REGION IV RESEARCH UPDATE

Alaska Board of Game Meeting

16–23 February 2018

Dillingham, AK

SUMMARY OF RESEARCH PROGRAM

Research Staff:

- Bill Collins – Wildlife Physiologist
- Nick Demma – Wildlife Biologist (Bear / Wolf)
- Kim Jones – Wildlife Biologist (Predator / Prey)
- Kassidy Colson – Wildlife Biologist (Moose / Furbearers)
- Meg Inokuma – Biometrician
- Vacant – Caribou Biologist

STATEWIDE DIET/NUTRITION LAB

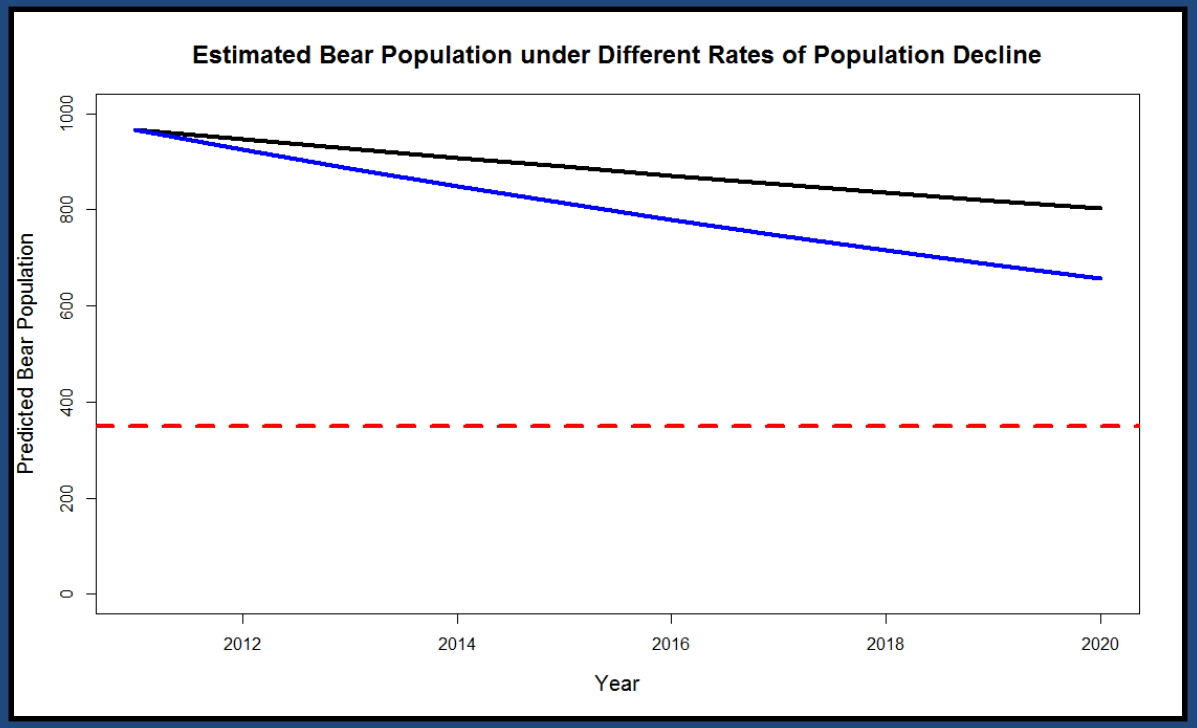
- ADF&G staff and collaborators have developed novel methods for determining diet and measuring habitat quality
- Application limited by lack of staff and laboratory space
- Funding to hire a LTNP has been acquired
- Negotiating with UAF Matanuska Farm for lease of unused lab and office space
- Lease will include office and necropsy lab for new Wildlife Capture Veterinarian and Veterinary Technician

GMU 13 BROWN BEAR

- BOG defined population objective = 350
- Bears collared and monitored for survival and reproduction in Unit 13A from 2006 – 2011
- Capture-mark-resight survey conducted in 2011
- Density = 16 independent bears / 1,000km^2
- Projected abundance = 966 independent bears
- Testa (1998) estimated density at 21.3 / 1,000km^2
  - Projected abundance = 1,290

GMU 13 BROWN BEAR

- Change in density indicates annual decline of 2%
- Analysis of vital rate data from collared bears indicates a annual population decline of 4.2%
  - Harvest and reproductive rates were found to be high



GMU 13 ALPHABET HILLS MOOSE

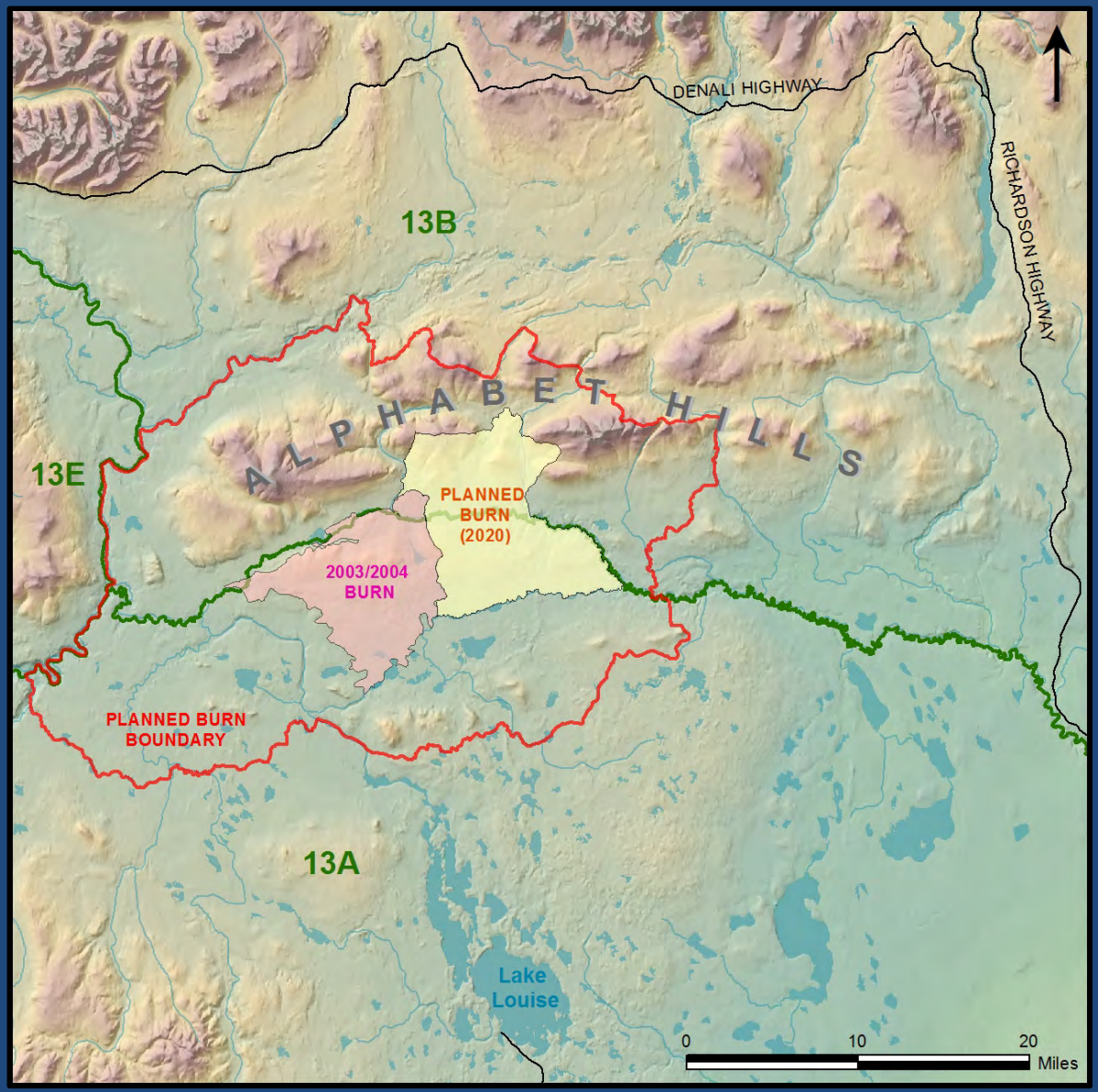
Compare Burned and Unburned Areas:

Browse

- Quality
- Removal

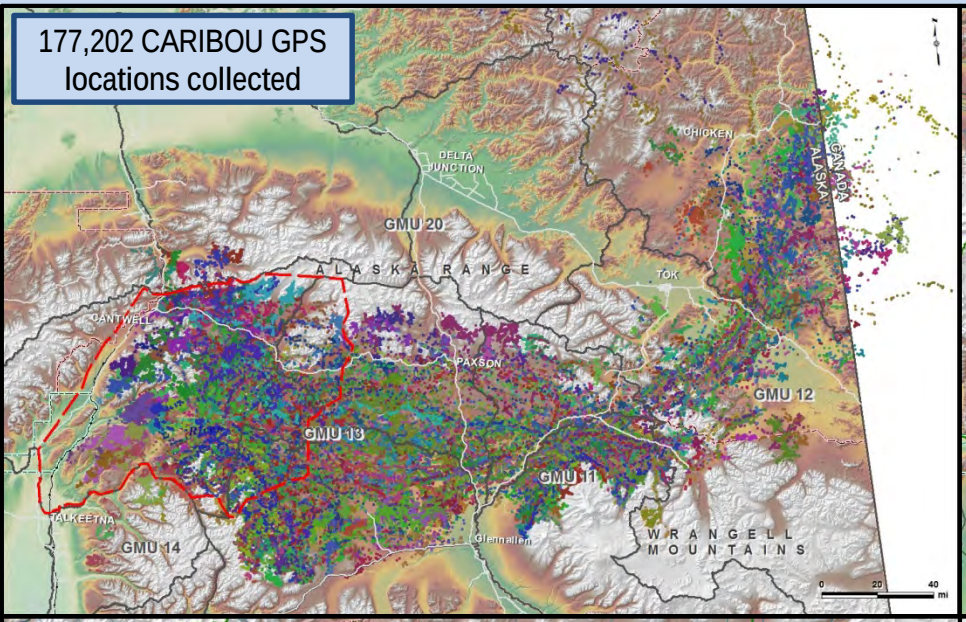
Moose

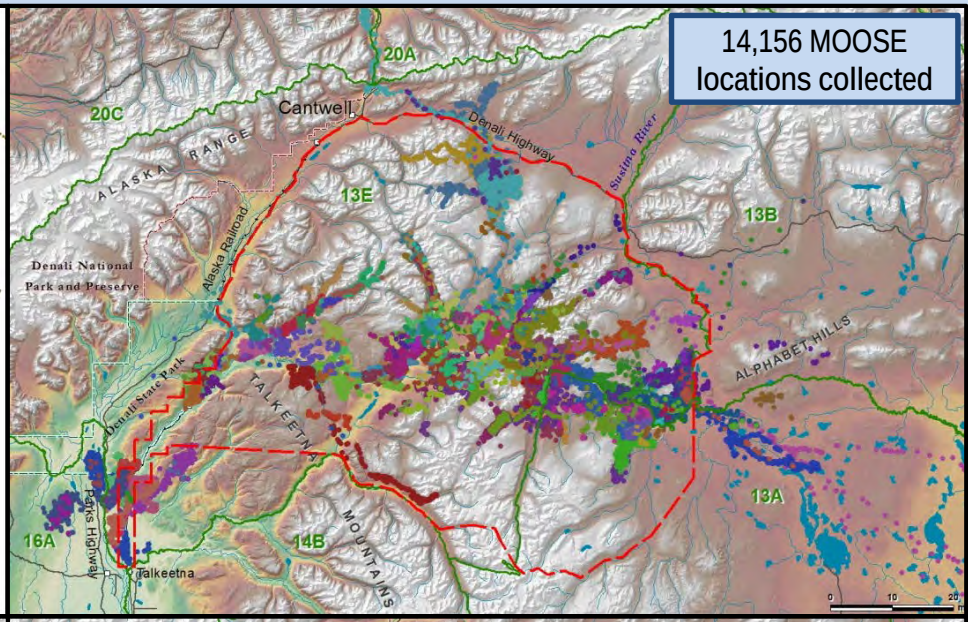
- Diet
- Density
- Survival
- Twinning
- Composition
- Spatial Selection

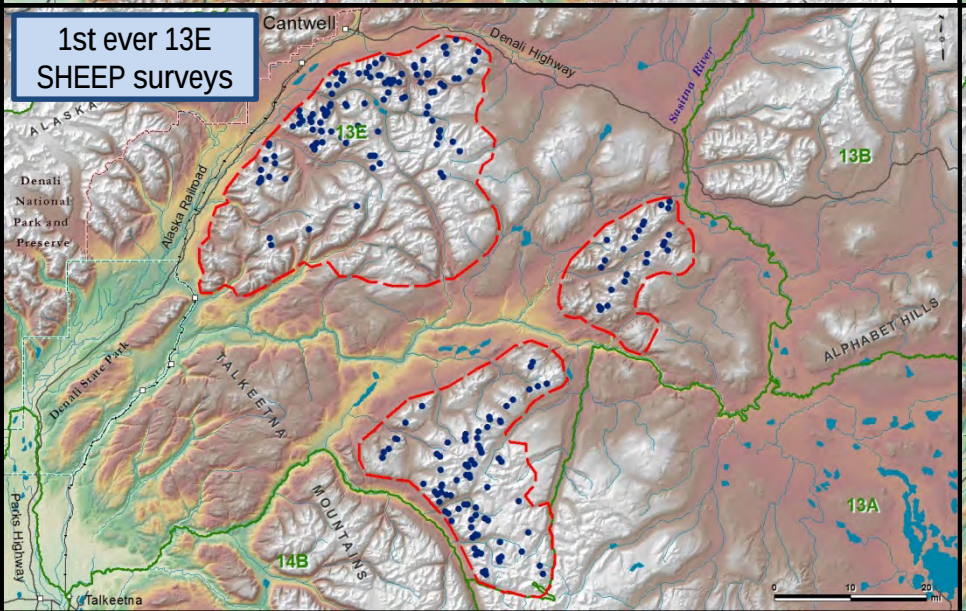


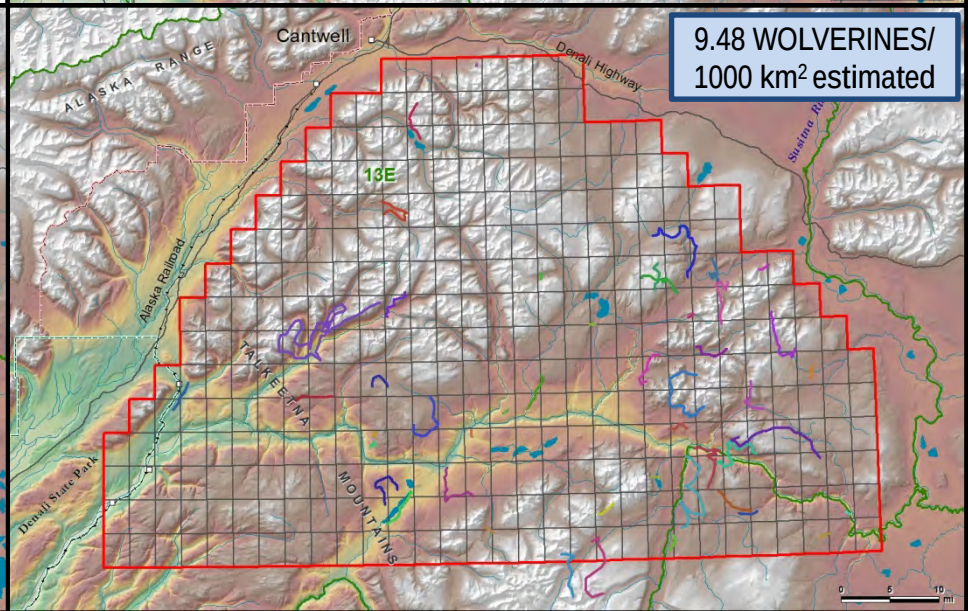
GMU 13

WATANA





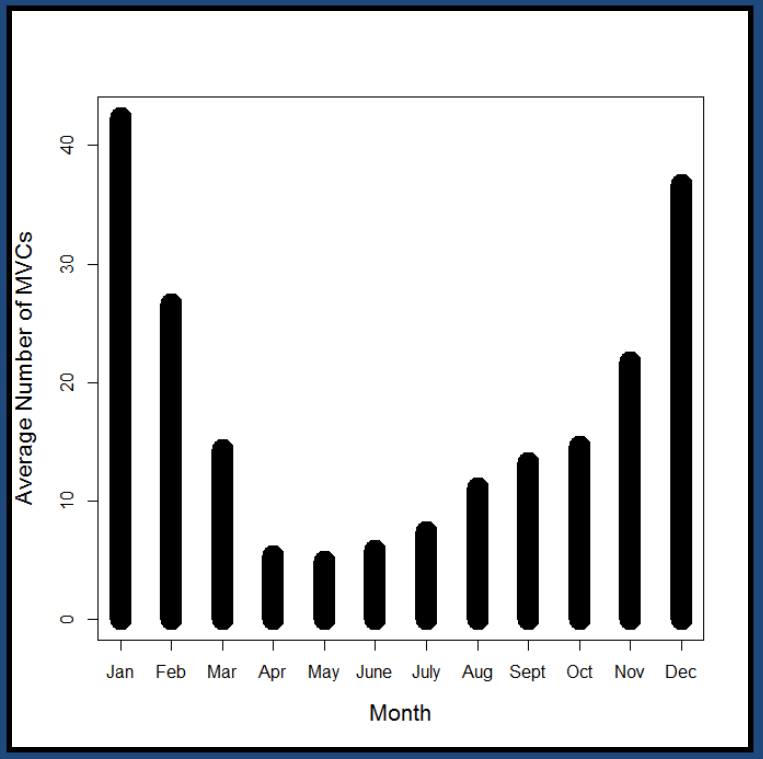




GMU 14 MOOSE

Moose-Vehicle Collisions in the Mat-Su:

- Over 300 moose collisions annually on Mat-Su roads
- DOTPF estimates each collision costs >$30,000
- Studying characteristics of moose collision sites



GMU 14 MOOSE

Moose-Vehicle Collisions in the Mat-Su:

- GPS collars on 60 moose throughout the Valley
- Hourly locations to gain understanding of movement patterns
- 5-minute locations when near major roads

Summary of ongoing/planned research

- Began Spring 2017
- Objectives:
  - Where is the population nutritionally?
  - What is the overall population trajectory?
  - Where are reasonable treatment areas?
- Early indications of nutritionally robust population.
- Following calf and adult survivorship forward – preliminarily poor.

GMU 17 WOLF

Objectives:

- Determine territories and seasonal pack sizes of wolves in the MCH WCA
- Document demographic rates (survival, dispersal, productivity)

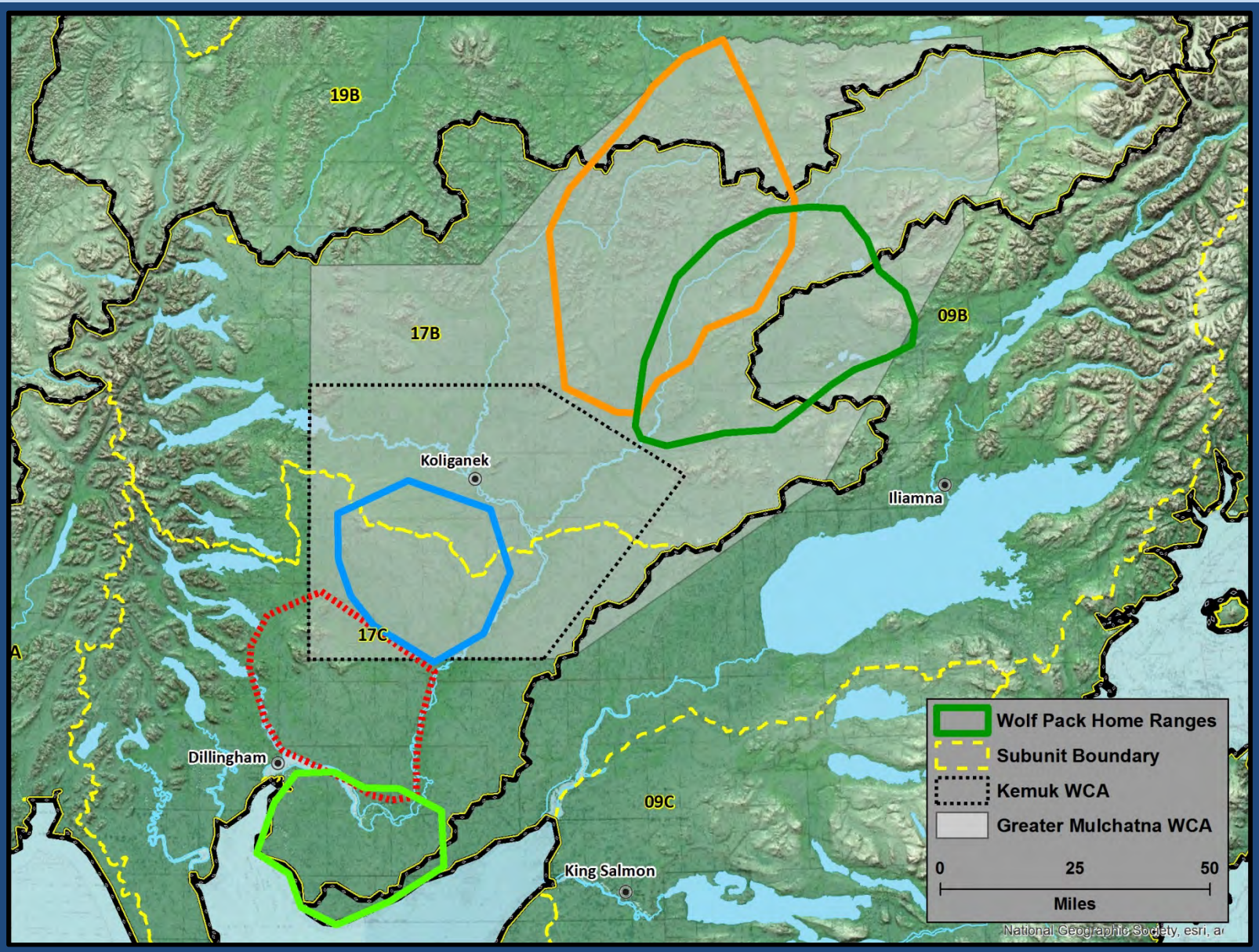
Preliminary Findings (2017):

Pack	GPS Home Range (mi^2)	Spring Pack Size	Fall Pack Size
Iowithla	880*	10	12
Klutuk	777	2	6
Koktuli	1520	2	2
Old Man	2032	9	14
Supply Lake	675	9	9
mean	**1177**	**6**	**9**
* Iowithla home range estimated from observations and tracks			

Minimum Wolf Density	Total Wolves (packs)	Wolves/ 1000 mi^2	Wolves/ 1000 km^2
Spring 2017	32	5.7	2.2
Fall 2017	43	7.7	3.0

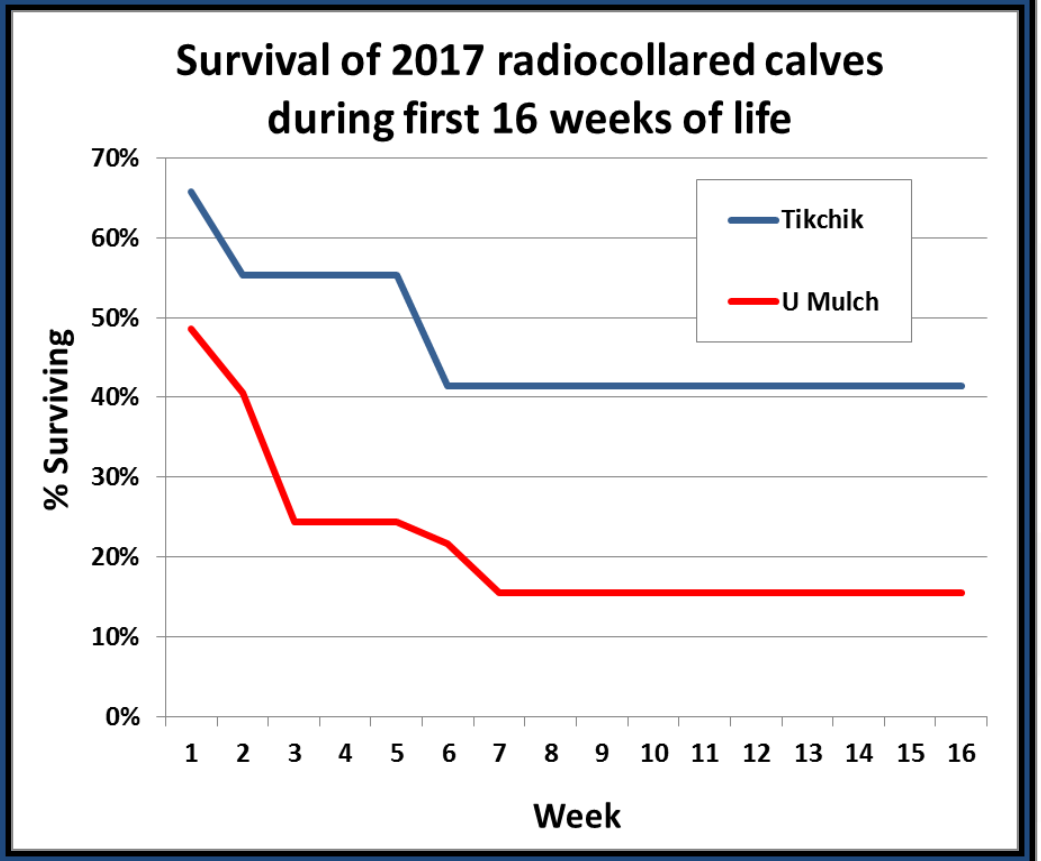
GMU 17

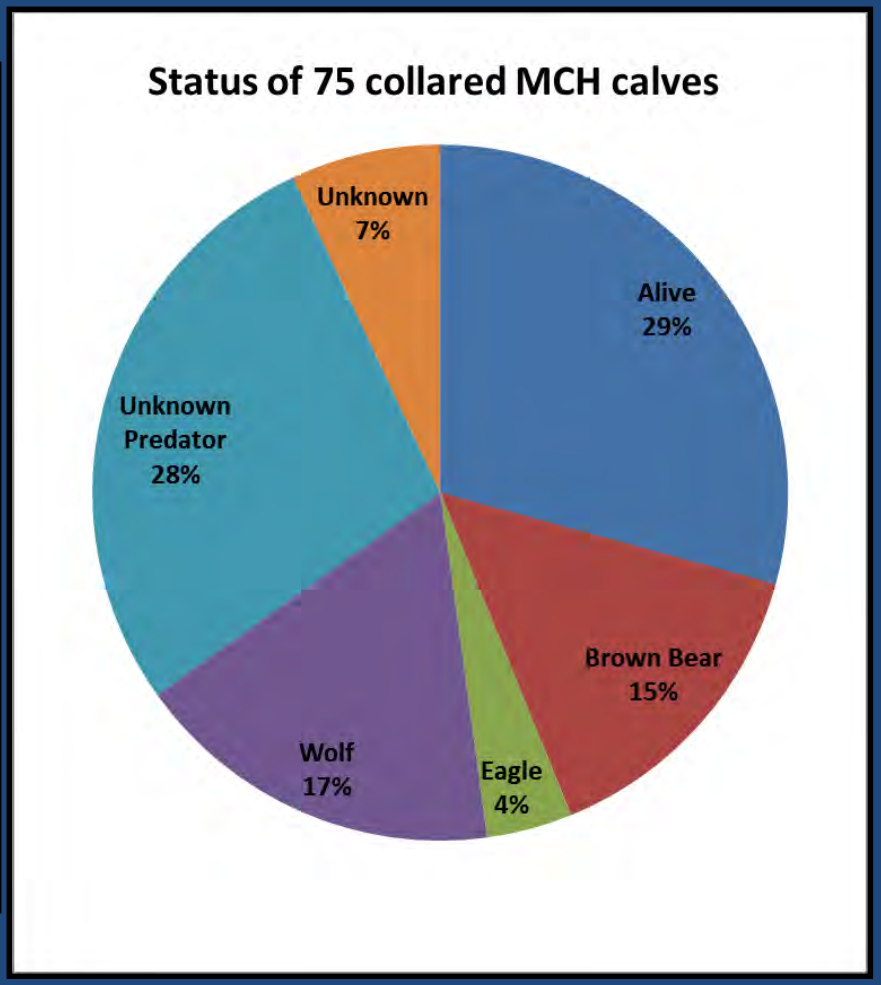
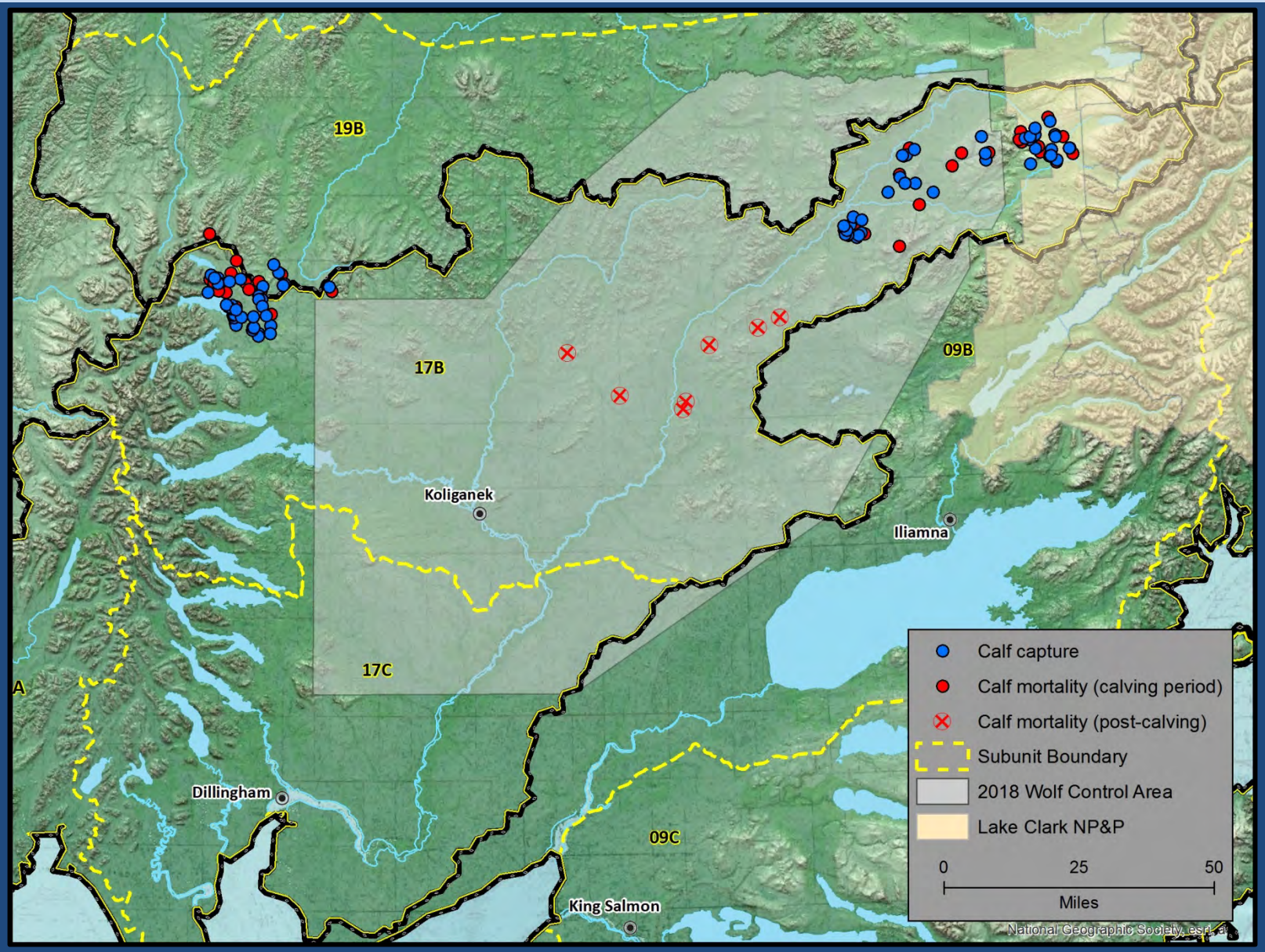
WOLF


19B
17B
09B
Koliganek
Iliamna
17C
Dillingham
09C
King Salmon
Wolf Pack Home Ranges
Subunit Boundary
Kemuk WCA
Greater Mulchatna WCA
0
25
50
Miles
National Geographic Society, esri, a

GMU 17 CARIBOU

2017 MCH calf mortality research findings

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