# Sage-Grouse Initiative

## Working Lands Partnership for Rangeland Health and Sage-Grouse Habitat Conservation

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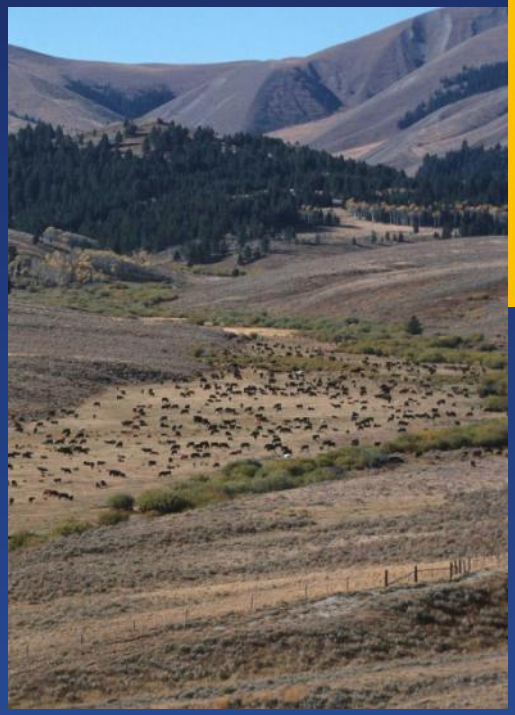
NRCS State Biologist

# Montana's SGI

- What's good for cows is good for sage-grouse.

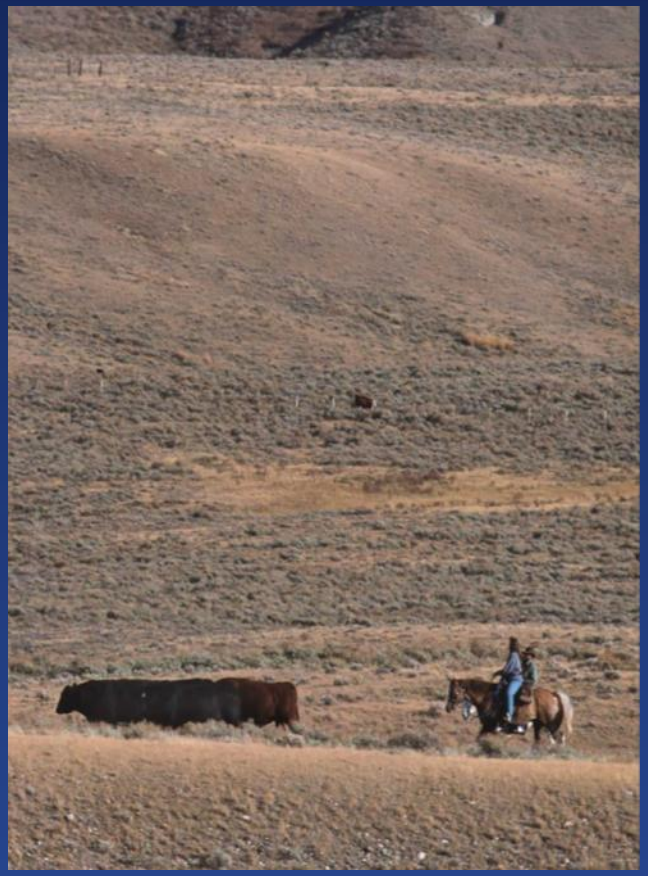


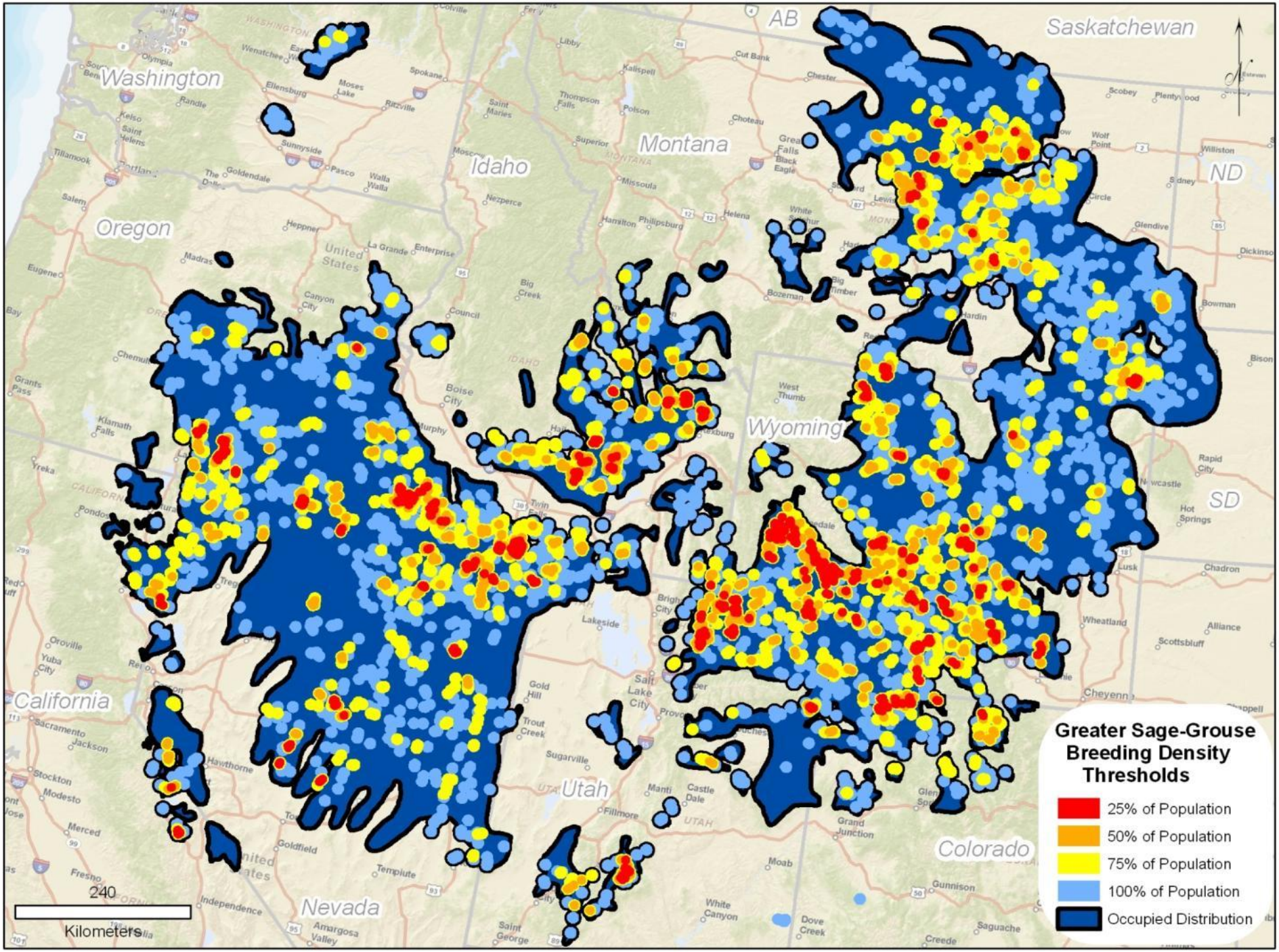
# SGI – What is it?

- Initiative in 11 states to recover sage-grouse populations
- Prevent ESA listing

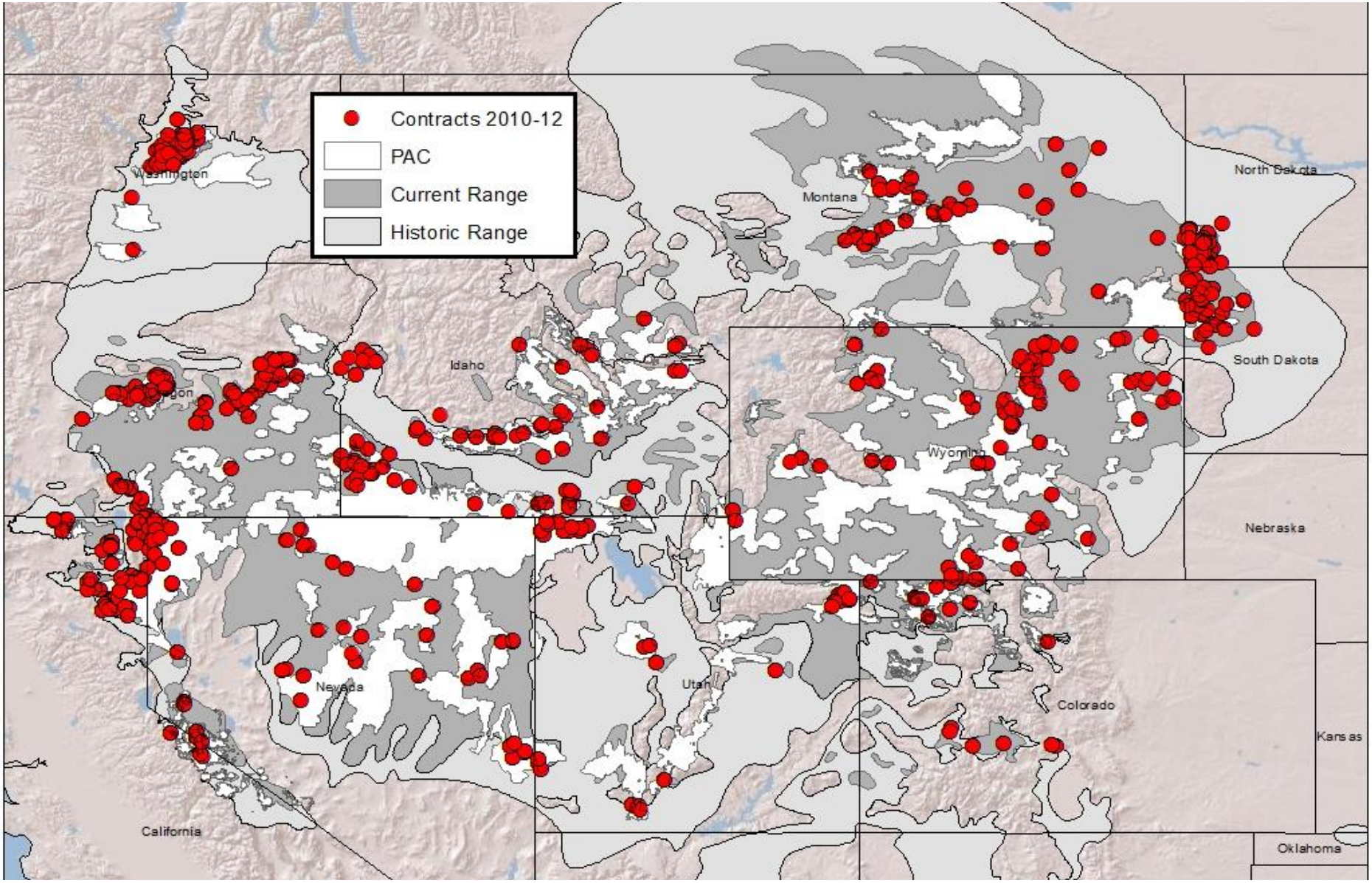
Issues:

- Grazing Management
- Conifer Encroachment
- Fence Collisions
- Drowning in Stock Tanks
- Predation

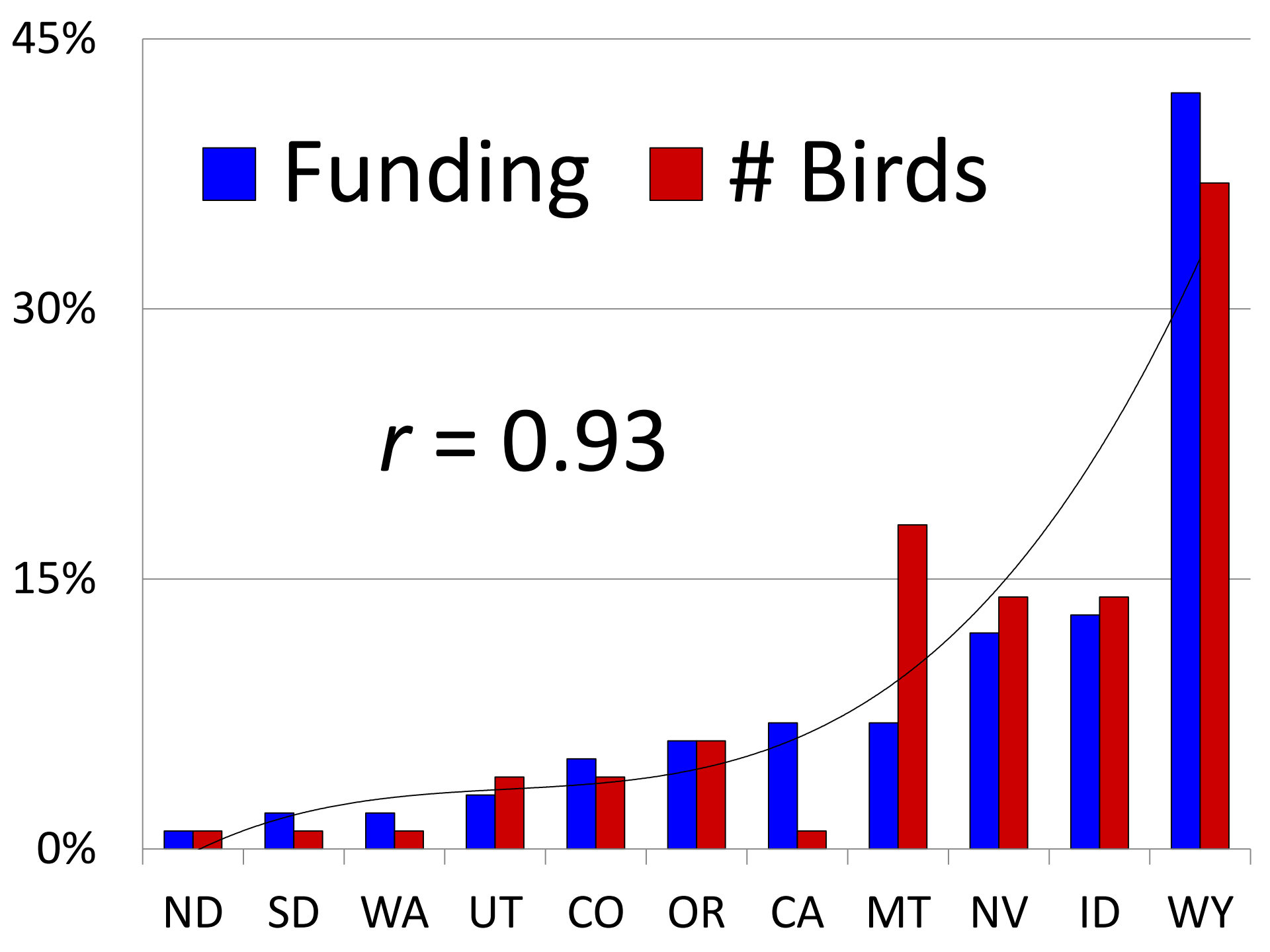


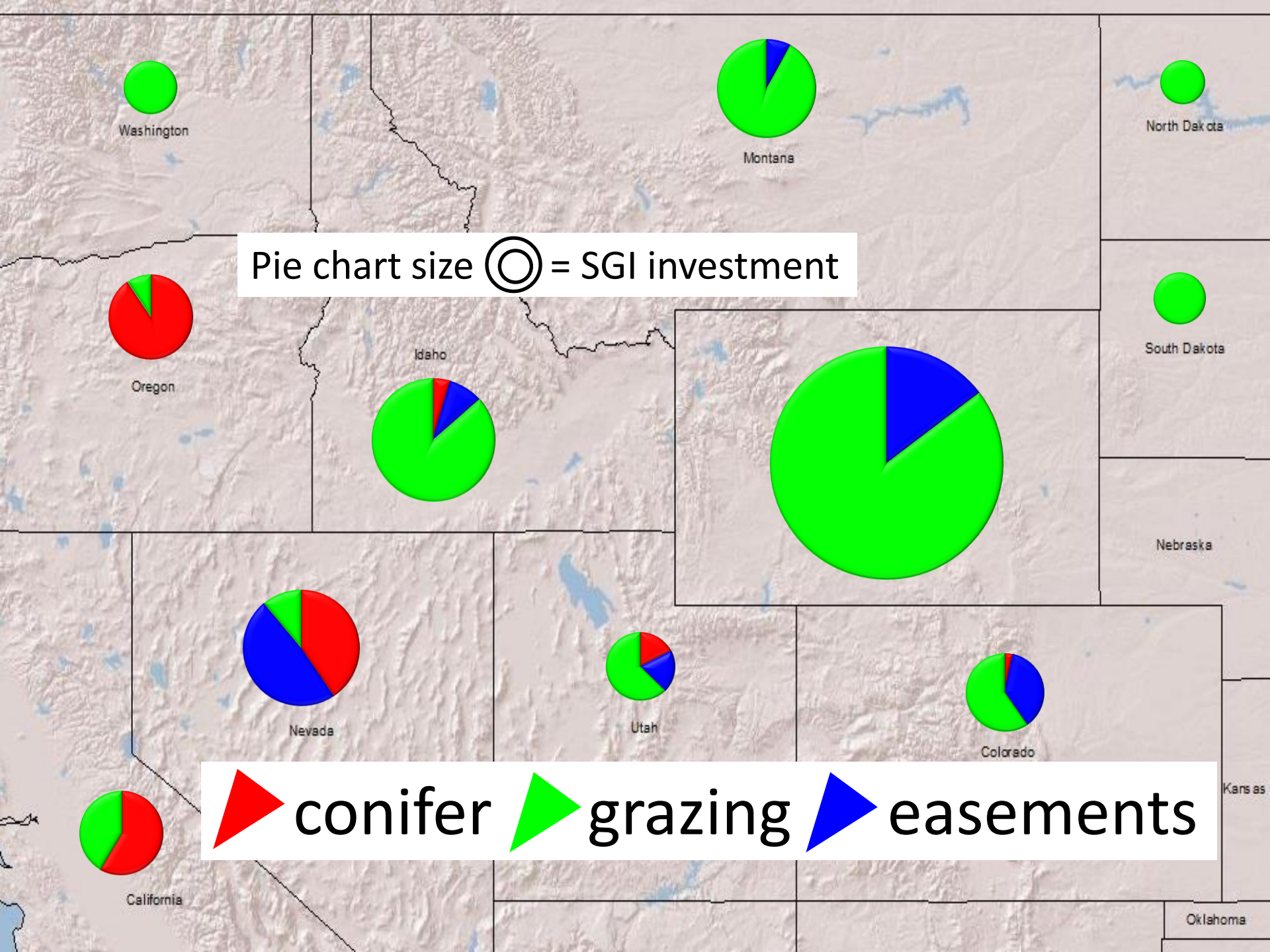

Greater Sage-Grouse Breeding Density Thresholds
25% of Population
50% of Population
75% of Population
100% of Population
Occupied Distribution
240
Kilometers
Washington
Oregon
Idaho
Montana
Wyoming
Utah
Nevada
California
Colorado
ND
SD
AB
Saskatchewan

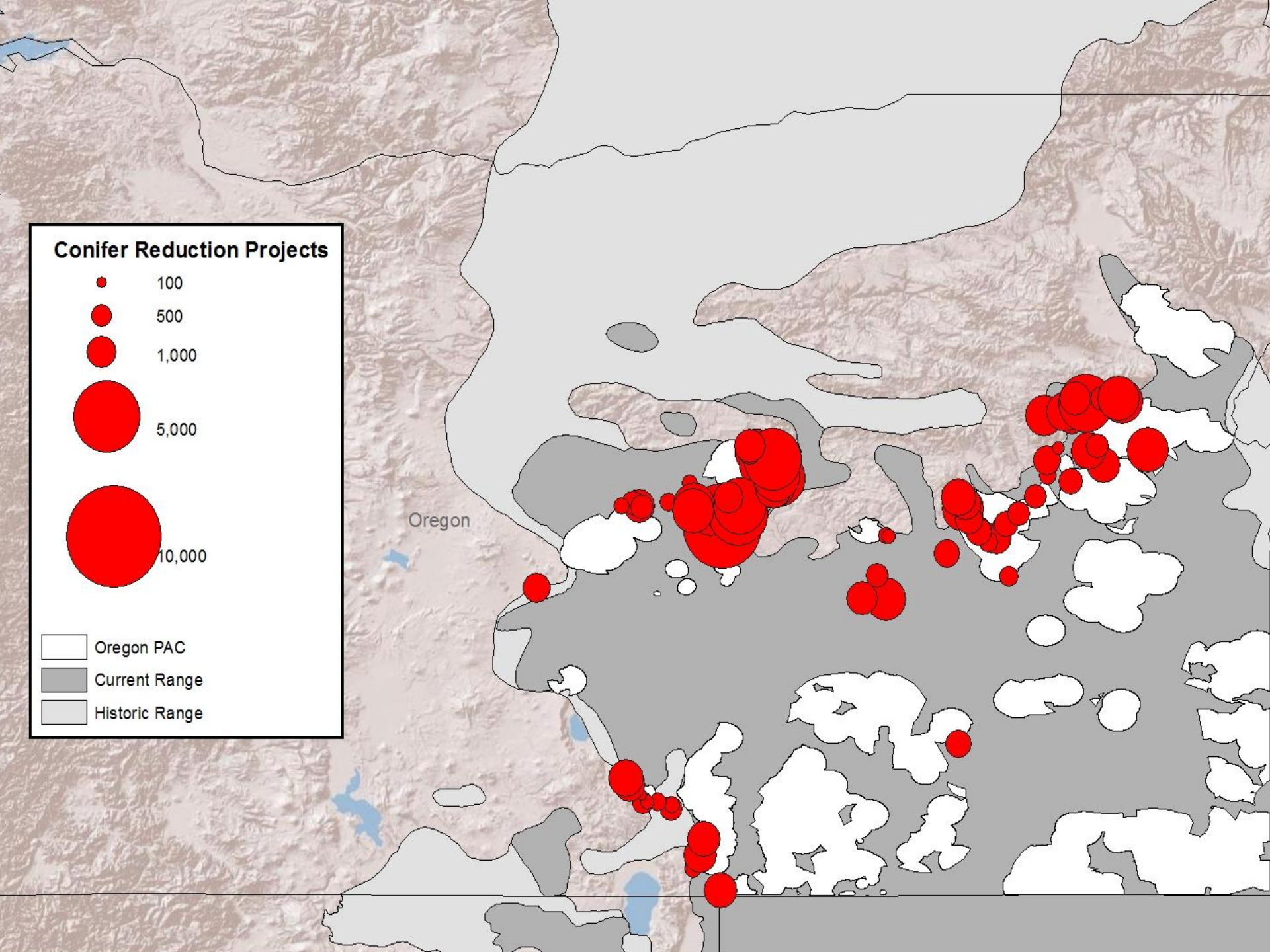
# All SGI WHIP and EQIP Contracts 2010-2012




62% of contracts in PACS 83% in current range 95% within historic


45%
30%
15%
0%
Funding
# Birds
r = 0.93
ND
SD
WA
UT
CO
OR
CA
MT
NV
ID
WY


Washington
Montana
North Dakota
Pie chart size = SGI investment
Oregon
Idaho
South Dakota
Nebraska
Nevada
Utah
Colorado
Kansas
conifer
grazing
easements
California
Oklahoma


Conifer Reduction Projects
100
500
1,000
5,000
10,000
Oregon PAC
Current Range
Historic Range
Oregon

Grazing systems on
2.1 million acres

Marked or moved 495 miles of
‘high risk’ fence

Removed encroached conifers on
195,000 acres

Helped secure conservation
easements on 242,000 acres

# Why SGI?

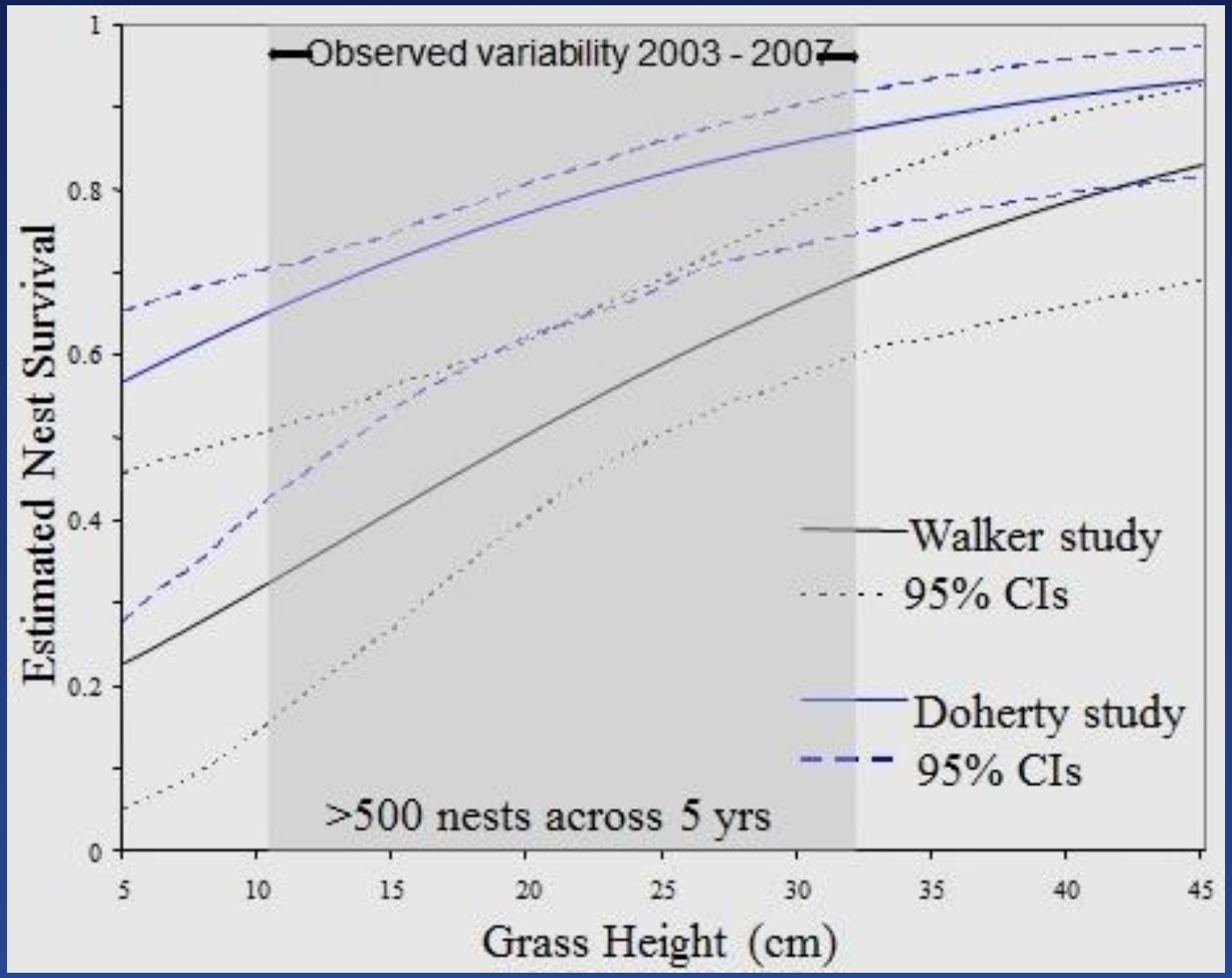
- Sustainable ranching = good sage-grouse habitat
- Sustainable ranching = open space

- Sustainable ranching = healthy local economies
- Changing the environmental paradigm
- Prevent ESA sage-grouse listing

# Why is ranching good for sage-grouse?

# Sage Grouse is a Landscape Species

Sage Grouse nest


Observed variability 2003 - 2007
Estimated Nest Survival
Grass Height (cm)
Walker study
95% CIs
Doherty study
95% CIs
>500 nests across 5 yrs
0
0.2
0.4
0.6
0.8
1
5
10
15
20
25
30
35
40
45

# Old Grass and Litter Cover

- Adds bulk to balance ‘washy’ spring feed
- Protects soil surface = less erosion
- Puts more moisture into the ground
- Inhibits grasshopper reproduction
- Critical drought reserve for livestock
- Increased nest success for sage-grouse

# What do Sage Grouse need?

- Sagebrush
  (in large blocks)
- Residual Cover
  (old grass carry-over)
- Forbs/Insects
  (diversity)

# Residual Cover

# Sagebrush – How much is enough?

# Sage Grouse Habitat Assessment – Breeding Habitat

| Habitat Indicator | Suitable Habitat | Marginal Habitat | Unsuitable Habitat |
|---|---|---|---|
| Average Big Sagebrush Canopy Cover | 15 -25% | 10-14 or 26-35% | <10 or >35% |
| Average Big Sagebrush Height | 12 - 30 inches | 10 - 14 or 31 - 40 inches | <10 or > 40 inches |
| Big Sagebrush Growth Form | Spreading; none to few dead branches | Mix of spreading and columnar growth forms | Tall, columnar form; many dead branches |
| Average Herbaceous Grass and Forb Height | ≥ 7 inches | 5 – 7 inches | < 5 inches |
| Average Grass Canopy Cover | ≥ 15% | 5-14% | <5% |
| Average Forb Canopy Cover | ≥ 10% | 5 – 9% | < 5% |
| Forb Richness | High | Low | Very Low |

# Forbs and Insects

- Diversity of native range plants allows individual animals to select their optimum diet.
- Succulent forbs critical for summer grouse diets:  sustainable grazing increases forb diversity.
- Forbs support insect populations critical to sage grouse chicks.
- Grazing systems and riding prevent overuse of moist site forb production.

# Grazing and Sage-Grouse Go Together

# Livestock need:

- Diverse rangeland vegetation (grass-forb-shrub)
- Old grass carry-over

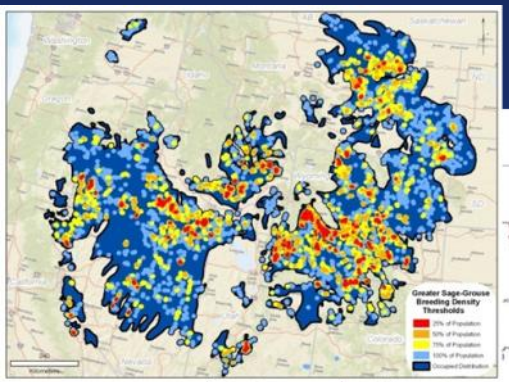
So do Sage-Grouse

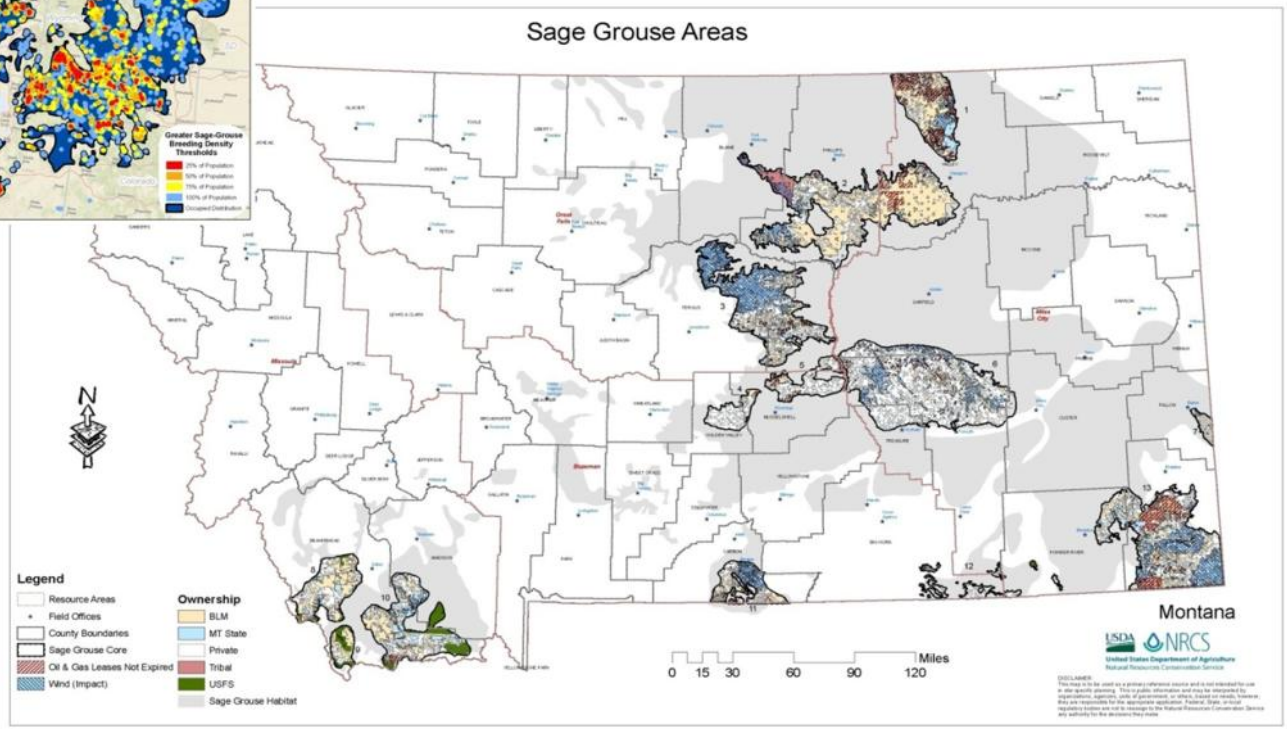
# Montana SGI – What Have We Accomplished?

- Core Areas
- Outreach and education
- Conservation easements
- Management
- Personnel on the ground
- Monitoring

# Montana Core Areas

Reduced 27 million acres of occupied habitat to 8.9 million acres containing 75% of all sage grouse in state.



# Outreach and Education

- Montana NRCS Homepage www.mt.nrcs.usda.gov
- Click on Sage-grouse Initiative

# Outreach Accomplishments

Examples:

- “Save the Sage” video
- “Sharing the SGI Story” video
- A Landowner’s Guide to Wildlife-Friendly Fences
- GovDelivery website updates

# Conservation Easements

6 easements on 47,151 acres:

- 3 Saskatchewan-Missouri Breaks migration corridor (FRPP)
- 3 Core 4 (GRP)

# SGI Easements in Progress

- Core Area 10 – Centennial Valley
- NRCS/The Nature Conservancy
- About 4,100 acres
- Farm and Ranchland Protection Program

# Management for Range Health and Sage-grouse

- 2 Grazing Options:
  - Meet NRCS prescribed grazing (528) spec
  - Meet 528 + rest 20% of sage-grouse nest habitat
- Address Other Threats:
  - Fence marking
  - Escape ramps in stock tanks
  - Remove junk piles, etc.

# Prescribed Grazing Progress

- EQIP 2010 through 2012
- 63 contracts
- 522,032 acres = 816 sq. miles
- $12.2 million
- Core Areas: 3,4,5,6,10,11, 13 +1 Meagher County.

# MT SGI Fence Marking Progress

Through FY 2012:

- 89 miles installed
- 49 miles contracted to be installed
- 10 miles marked by Petroleum County CD for non-participants

# Prescribed Grazing Specification

- Stocking Rate: Must balance forage demand with supply; key to any grazing strategy
- Scheduled Growing Season Rest: Alter season of use
- Plan for drought reserve (= residual cover)
- Graze for < ½ of growing season of key species (April-June for cool season species; May-July for warm season species)

# Prescribed Grazing Specification

- Utilization: 50 % by weight of key species
- Determine range health and trend
- Set up long-term monitoring

# “Boots on the Ground”

Extra Field Staff for SGI:

- “SWAT” employees: Malta, Glasgow, Forsyth
- Partner range conservationist: Dillon
- NRCS staff with SGI priority: Roundup, Winnett, Forsyth

# Monitoring Results

- Annual follow-up with each SGI ranch
- 5-year study by UM and FWP:
  - radio marked birds
  - are nesting grouse using our rest option habitat more than non-contracted habitat?
  - Is hen/chick survival greater on participating ranches?

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