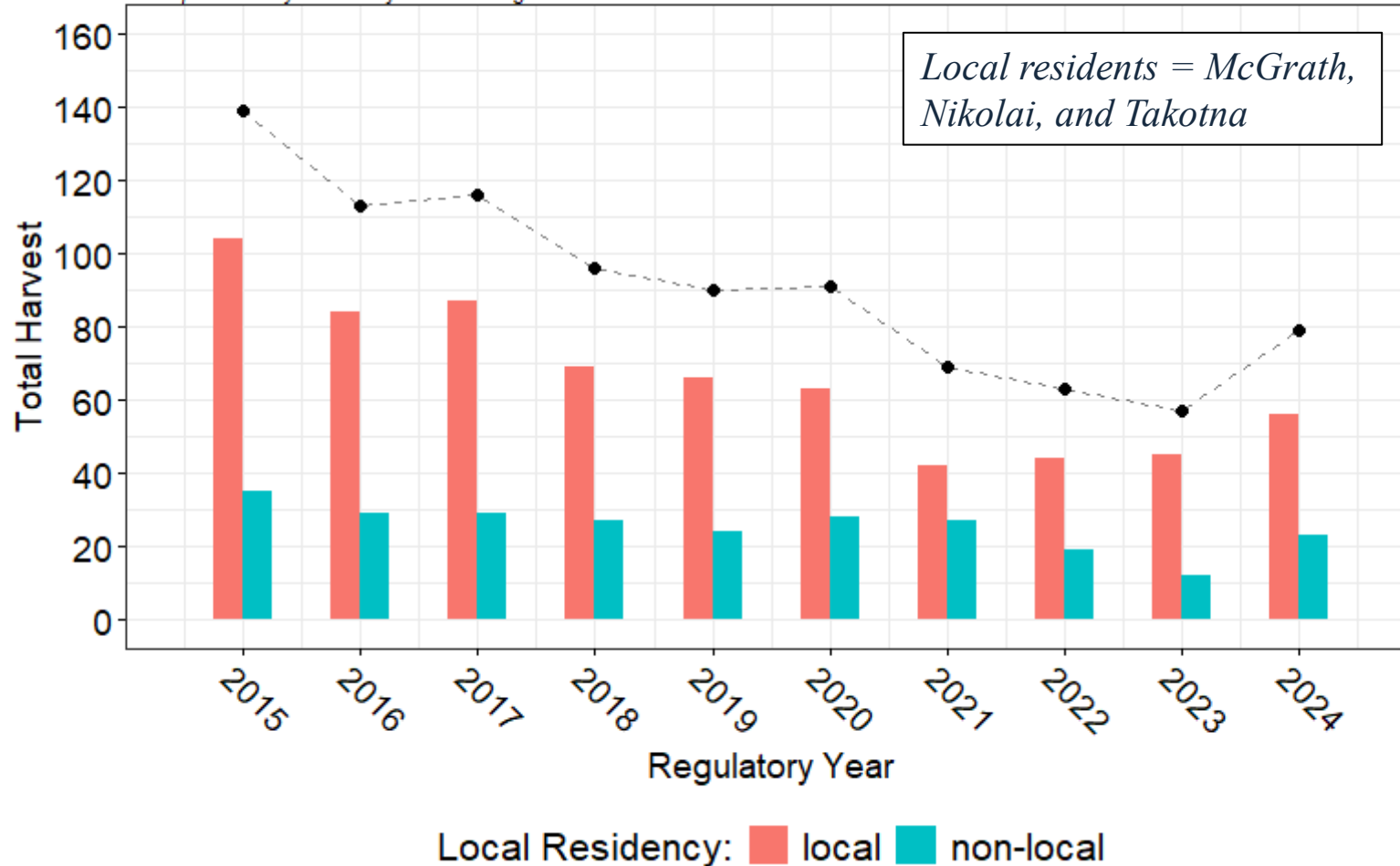


Table 1. RM650 Harvest by Local Residency

Reg Year	Total RM650 Harvest	Percent of Total Harvest by Locals	Percent of Total Harvest by Non-locals
2015	139	75%	25%
2016	113	74%	26%
2017	116	75%	25%
2018	96	72%	28%
2019	90	73%	27%
2020	91	69%	31%
2021	69	61%	39%
2022	63	70%	30%
2023	57	79%	21%
2024	79	71%	29%
<i>Avg.</i>	<i>91.3</i>	<i>72%</i>	<i>28%</i>

# Moose Harvest Update

## 19D East RM650 Harvest

**RM650 Hunter Success Rate (19D 'East'): 2015-2024**

*Data preliminary and subject to change*

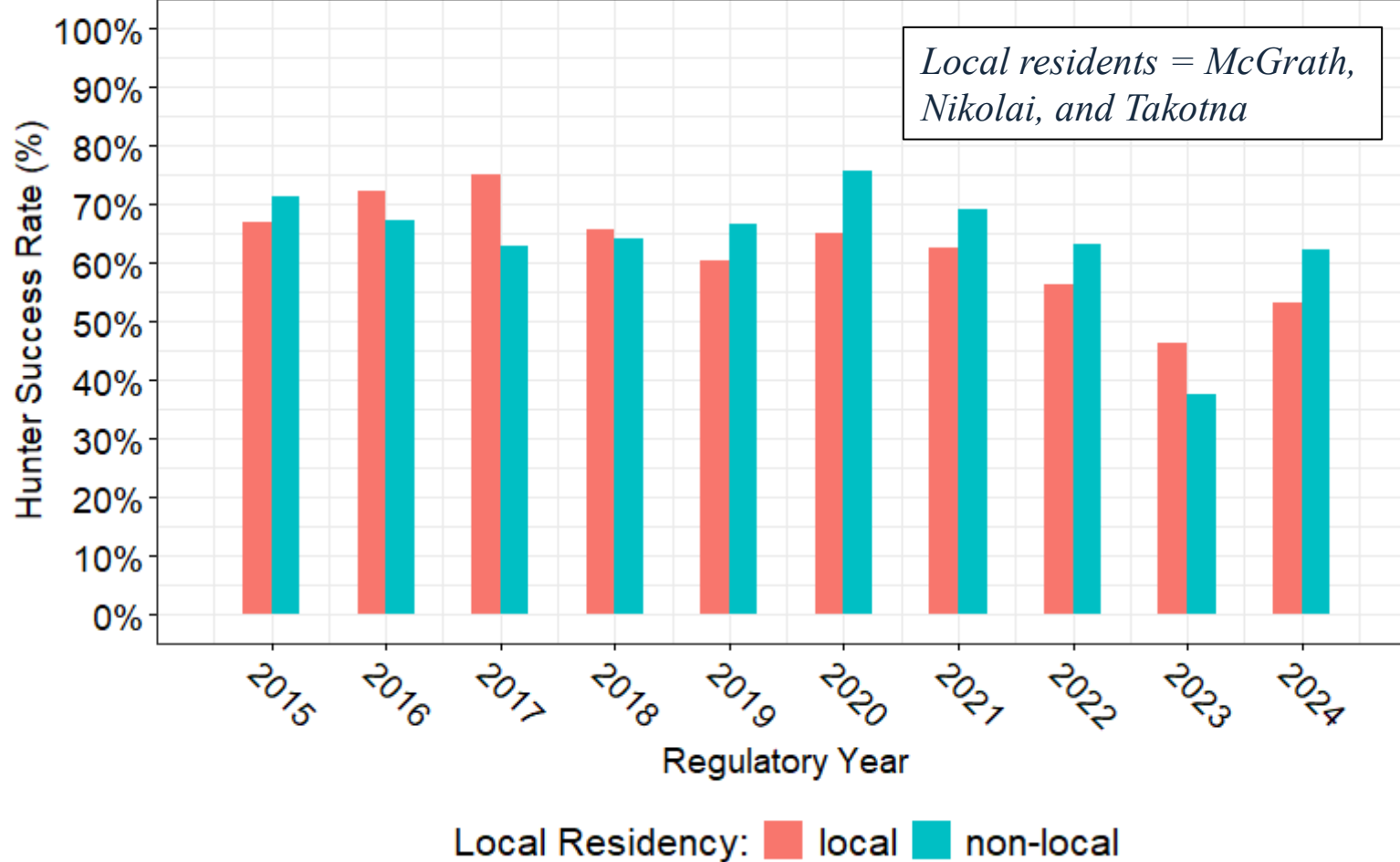


Table 1. RM650 Success Rate by Local Residency

<i>Reg Year</i>	<i>Overall Success Rate</i>	<i>Locals Success Rate</i>	<i>Non-locals Success Rate</i>
2015	68%	67%	71%
2016	71%	72%	67%
2017	72%	75%	63%
2018	65%	66%	64%
2019	62%	61%	67%
2020	68%	65%	76%
2021	65%	63%	69%
2022	58%	56%	63%
2023	44%	46%	38%
2024	56%	53%	62%
<i>Avg.</i>	<i>63%</i>	<i>62%</i>	<i>64%</i>

# Moose Harvest Update

## 19D East 'Harvest Ticket' Hunter Effort

**Total Harvest Ticket Moose Hunters (19D 'East'): 2015-2024**

*Data preliminary and subject to change*

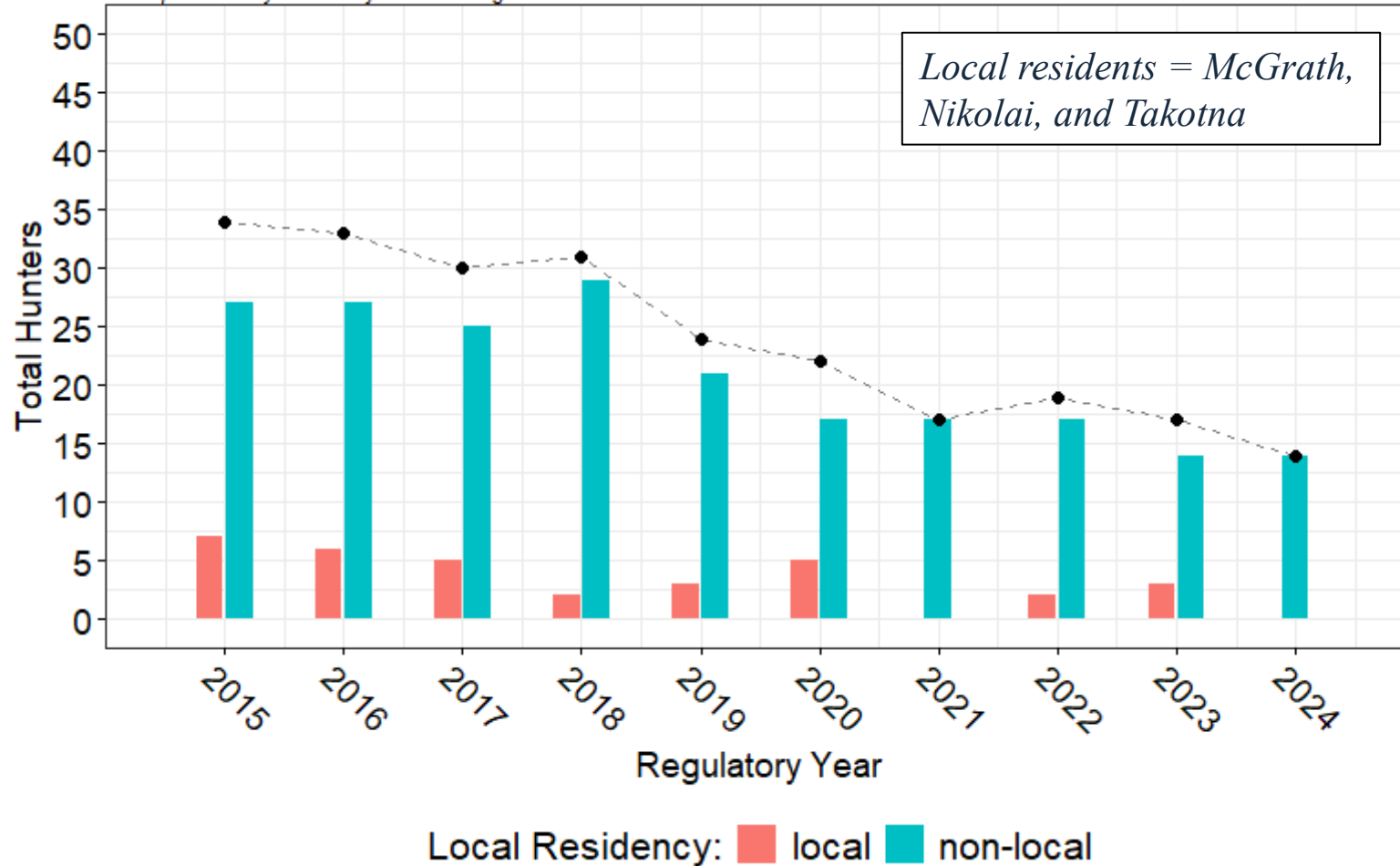


Table 1. Harvest Ticket Hunter Effort

<i>Reg Year</i>	<i>Total Hunters</i>	<i>Percent Local</i>	<i>Percent Non-local</i>
2015	34	21%	79%
2016	33	18%	82%
2017	30	17%	83%
2018	31	06%	94%
2019	24	12%	88%
2020	22	23%	77%
2021	17	0%	100%
2022	19	11%	89%
2023	17	18%	82%
2024	14	0%	100%

<i>Avg.</i>	<i>24</i>	<i>13%</i>	<i>87%</i>
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# Moose Harvest Update

## 19D East 'Harvest Ticket' Harvest

**Total 'Harvest Ticket' Moose Harvest (19D 'East'): 2015-2024**

*Data preliminary and subject to change*

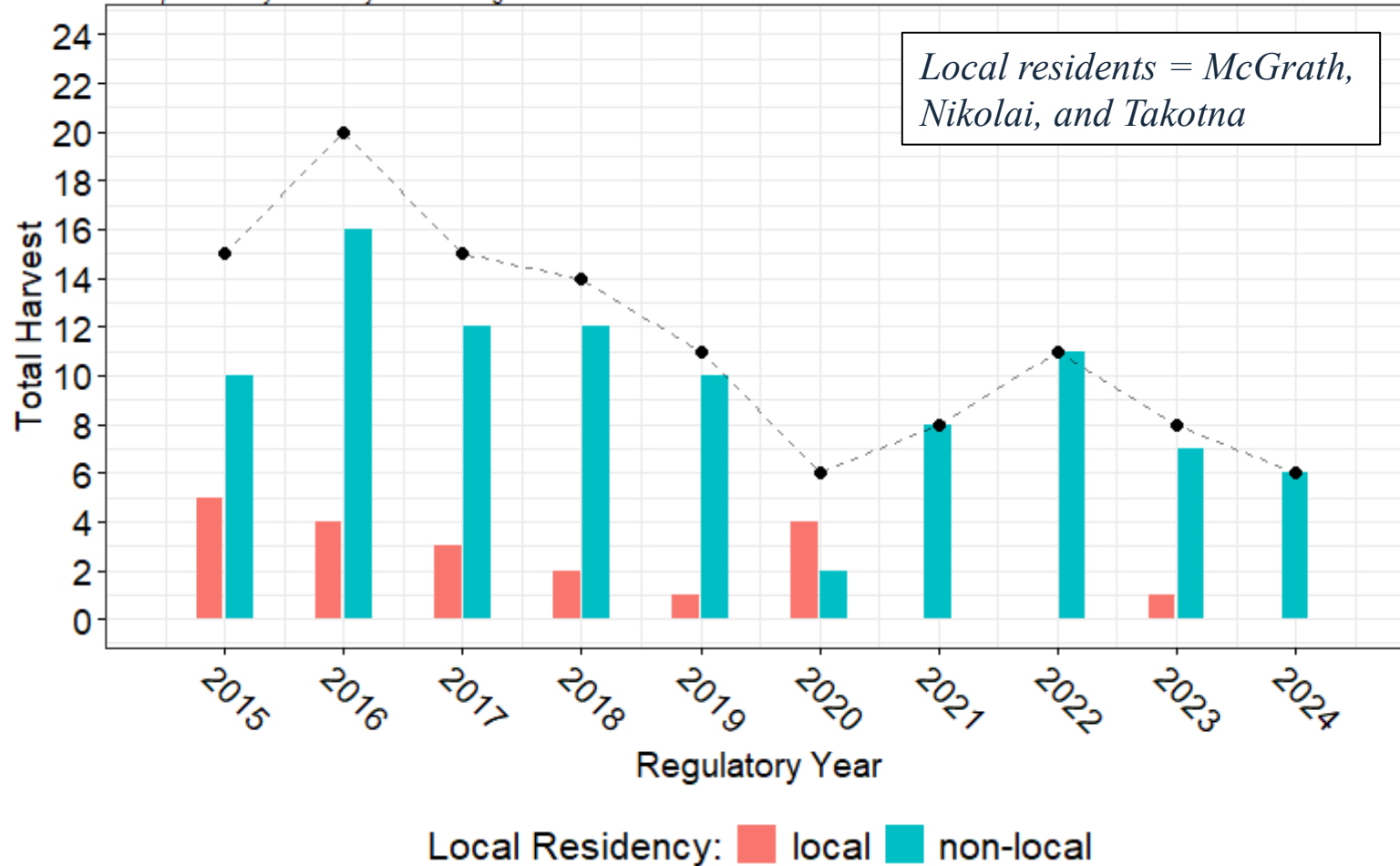


Table 1. Harvest Ticket Harvest by Local Residency

Reg Year	Total HT Harvest	Percent of Total Harvest by Locals	Percent of Total Harvest by Non-locals
2015	15	33%	67%
2016	20	20%	80%
2017	15	20%	80%
2018	14	14%	86%
2019	11	9%	91%
2020	6	67%	33%
2021	8	0%	100%
2022	11	0%	100%
2023	8	12%	88%
2024	6	0%	100%
<i>Avg.</i>	<i>11.4</i>	<i>18%</i>	<i>82%</i>

# Moose Harvest Update

## 19D East 'Harvest Ticket' Harvest

**'Harvest Ticket' Hunter Success Rate (19D 'East'): 2015-2024**

*Data preliminary and subject to change*



Table 1. Harvest Ticket Success Rate

Reg Year	Overall Success Rate	Local Success Rate	Non-local Success Rate
2015	44%	71%	37%
2016	61%	67%	59%
2017	50%	60%	48%
2018	45%	100%	41%
2019	46%	33%	48%
2020	27%	80%	12%
2021	47%	-	47%
2022	58%	0%	65%
2023	47%	33%	50%
2024	43%	-	43%
<i>Avg.</i>	<i>47%</i>	<i>56%</i>	<i>45%</i>

# Moose Harvest Update

## RM835 (GMU 21A) Hunter Effort & Harvest Data

Table 1. RM835 Hunter Effort

<i>Reg Year</i>	<i>Total Hunters</i>	<i>Percent AK Resident</i>	<i>Percent Non-resident</i>
2020	142	42%	58%
2021	181	31%	69%
2022	149	17%	83%
2023	193	26%	74%
2024	160	20%	80%
<i>Avg.</i>	<i>165</i>	<i>27%</i>	<i>73%</i>



# Moose Harvest Update

## RM835 (GMU 21A) Hunter Effort & Harvest Data

Table 1. RM835 Hunter Effort

<i>Reg Year</i>	<i>Total Hunters</i>	<i>Percent AK Resident</i>	<i>Percent Non-resident</i>
2020	142	42%	58%
2021	181	31%	69%
2022	149	17%	83%
2023	193	26%	74%
2024	160	20%	80%
<i>Avg.</i>	<i>165</i>	<i>27%</i>	<i>73%</i>

Table 2. RM835 Harvest & Success Rates by Residency

<i>Reg Year</i>	<i>Total Harvest</i>	<i>Percent of Total Harvest Residents</i>	<i>Percent of Total Harvest Non-residents</i>	<i>Success Rate Residents</i>	<i>Success Rate Non-residents</i>
2020	79	38%	62%	50%	60%
2021	102	29%	71%	53%	58%
2022	77	17%	83%	50%	52%
2023	64	19%	81%	24%	36%
2024	85	15%	85%	41%	56%
<i>Avg.</i>	<i>81</i>	<i>24%</i>	<i>76%</i>	<i>44%</i>	<i>53%</i>

# Moose Harvest Update

## 19C Hunter Effort

**Total Moose Hunters (19C): 2015-2024**

*Data preliminary and subject to change*

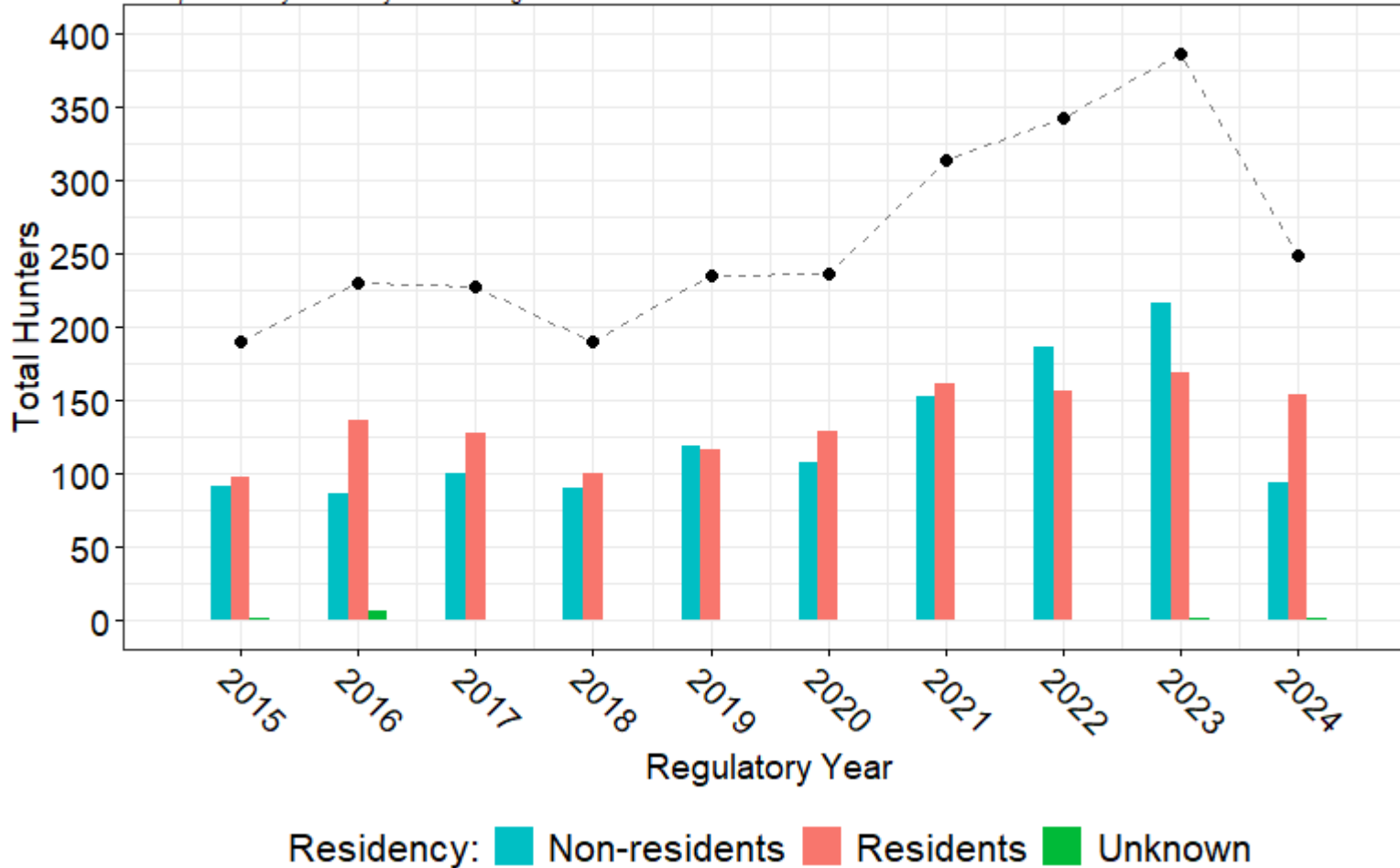


Table 1. Hunter Effort

<i>Reg Year</i>	<i>Total Hunters</i>	<i>Percent AK Resident</i>	<i>Percent Non-resident</i>
2015	190	52%	48%
2016	230	59%	38%
2017	228	56%	44%
2018	190	53%	47%
2019	236	50%	50%
2020	237	54%	46%
2021	314	51%	49%
2022	343	45%	55%
2023	387	44%	56%
2024	249	62%	38%
<i>Avg.</i>	<i>260</i>	<i>53%</i>	<i>47%</i>

# Moose Harvest Update

## 19C Harvest Trend

**Total Moose Harvest (19C): 2015-2024**

*Data preliminary and subject to change*

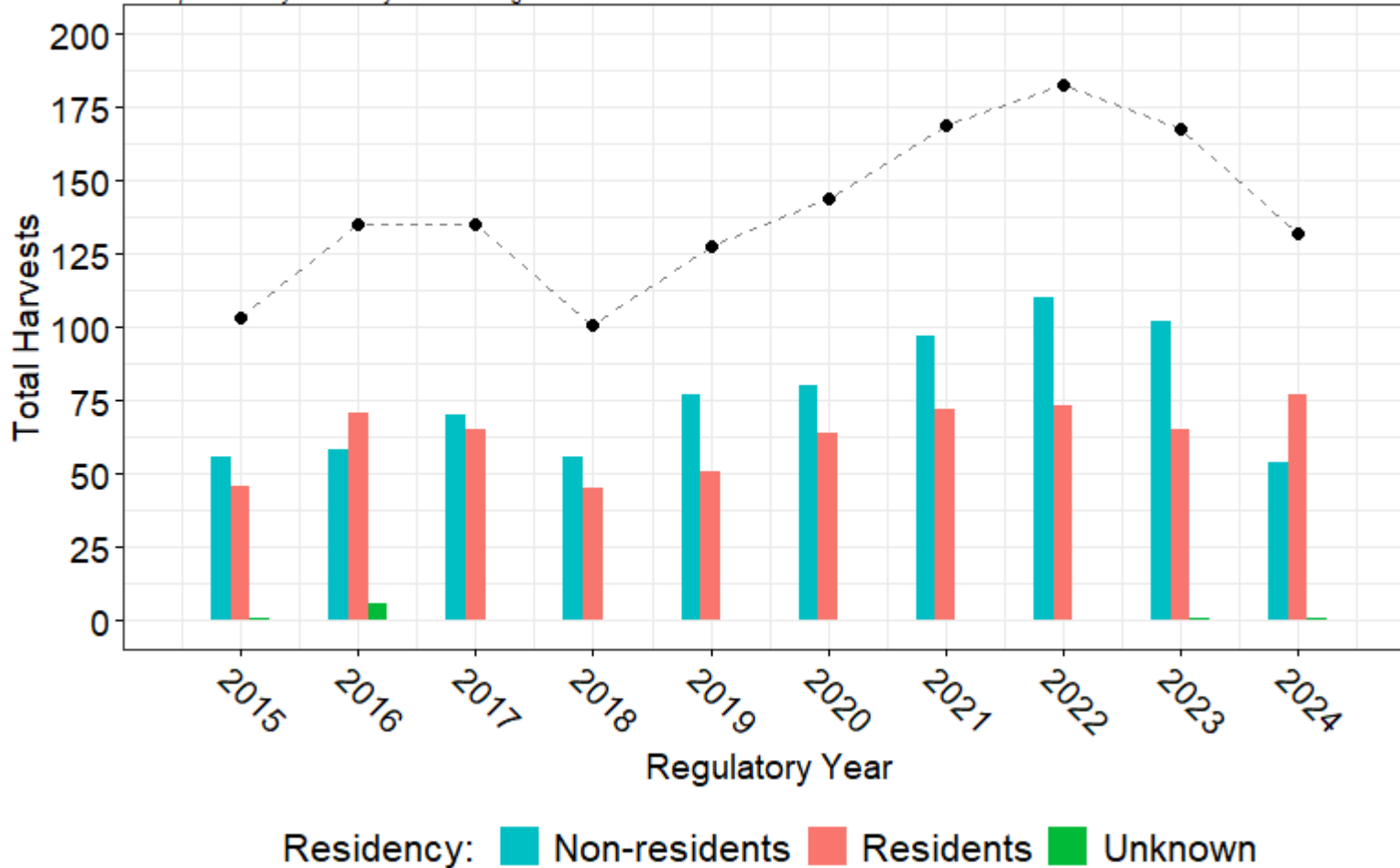


Table 1. Reported Harvest

<i>Reg Year</i>	<i>Total Harvest</i>	<i>Percent of Total Harvest Residents</i>	<i>Percent of Total Harvest Non-residents</i>
2015	103	45%	54%
2016	135	53%	43%
2017	135	48%	52%
2018	101	45%	55%
2019	128	40%	60%
2020	144	44%	56%
2021	169	43%	57%
2022	183	40%	60%
2023	168	39%	61%
2024	132	58%	41%
<i>Avg.</i>	<i>140</i>	<i>45%</i>	<i>54%</i>

# Moose Harvest Update

## Breakdown of RM653 & New DM667 (Farewell)

<i>Reg Year</i>	<i>Total Hunters</i>			<i>Total</i>
	<i>RM653</i>		<i>DM667</i>	
	<i>Resident</i>	<i>Non-resident</i>	<i>Non-resident</i>	
2020	91	50	-	141
2021	109	84	-	193
2022	106	92	-	198
2023	105	109	-	214
2024	100	-	14	114

# Moose Harvest Update

## Winter Hunts

Table 1. RM660

<i>Reg Year</i>	<i>Total Hunters</i>	<i>Total Harvest</i>	<i>Success Rate</i>	<i>Percent Harvest to Local Residents</i>
2020	6	3	50%	67%
2021	13	12	92	83%
2022	18	13	72	62%
2023	0	-	-	-
<i>Avg.</i>	<i>12.3</i>	<i>9.3</i>	<i>71.3%</i>	<i>70.6%</i>

Table 2. RM655

<i>Reg Year</i>	<i>Total Hunters</i>	<i>Total Harvest</i>	<i>Success Rate</i>	<i>Percent Harvest to Local Residents</i>
2015	1	0	0%	-
2016	4	3	75%	100%
2017	2	0	0%	-
2018	1	1	100%	100%
2019	0	0	-	-
2020	0	0	-	-
2021	0	0	-	-
2022	0	0	-	-
2023	7	0	0%	-
<i>Avg.</i>	<i>&lt;2</i>	<i>&lt;1</i>	<i>35%</i>	<i>100%</i>

# Moose Survey Update

## 2024 Post-Hunting Season Composition Surveys:

	<u>Calves:100 Cows</u>	<u>Bulls:100 Cows</u>
■ 19C – Farewell -----	17:100	25:100
■ 19A – Aniak -----	35:100	13:100
■ 19E – Holitna/Hoholitna ----	29:100	44:100
■ 21A – Innoko -----	63:100	27:100
■ 21E – Lower Yukon -----	41:100	33:100
■ 21E GPSE Population Survey Planned for Feb/Mar 2025		

# Moose Research Update

## Ongoing: 19D Bull Moose:

- Captured an additional 16 moose after hunting season.
- Total of 38 moose on the air
- Monitoring when animals drop antlers to help inform survey timing
- Looking at movements and space-use relative to hunting seasons and survey timing (do we hunt what we count?)

## New: 19C Cow Moose:

- Captured 25 adult cow moose out at Farewell
- Looking at movements, adult and calf survival, calving, habitat use

# Bull Moose Movement Data



Hypothetical moose GPS locations with lines connecting successive locations

GPS collars record data every 2 hours during Sept, Oct, and Nov.

# Bull Moose Movement Data



Hypothetical moose GPS locations with lines connecting successive locations

GPS collars record data every 2 hours during Sept, Oct, and Nov.

Centerline of major navigable rivers used by hunters

# Bull Moose Movement Data



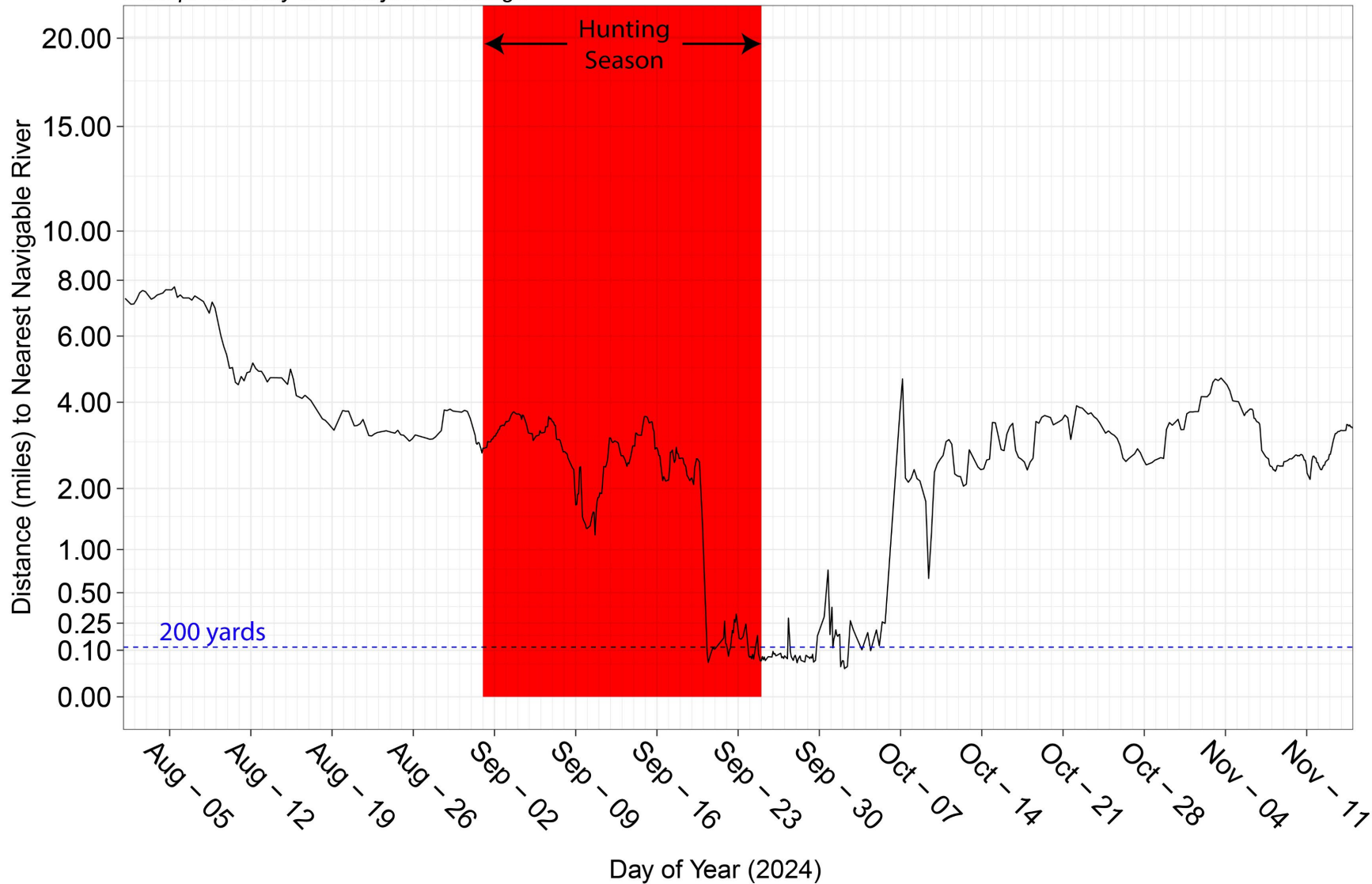
Calculate the distance from the nearest navigable river...a proxy for accessibility of moose by hunters

Allows us to visualize moose over time as a function of distance from the major navigable rivers (Kuskokwim, Takotna, Nixon Fork, etc).

# Bull Moose Movement Data

## Accessibility of Bull Moose During Fall (ID=BM034; RegYear==2024)

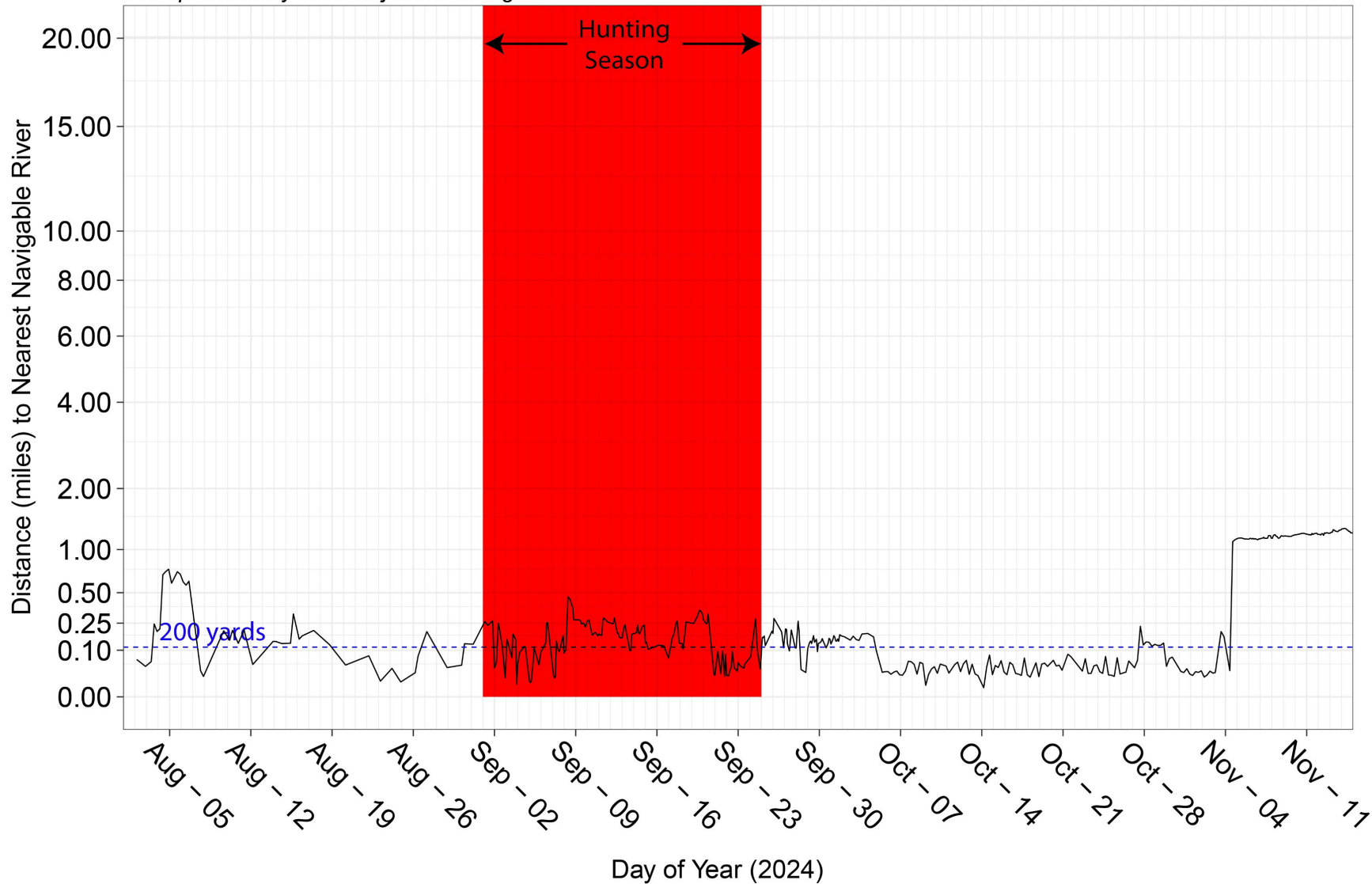
Data preliminary and subject to change



# Bull Moose Movement Data

## Accessibility of Bull Moose During Fall (Bull BM028; RegYear==2024)

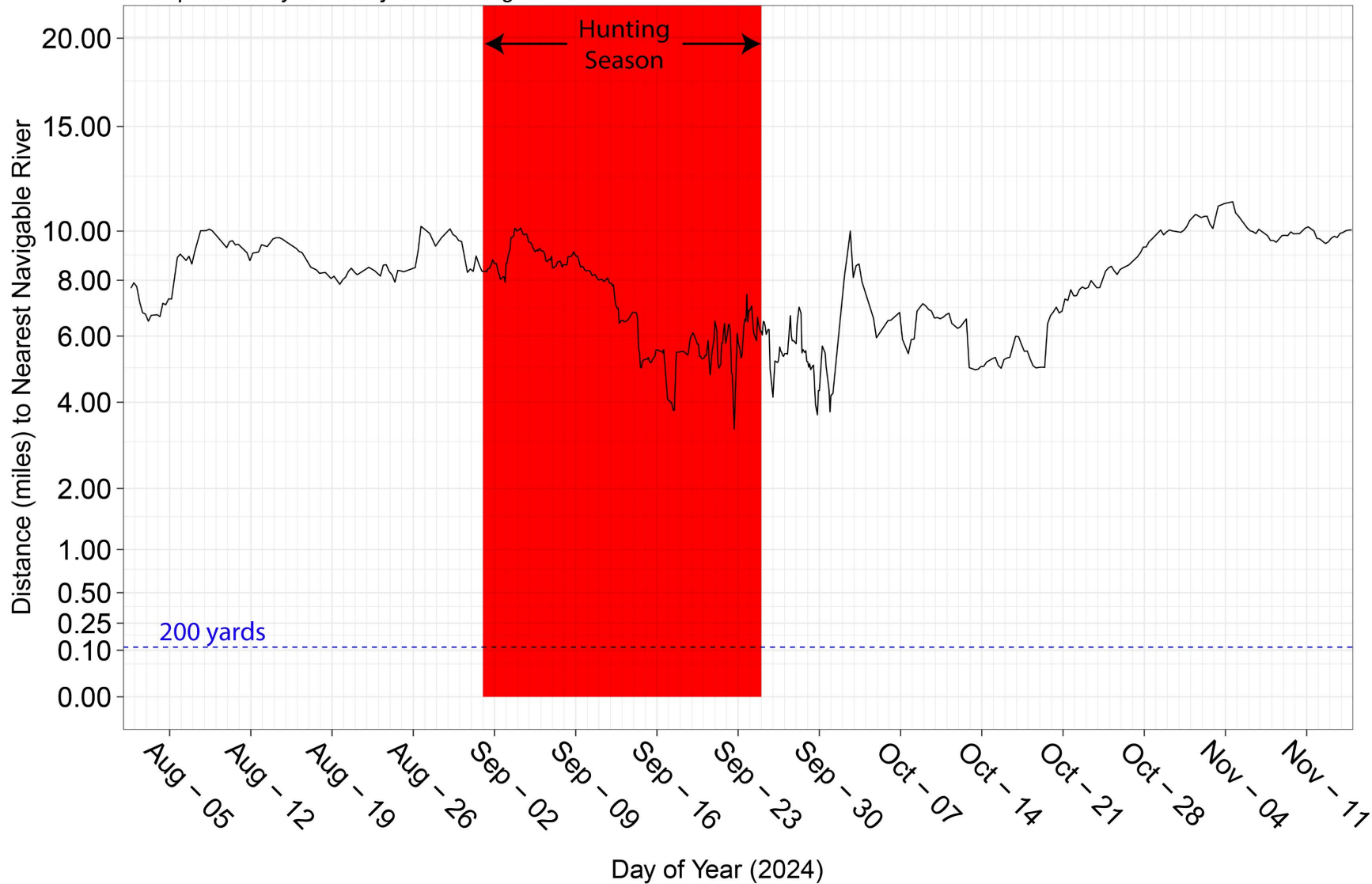
Data preliminary and subject to change



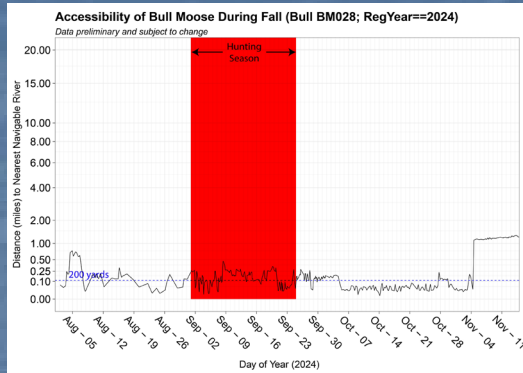
# Bull Moose Movement Data

## Accessibility of Bull Moose During Fall (Bull BM038; RegYear==2024)

Data preliminary and subject to change

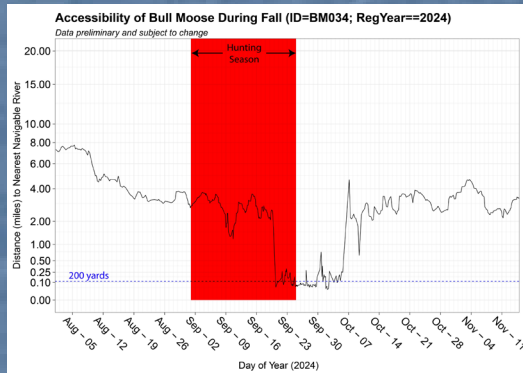


# Bull Moose Movement Data



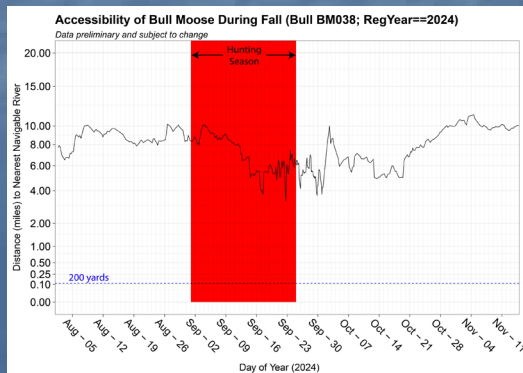
Always near navigable rivers during hunting season

10% of collared moose



Migrate to navigable rivers during hunting season

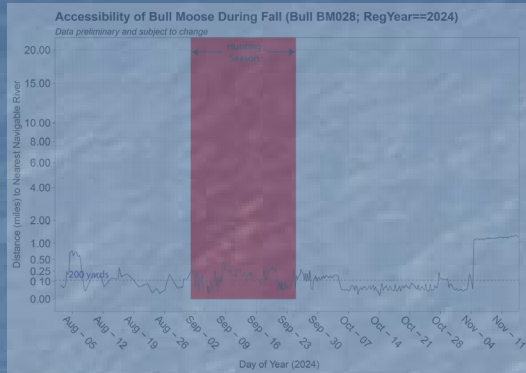
52% of collared moose



Never near navigable rivers during hunting season

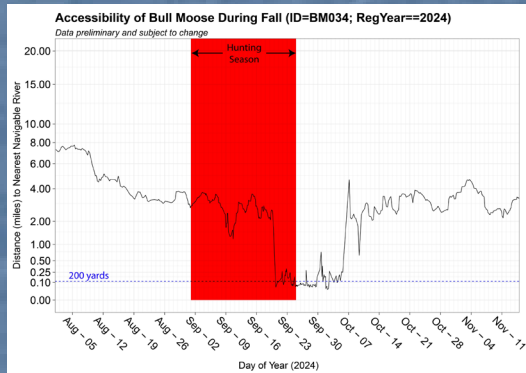
38% of collared moose

# Bull Moose Movement Data



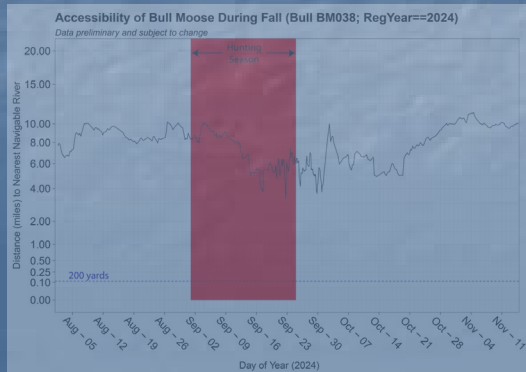
Always near navigable rivers during hunting season

10%



Migrate to navigable rivers during hunting season

52%



Never near navigable rivers during hunting season

38%

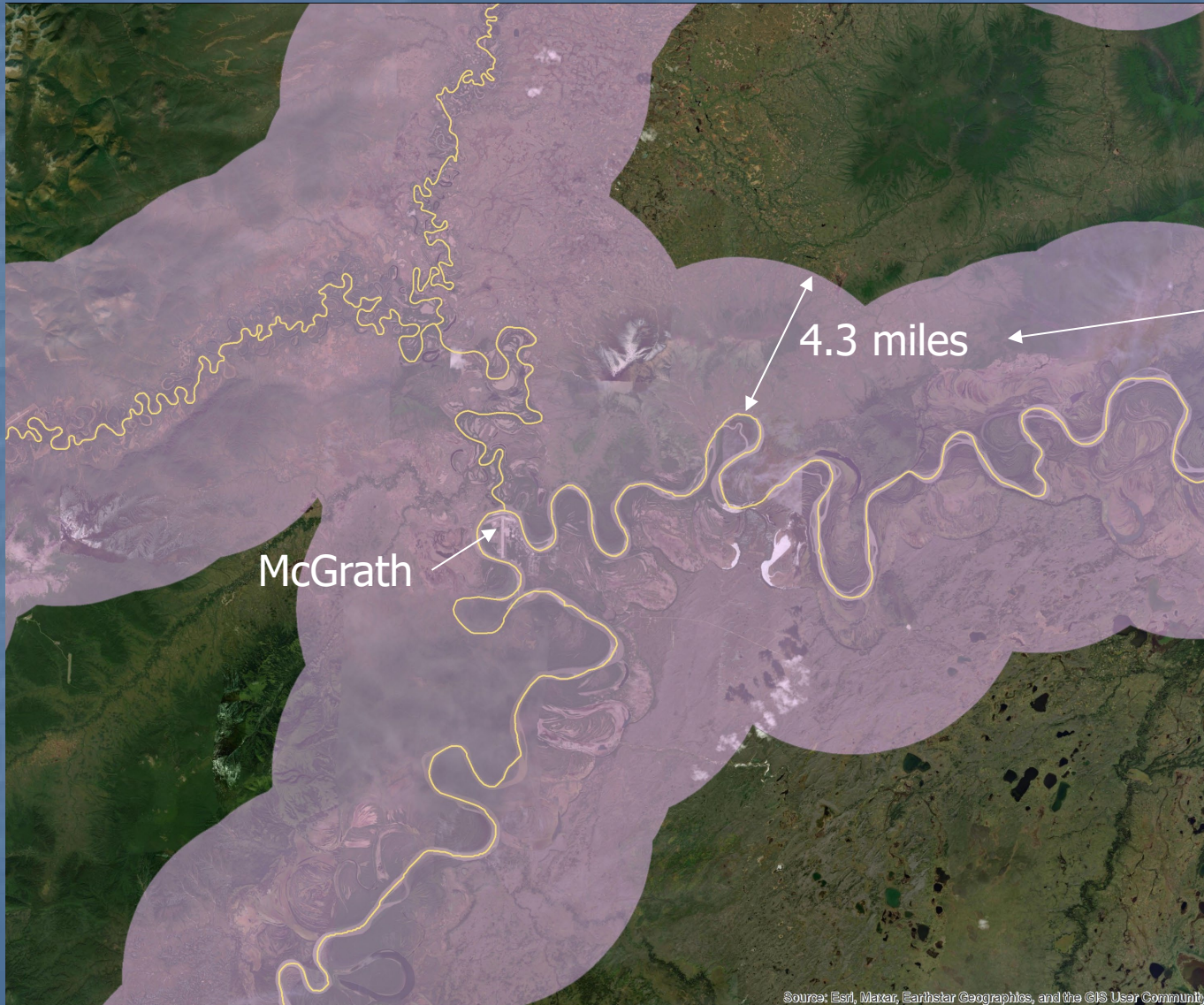
Distance from River in August:

Avg. = 4.3 miles  
Max. = 10.5 miles

Days in Sept <1 mile from river:

Avg. = 18 days  
Min. = 5 days  
Max. = 26 days

# Bull Moose Movement Data



Distance from River in August:

Avg. = 4.3 miles  
Max. = 10.5 miles

Days in Sept <1 mile from river:

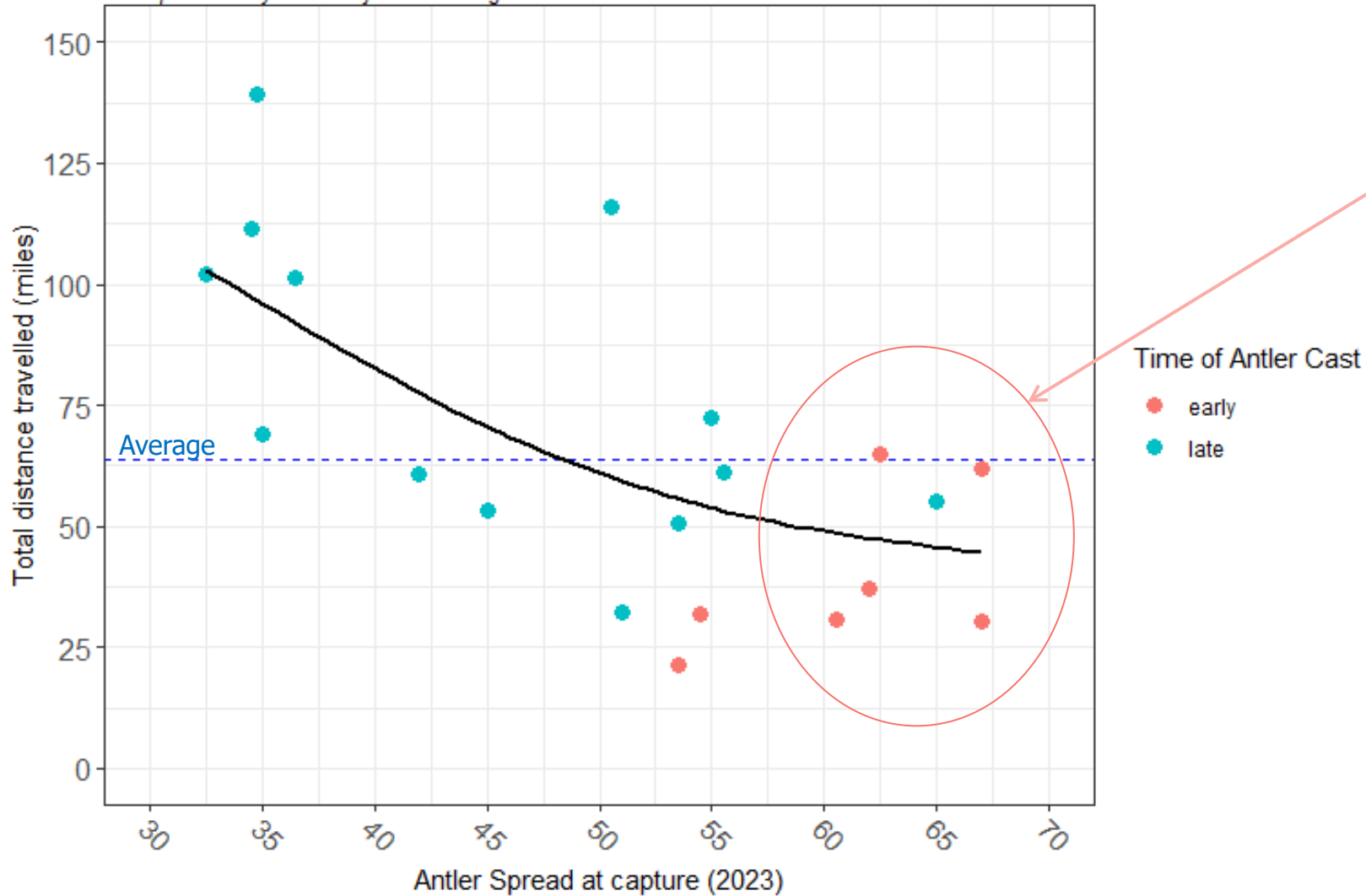
Avg. = 18 days  
Min. = 5 days  
Max. = 26 days

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

# Bull Moose Movement Data

Total Distance Travelled by Bull Moose During Fall; RegYear==2024)

Data preliminary and subject to change



Larger bulls (on average) cast antlers earlier

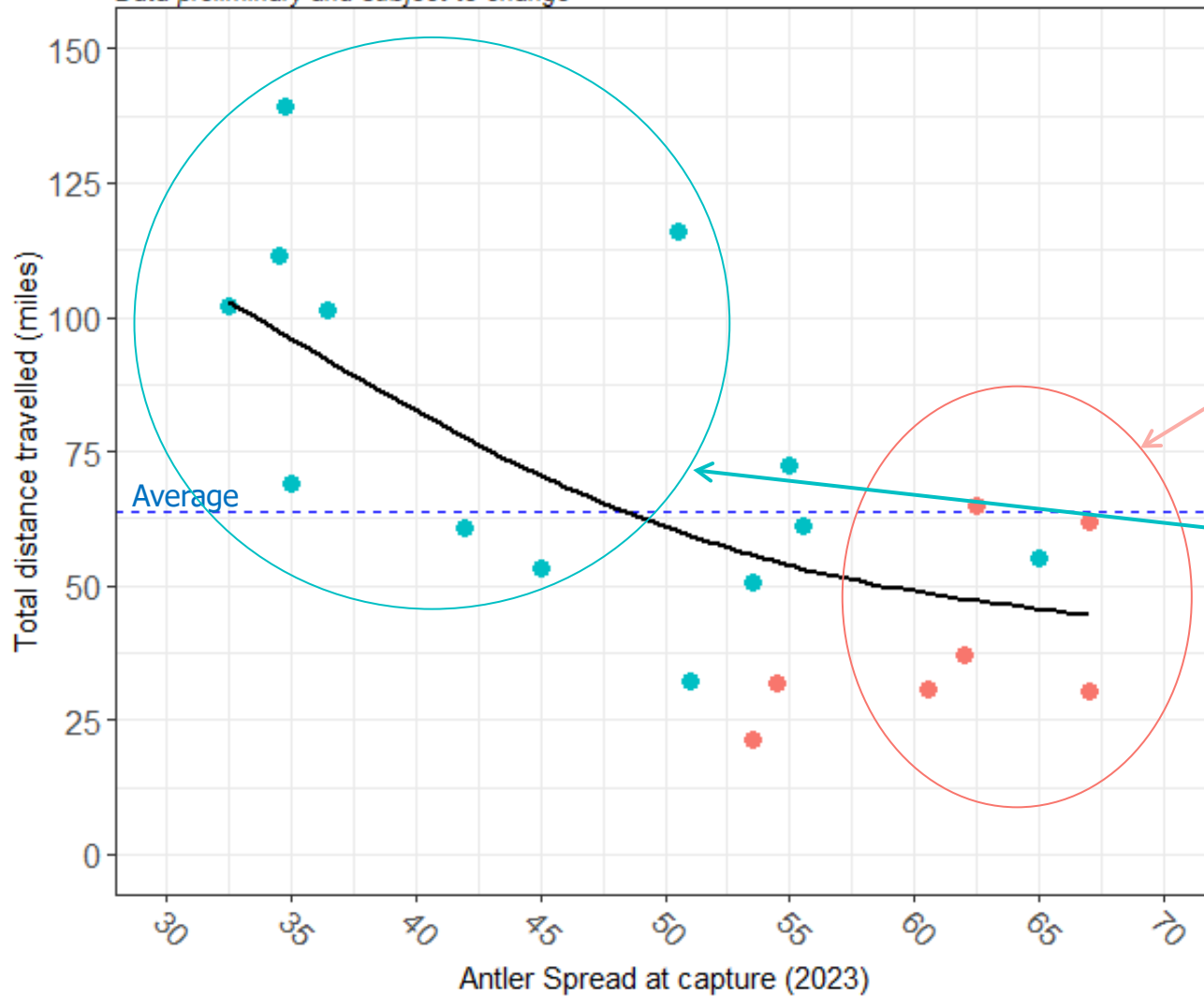
Time of Antler Cast

- early
- late

# Bull Moose Movement Data

Total Distance Travelled by Bull Moose During Fall; RegYear==2024)

Data preliminary and subject to change



Larger bulls (on average) cast antlers earlier

Smaller bulls tend to move more during mid-Sept & Early Oct.

# Bull Moose Antler Casting



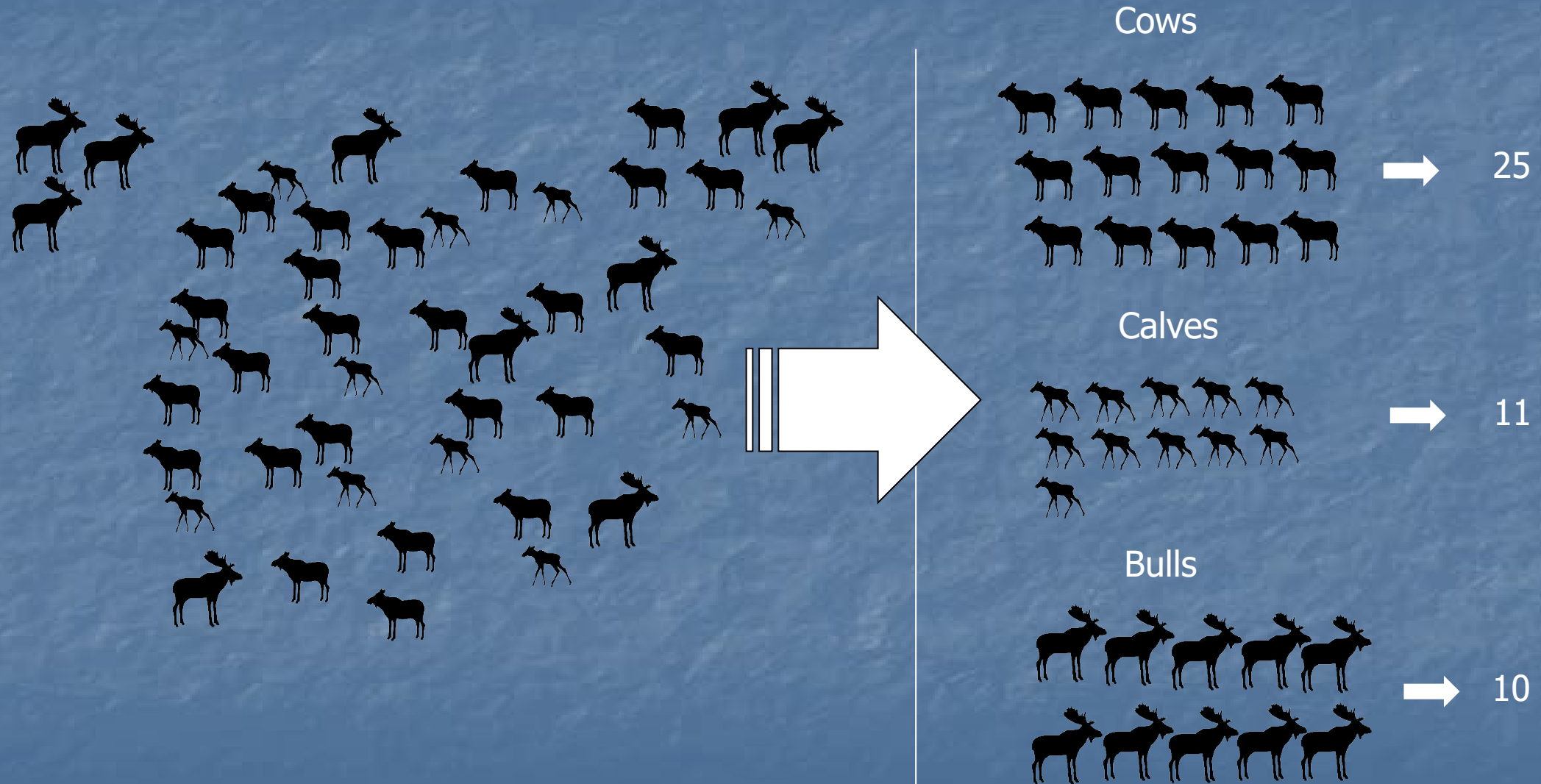
# Bull Moose Antler Casting



Important for timing of post-hunt composition surveys



# Bull Moose Antler Casting



# Bull Moose Antler Casting

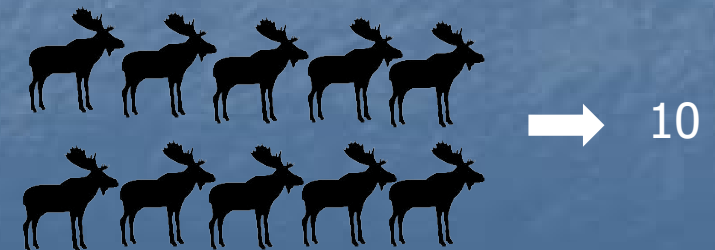
Calves:  $100 \text{ Cows} = (11/25) * 100 = 44$



Calves



Bulls

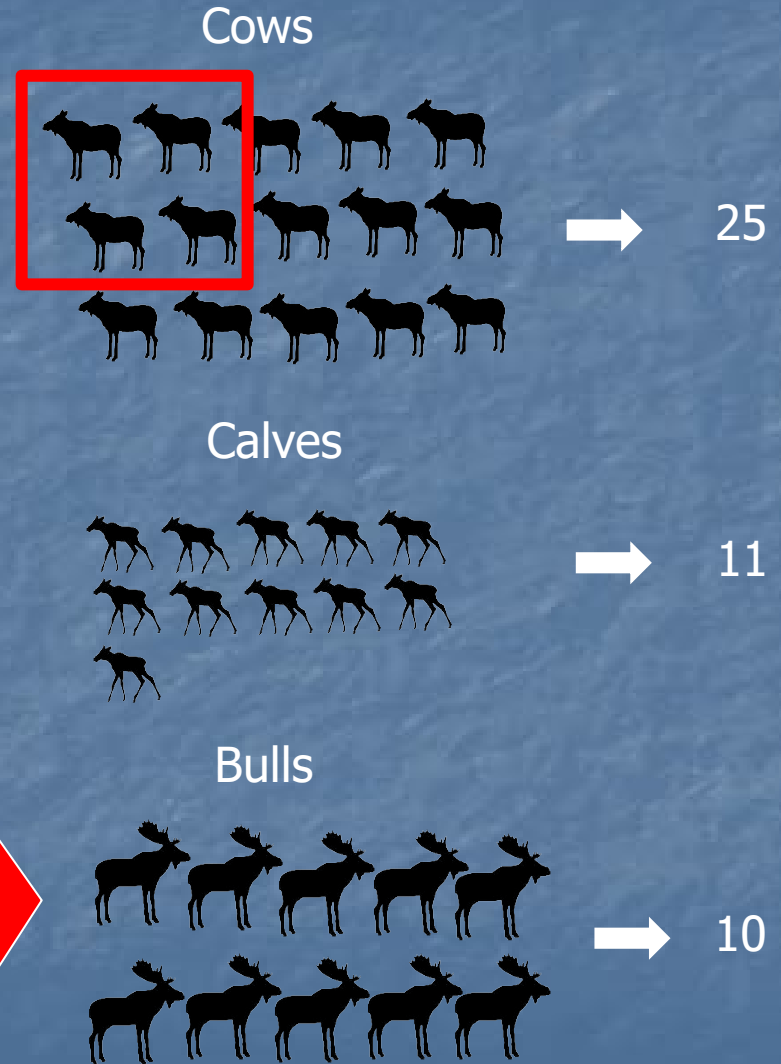


Bulls:  $100 \text{ Cows} = (10/25) * 100 = 40$

# Bull Moose Antler Casting

Calves: 100 Cows =  $(11/25) * 100 = 44$

Bulls: 100 Cows =  $(10/25) * 100 = 40$



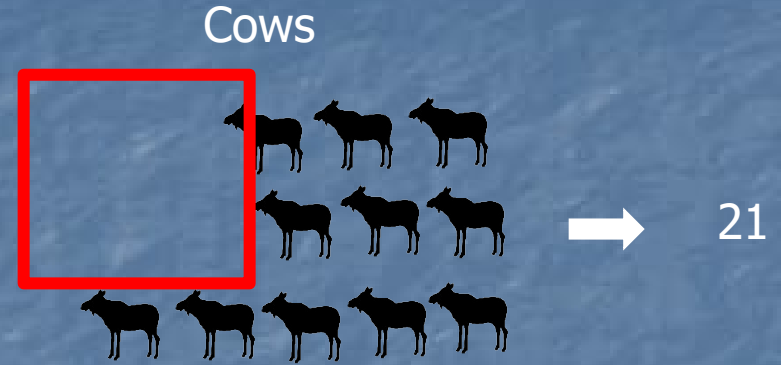
# Bull Moose Antler Casting

Calves:100 Cows =  $(11/25)*100 = 44$

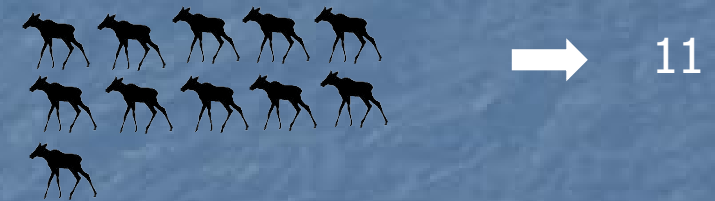
Calves:100 Cows =  $(11/21)*100 = 52$

Bulls:100 Cows =  $(14/21)*100 = 56$

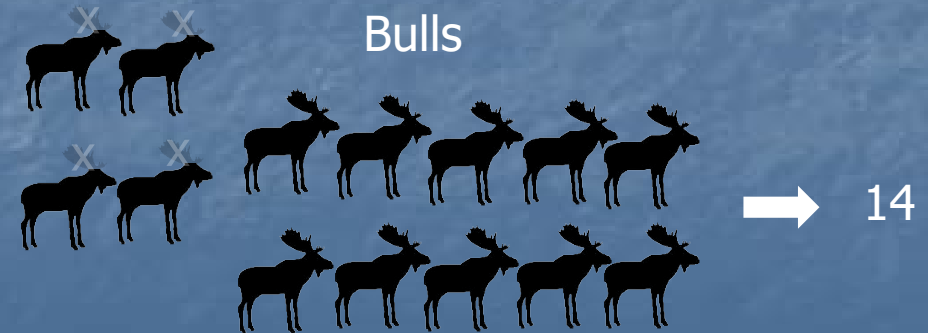
Bulls:100 Cows =  $(10/25)*100 = 40$



Calves



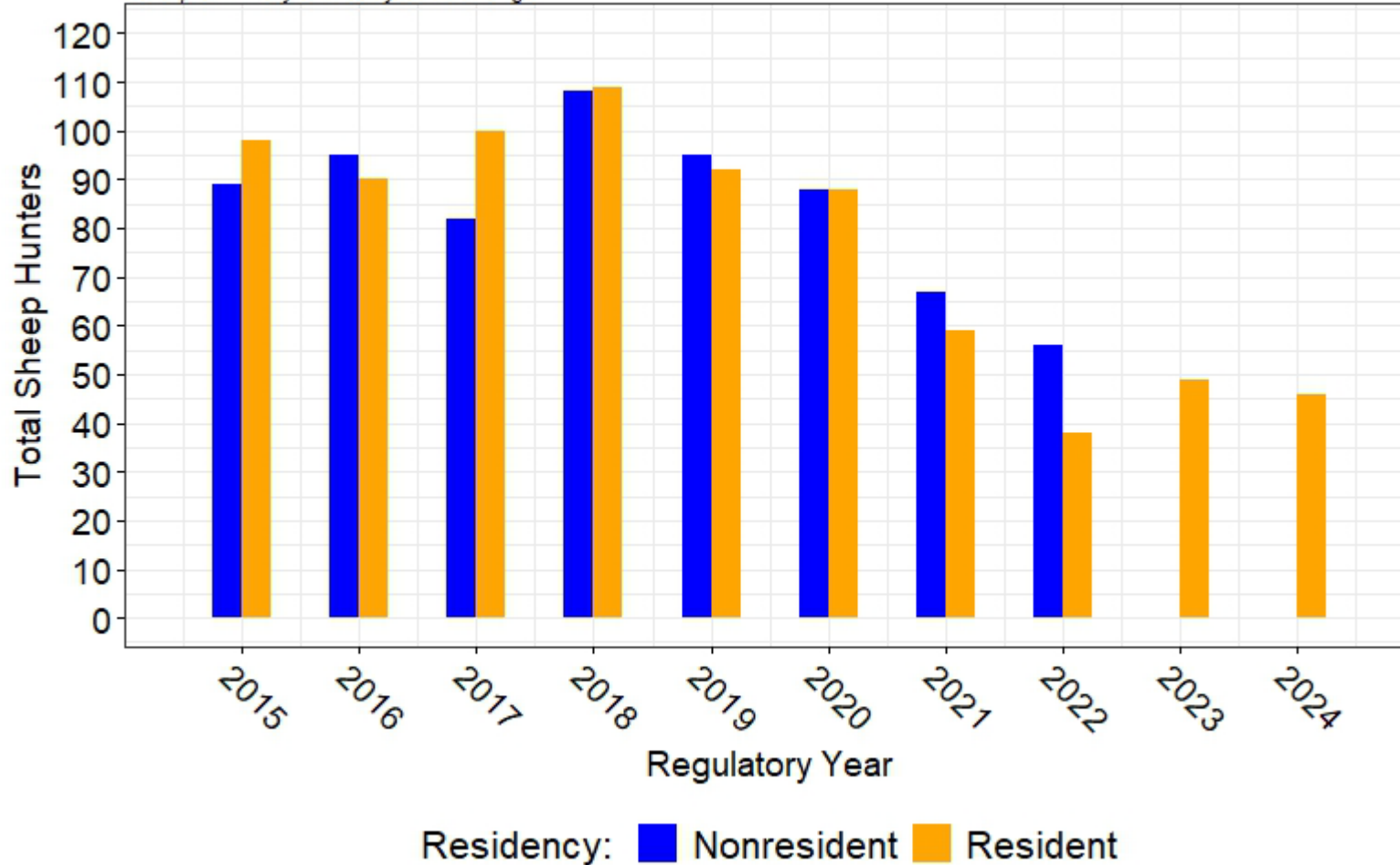
Bulls



# 19C Sheep Update

**Total Fall (GS000) Sheep Hunters by Residency (19C: 2015-2024)**

*Data preliminary and subject to change*



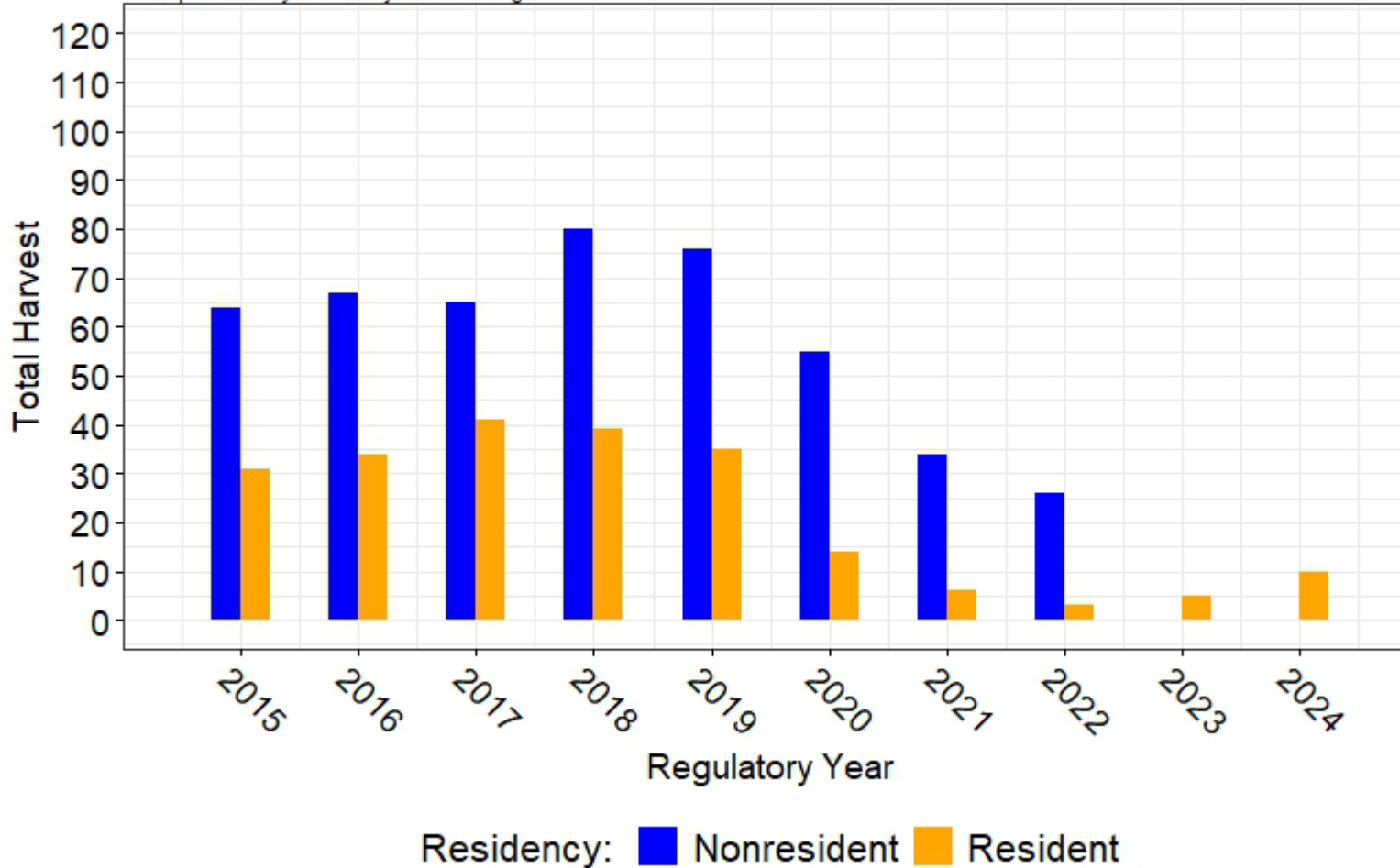
Total Fall (GS000) hunter numbers and percent of total hunters by residency (19C: 2015-2024).

Regulatory Year	Nonresident Hunters	Resident Hunters
2015	89 (48%)	98 (52%)
2016	95 (51%)	90 (49%)
2017	82 (45%)	100 (55%)
2018	108 (50%)	109 (50%)
2019	95 (51%)	92 (49%)
2020	88 (50%)	88 (50%)
2021	67 (53%)	59 (47%)
2022	56 (60%)	38 (40%)
2023	0	49 (100%)
2024	0	46 (100%)

# 19C Sheep Update

**Total Fall (GS000) Sheep Harvest by Residency (19C: 2015-2024)**

*Data preliminary and subject to change*



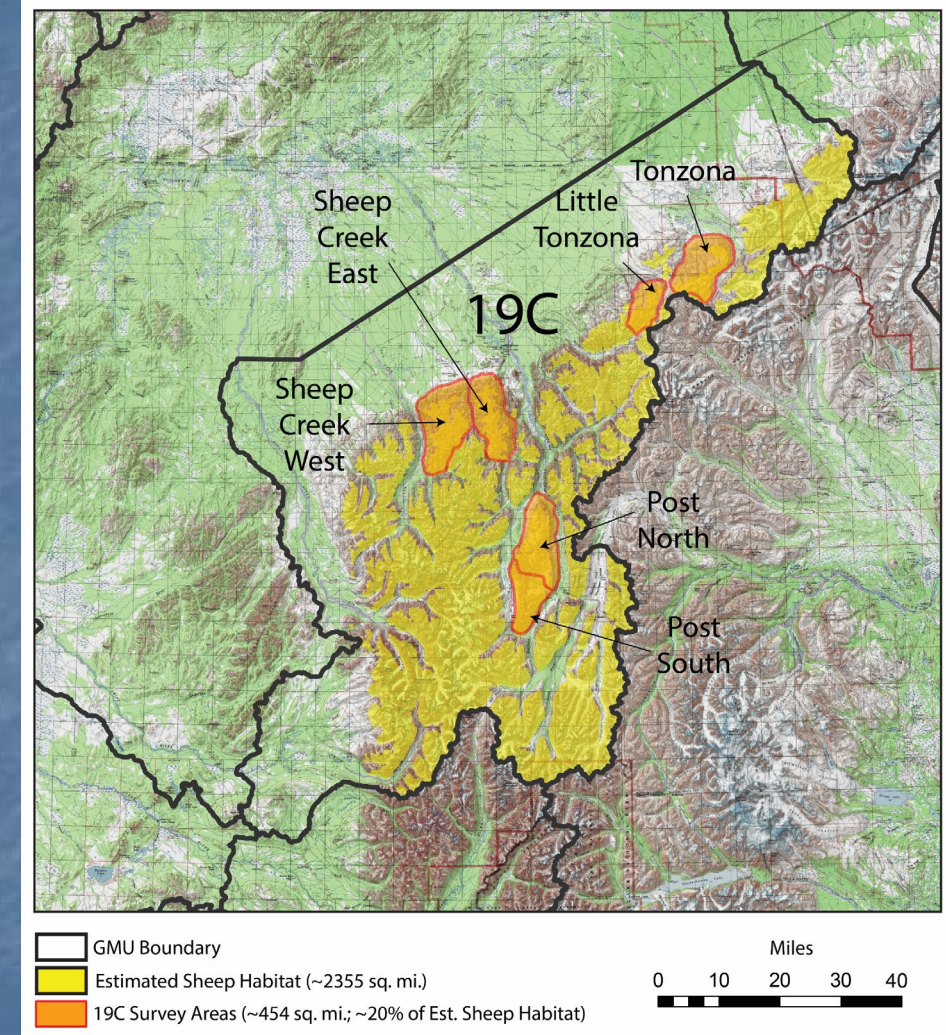
Total Fall (GS000) harvest numbers and percent of total harvest by residency (19C: 2015-2024).

Regulatory Year	Nonresident Hunters	Resident Hunters
2015	64 (67%)	31 (33%)
2016	67 (66%)	34 (34%)
2017	65 (61%)	41 (39%)
2018	80 (67%)	39 (33%)
2019	76 (68%)	35 (32%)
2020	55 (80%)	14 (20%)
2021	34 (85%)	6 (15%)
2022	26 (90%)	3 (10%)
2023	0	5 (100%)
2024	0	10 (100%)

# 19C Sheep Update

Table 1. Cumulative 19C Aerial Survey Data

	2010	2013	2014	2015	2016	2017	2019	2023	2024
Approx. Area (mi <sup>2</sup> )	453	453	453	453	453	453	453	453	453
Total Rams	348	268	374	301	255	343	202	98	101
Legal Rams	56	60	55	46	53	60	33	13	16
Sublegal Rams	292	208	319	255	202	283	169	85	89
"Ewes"	864	490	639	499	593	697	390	242	247
Lambs	287	94	168	167	195	266	178	73	120
Lambs:100 "Ewes"	33	19	26	33	33	38	46	30	49
Rams:100 "Ewes"	40	55	59	60	43	49	52	40	41
Legal Rams:100 "Ewes"	6	12	9	9	9	9	8	5	7
Sublegal Rams:100 "Ewes"	34	42	50	51	34	41	43	35	36
%Lambs	19	11	14	17	19	20	23	18	25
% Rams	23	31	32	31	24	26	26	24	21
% Legal Rams	4	7	5	5	5	5	4	3	3
% Sublegal Rams	19	24	27	26	19	22	22	21	19
Total Sheep	1499	852	1181	967	1043	1306	770	413	473



## ■ Effect of the proposal

- Close both resident and nonresident fall hunt (GS000) during RY25
- Create a temporary draw permit for 2 years (RY26 and RY27) with 80% of permits allocated to residents and 20% to nonresidents:
  - 5% cap for 2DK coming out of the nonresident allocation
  - 2DK hunt sponsor shall also notch harvest ticket for bag limit.
- Request 19C be used as the pilot program for the guide concession program, implemented by 2028. If implemented, return to harvest ticket for both residents and nonresidents in RY28.

## ■ Department recommendation

- Neutral

## ■ Unit 19C Sheep Working Group proposal

# Additional 19C Sheep Proposals (deferred '24)

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# Additional Relevant Proposals

**Proposal 101:** Add sheep to the list of species identified as important for providing high levels of human consumptive use.

If adopted, this proposal is the first step in a very long public regulatory process to allow IM of Dall's sheep populations and does not guarantee sheep will be intensively managed if it is adopted.

If adopted, the next steps will be for the board to evaluate populations to determine if there is a positive IM finding for a given population, and if so, to establish population and harvest objectives.

**Proposal 192:** Modify the resident and nonresident hunt structure for sheep in Unit 19C as follows:

- 1) Resident sheep hunting opportunity in Unit 19C remains open under a general season
- 2) Nonresident sheep hunting in Unit 19C remains closed until such a time that a draw permit system is in place to limit nonresident sheep hunters.

# Antlerless Reauthorizations

**Proposal 158:** Reauthorize a fall antlerless hunt during September and a winter any-moose season during

If adopted this proposal would:

- 1) Reauthorize the winter hunt in Unit 19D upstream of the Selatna River allowing hunters to harvest antlerless moose, and
- 2) Authorize a limited draw fall antlerless moose opportunity in Unit 19D upstream of the Selatna River.

# Farewell Bison Update

<i>Survey Year</i>	<i>Adults</i>	<i>Calves</i>	<i>Total</i>	<i>Percent Calves</i>
2014	319	85	404	21%
2015	332	73	405	18%
2016	402	92	494	19%
2017	395	115	510	23%
2018	468	23	491	5%
2019	392	103	495	21%
2020	361	60	421	14%
2021	387	95	482	20%
2022	392	62	454	14%
2023	339	45	384	12%
2024	345	111	456	24%



# Caribou Update

## 19D Caribou Hunter Effort & Harvest Data

Table 1. Harvest Ticket (GC000)

<i>Reg Year</i>	<i>Total Hunters</i>	<i>Total Harvest</i>	<i>Female Harvest</i>	<i>Male Harvest</i>	<i>Success Rate</i>
2015	29	8	0	8	28%
2016	41	14	1	12	34%
2017	36	12	0	12	33%
2018	24	6	0	6	25%
2019	23	10	0	10	43%
2020	21	6	0	6	29%
2021	29	9	0	8	31%
2022	29	9	0	8	31%
2023	16	4	0	4	25%
2024	11	4	0	4	36%
<i>Avg.</i>	<i>26</i>	<i>8.2</i>	<i>0.1</i>	<i>7.8</i>	<i>31.6%</i>



Table 2. Winter Reg. Permit (RC795)

<i>Reg Year</i>	<i>Total Hunters</i>	<i>Total Harvest</i>	<i>Female Harvest</i>	<i>Male Harvest</i>	<i>Success Rate</i>
2015	-	-	-	-	-
2016	-	-	-	-	-
2017	-	-	-	-	-
2018	-	-	-	-	-
2019	-	-	-	-	-
2020	6	2	0	2	33%
2021	5	1	1	0	20%
2022	8	1	1	0	12%
2023	6	0	0	0	0%
2024			<i>TBD</i>		
<i>Avg.</i>	<i>6.3</i>	<i>1.0</i>	<i>0.5</i>	<i>0.5</i>	<i>16.4%</i>