

Coping with Diverse and Changing Societal Values in Wildlife Management

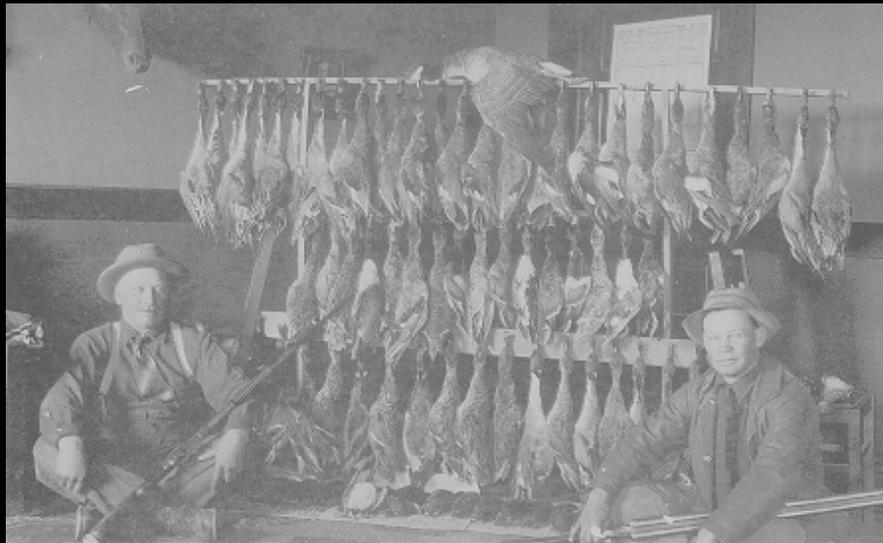


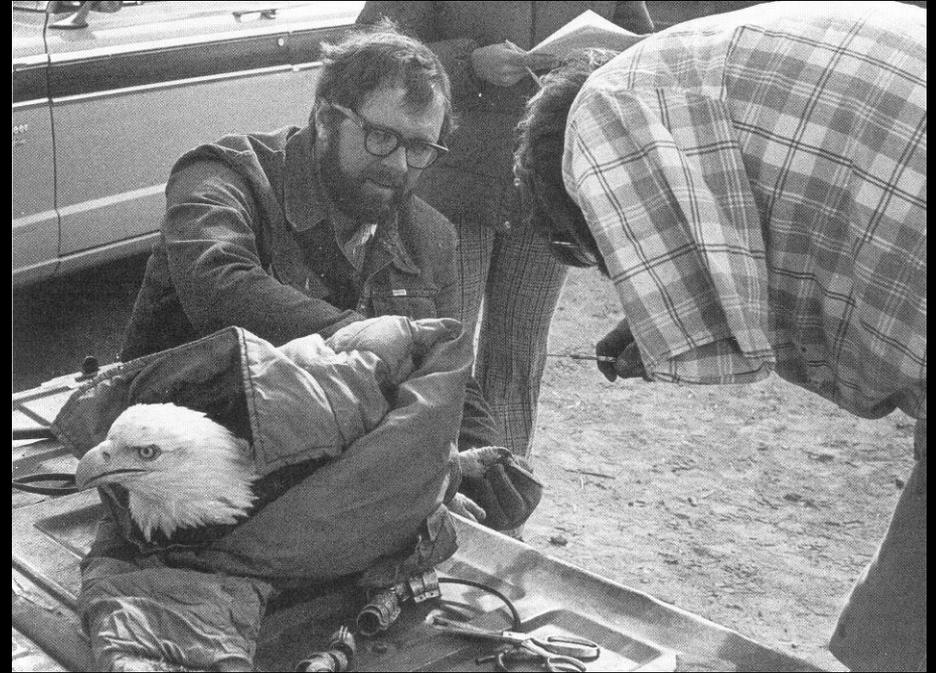
Dr. Tara Teel

Dr. Michael Manfredi

Human Dimensions of Natural Resources Department
Colorado State University

Changing views of natural resources and land management





Growing interest in
species preservation
and species diversity

Declining Participation
in Traditional Forms of
Recreation



Increasing Participation
in Other Forms of
Recreation



Habitat loss and co-existence

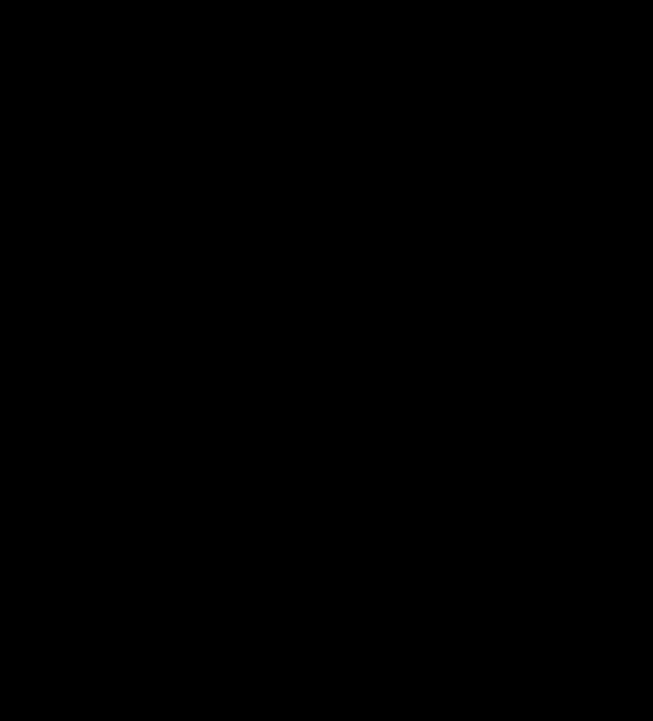




Annual impact from wildlife damage to agricultural producers is around \$4.5 billion in the U.S.

Challenge of dealing with human-wildlife conflict



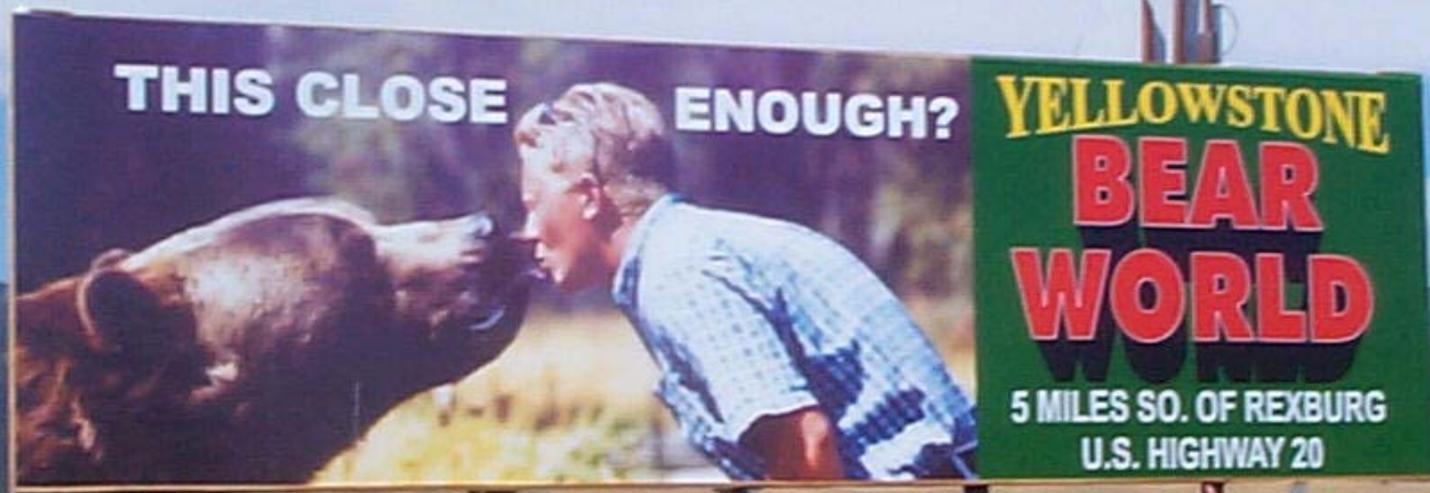


1.5 million deer-vehicle collisions per year in U.S. – \$1.6 billion loss



\$250 million in landscape/garden loss

Wildlife disease

A billboard for Yellowstone Bear World. The left side features a photograph of a man in a blue patterned shirt leaning in to kiss a brown bear on the cheek. The text 'THIS CLOSE ENOUGH?' is written in white across the top of the photo. The right side of the billboard has a green background with the words 'YELLOWSTONE BEAR WORLD' in yellow and red, and '5 MILES SO. OF REXBURG U.S. HIGHWAY 20' in white below it.

THIS CLOSE ENOUGH?

**YELLOWSTONE
BEAR
WORLD**

5 MILES SO. OF REXBURG
U.S. HIGHWAY 20





Ethical issues of treatment of animals

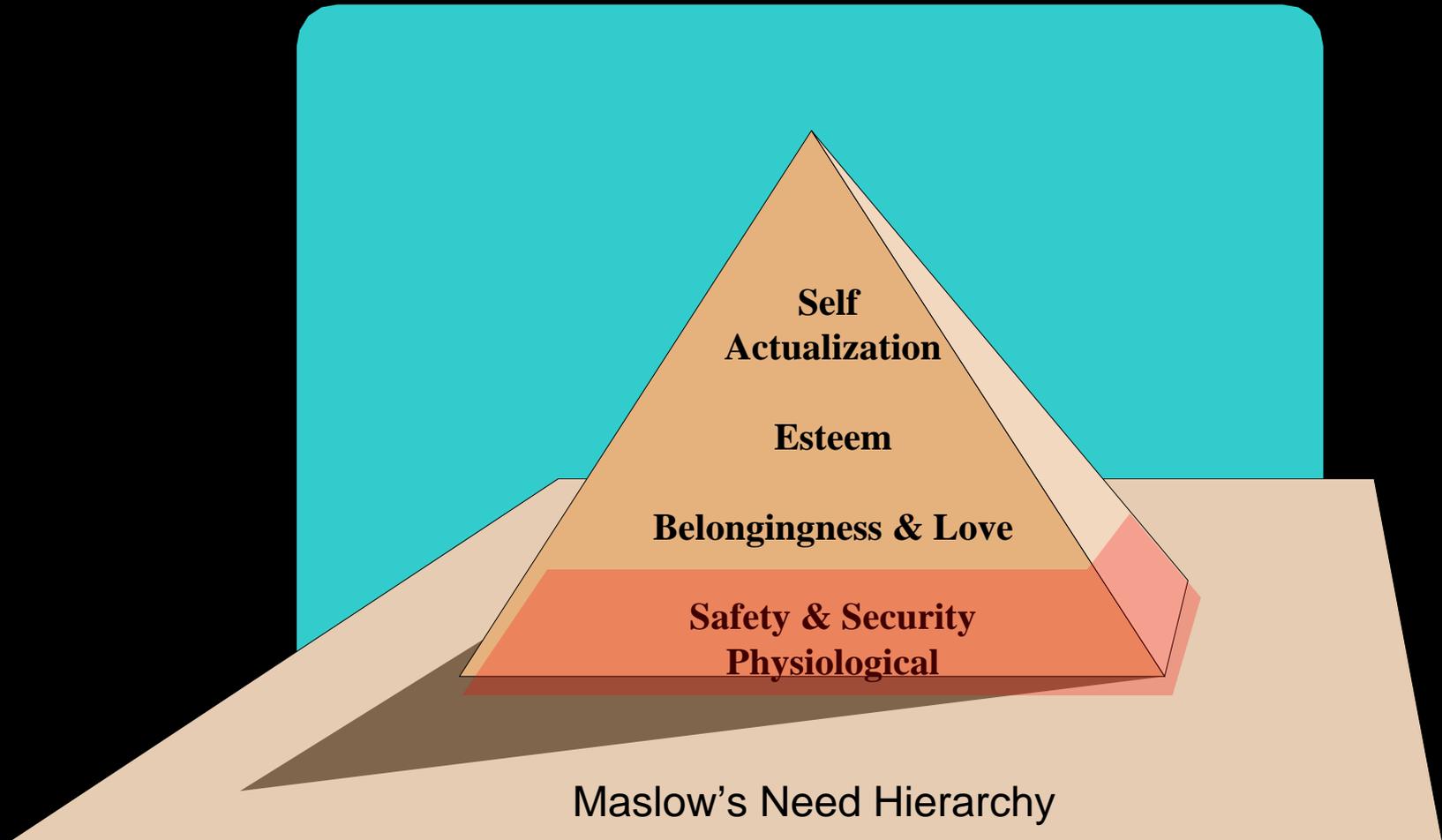
Humane Society of the U.S.
& Humane Society International



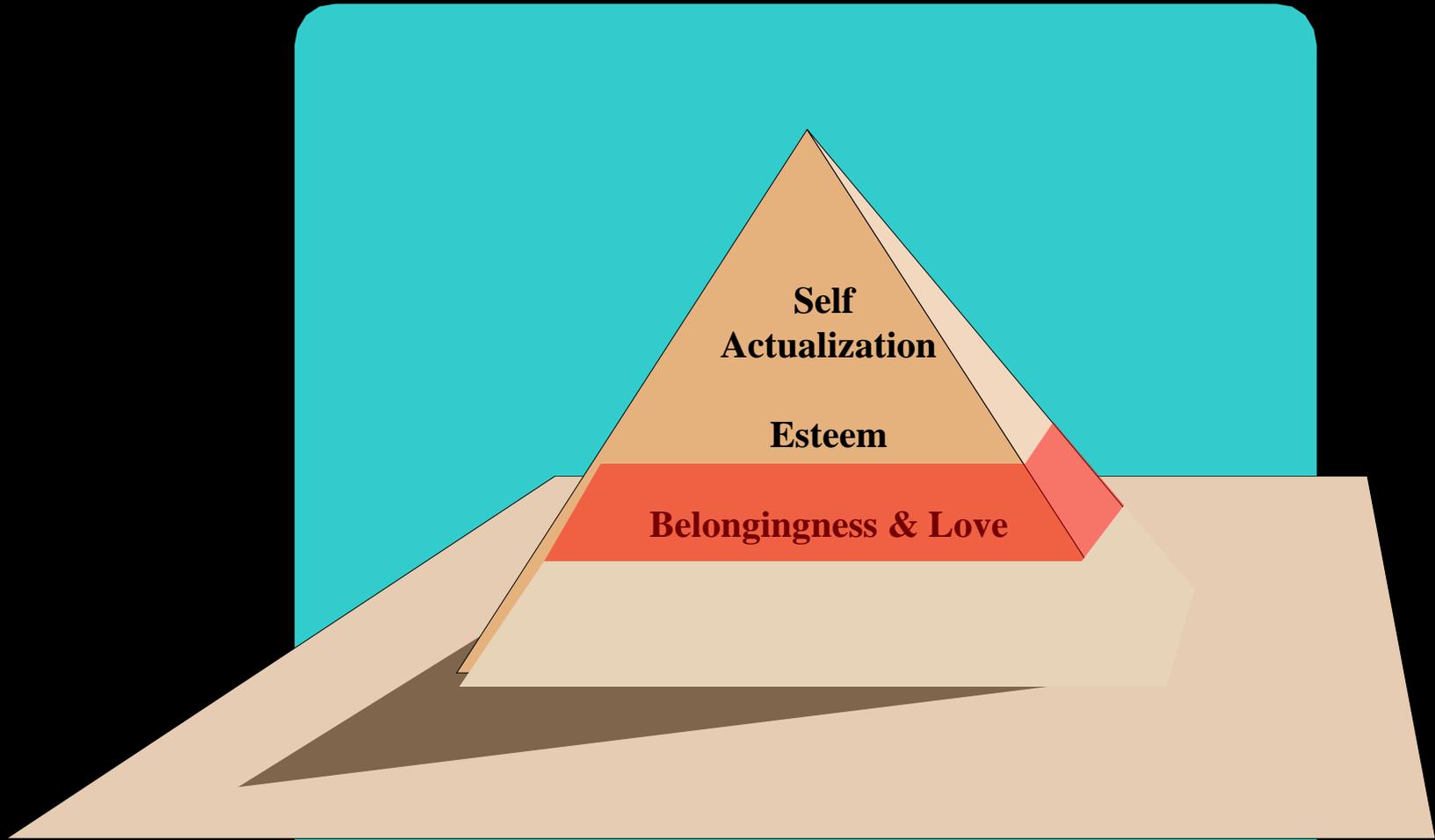
Foundation for Conflict: *Public Values Toward Wildlife*



A Theory of Value Shift (Inglehart)

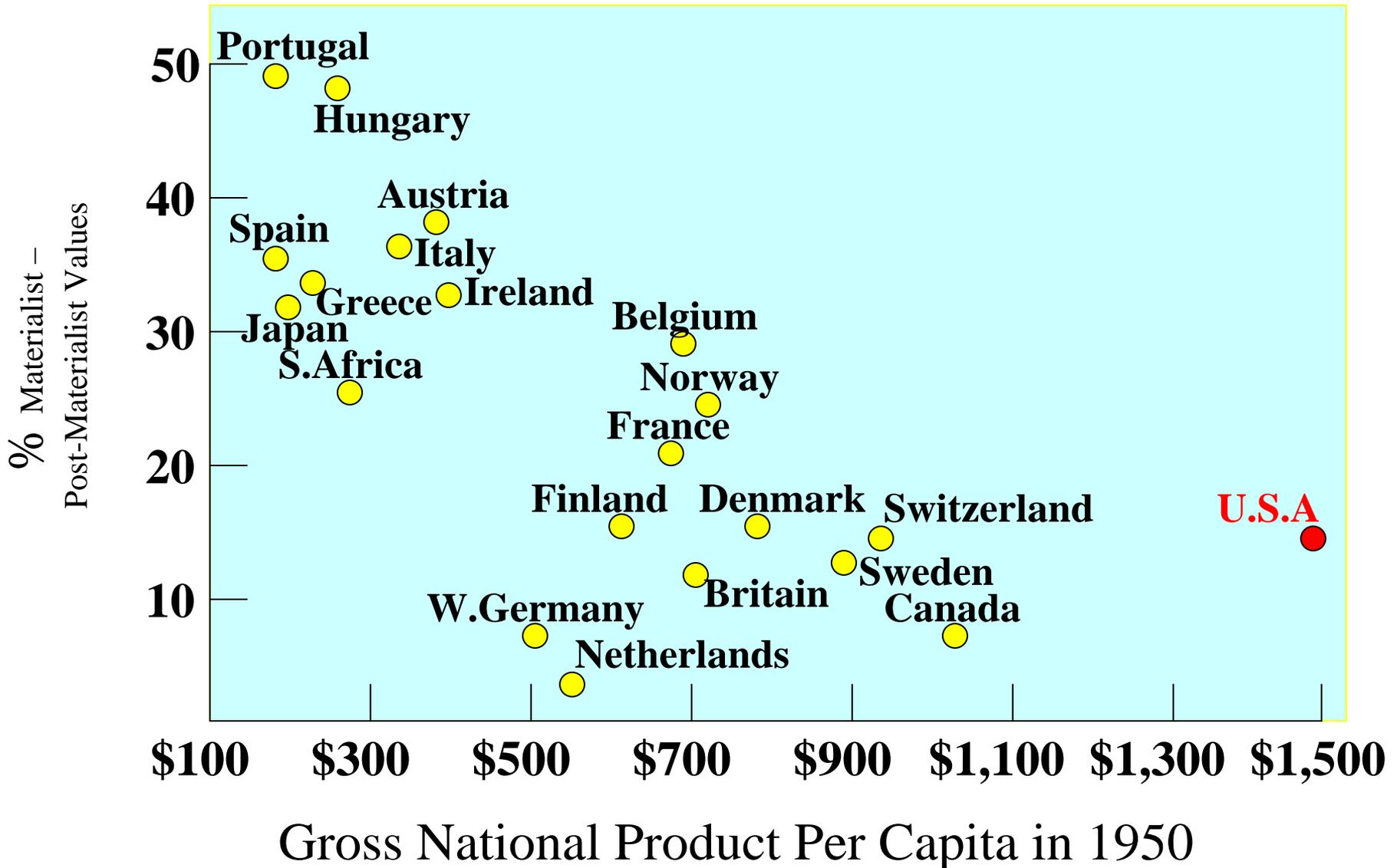


Prior to WWII, Values For Most People Formed
Around Concern for Economic Well-Being and Utilitarian Needs



Following WWII, Values (For Most) Formed Around Belonging, Esteem and Actualization Needs. Associated with Growth in Environmentalism, Loss of Faith in Gov't

Economic Growth and the Decline of Utilitarian Based Values



Taken from data published by Ron Inglehart

As a reflection of broader societal shift, has thinking about wildlife changed from thought rooted in utilitarian-based needs to mutualism and belongingness-based needs?

Wildlife value orientations are...

Enduring beliefs regarding wildlife

```
graph BT; A([World View "Ideal World"]) --> B([Wildlife Value Orientations]); C([Principles for Wildlife Treatment]) --> B;
```

Wildlife Value Orientations

World View
"Ideal World"

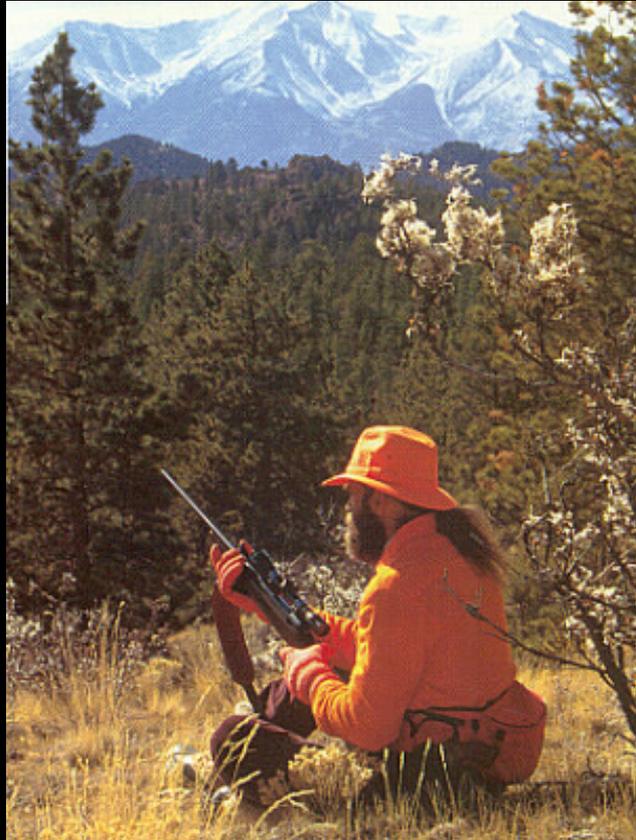
Principles for
Wildlife Treatment

Utilitarian

Ideal World

Wildlife exists for human use & enjoyment

Abundance of wildlife for hunting & fishing



Principles

Manage wildlife so that humans benefit

Needs of humans take priority over wildlife

Ideology: Domination/Human Mastery

Mutualism

Ideal World

Humans and wildlife live side by side without fear

All living things part of one big family

Emotional bonding and companionship

No animal suffering



Ideology: Egalitarianism

Principles

Animals should have rights like humans

Take care of wildlife

Prevent cruelty to animals

UTILITARIAN

Low

High

MUTUALISM

Low

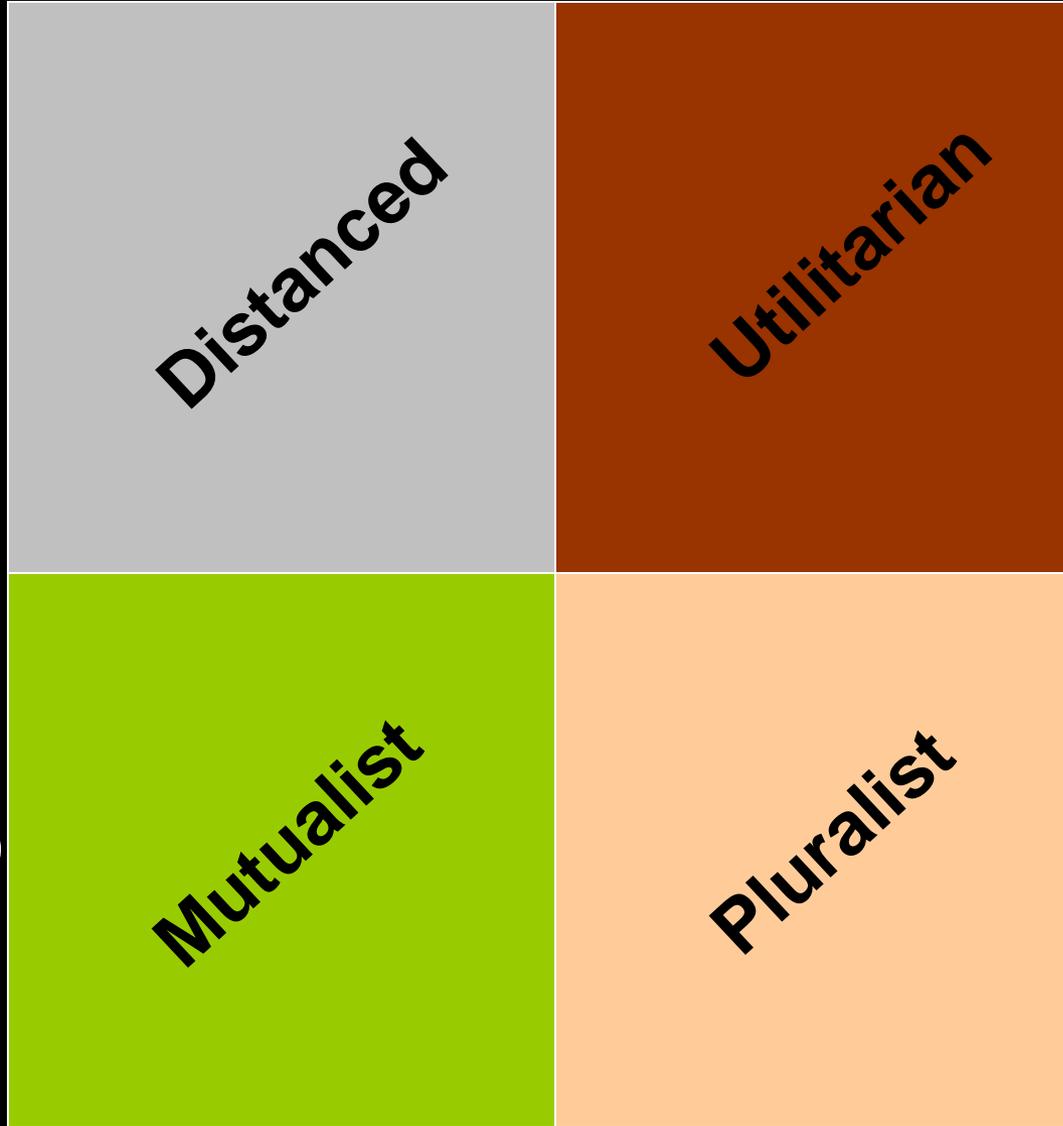
High

Distanced

Utilitarian

Mutualist

Pluralist



Measurement of Wildlife Value Orientations

- Work began in early 1990's; extensive testing
- Series of Agree/Disagree statements

- Example (U):

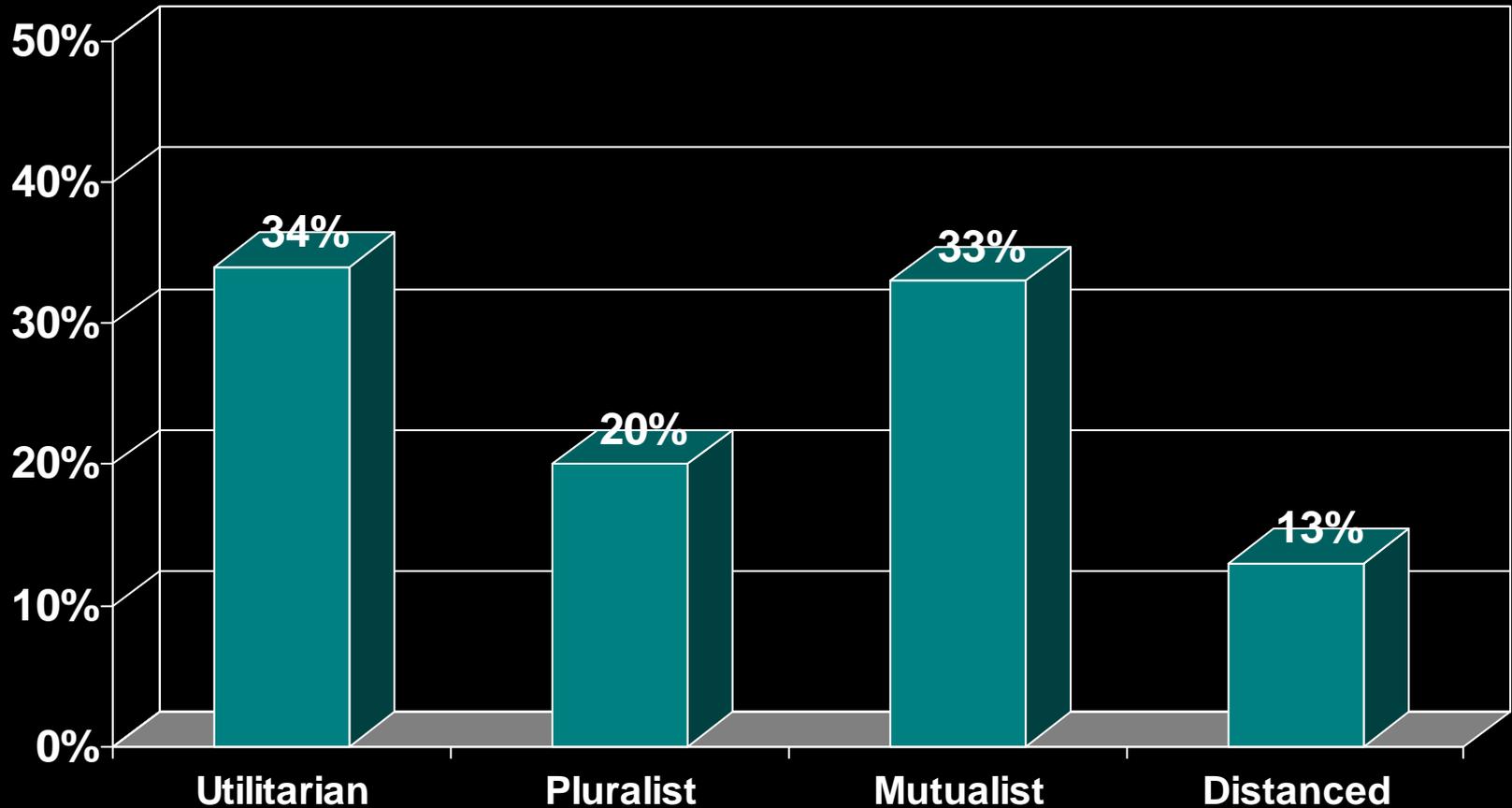
The needs of humans should take priority over fish and wildlife protection.

- Example (M):

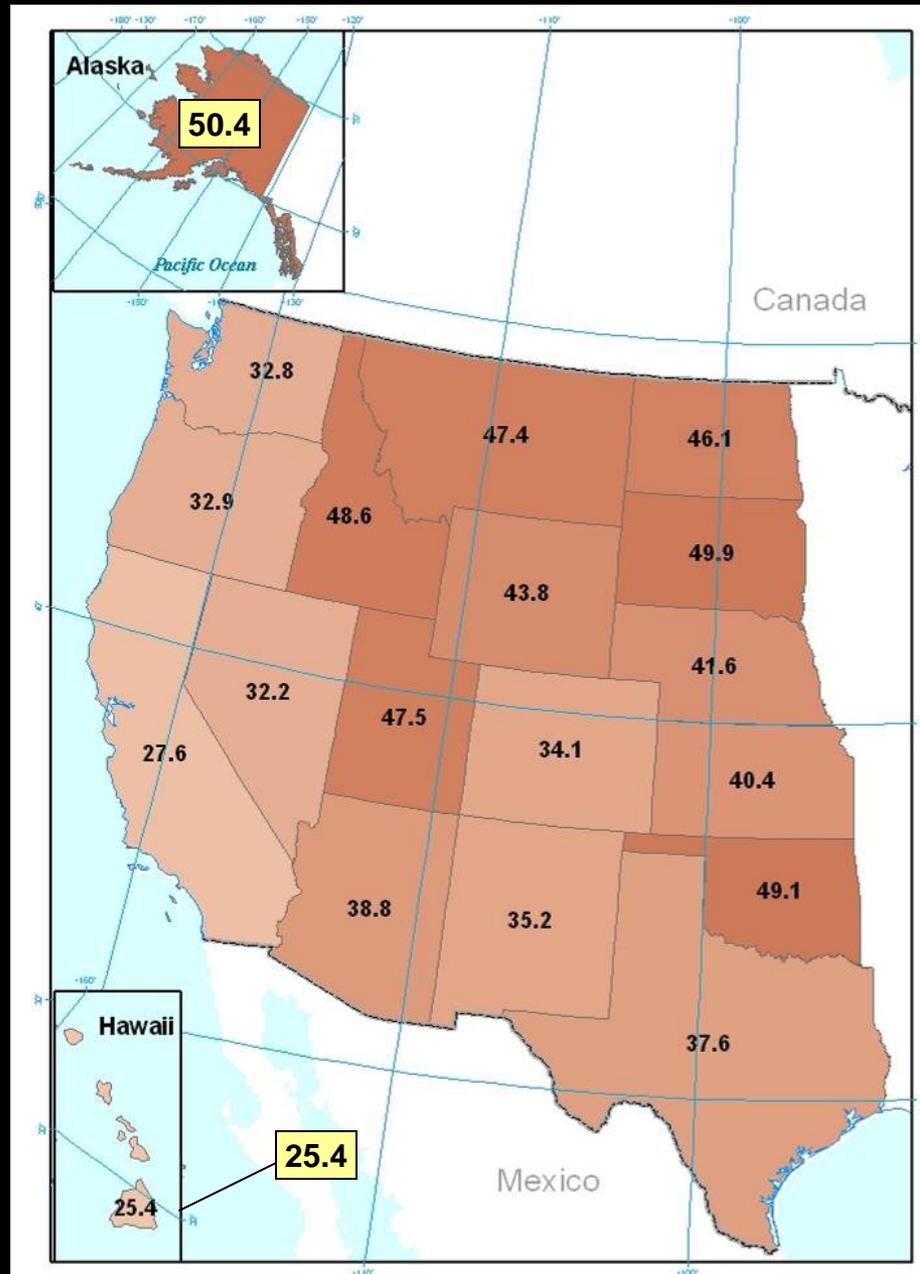
Animals should have rights similar to the rights of humans.



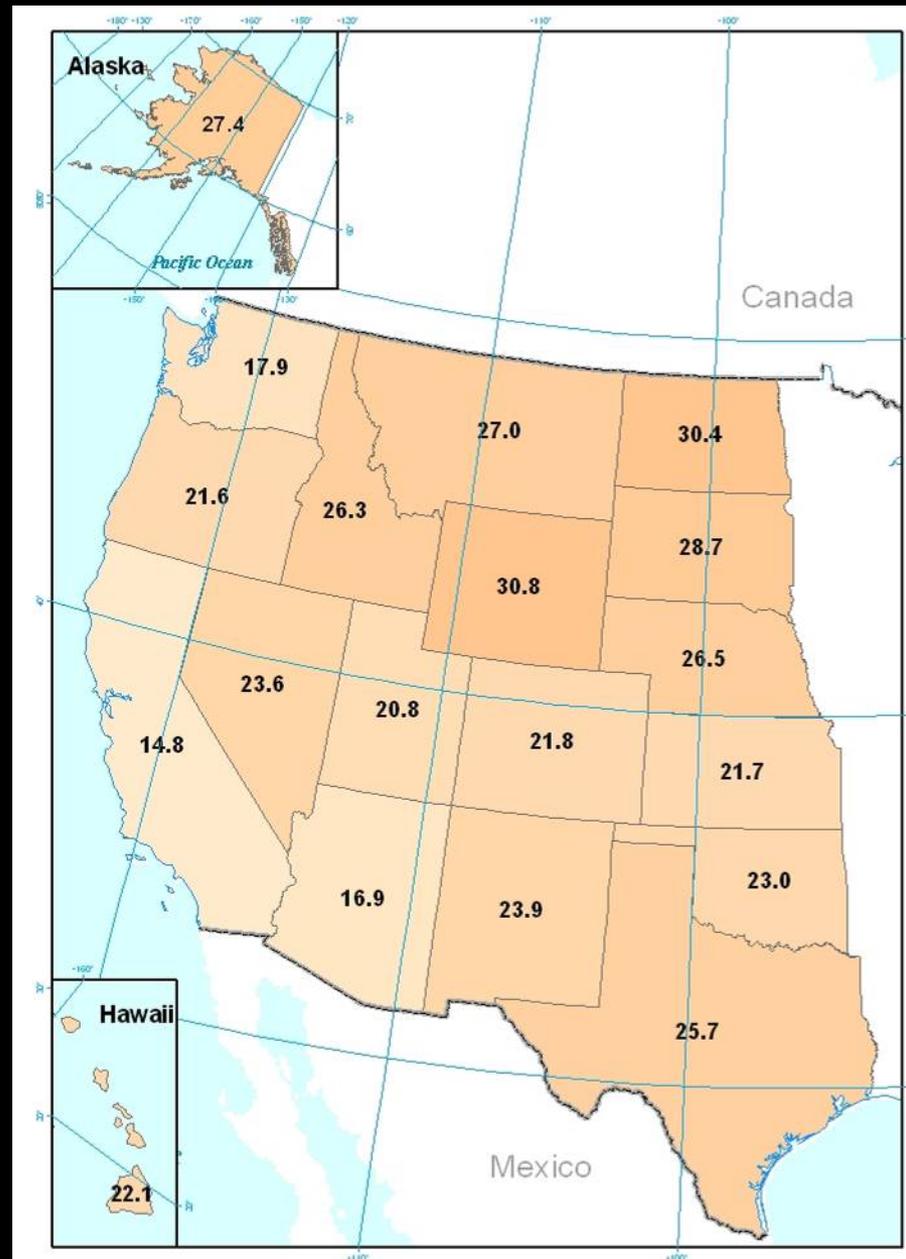
Distribution of Wildlife Value Orientation Types in the Region



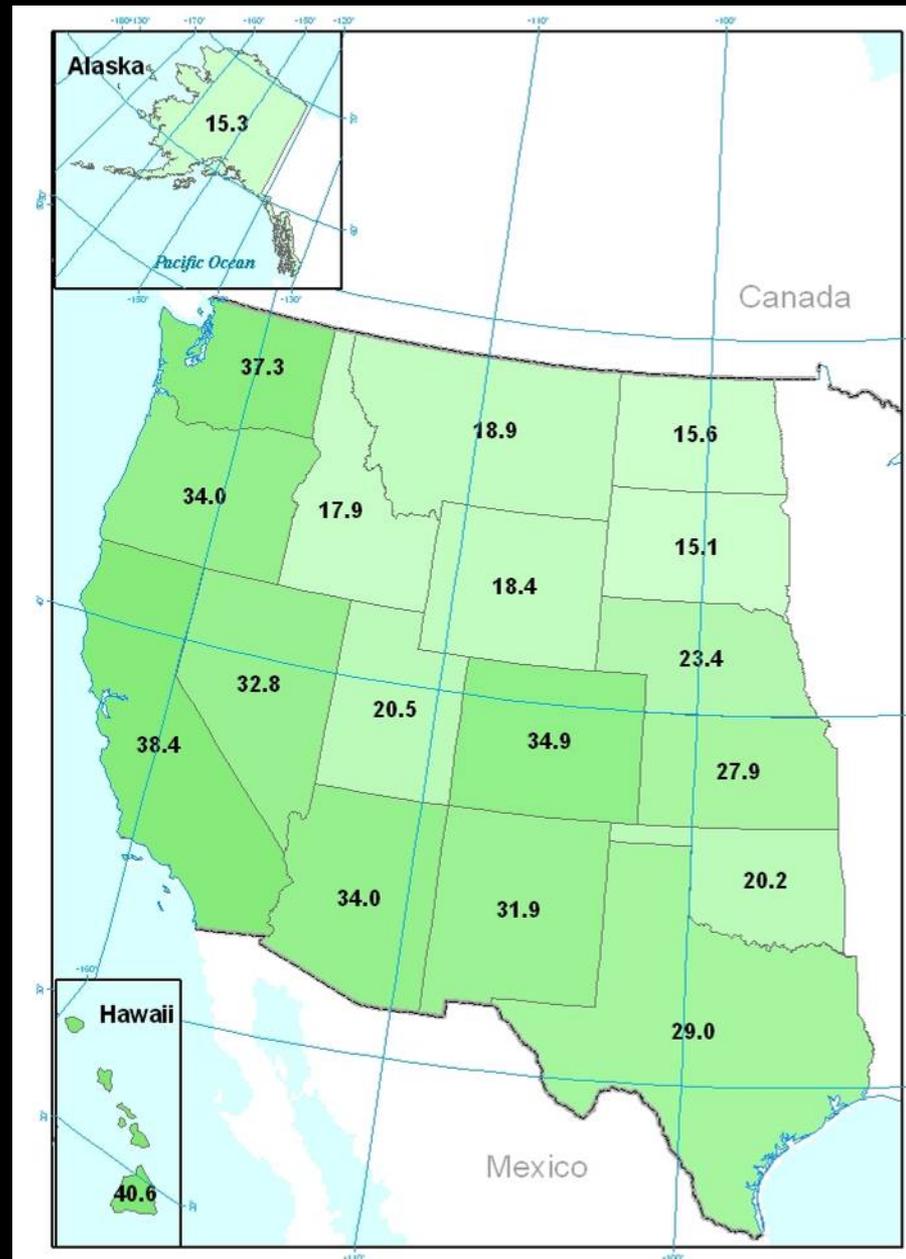
Percent classified as Utilitarians



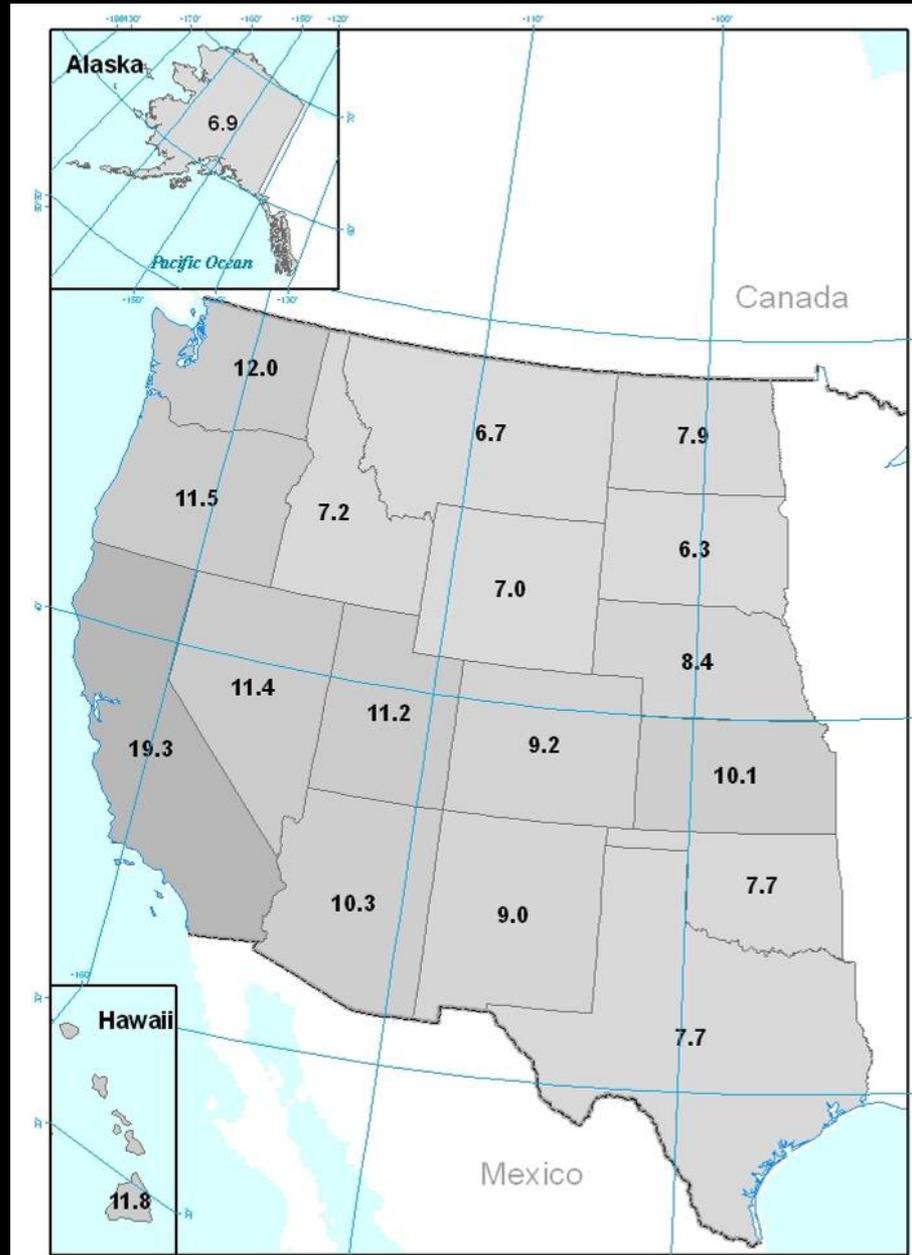
Percent classified as Pluralists



Percent classified as Mutualists



Percent classified as Distanced



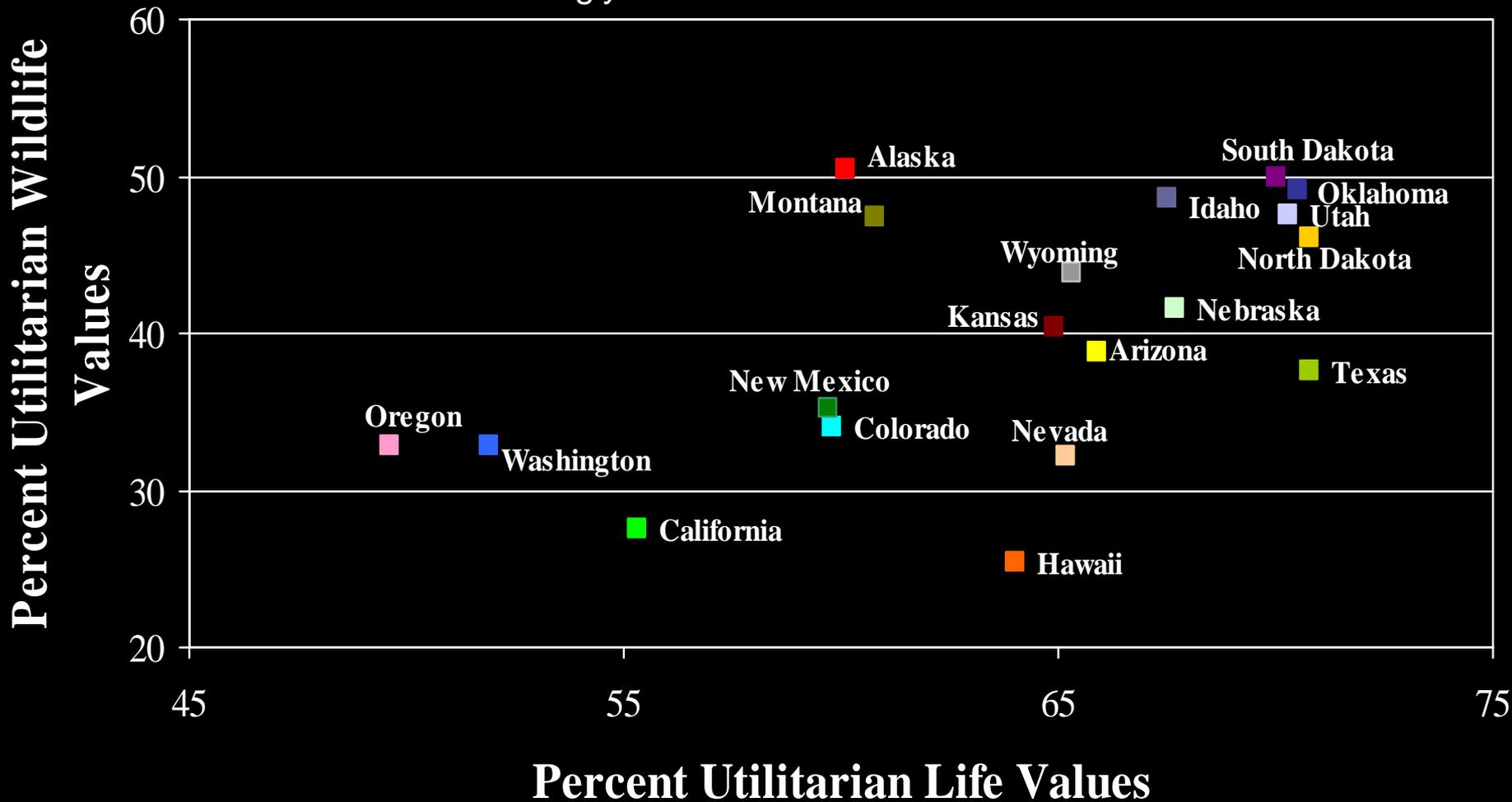
Are Wildlife Value Orientations Changing in the Western U.S.?

Proposition 1

- There is a shift away from utilitarian wildlife value orientations that is associated with a shift away from utilitarian life values.

Percent with Utilitarian Wildlife Value Orientations by Percent Utilitarian Life Values (as measured by Inglehart's Instrument)

Conclusion: Utilitarian WVO
are strongly related to utilitarian life values

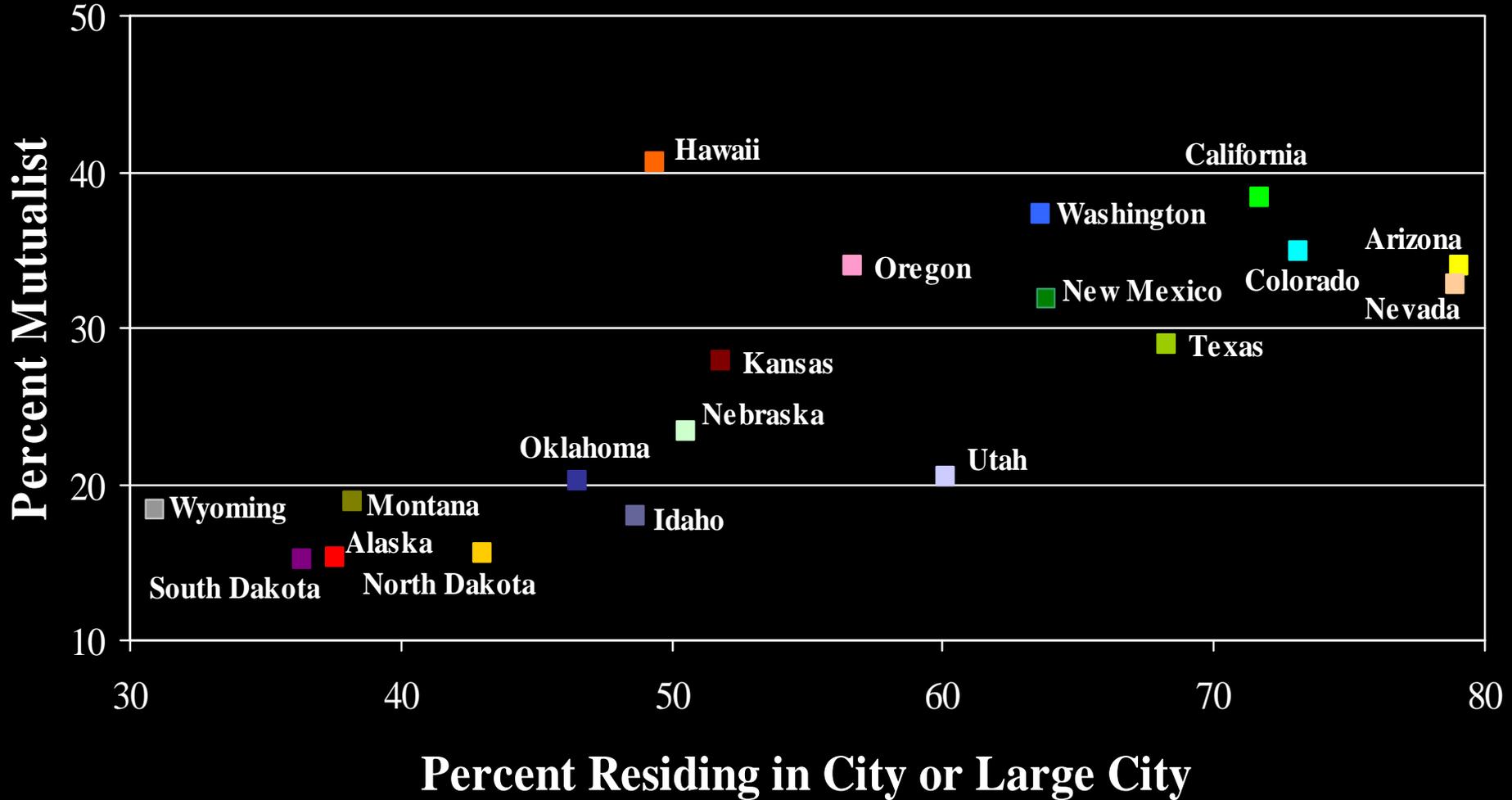


$r = .55$ ("large" effect)

Proposition 2

- The shift away from utilitarian wildlife value orientations is associated with economic well-being, education, urbanization.

Percent Mutualist by Urbanization



$r = .75$ ("large" effect)

With Urbanization –

Insulation from dependency on natural resources

Social learning versus direct
experience with wildlife

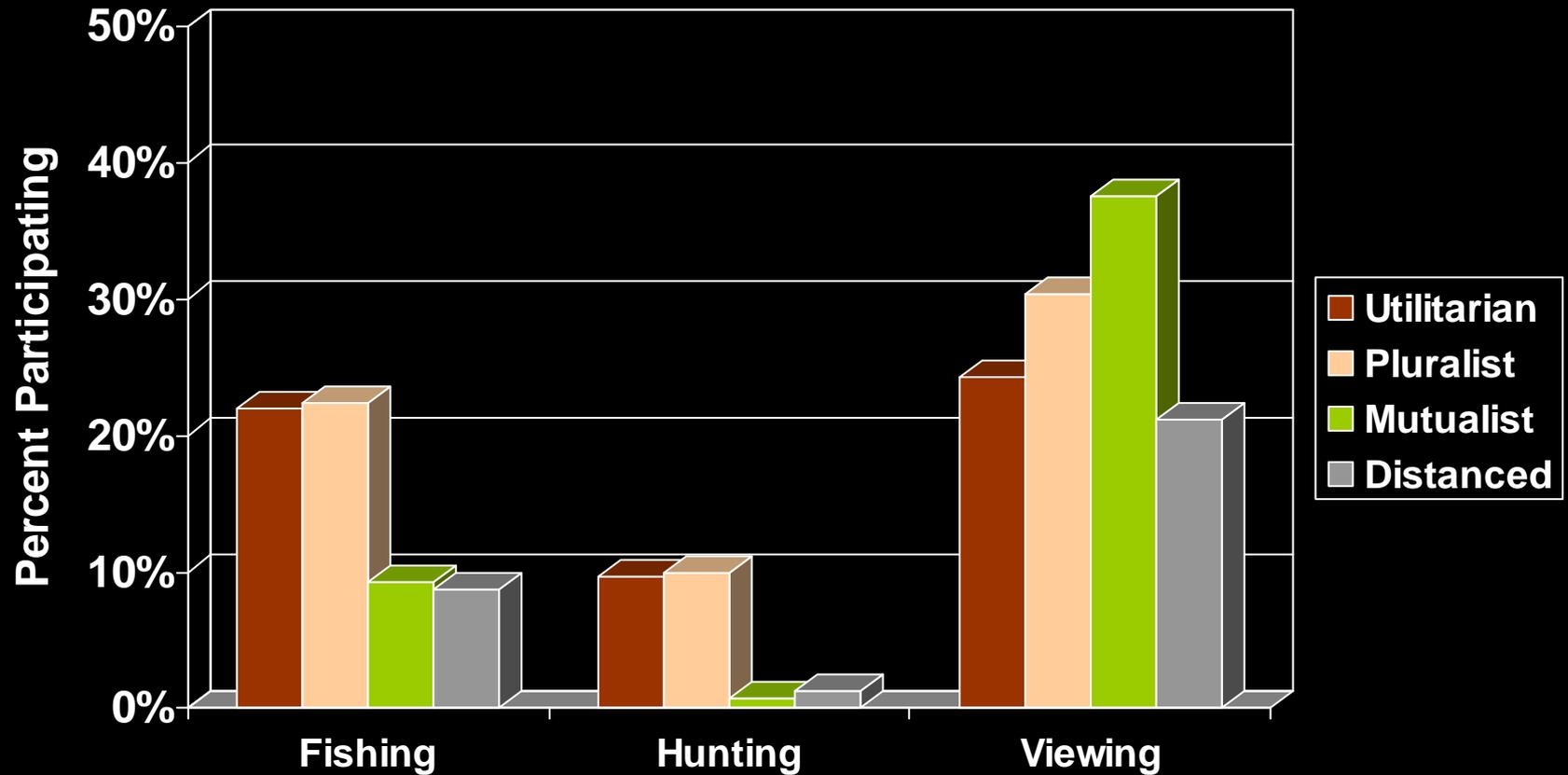
Less social support for utilitarian activities

Utilitarian activities require more effort (drive
further, more crowding, less success)

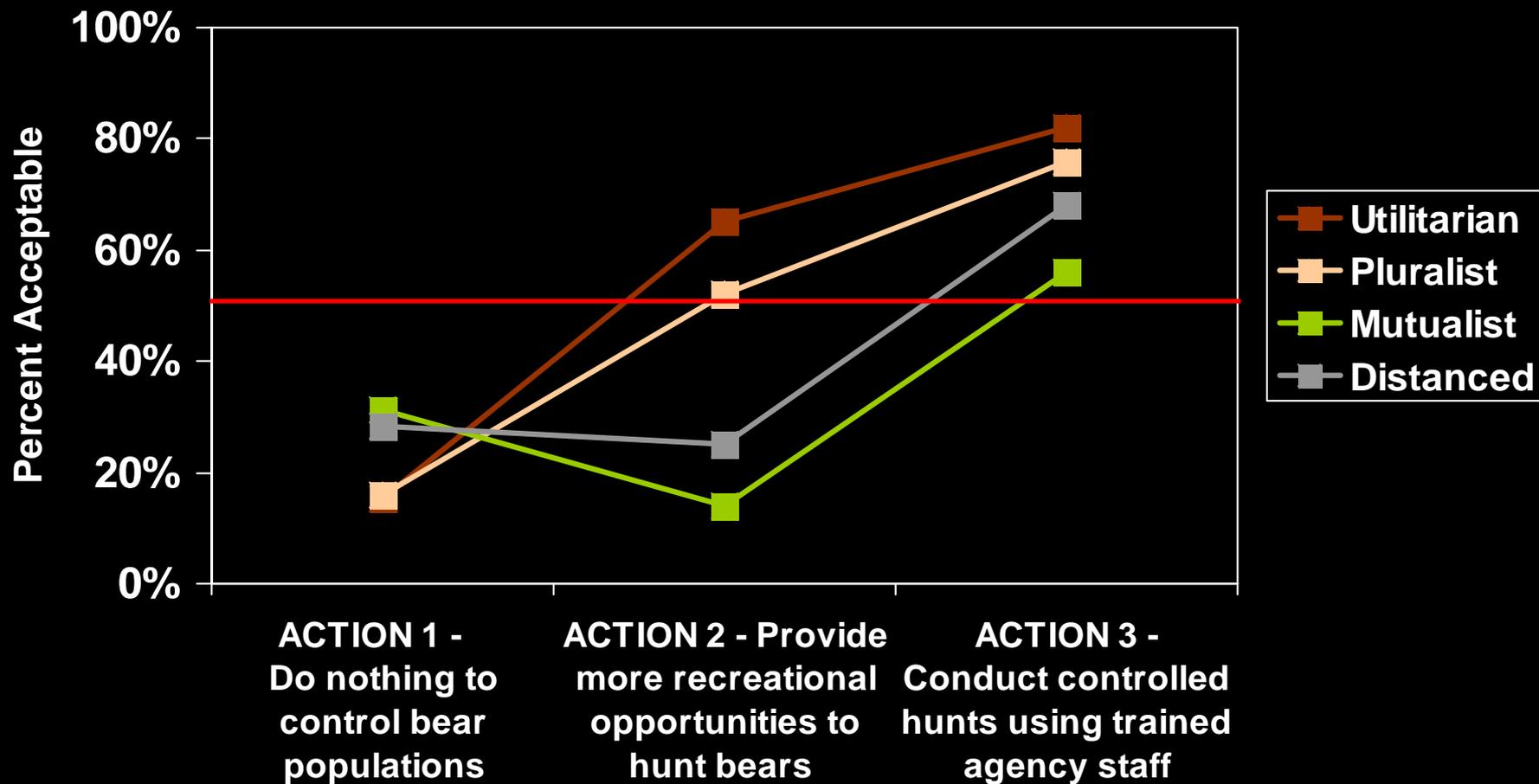
Implications for Wildlife Management?



Percent of wildlife value orientation type indicating participation in wildlife-related recreation in the past 12 months



Percent of wildlife value orientation type finding actions acceptable when “bears are getting into trash and pet food containers” (nuisance situation)



A Brief Summary

- Evidence suggests that wildlife value orientations are changing in the Western U.S. and it is part of broader value shift.
- A shift from utilitarian to mutualism WVO's.
- Change is rooted in basic culture shift caused by changes in economy, technology and demography.
- The shift is thought to be at the root of conflict over management issues, declines in hunting, growth of ballot initiatives, etc.
- WVO's can be a useful segmentation tool for monitoring trends and understanding/representing diverse publics.



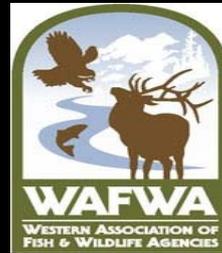
*Emerging Applications of the Values
Concept in Wildlife Management*

New Directions: The Need for Greater Specificity in Human Dimensions Research

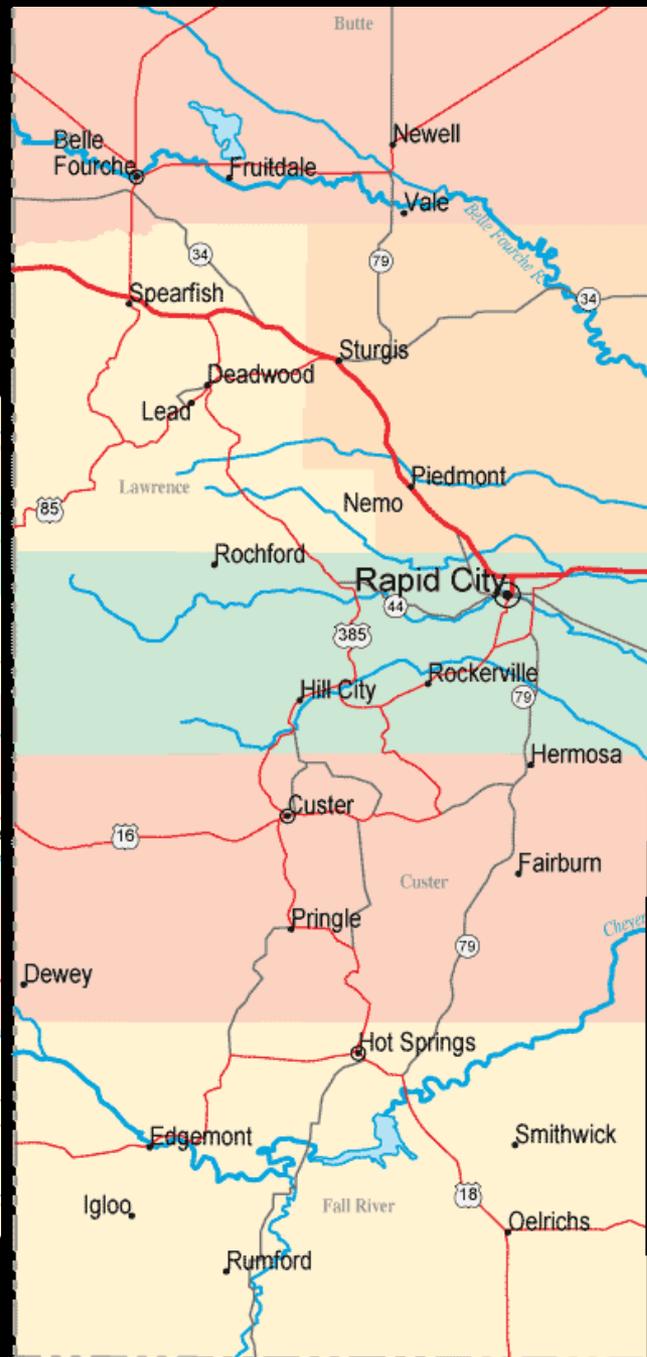
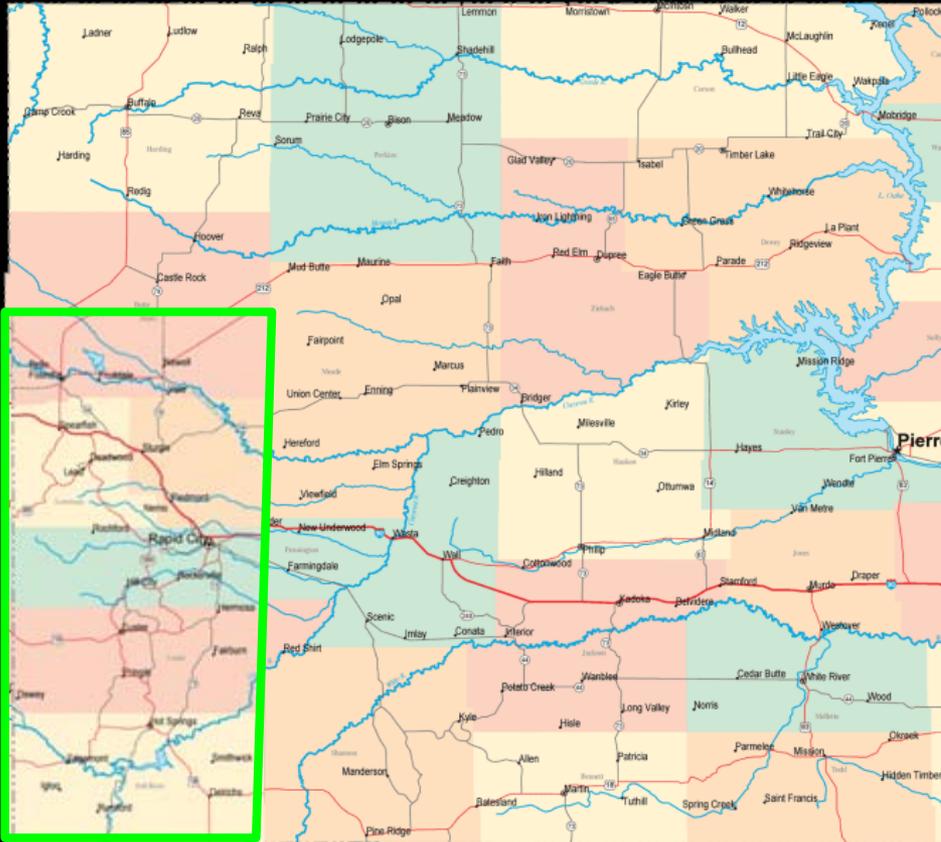
- Current approaches frequently employ broad-based surveys that lack geographic specificity
- Information about values, attitudes, & behaviors needed at more local levels
- Exploring the spatial context of human-wildlife relationships and management problems
- Integrated approaches to help with identifying potential conflict “hotspots”

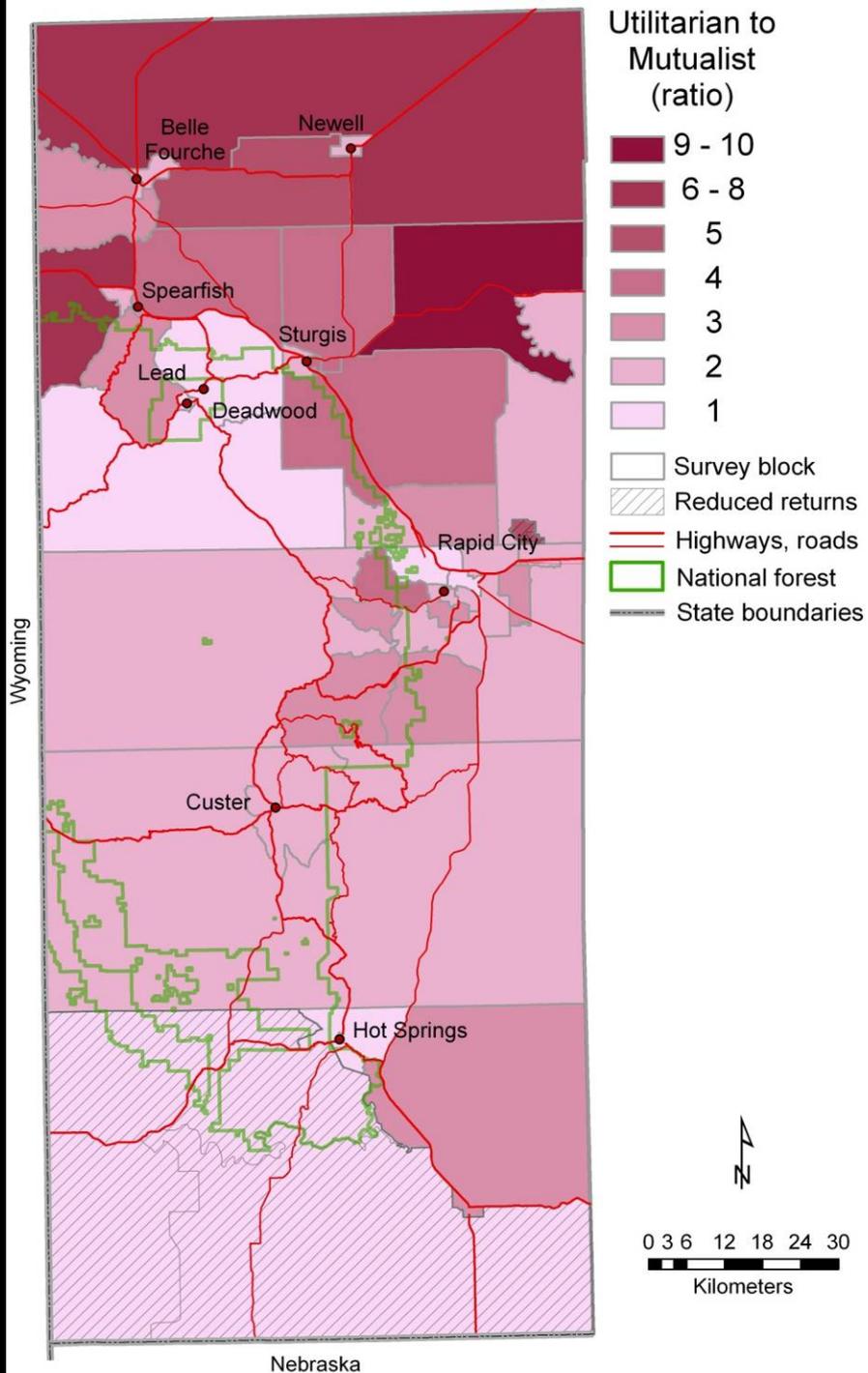
Understanding People in Places: A Demonstration Project on the Utility of Geographically-Based Human Dimensions Information

Project conducted in collaboration with:



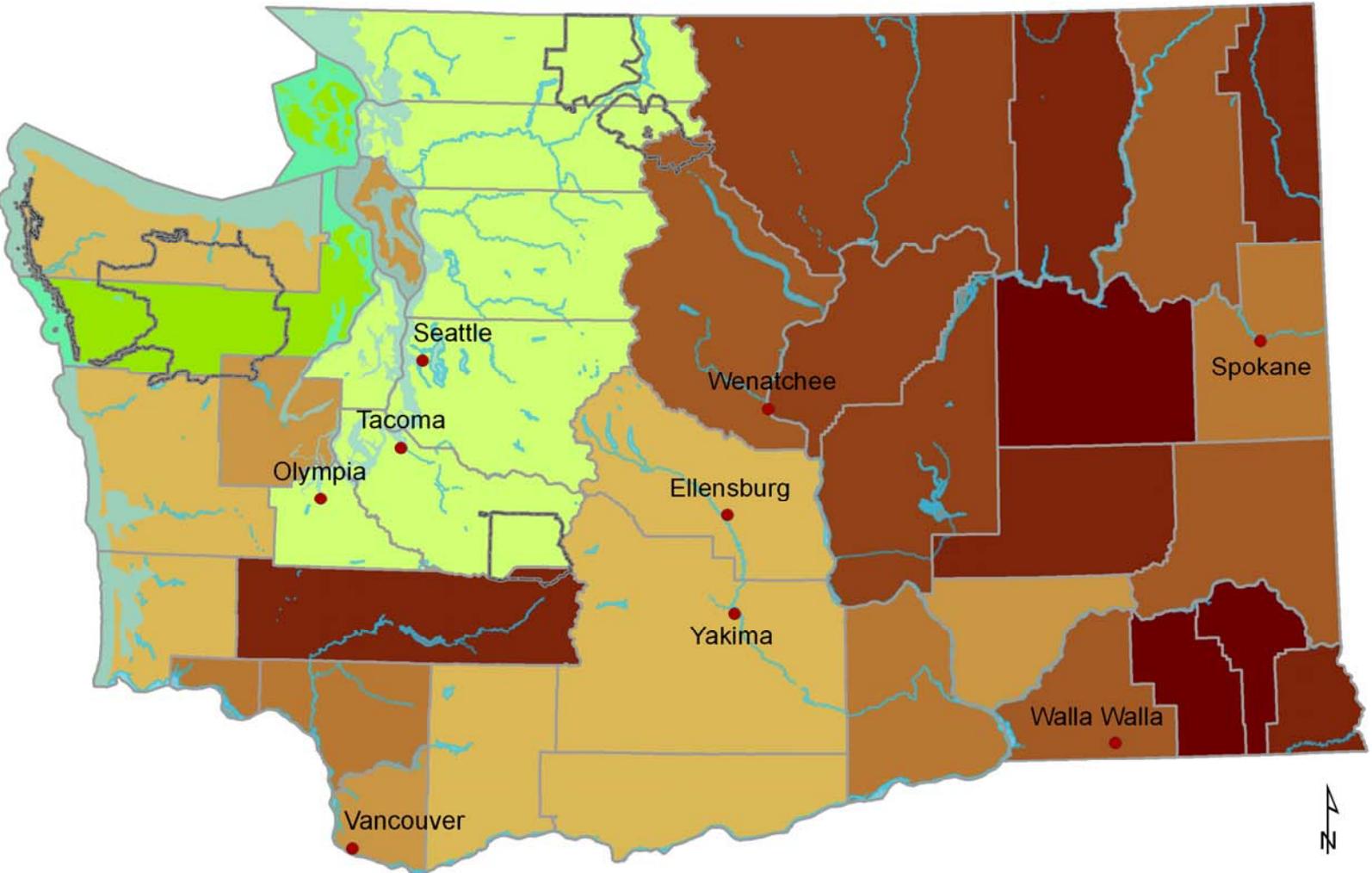
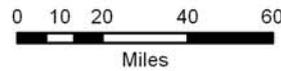
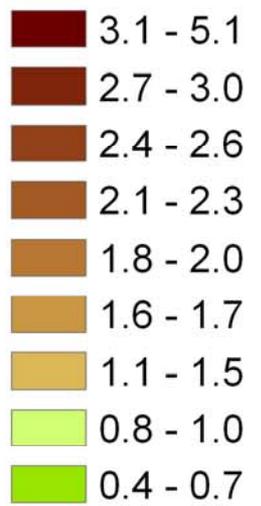
Study Area



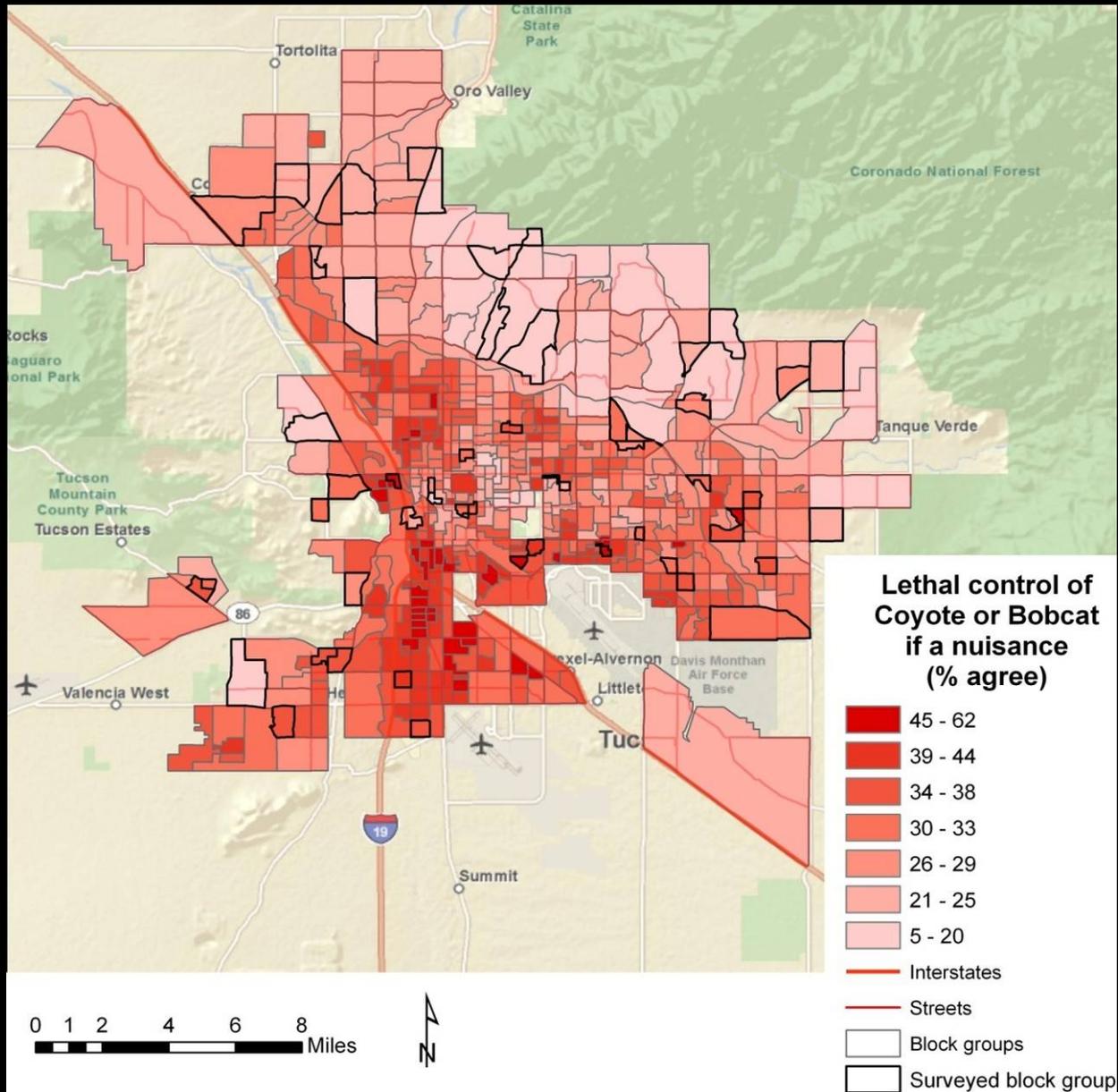


Exploring WVO's and the potential for social conflict across the landscape

Utilitarians vs Mutualists (ratio)



Anticipating public response to local-level management strategies

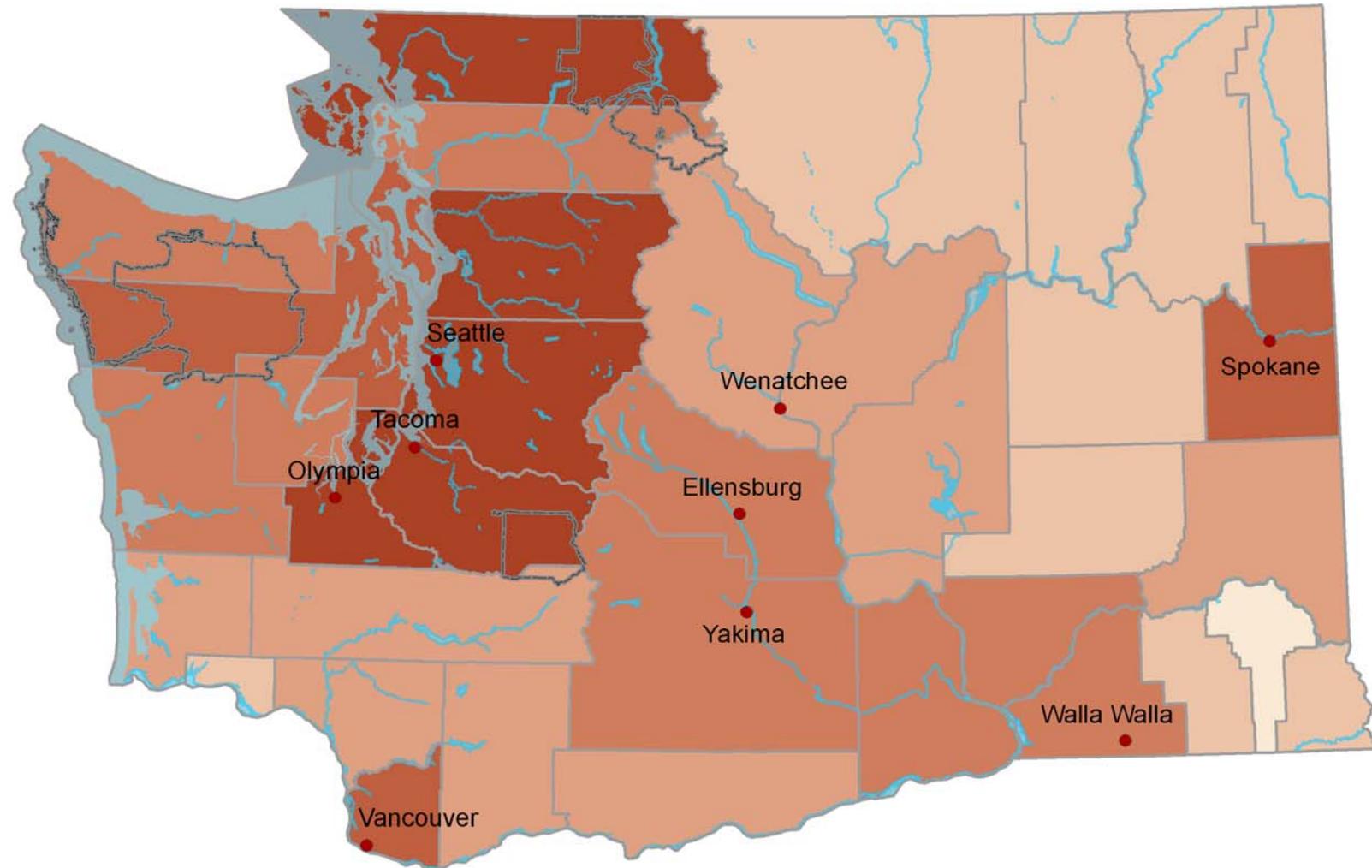
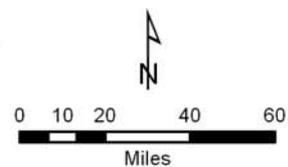
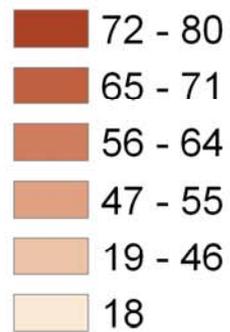


Wolves in Washington



74% accepting of WDFW moving wolves to help establish new populations

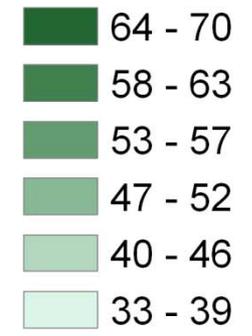
Wolves moved to build populations (%)



Linking geographically-displayed social information with other GIS and resource data to improve utility (e.g., habitat suitability maps, conflict incident points)

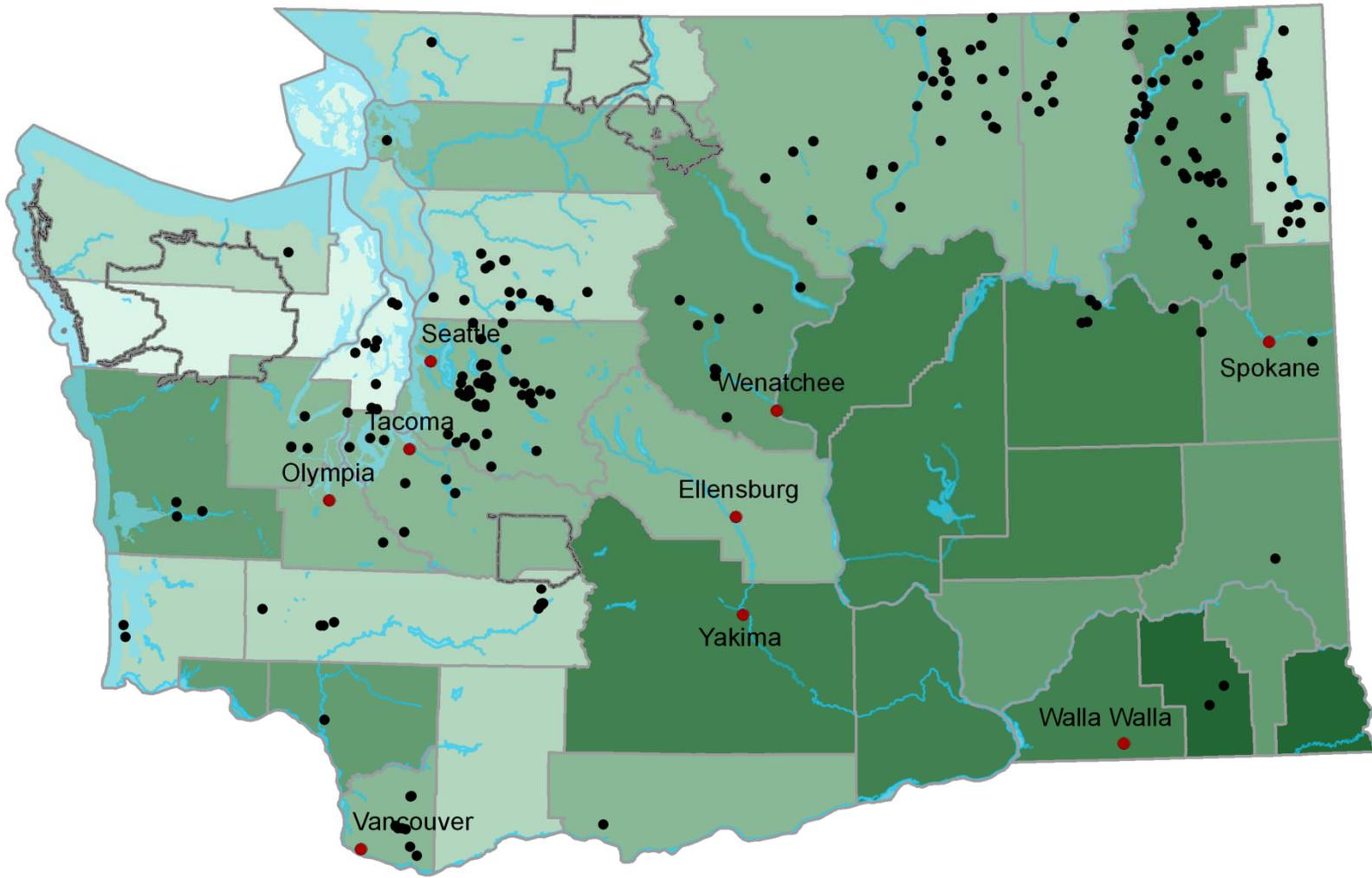
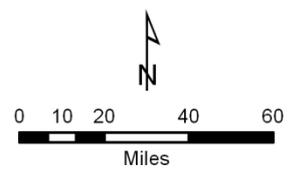


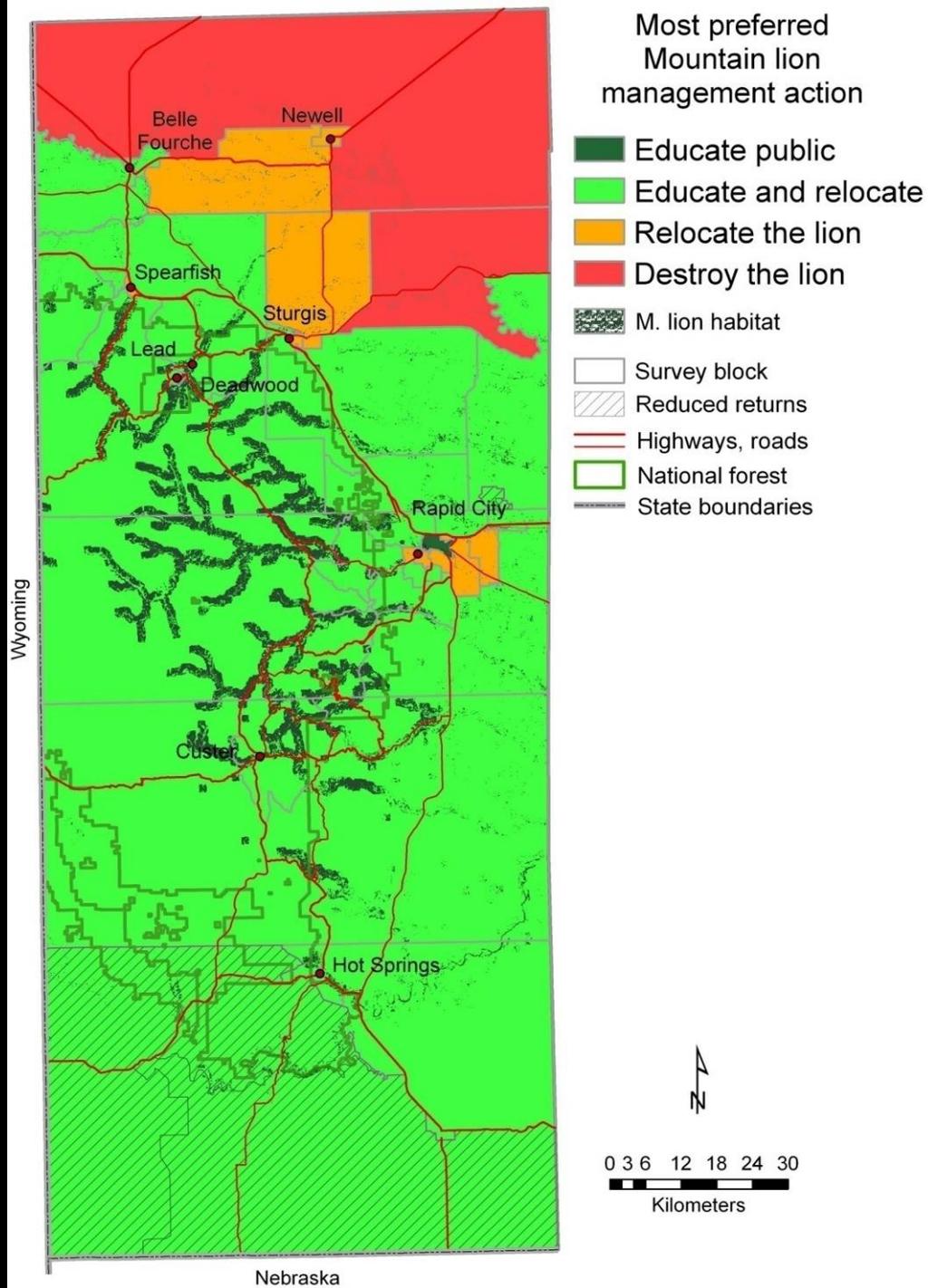
Lethal removal of nuisance black bear (%)



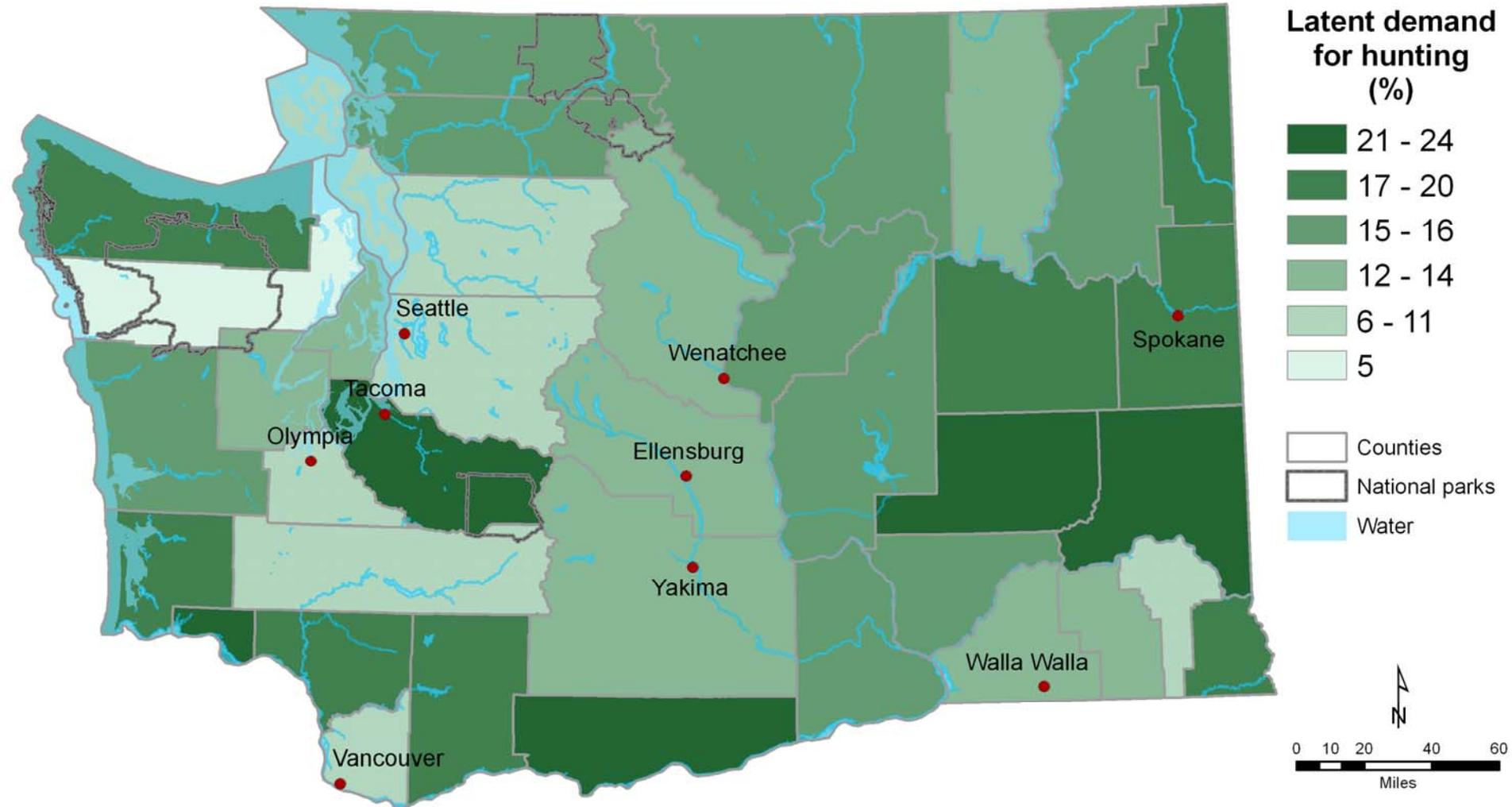
• Bear incident

- Counties
- National parks
- Water





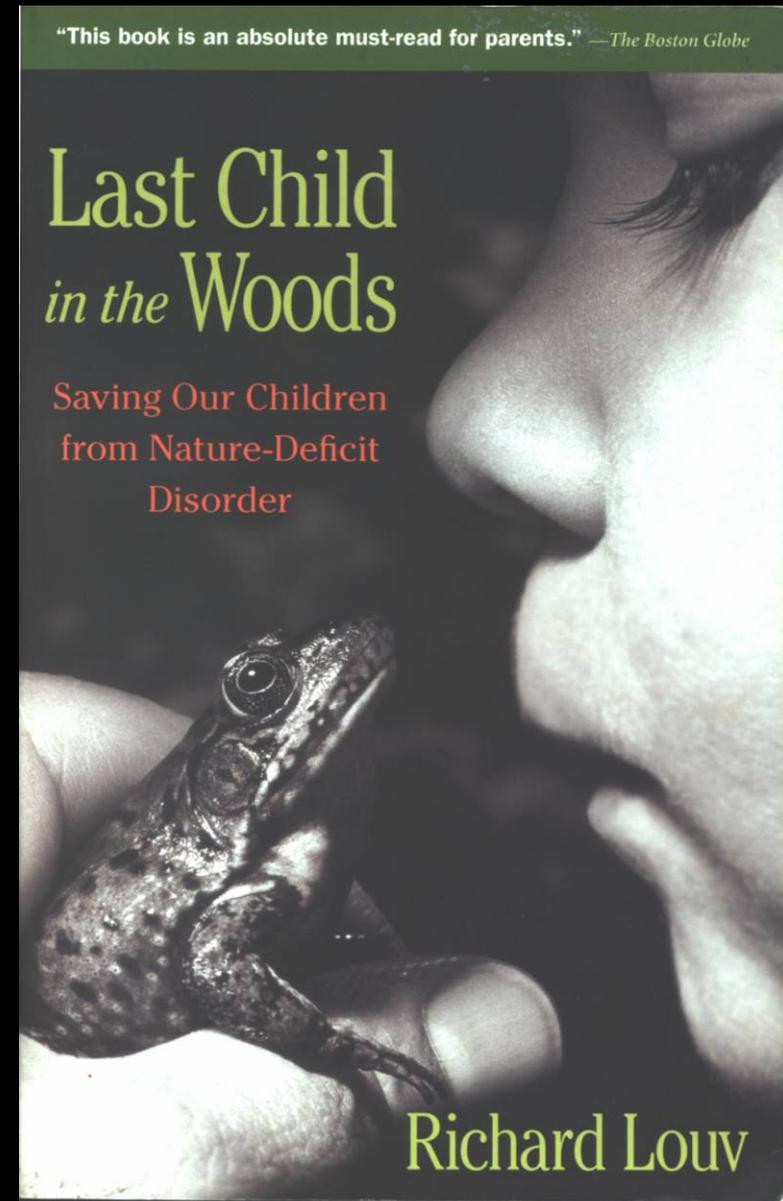
Other potential uses of a spatially-explicit approach?





Wildlife values globally

Using values information to improve the reach and effectiveness of conservation education programs



Conclusions:

Utility of the Values Concept in Conservation

- Understanding and representation of diverse publics
- Anticipation of responses to management issues and strategies
- Exploring the foundation for social conflict (and possible areas of consensus)
- Assistance with communication and education programs
- Visioning and planning for the future



Values information will be increasingly important in being able to address the global conservation challenges of today and beyond...

Questions?

