

2018 - JCR Evaluation Form

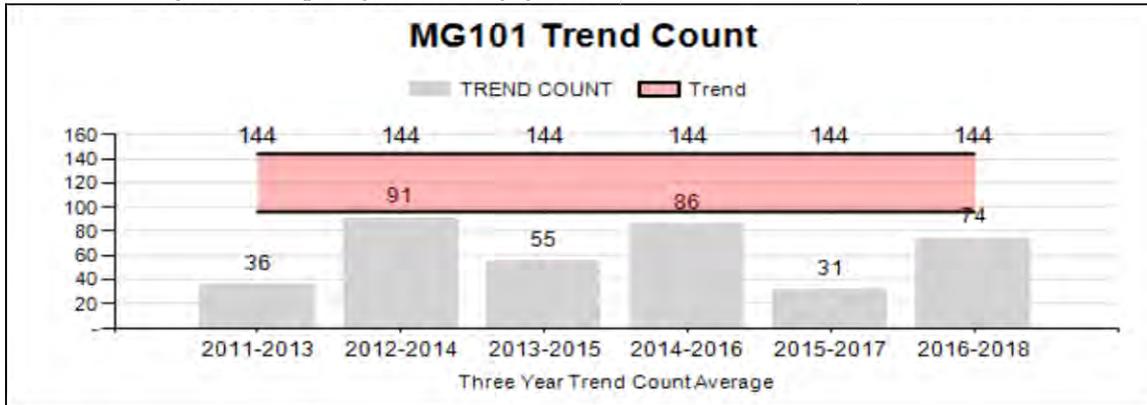
SPECIES: Mountain Goat
 HERD: MG101 - PALISADES
 HUNT AREAS: 2

PERIOD: 6/1/2018 - 5/31/2019
 PREPARED BY: GARY FRALICK

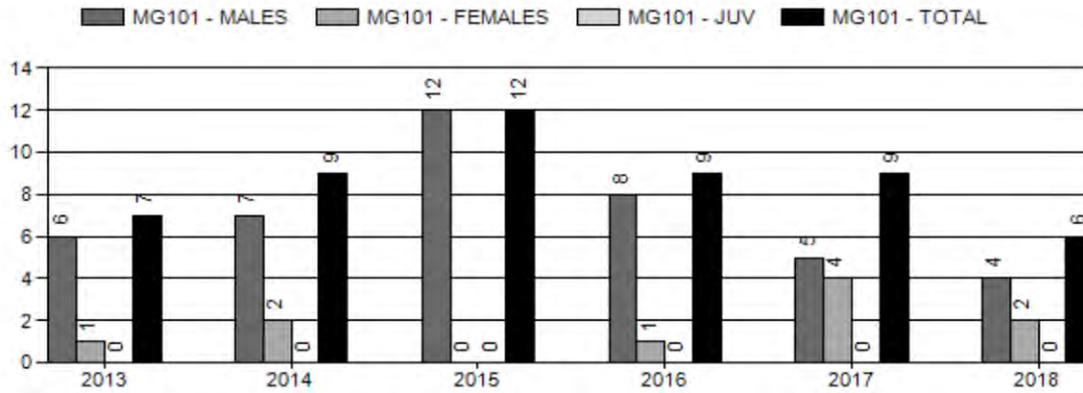
	<u>2013 - 2017 Average</u>	<u>2018</u>	<u>2019 Proposed</u>
Trend Count:	129	129	115
Harvest:	9	6	6
Hunters:	10	9	8
Hunter Success:	90%	67%	75 %
Active Licenses:	10	9	8
Active License Success	90%	67%	75 %
Recreation Days:	54	54	45
Days Per Animal:	6	9	7.5
Males per 100 Females:	0	0	
Juveniles per 100 Females	23	34	
Trend Based Objective ($\pm 20\%$)			120 (96 - 144)
Management Strategy:			Special
Percent population is above (+) or (-) objective:			8%
Number of years population has been + or - objective in recent trend:			7

Proposed harvest rates (percent of pre-season estimate for each sex/age group):

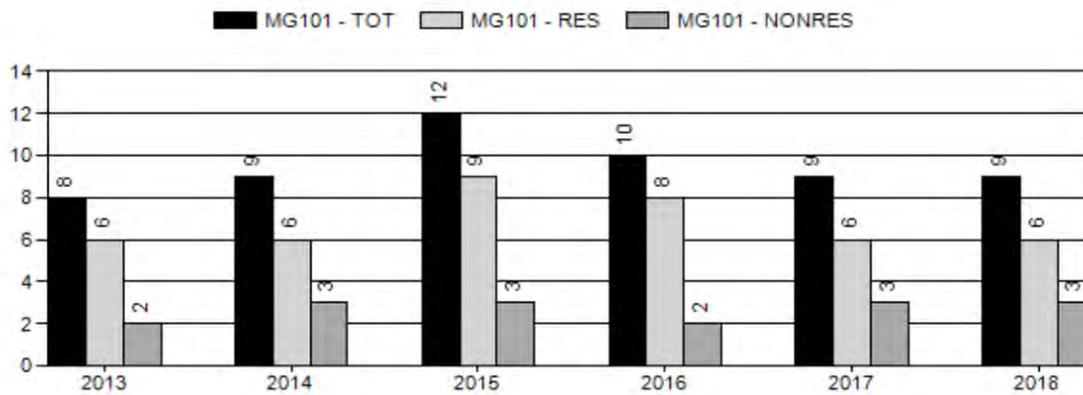
	<u>JCR Year</u>	<u>Proposed</u>
Females ≥ 1 year old:	NA%	NA%
Males ≥ 1 year old:	NA%	NA%
Juveniles (< 1 year old):	NA%	NA%
Total:	NA%	NA%
Proposed change in post-season population:	NA%	NA%



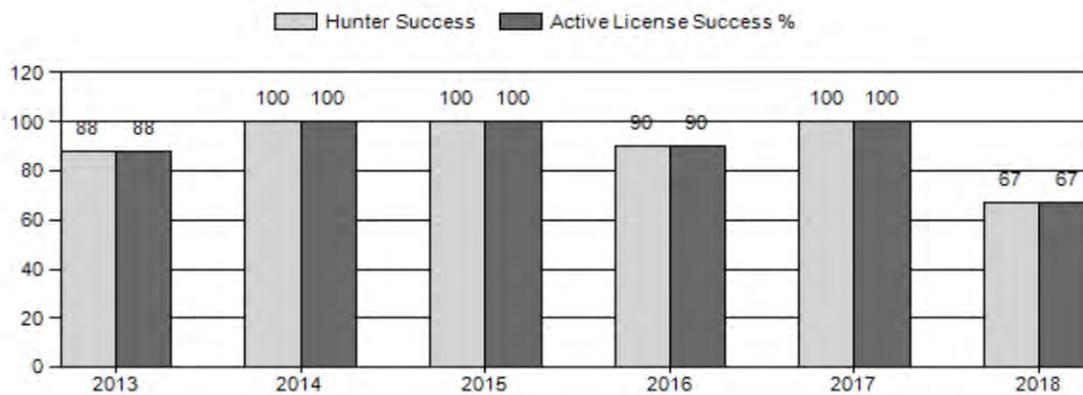
Harvest



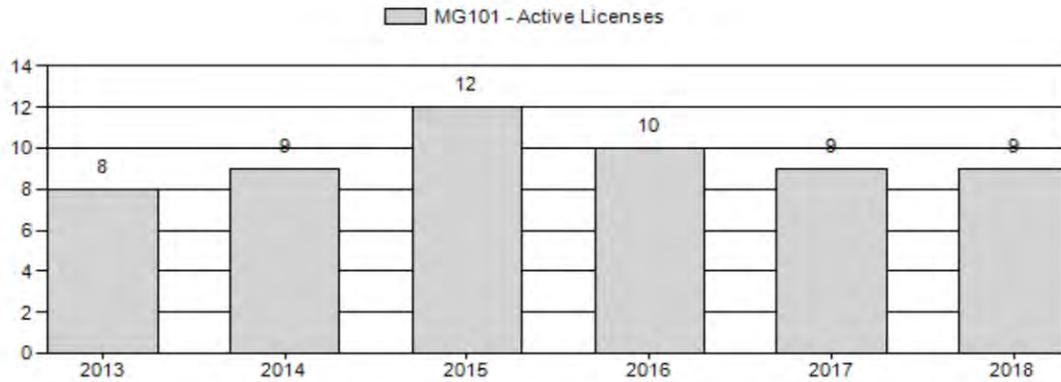
Number of Active Licenses



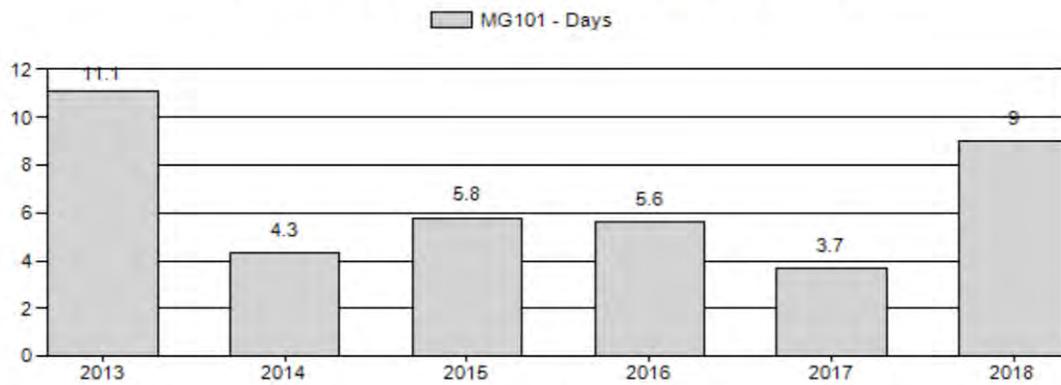
Harvest Success



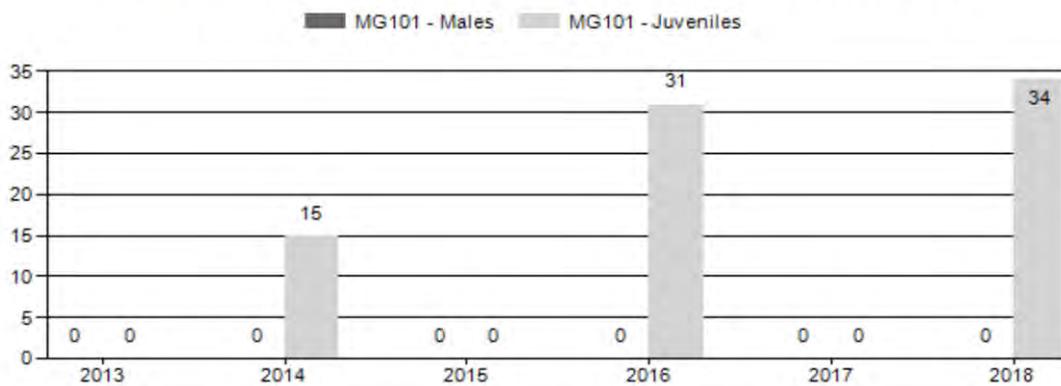
Active Licenses



Days Per Animal Harvested



Preseason Animals per 100 Females



2013 - 2018 Preseason Classification Summary

for Mountain Goat Herd MG101 - PALISADES

Year	Pre Pop	MALES				FEMALES		JUVENILES		Tot Cls	Cls Obj	Males to 100 Females			Young to Ship			
		Ylg	Adult	Total	%	Total	%	Total	%			Yng	Adult	Total	Conf Int	100 Fem	Conf Int	100 Adult
2013	130	0	0	0	0%	0	0%	0	0%	0	0	0	0	0	±0	0	±0	0
2014	180	0	0	0	0%	144	87%	21	13%	165	0	0	0	0	±0	15	±0	15
2015	0	0	0	0	0%	0	0%	0	0%	0	0	0	0	0	±0	0	±0	0
2016	0	0	0	0	0%	71	76%	22	24%	93	0	0	0	0	±0	31	±0	31
2017	0	0	0	0	0%	0	0%	0	0%	0	0	0	0	0	±0	0	±0	0
2018	0	0	0	0	0%	96	74%	33	26%	129	0	0	0	0	±0	34	±0	34

**2019 HUNTING SEASONS
PALISADES MOUNTAIN GOAT HERD (MG101)**

Hunt Area	Type	Season Dates		Quota	License	Limitations
		Opens	Closes			
2	1	Sep. 1	Oct. 31	8	Limited quota	Any mountain goat
		Aug. 15	Aug. 31			Archery only – See Section 8

Summary of Proposed Change by License Type

Area	License Type	Changed from 2018
2	1	No Change
Herd Unit Total	1	No Change

Management Evaluation

Current Mid-Summer Trend Count Management Objective: 120

Management Strategy: Special

2018 Mid-Summer Trend Count: 129

Most Recent 3-year Running Average Trend Count: 111

The Palisades mountain goat mid-summer trend count objective is 120 goats (± 20% of the population objective), and was established by the Wyoming Game and Fish Commission in 2015. The initial population objective was established in 1999 at 50 goats. The most recent mid-summer trend count was conducted in August 2018. The number of mountain goats counted was 129 goats.

The three-year average mid-summer trend count is 111 goats. The next mid-summer trend count will be conducted in 2020. The population objective was reviewed by the Wyoming Game and Fish Commission in 2015, and the Special Management strategy was approved.

Herd Unit Issues

To ensure the long-term welfare and viability of this population, Idaho and Wyoming have committed to a cooperative management effort that entails sharing population data, coordinating habitat management projects, and surveying the entire goat population concurrently every two years during a mid-summer trend count. Management goals of the Wyoming subpopulation have focused on maintaining a flexible management approach through the annual issuance of 4 – 12 licenses valid for any goat since 1999. This approach has resulted in a high degree of hunter satisfaction, exceptionally high hunter success, low days/animal harvest, and trophy class males being taken in most years since the hunt was initiated in 1999.

A concurrent concern since 2014 has been the reduction in juvenile production and survival noted during winter 2017 and 2018. The observed kid:adult ratios after the 2014 mid-summer count was 14 kids:100 adults, which is the lowest population metric observed since this mountain goat population has been monitored. The 2016 mid-summer trend counted resulted in 93 mountain goats being observed and a kid:adult ratio of 31 kids:100 adults. Although the most recent trend count conducted in August 2018 increased to 129 total goats observed, which resulted in a slight increase in the mid-summer kid:adult ratio, population monitoring will continue to monitor juvenile survival and recruitment.

During the intervening winters since the 2016 mid-summer trend count, aerial winter surveys were conducted in February 2017 and 2018, respectively, in conjunction with the annual elk and moose surveys (Appendix A). In February 2017 and January 2018 a total of 80 and 70 mountain goats were observed, respectively. The observed mid-winter kid:adult ratios were 8 kids:100 adults during both surveys, respectively.

Since 2013 a total of 24 mountain goats have been captured and monitored for seasonal movements, distribution, and dispersal into surrounding mountain ranges. Of the 24 goats captured, 18 were radio-collared. The primary goal of radio-collaring mountain goats was to assess productivity, evaluate survival, document daily and seasonal movements, and note identify dispersal mechanisms into surrounding mountain ranges. Since the initial capture efforts, the distribution and movements of mountain goats are reported in Appendices B and C.

Mountain goats that were captured in Snake River Canyon during late winter and early spring spent the summer near Ferry Peak, South Indian Creek and other tributaries of the Snake River west of Wolf Creek (Appendix B.). Those mountain goats captured by helicopter/netgun operations in North and South Indian Creeks in 2016, 2017, and 2018 did not disperse away from the watershed where they were captured in (Appendix C). These data demonstrate that dispersal, especially by reproductive age females, is not a factor affecting herd unit population dynamics and emigration, or contributing to the establishment of reproducing mountain goat populations in surrounding mountain ranges.

Weather

Weather conditions during the 2018 were ideal for forage production beginning in early spring and continuing through fall. By late summer the moisture regime had changed frequent precipitation scenario that persisted into the fall hunting season. Drought conditions in the early portion of the summer abated by late fall as persistent snow storms began to deposit snowpack in the Snake River Mountain Range. By mid winter snow conditions on winter ranges had changed significantly. Significant snow accumulations were noted in January and through February 2019. These conditions persisted throughout the remainder of the winter. By late winter 2019 snowpack in western Wyoming watersheds were estimated to be significantly above normal. For additional weather and precipitation data please visit the following websites:

<http://www.ncdc.noaa.gov/temp-and-precip/time-series> and
<http://www.ncdc.noaa.gov/oa/climate/research/prelim/drought/pdiimage.html>.

Winter Severity

The 2018-2019 winter has been relatively open through mid-December with normal average temperatures and below average snow accumulations on winter ranges. Significant snow accumulations were noted in January and through February 2019 on crucial winter ranges in the Palisades mountain goat herd. High elevation mountain ranges have received above average snow levels. The Snow Water Equivalent of the Snake River Basin has registered over 110% of normal.

Habitat

No habitat data has been collected on goat summer and winter ranges. There are no established vegetation transects in this herd unit. Please refer to the 2018 Annual Report Strategic Habitat Plan Accomplishments for Jackson Region habitat improvement project summaries (<http://wgfd.wyo.gov/web2011/wildlife-1000708.aspx>).

Harvest

The 2018 hunting season was the 20th year that goats were hunted in Area 2. A total of nine (9) licenses were issued; six goats were harvested. A total of four billies and two nannies were harvested in 2018. Since 1999, a total of 134 mountain goats (113 billies, 21 nannies) have been harvested in Hunt Area 2. Since 1999, 84% and 16% of the total harvest has been comprised of billies and nannies, respectively.

Population

The population trend is generally stable since the mid-summer 2016 trend count (N=93 goats). The most current 3-year average number of goats counted during the mid-summer trend count is 111 goats, which is with the $\pm 20\%$ threshold of the population objective of 120 goats. The population objective was reviewed in 2015. The Wyoming Game and Fish Commission approved a population objective of 120 mountain goats. A population model has not been developed because of the small size of this population. The current season structure is warranted as a means to diminish potential dispersal away from the herd unit, provide hunter recreation opportunity, while still maintaining the potential to harvest a trophy class mountain goat.

Summer and winter aerial surveys were conducted from a helicopter. The summer surveys are coordinated with Idaho Department of Fish and Game to ensure this interstate population is surveyed concurrently. Surveys are initiated every biennial. Helicopter surveys were first initiated in August 1997 (Appendix A). The highest number of goats counted in Wyoming occurred in 2014. A total of 165 goats were counted. Comprehensive winter surveys were not conducted in February 2007 - 2016. The February 2017 and January 2018 winter trend surveys were the most comprehensive winter surveys undertaken since the mid-1990s (Appendix A).

During the most recent 2018 mid-summer trend count a total of 129 mountain goats were observed. A total of 96 adults and 33 kids were observed, and the observed kid:adult ratio was 34 kids:100 adults.

Management Summary

A total of eight (8) licenses, valid for any goat, will be issued in 2019. The season will run September 1 – October 31. The number of licenses issued will be similar to the number issued in 2018 in response to the population trend estimate within management thresholds of 120 (+/- 20%) mountain goats. The size of the hunt area was expanded in 2014 in an effort to harvest goats that have dispersed from the Palisades herd into the Teton Range. The hunt area expansion area encompasses a portion of the national forest north of U.S. Highway 22. The increased hunt area size will provide additional hunter recreation and will remain in place in 2018. Since the expansion of the hunt area, no goats have been harvested in this area, which lies north of Highway 22 and along the west slope of the Teton Range.

A total of eight (8) goats are projected in the 2019 harvest. The anticipated harvest will likely consist of 6 billies, and two (2) nannies. Based on the projected harvest, approximately 115 mountain goats are projected in the 2019 postseason trend count.

Appendix A.
 SNAKE RIVER MOUNTAIN RANGE
 MOUNTAIN GOAT POPULATION SURVEYS
 IDAHO/WYOMING

Idaho Summary of Mountain Goat Surveys in Unit 67 South of Palisades Creek, 1982-Present (Mt. Baird area).

Year	Hunt Area	Inclusive Location	Adults	Kids	Unknown	Total	Ratio Kid:100 Adult
1982 ^a	67-1	South of Palisades	33	13	0	46	39
1985 ^a		Creek to ID./WY.	35	16	0	51	46
1986 ^b		Stateline	0	0	104	104	--
1986 ^a			37	15	0	52	41
1988 ^b			71	21	0	92	30
1990 ^b			45	18	0	63	40
1993 ^b			104	33	16	153	34
1994 ^a			73	42	0	115	58
1996 ^a			151	66	0	217	44
1998 ^a			118	45	0	163	38
2000 ^a			61	29	0	90	48
2002 ^a			35	7	0	42	20
2004 ^a			83	24	0	107	29
2006 ^a			103	19	0	122	18
2008 ^a			96	27	0	123	28
2010 ^a			96	33	0	129	34
2012 ^a			87	23	0	113	26
2014 ^a			109	26	0	135	24
2016 ^a			86	34	0	120	39

Wyoming Summary of Mountain Goat Surveys, Hunt Area 2, Palisades Goat Herd, 1996-Present

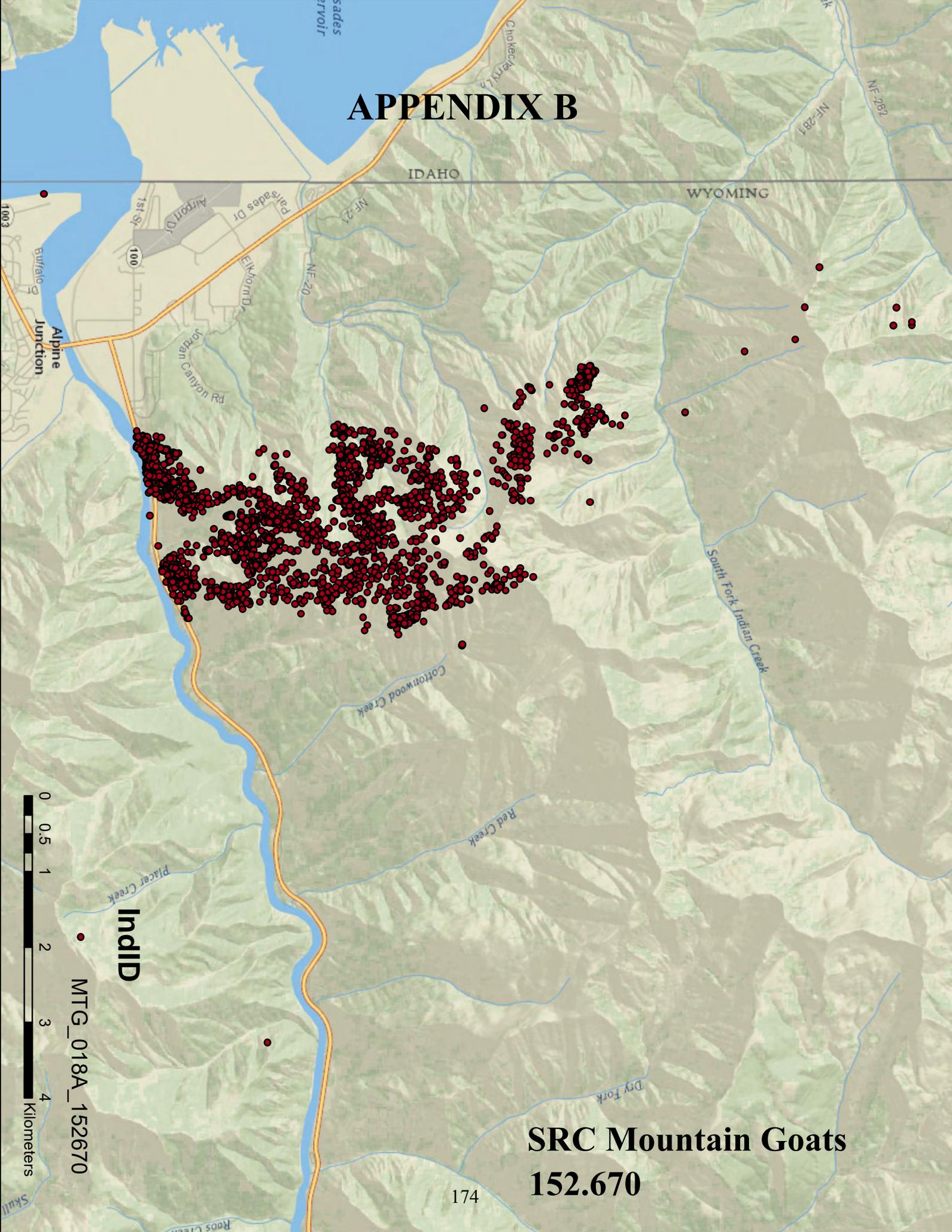
Year	Hunt Area	Inclusive Location	Adults	Kids	Unknown	Total	Ratio Kid:100 Adult
1996 ^a	2	Wyoming – Palisades	16	8	0	24	50
1997 ^a		Goat Herd	34	20	0	54	59
1998 ^a			47	15	0	62	32
2000 ^a			58	18	0	76	31
2002 ^a			37	17	0	54	46
2004 ^a			90	31	0	121	34
2006 ^a			98	32	0	130	33
2008 ^a			52	13	0	65	33
2010 ^a			97	30	0	127	31
2012 ^a			83	25	0	108	30
2014 ^a			144	21	0	165	14
2016 ^a			71	22	0	93	31
2017 ^{WH}			74	6	0	80	8
2018 ^{WH}			65	5	0	70	8
2018 ^a			96	33	0	129	34

^a Helicopter survey (August).

^b Ground count.

^{WH} Winter Helicopter Survey

APPENDIX B



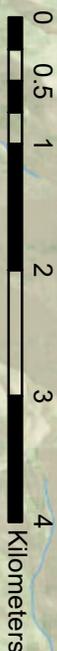
WYOMING

IDAHO

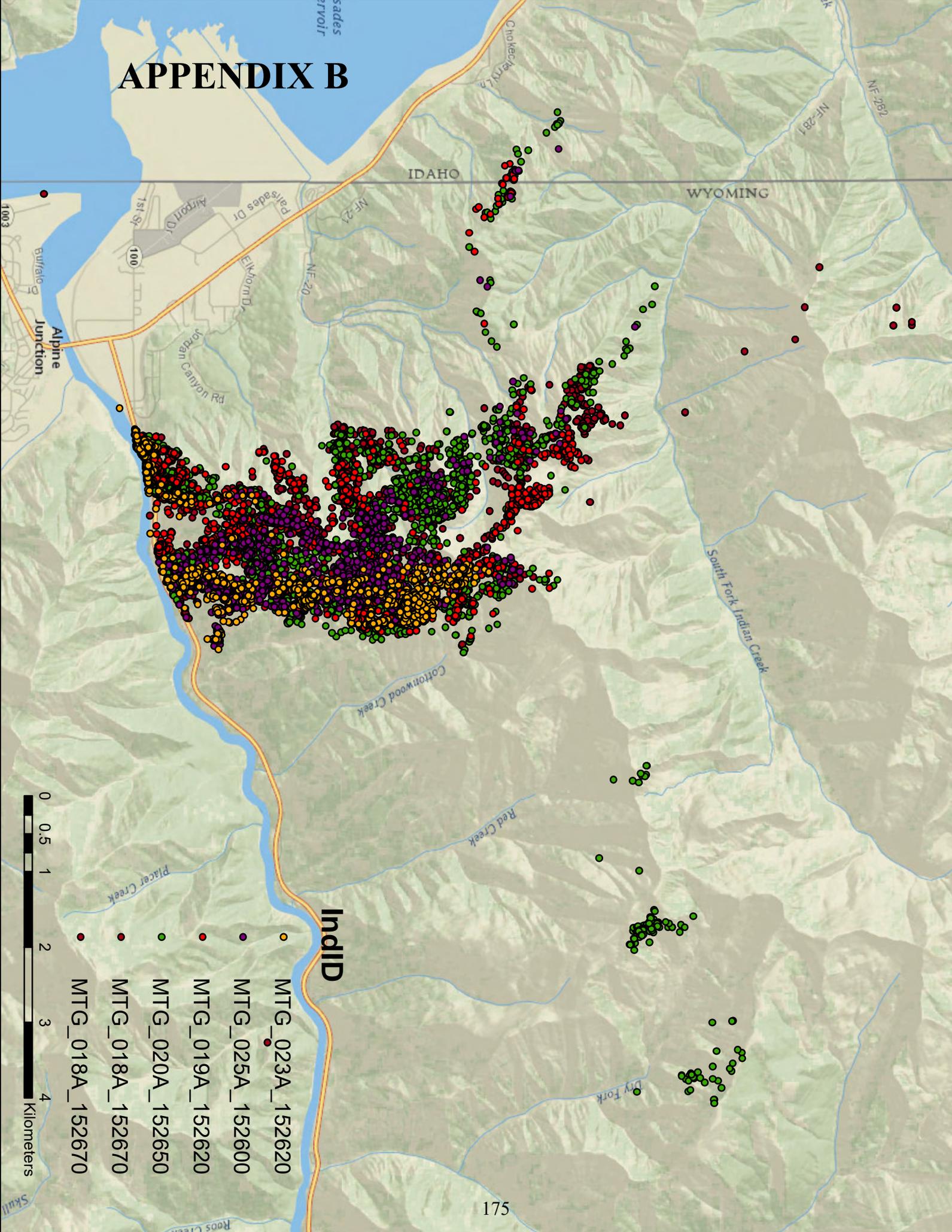
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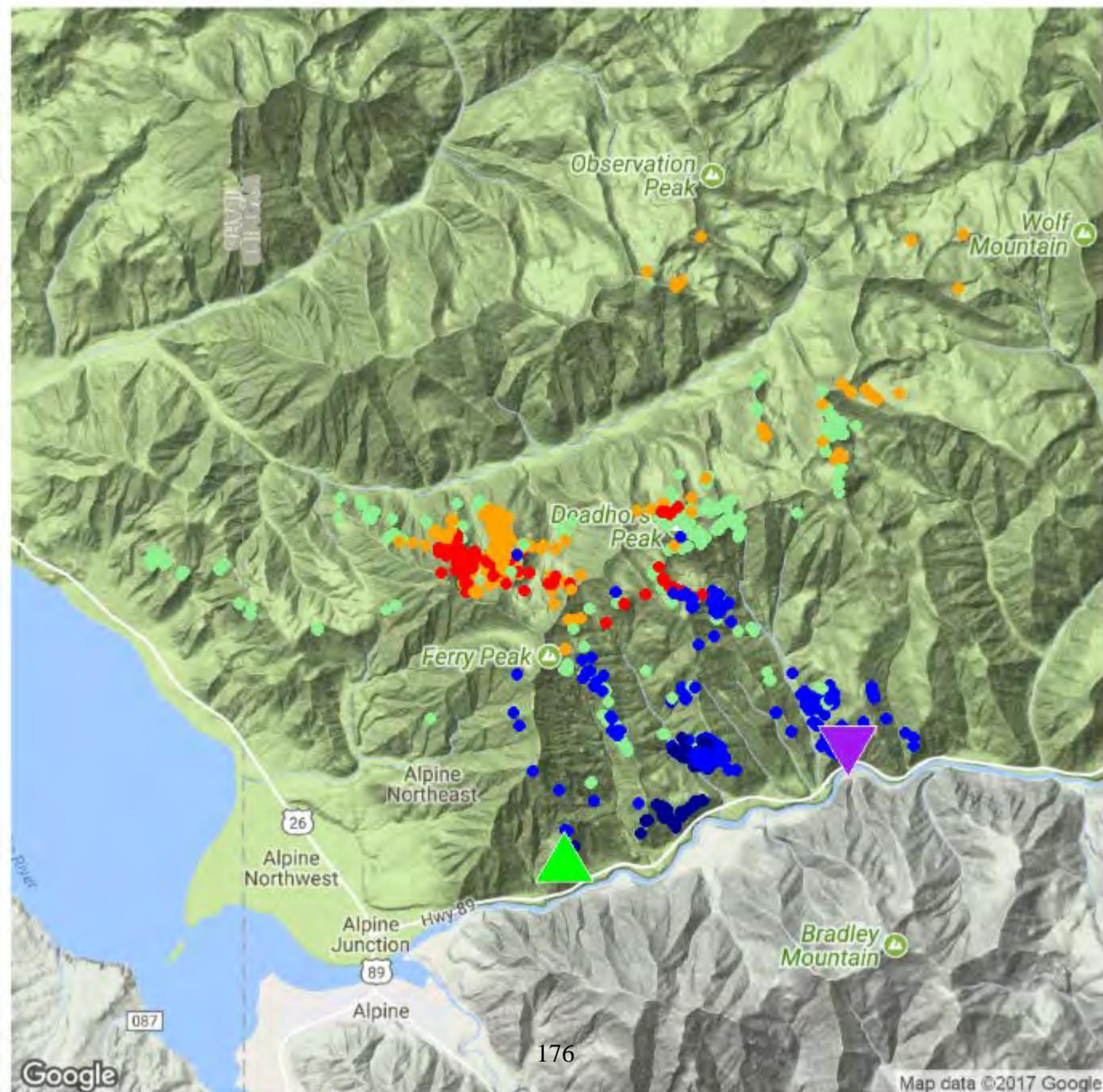
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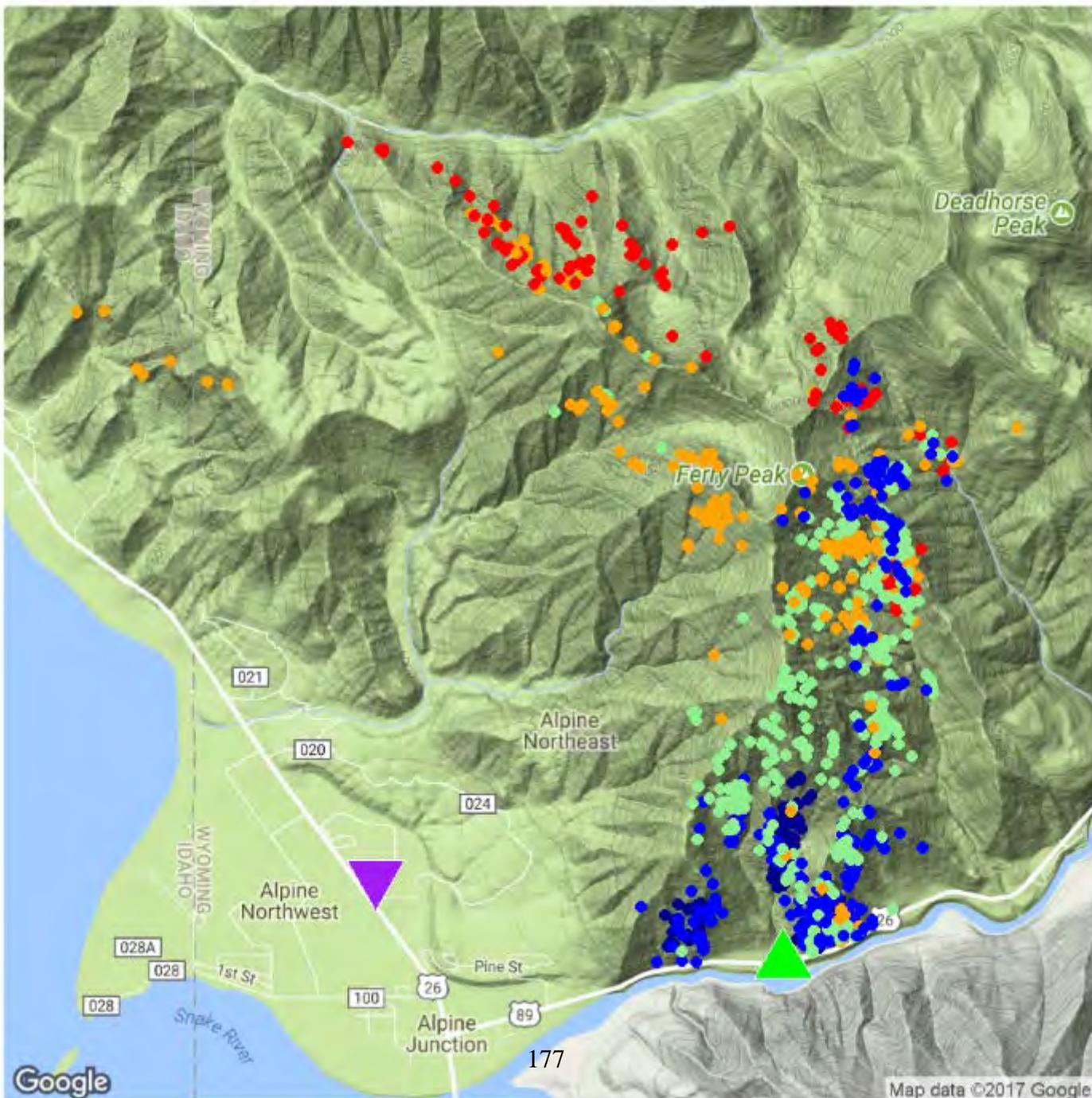
SRC Mountain Goats
152.670



APPENDIX B



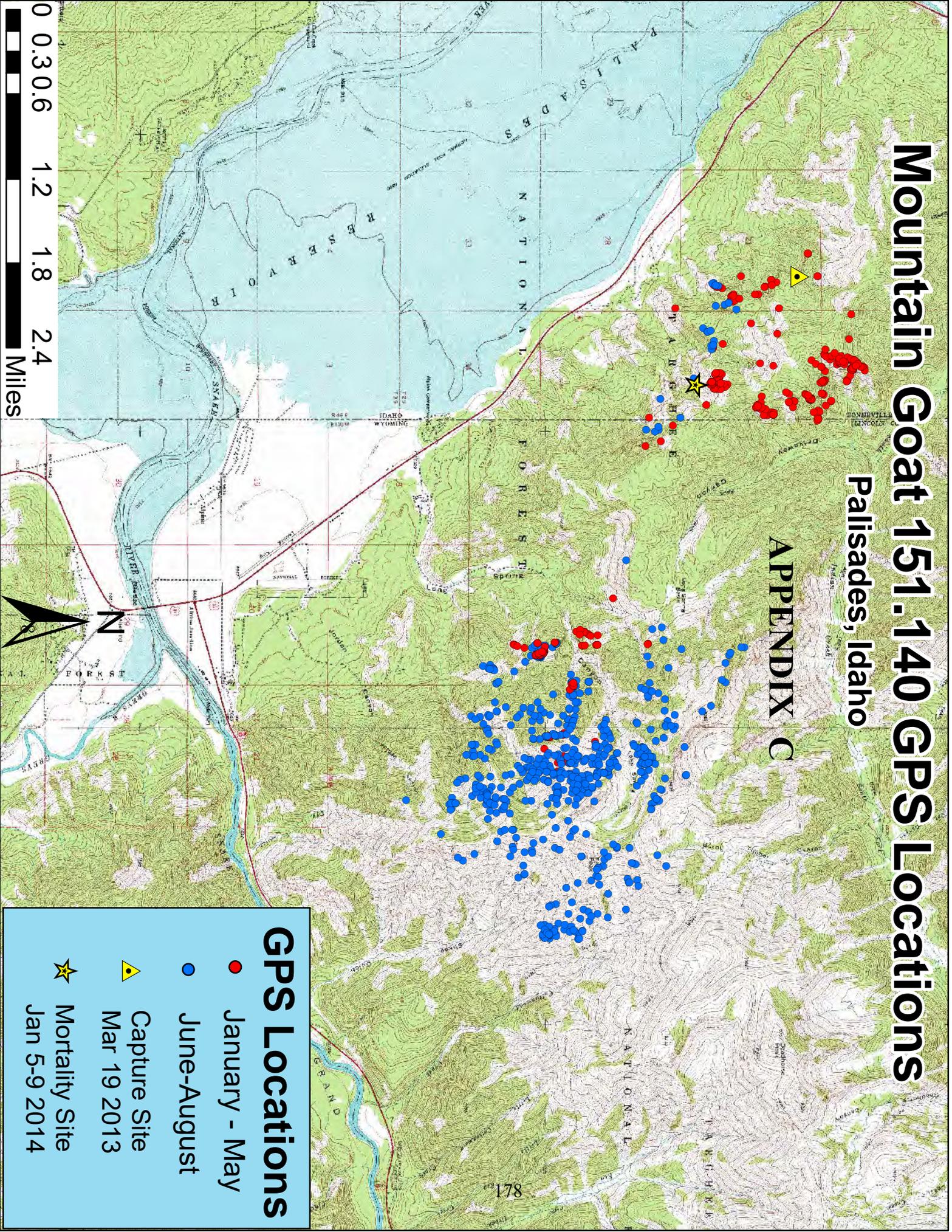




Mountain Goat 151.140 GPS Locations

Palisades, Idaho

APPENDIX C



GPS Locations

● January - May

● June-August

▲ Capture Site
Mar 19 2013

★ Mortality Site
Jan 5-9 2014

APPENDIX C

