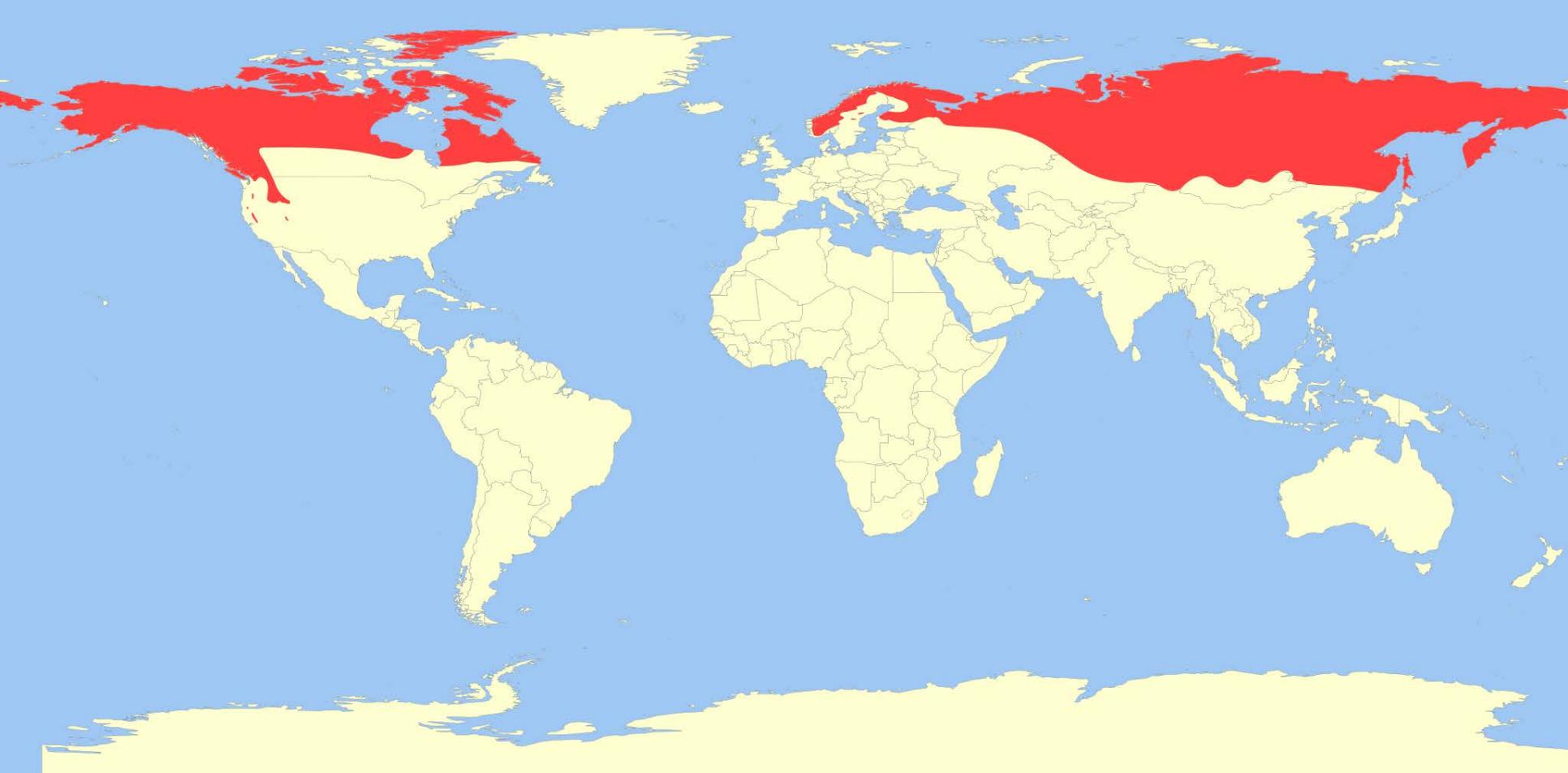


# Western States Wolverine Project



Photo: Mark Packila

Nichole Bjornlie, Zack Walker, Diane Evans Mack,  
Rex Sallabanks, Justin Gude, Bob Inman, Bob Lanka,  
Jeffrey Lewis, Scott Jackson, and Rick Kahn



Wolverines have a circumpolar distribution that used to extend to *Arizona* and *New Mexico*

# Threats to wolverines





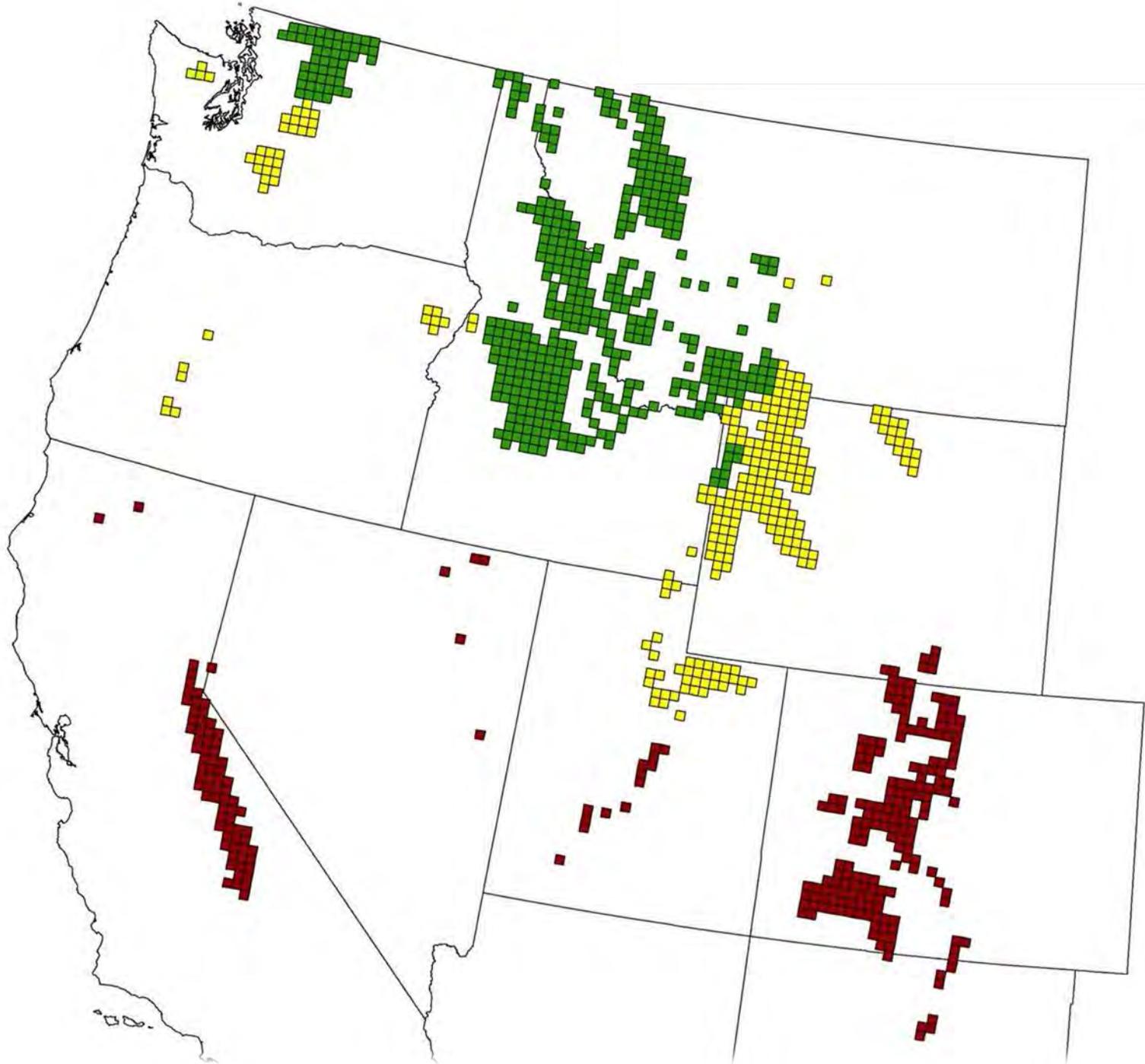
## Conservation issues identified in Wyoming's SWAP

- Geographic isolation of existing populations may leave them vulnerable to demographic and genetic stochasticity
- Disagreement about current and historic status and distribution
- Population densities and trends are not well known



 Wolverine Habitat

 State Partnership



15 km ×

15 km



≥50% modeled  
wolverine habitat



Survey locations based upon accessibility, proximity to alpine tree-line, and location of natural movement corridors



**Clear Creek, Wind River Range**



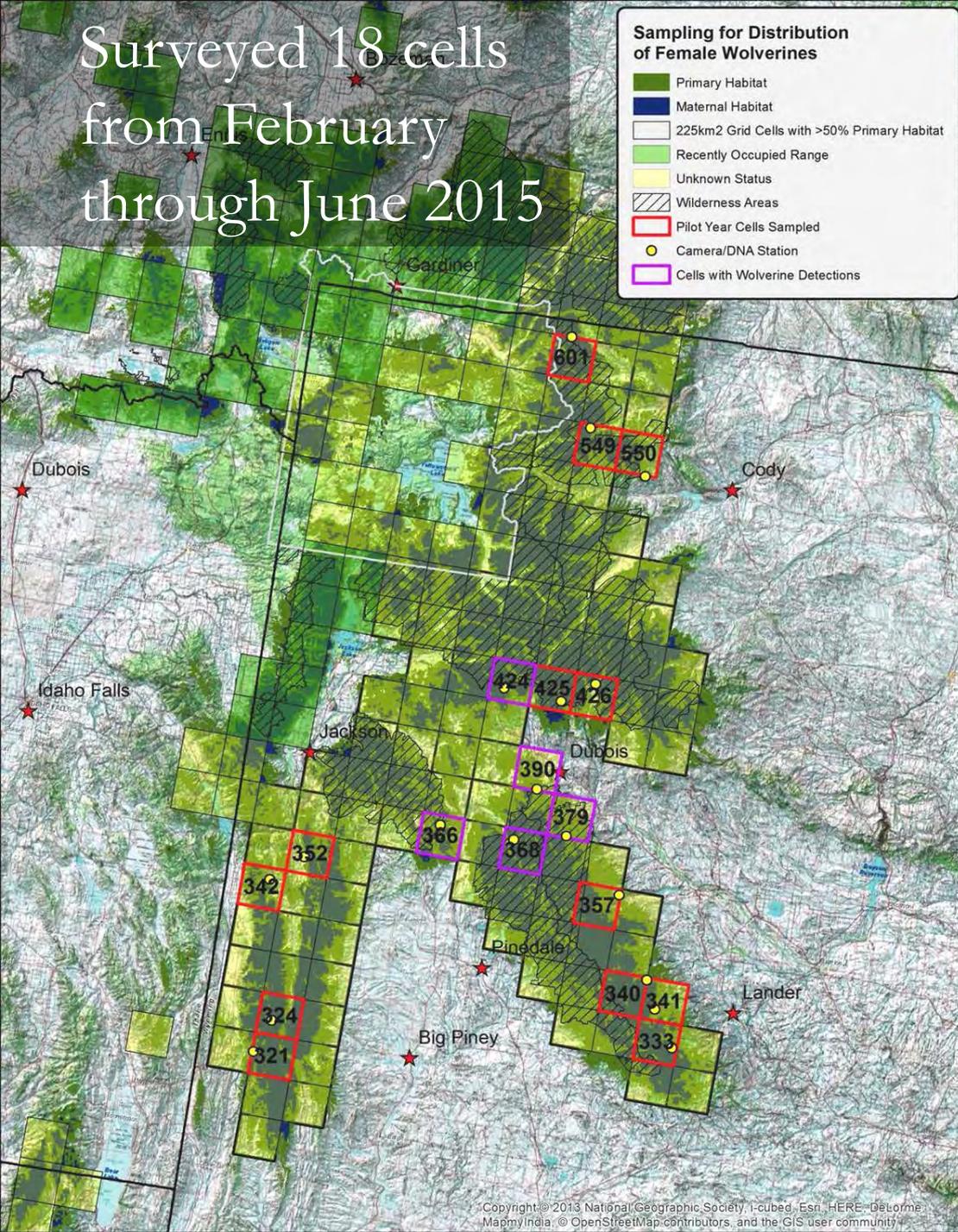
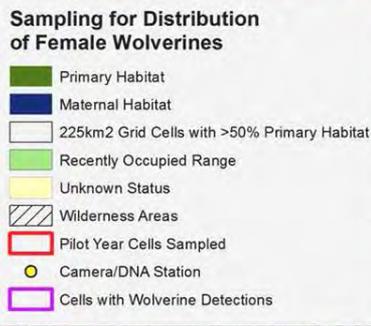
**Burro Flat, Wind River Range**



**Bonneville Pass, Southern Absaroka Range**



Surveyed 18 cells  
from February  
through June 2015



## The Numbers:

Total days sampled: 1,618

Total photos taken: 70,036

Total wolverine pictures: 8,213

Total wolverine 'visits': 53

Total genetic samples: 65

Total cells with wolverines: 5

Total unique wolverines:  $\geq 3$

Probability of detection:

0.321 (95% CI: 0.128 to 0.575)

Probability of occupancy:

0.629 (95% CI: 0.362 to 0.837)

Probability of detection over  
5-month period: 85.6%

# Tosi Creek, Gros Ventre Range

2015-03-23 10:57:25 AM M 2/5

0 30°F



RECONYX

2015-05-02 20:26:41

M 3/3

39°F



RECONYX

WWW.GULOS.ORG 0366

# Bonneville Pass, Southern Absarokas

2015-04-15 08:32:43

M 2/3

○ 18°F



WWW.GULOS.ORG 0424

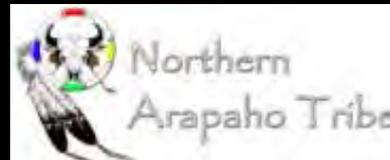
RECONYX



# Additional wolverine sightings



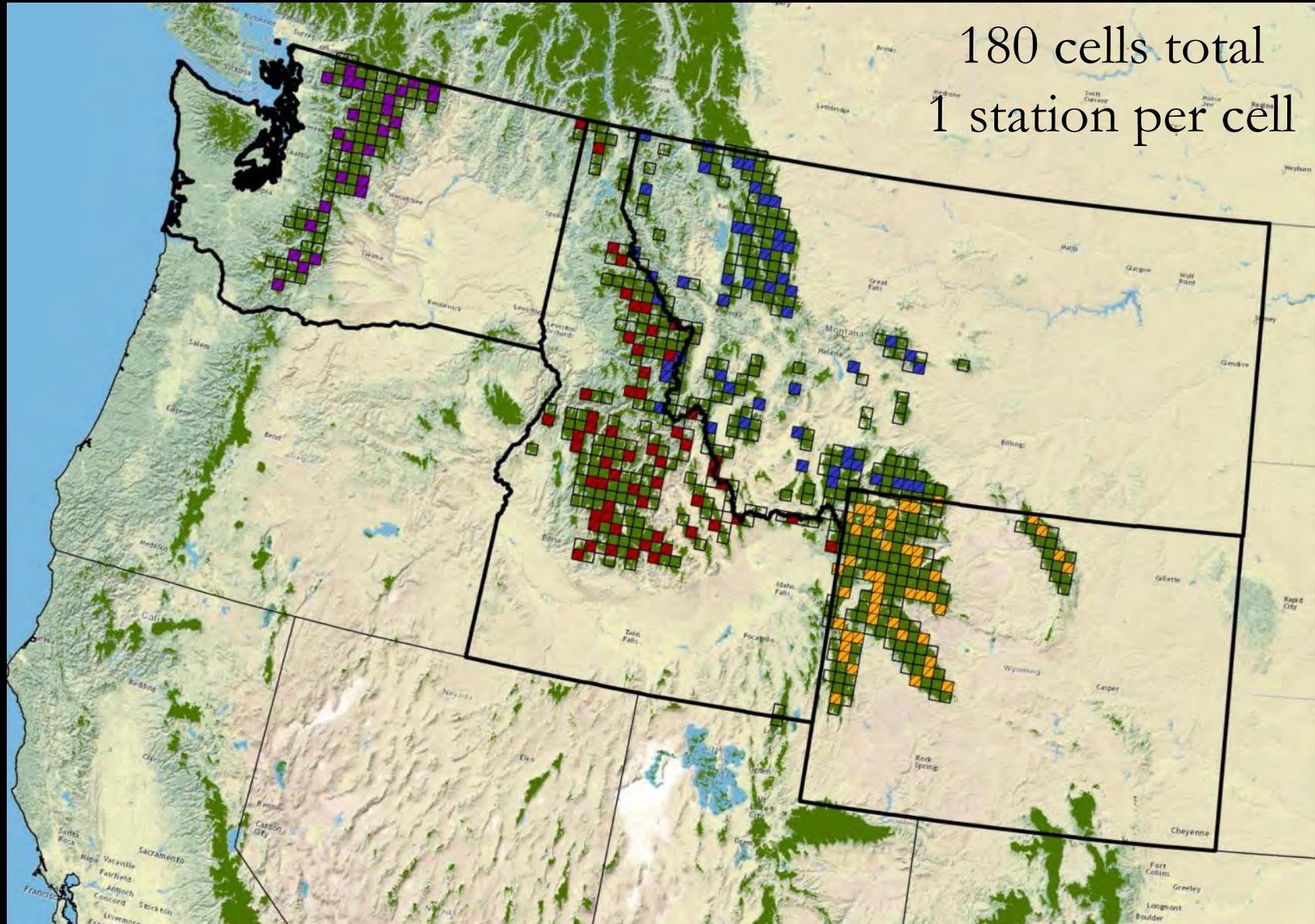
# Multistate wolverine working group



# Why multi-state?



# Multi-state monitoring – sample frame



# Multi-state monitoring – survey stations



December 1 – March 31

# Multi-state monitoring – survey stations

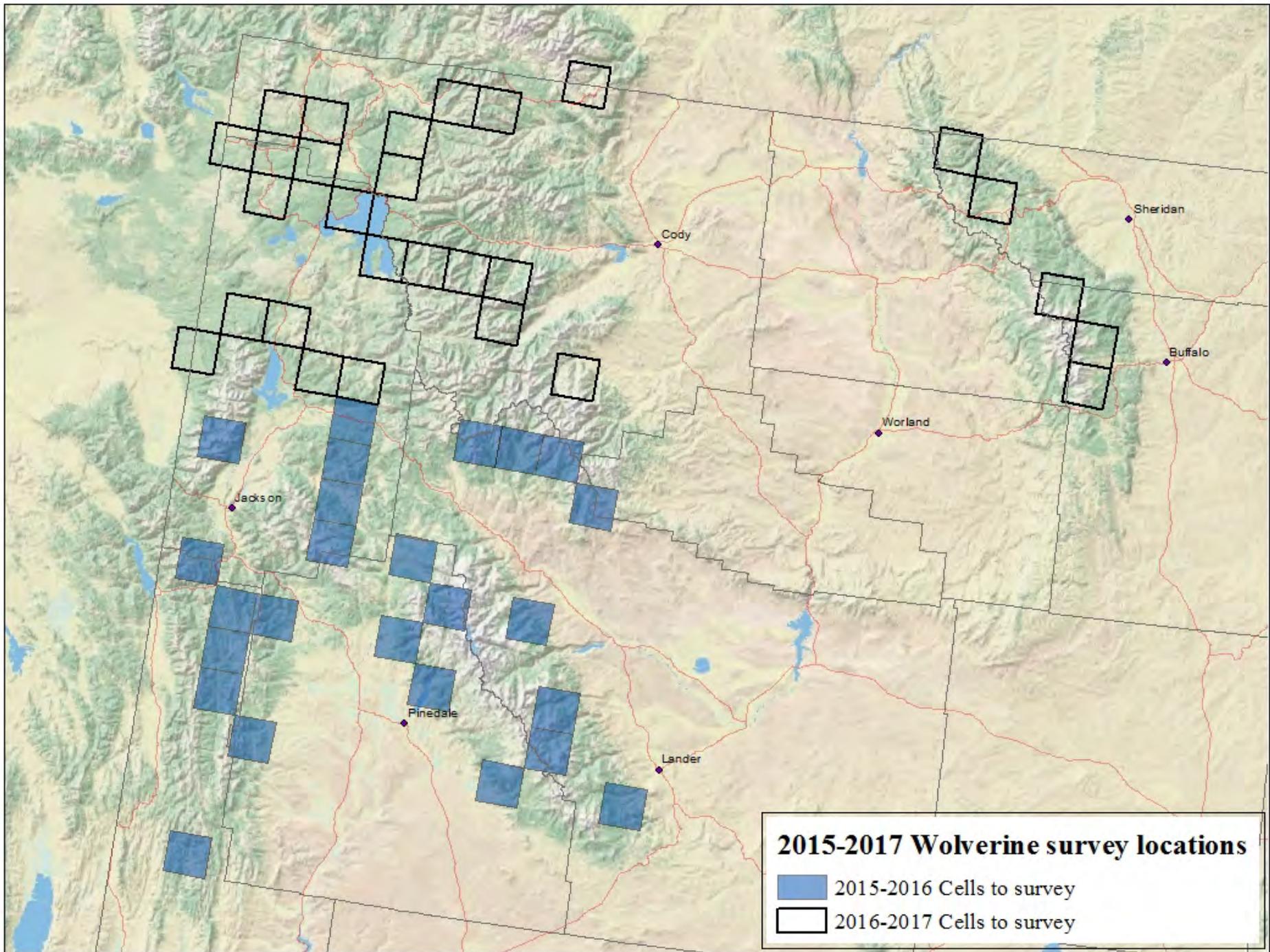


December 1 – March 31

# Multi-state monitoring – survey stations



December 1 – March 31



## The Numbers:

Total days sampled: 3,650

Total photos taken: 77,712

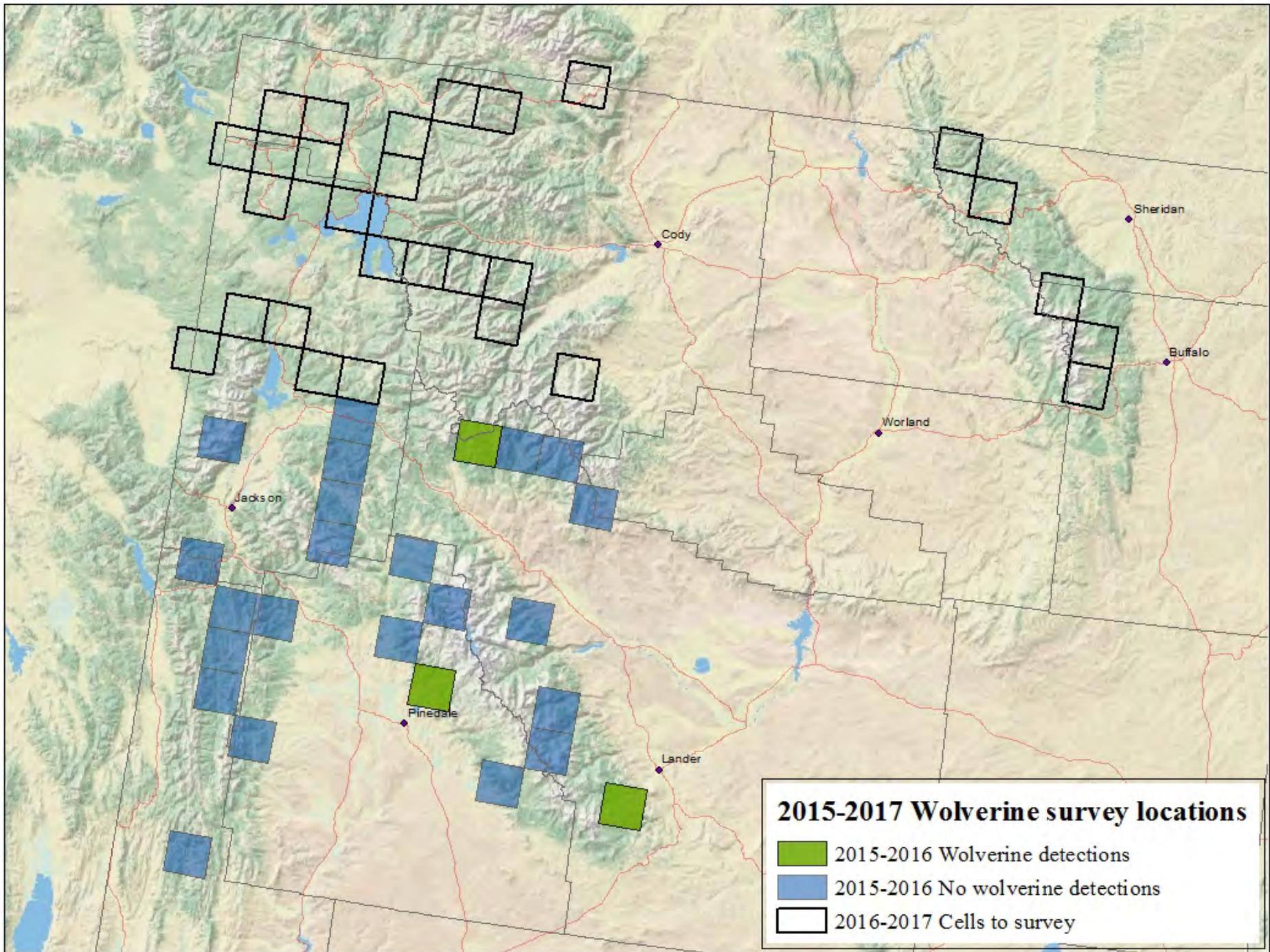
Total wolverine pictures: 1,406

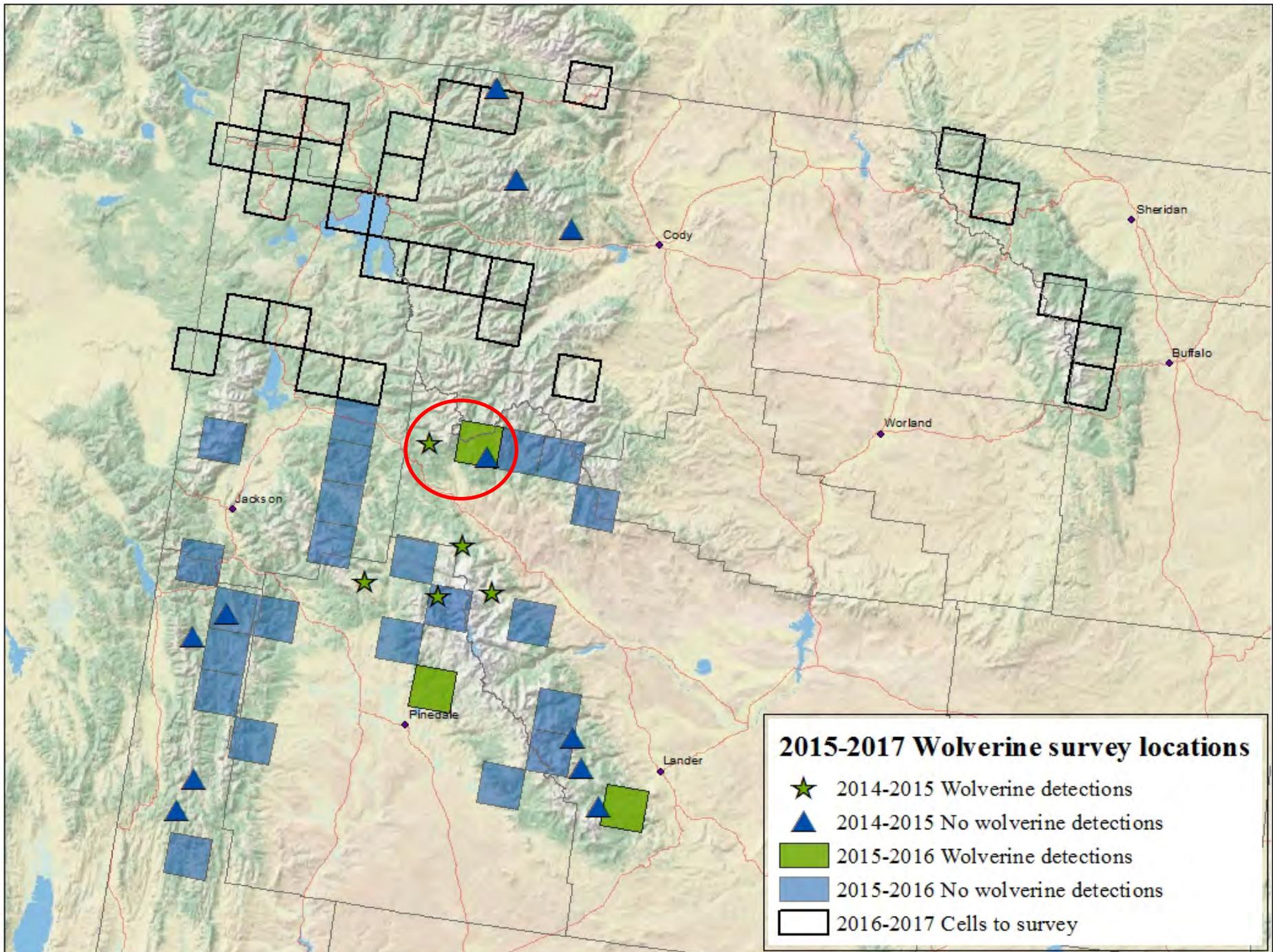
Total genetic samples: 60

Total cells with wolverines: 3

Total unique wolverines:  $\geq 2$

Total sampling occasions with wolverines: 5 (of 100)

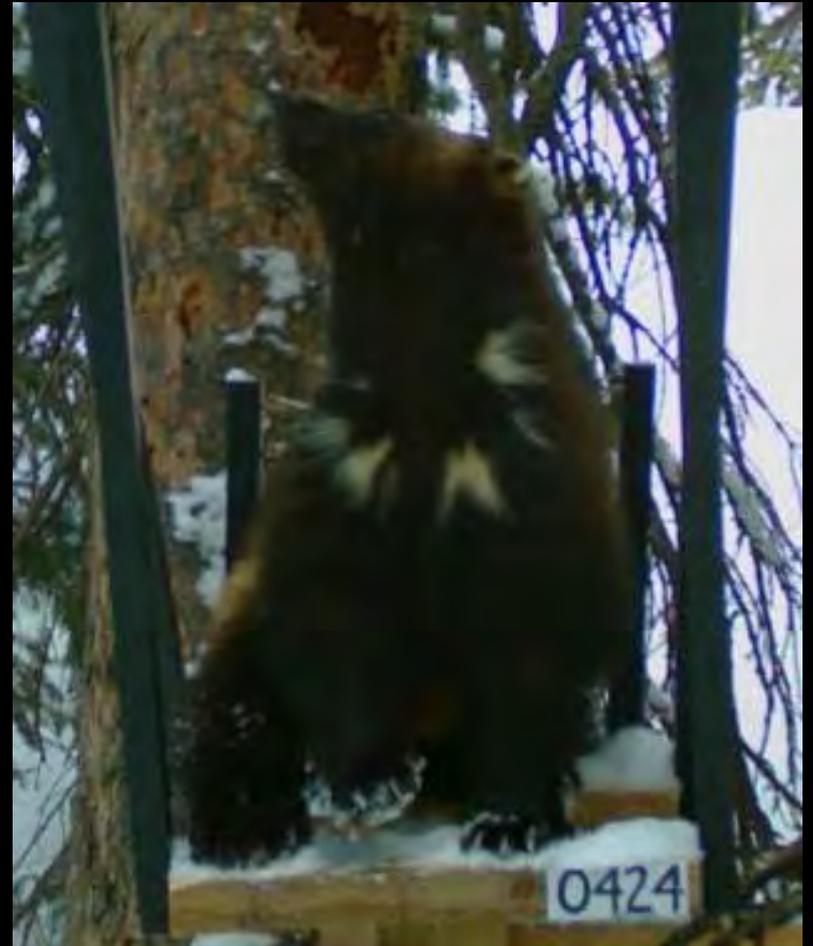


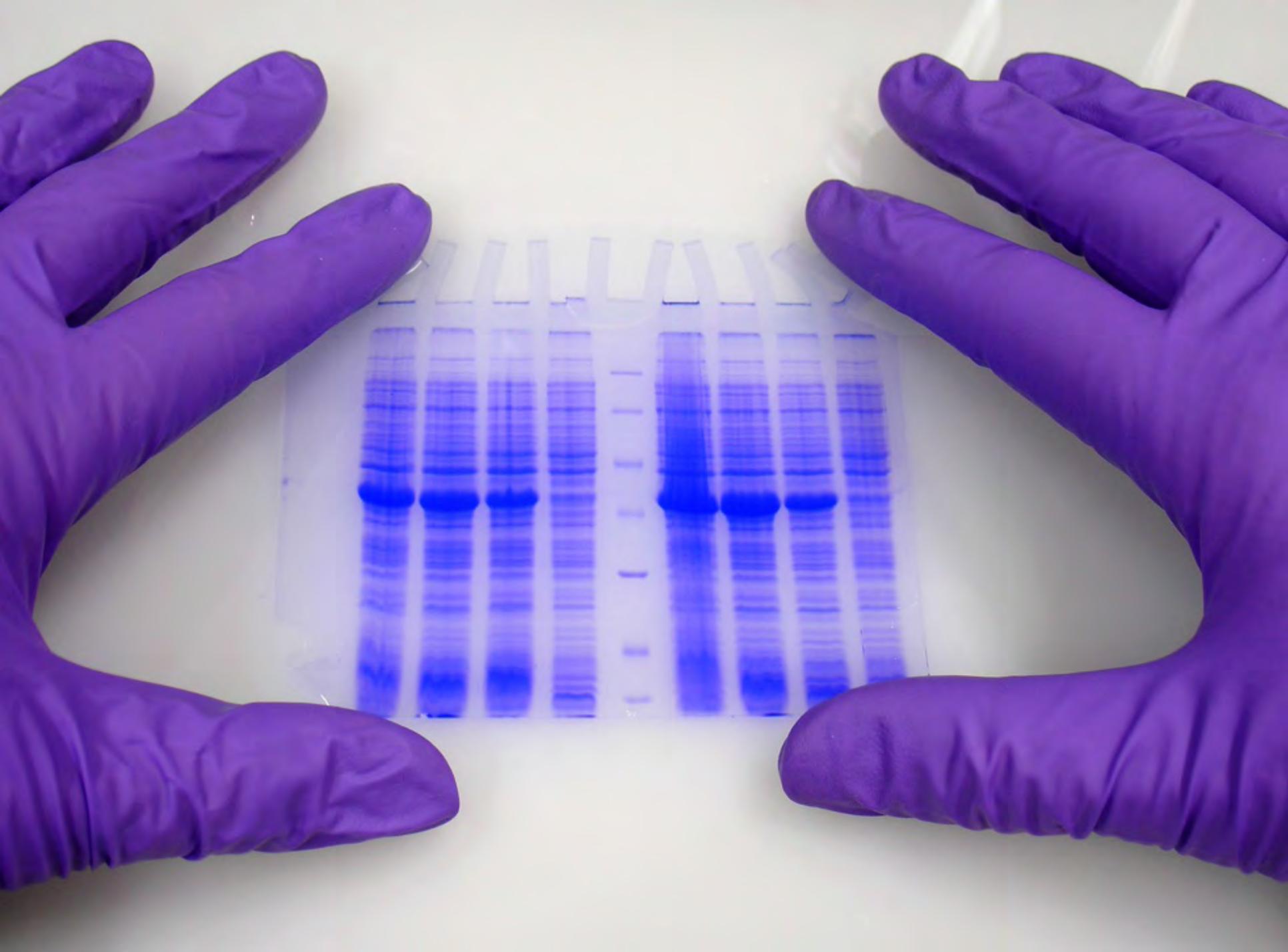


# Bonneville Pass & Five Pockets, Southern Absarokas



# Bonneville Pass & Five Pockets, Southern Absarokas

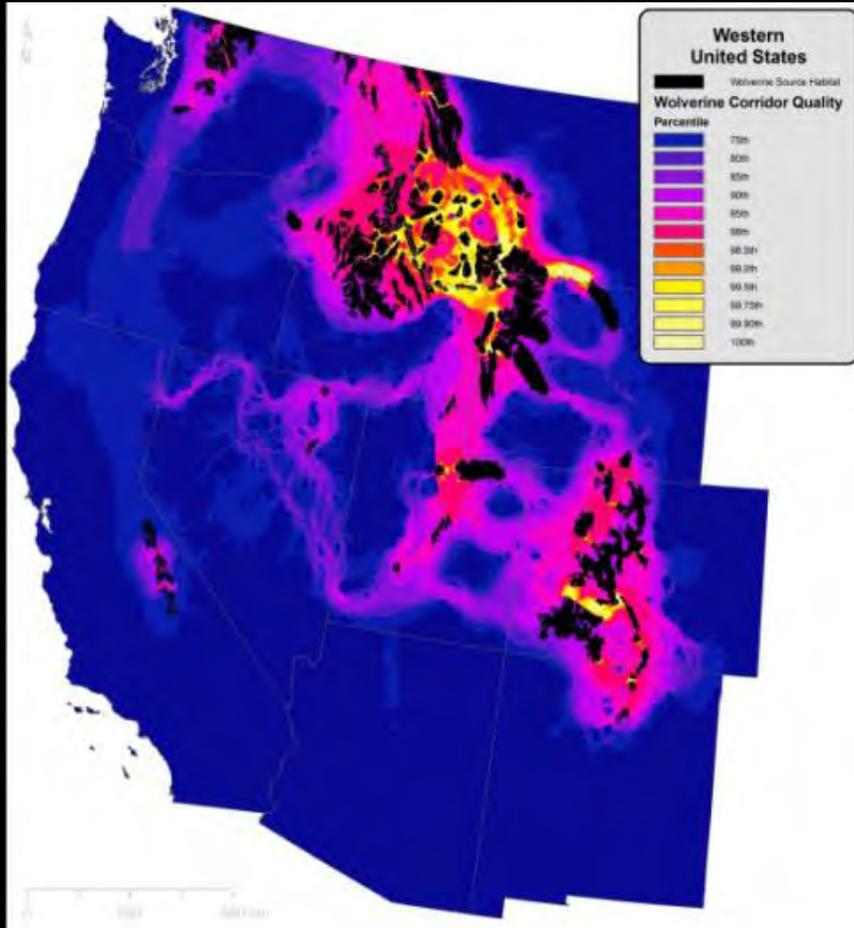




Where do we go from here?



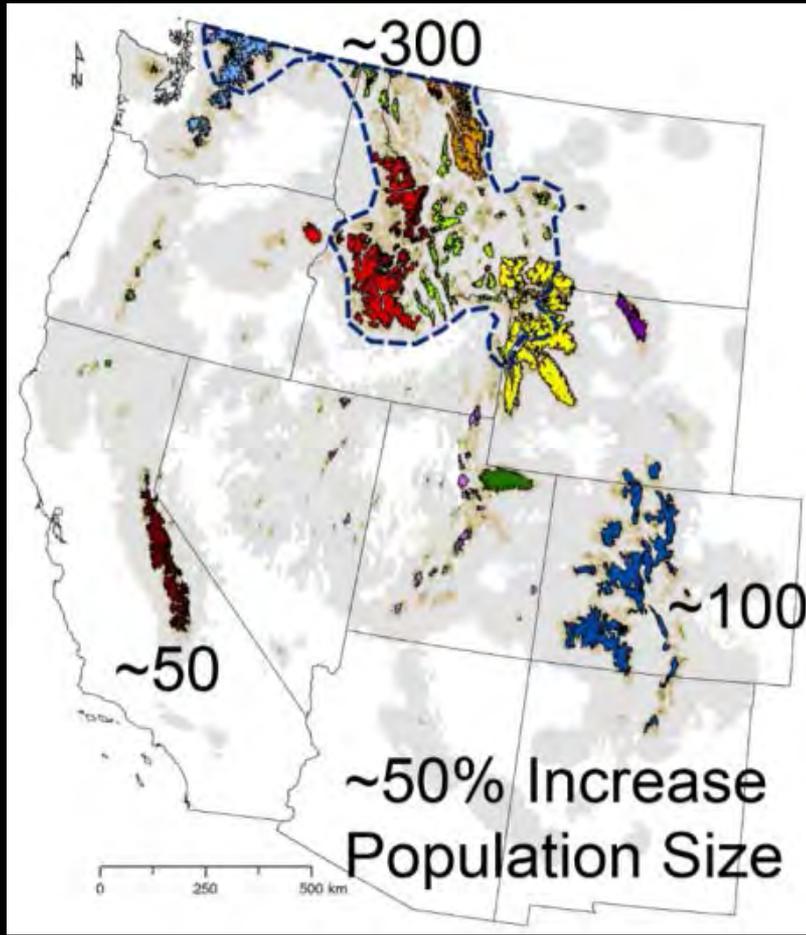
# Wolverine monitoring and conservation is a multi-state effort



1. Model connectivity to focus and prioritize habitat conservation

1. Connect

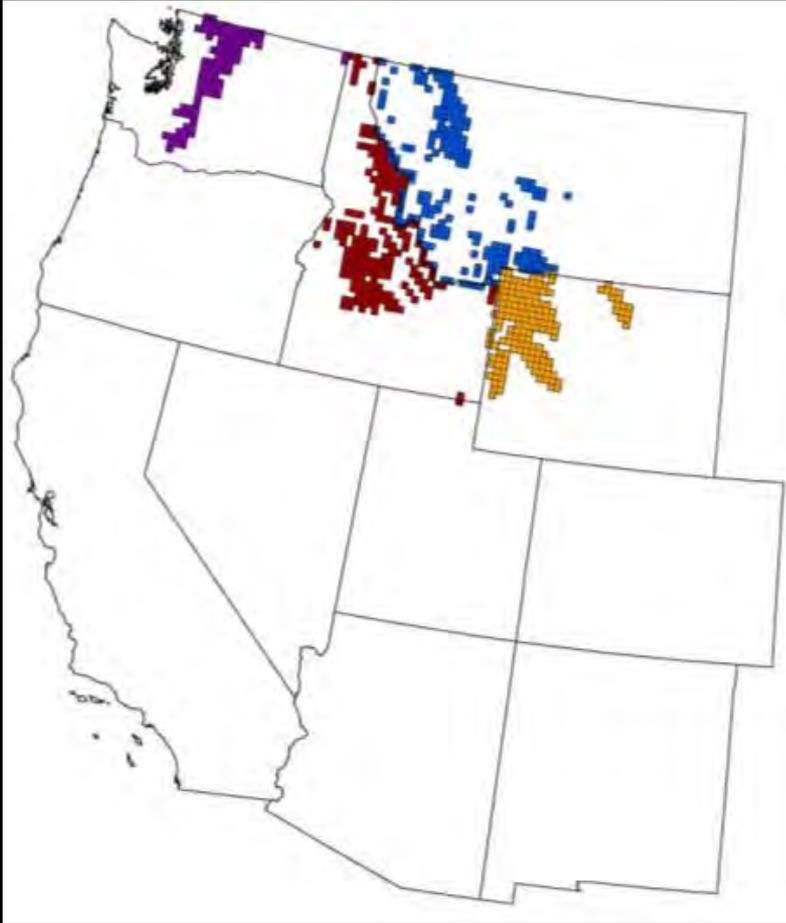
# Wolverine monitoring and conservation is a multi-state effort



1. Model connectivity to focus and prioritize habitat conservation
2. Evaluate the potential for translocation of wolverines as a conservation tool

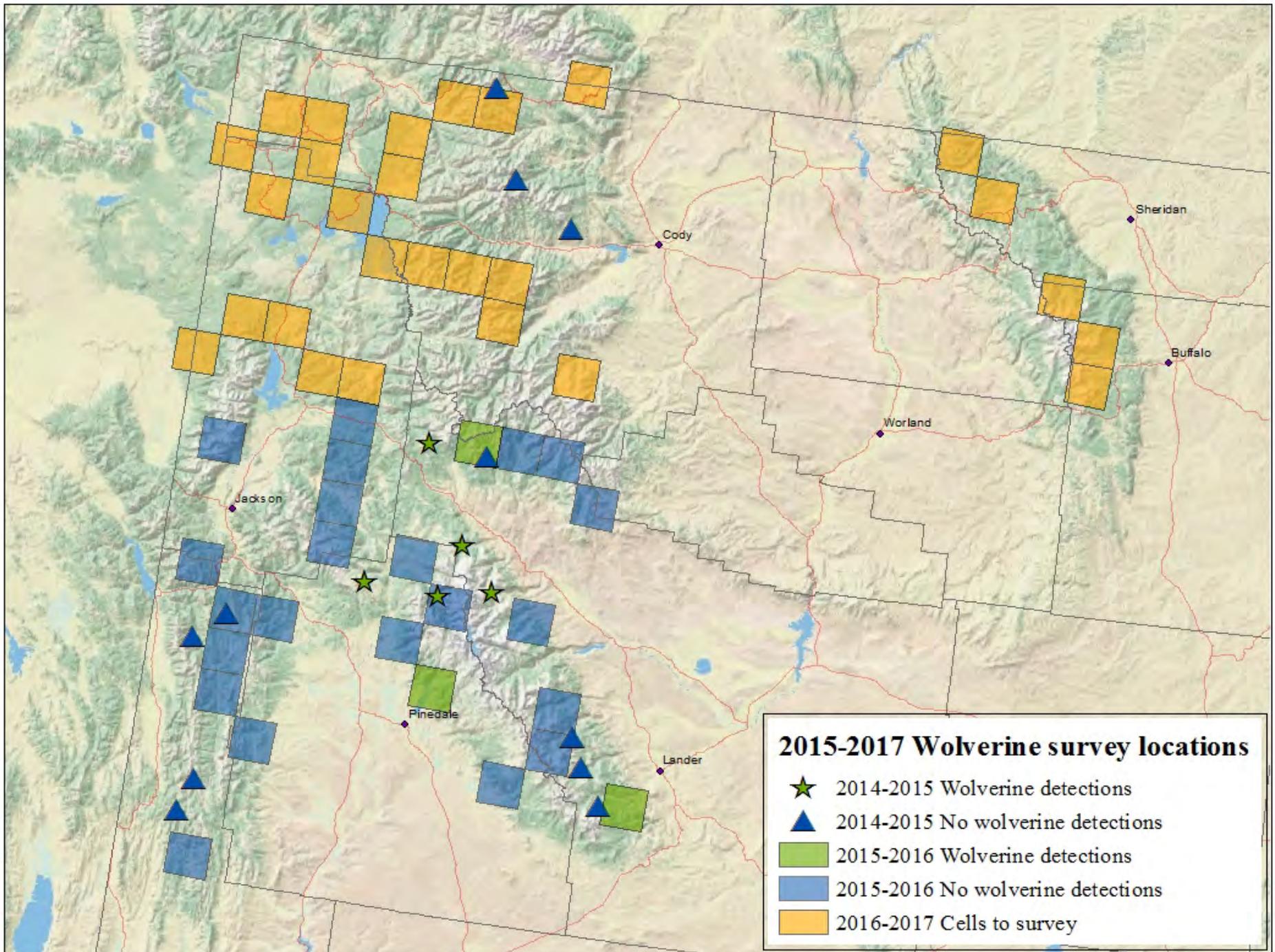
2. Restore

# Wolverine monitoring and conservation is a multi-state effort

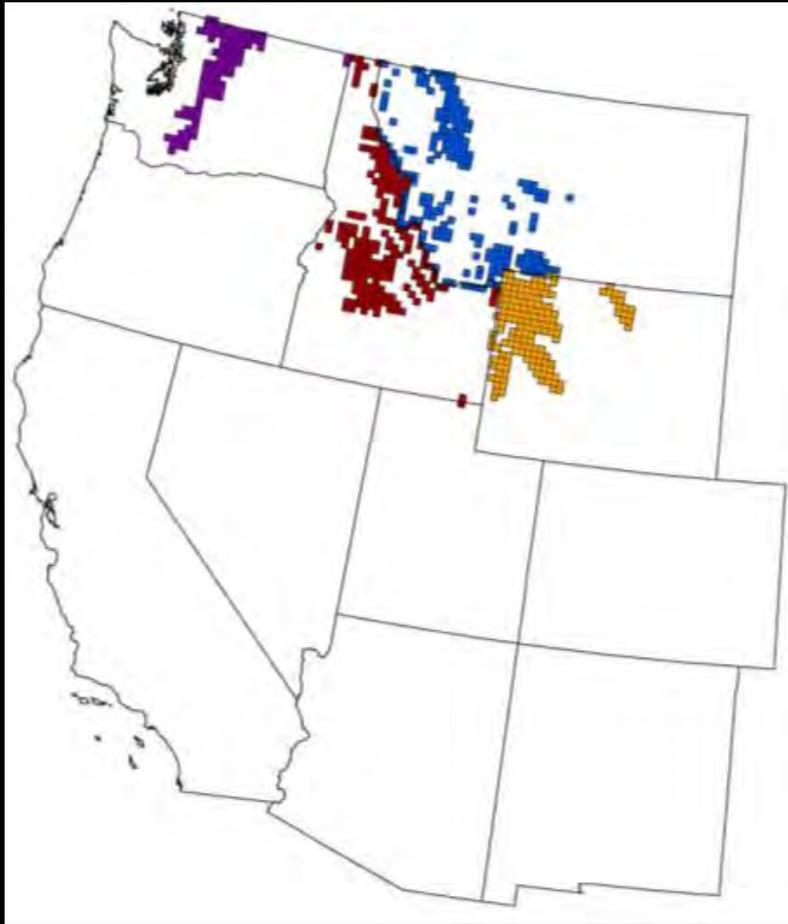


1. Model connectivity to focus and prioritize habitat conservation
2. Evaluate the potential for translocation of wolverines as a conservation tool
3. Develop a coordinated multi-state monitoring strategy

3. Monitor



# Wolverine monitoring and conservation is a multi-state effort



1. Model connectivity to focus and prioritize habitat conservation
2. Evaluate the potential for translocation of wolverines as a conservation tool
3. Develop a coordinated multi-state monitoring strategy
4. Define wolverine baseline distribution

3. Monitor

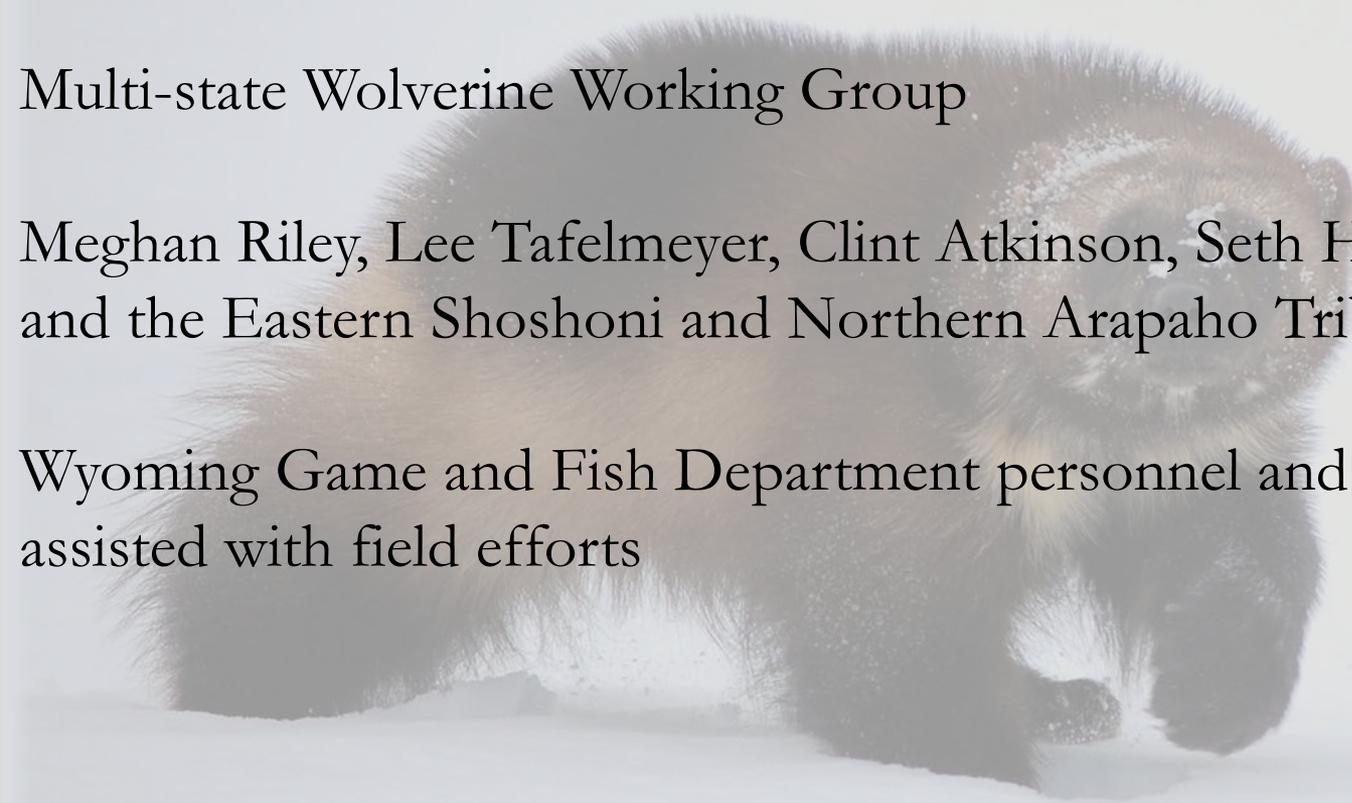
# Acknowledgments

Coauthors: Zack Walker, Diane Evans Mack, Rex Sallabanks, Justin Gude, Bob Inman, Bob Lanka, Jeffrey Lewis, Scott Jackson, and Rick Kahn

Multi-state Wolverine Working Group

Meghan Riley, Lee Tafelmeyer, Clint Atkinson, Seth Halman, Pat Hnilika, and the Eastern Shoshoni and Northern Arapaho Tribes

Wyoming Game and Fish Department personnel and volunteers that assisted with field efforts



A close-up photograph of a brown dog's face, looking directly at the camera. The dog has dark brown fur and a black nose. The background is blurred, showing a blue and white pattern. In the top right corner, there is a semi-transparent grey box containing the word "Questions?" in white serif font.

Questions?