

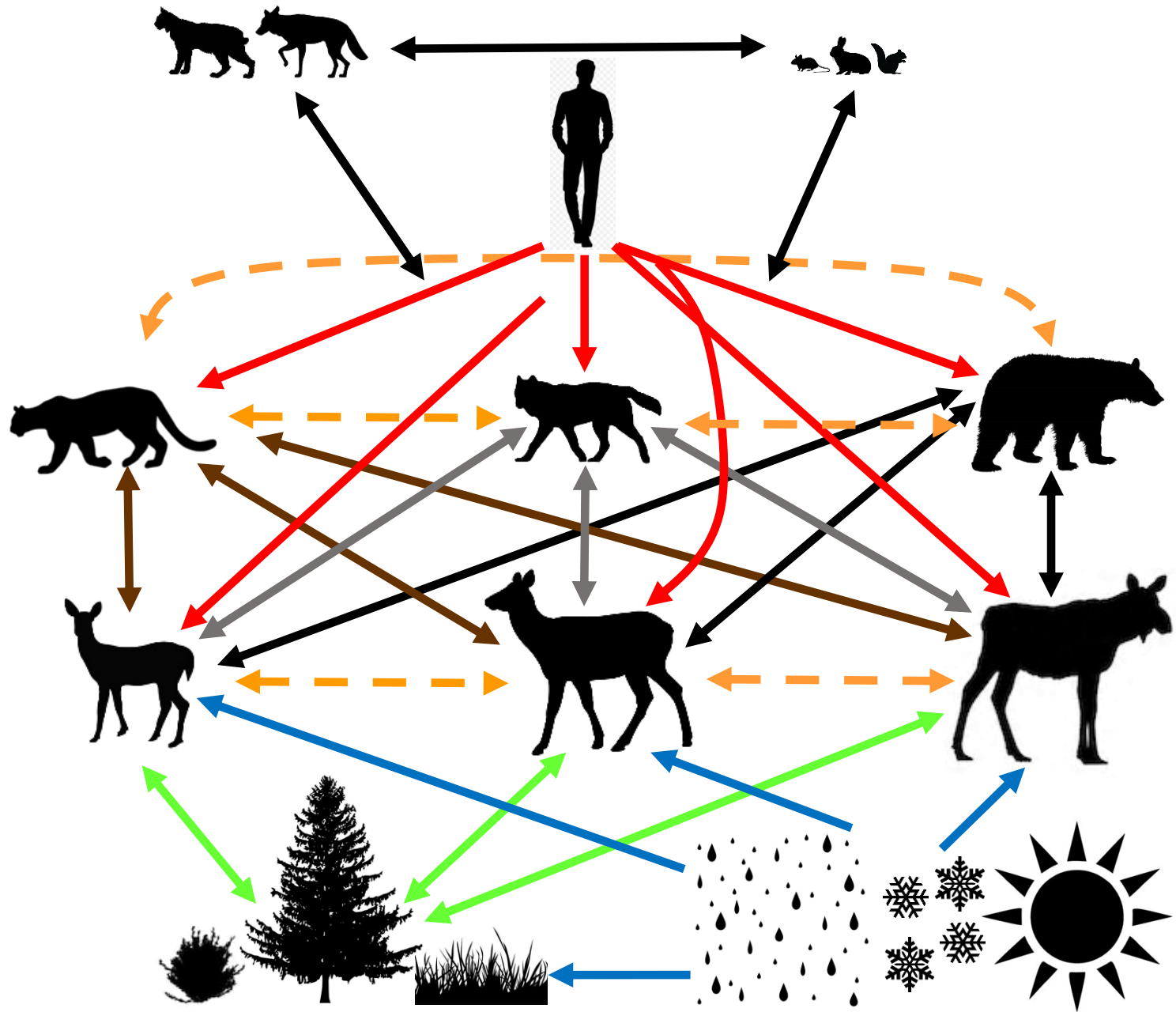
THE PREDATOR-PREY PROJECT: RESEARCH UPDATE SEPTEMBER 2019

Melia DeVivo, Ph.D. and Brian Kertson, Ph.D.
Washington Department of Fish and Wildlife



BACKGROUND

- **Legislative mandate in 2015:**
 - Determine the impacts of wolf predation on ungulates
 - Collaborate with University of Washington
 - \$400,000 from legislature
- **UW (Gardner, Prugh, and Wirsing)**



RESEARCH QUESTION

How is predation affecting Washington's ungulate populations in managed landscapes occupied by varying densities of wolves that are sympatric with other predators?



Melia DeVivo
Ungulate Research Scientist



Brian Kertson
Carnivore Research Scientist



Laura Prugh
Associate Professor

Aaron Wirsing
Associate Professor

Beth Gardner
Associate Professor

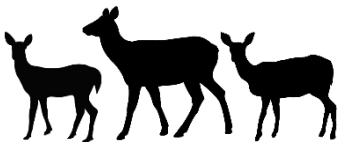
Taylor Ganz
Ph.D. Graduate Student

Becca Windell
Ph.D. Graduate Student

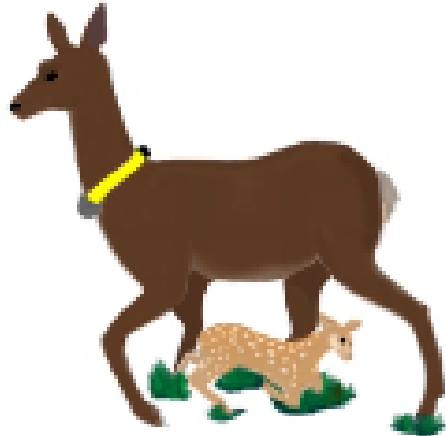
Lauren Satterfield
Ph.D. Graduate Student

Trent Roussin
M.S. Graduate Student

Sarah Bassing
Ph.D. Graduate Student



METHODS



- Cause-specific mortality
- Survival
- Space use
- Diet (carnivores)
- Non-consumptive effects
- Species interactions



- Non-consumptive effects
- Non-target species
- Space use/occupancy
- Species interactions

ADULT UNGULATE CAPTURES TO DATE

- White-tailed deer: 96
- Elk: 56
- Mule Deer: 102
- Hit sample size targets

JUVENILE UNGULATE CAPTURES TO DATE



- White-tailed deer: 98
- Elk: 20
- No mule deer fawn captures – funding and logistics

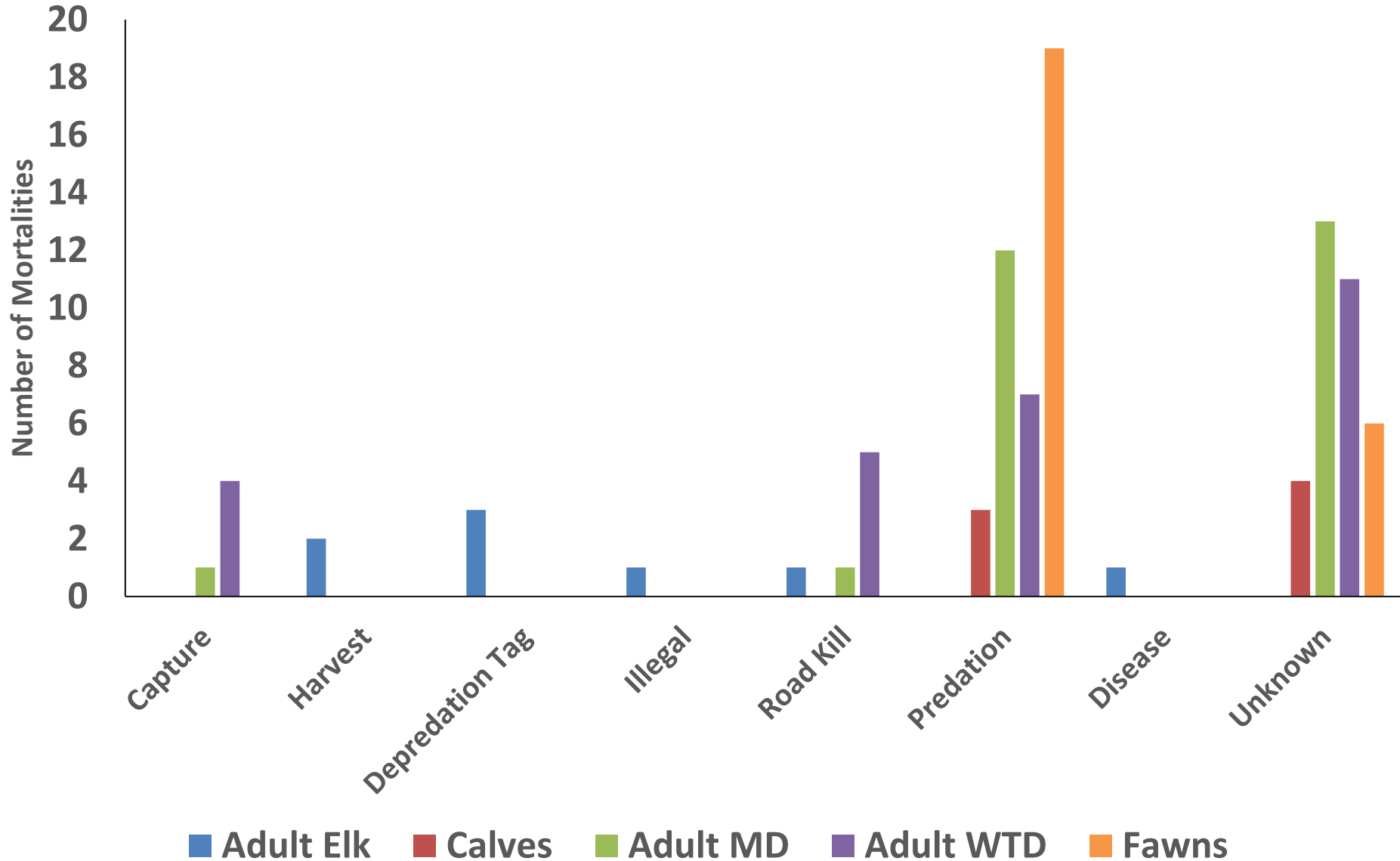


CURRENT UNGULATE MONITORING



- Mule Deer: 64 active collars
- Elk: 47 active collars (40 adults and 7 calves)
- WTD: 81 active collars (51 adults and 30 fawns)

PROXIMATE CAUSE OF MORTALITIES



A close-up photograph of a cougar's face and fur. The top half shows the thick, brown and black striped fur. The bottom half shows the cougar's face, including its eyes, nose, and whiskers, with some snow on its chin. A black rectangular box with white text is overlaid on the top half of the image.

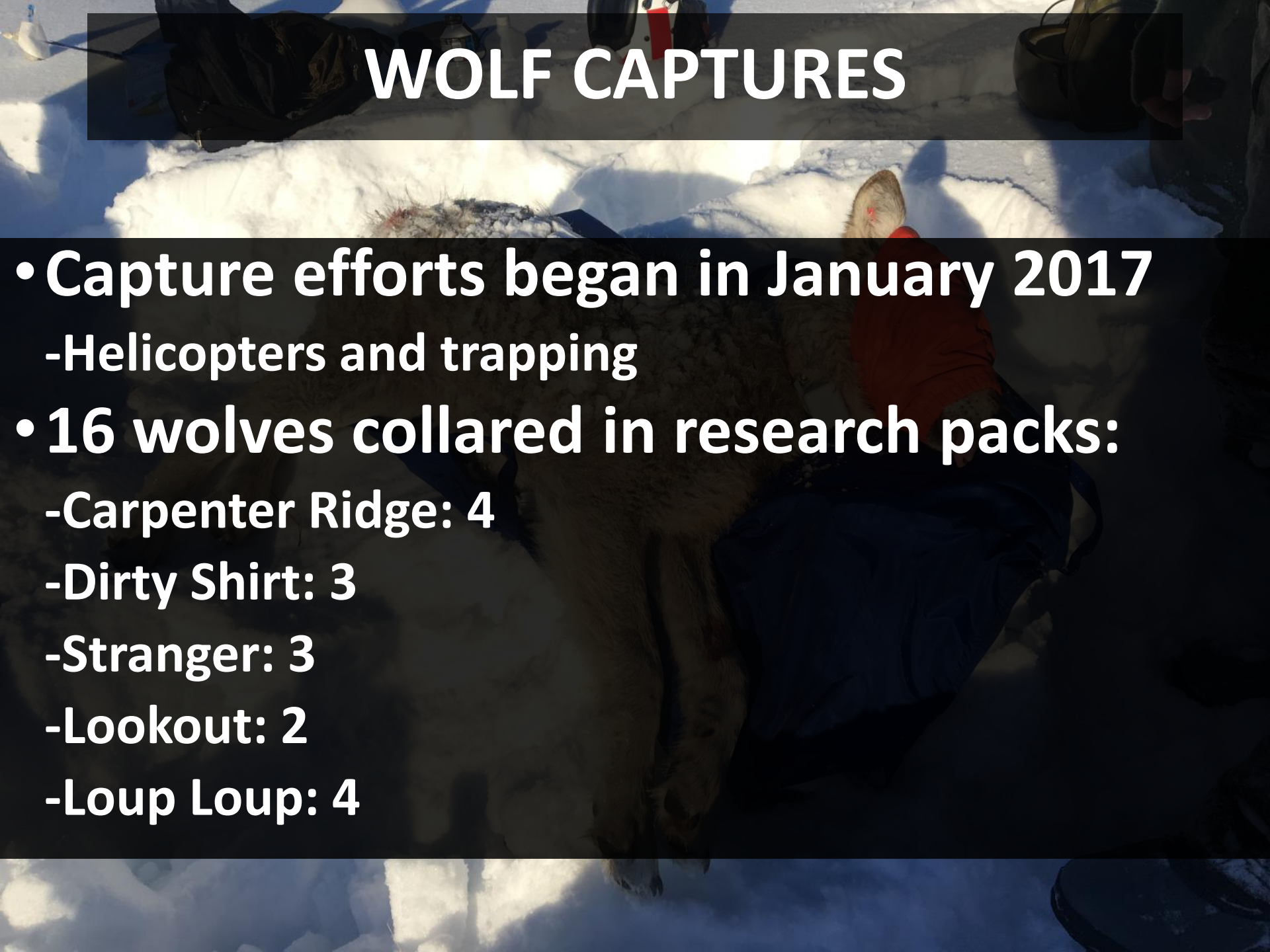
COUGAR CAPTURES

- Captures began in December 2016
 - Dogs and traps
- NE: 51 total, 29 adults and subadults collared
- OK: 25 total, 21 adults and subadults collared

CURRENT COUGAR MONITORING

- **NE: 20 active collars**
 - 11 females, 9 males
 - 3 mortalities
 - 4 dispersed (2 males killed in Idaho)
 - 2 missing (collar malfunction, broken spacer)
- **Okanogan: 9 active collars**
 - 6 females, 3 males
 - 9 mortalities
 - 3 missing (collar malfunction)

WOLF CAPTURES



- Capture efforts began in January 2017
 - Helicopters and trapping
- 16 wolves collared in research packs:
 - Carpenter Ridge: 4
 - Dirty Shirt: 3
 - Stranger: 3
 - Lookout: 2
 - Loup Loup: 4

CURRENT WOLF MONITORING



- Collars currently deployed - 8:
 - Carpenter Ridge: 3 GPS
 - Stranger: 1 GPS
 - Huckleberry: 1 GPS (collar deployed by STI)
 - Dirty Shirt: 0
 - Lookout: 2 GPS
 - Loup Loup: 1 Vhf

QUANTITATIVE INVESTIGATIONS

- Maintaining 60 active cameras in each study area
- 236 camera sites (NE = 109, OK = 127)
- 1.5 years of data collection completed
- Tens of thousands of photos of target species
- Audio recorders deployed at camera locations to monitor wolves



A close-up photograph of a bobcat's face, showing its eyes, whiskers, and fur. The image is dark, and a semi-transparent black box is overlaid on the top and middle sections, containing white text. The text is centered and reads "MESOCARNIVORES" at the top, followed by a bulleted list of research topics and sample sizes.

MESOCARNIVORES

- Independent NSF funding
- Impacts of large carnivores on coyotes and bobcats (facilitation vs. suppression)
- 18 bobcats (9 in NE, 9 in OK)
- 19 coyotes (9 in NE, 10 in OK)

TAKEAWAYS TO DATE



- Project is progressing well
- No formal analyses have been completed
- No documented mortalities from wolves



A person wearing a plaid shirt is holding a blue towel over a brown cat. The cat is looking towards the camera. The background is a grassy area.

UPCOMING ACTIVITIES

- Monitor collared individuals
- Winter captures (ungulates and carnivores)
- Carnivore cluster visits (Okanogan only)
- Kitten captures (Northeast only)
- Bobcat trapping – UW
- Extensive outreach effort

QUESTIONS?

