

Using Social Science to Identify “Prime Prospects” for Buffer Restoration

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- Social-Ecological Systems Theory
- Spatial Analysis
- Mixed Methods Research
- Quantitative Analysis



College of Forestry & Conservation **Human Dimensions Lab**

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A social-ecological systems approach to Greater Sage-Grouse conservation

Read a new paper by Lab director Alex Metcalf about using a systems approach to conservation of the Greater-Sage grouse in California and Nevada.



Grad student awarded grant to study mountain lions

Lab member Lara Brenner will use a \$20,000 grant to study the effect of hunting on mountain lions.



New HD research methods paper

Read the new paper by Lab director Alex Metcalf and co-authors in the journal *Forest Science* which used spatially explicit land use and ownership data from Montana to investigate non-response bias in the National Woodland Owner Survey, and provide improved estimation equations.



Female Hunter Motivations

State agencies are beginning to realize that hunter recruitment and retention will depend on better understanding and engaging female hunters. Read the new paper by Lab director Libby Covelli Metcalf and co-author exploring differences between male and female motivations for deer hunting in South Dakota.

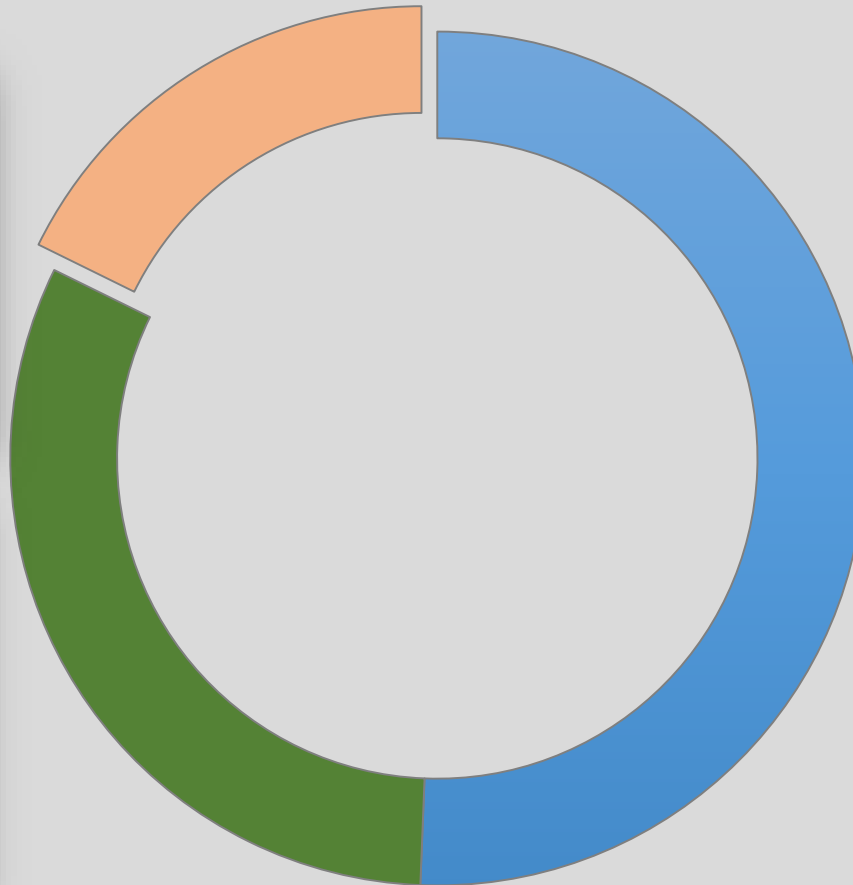
Human Dimensions of Riparian Buffer Restoration

- Buffer Restoration is a SOCIAL endeavor as much as it is biophysical



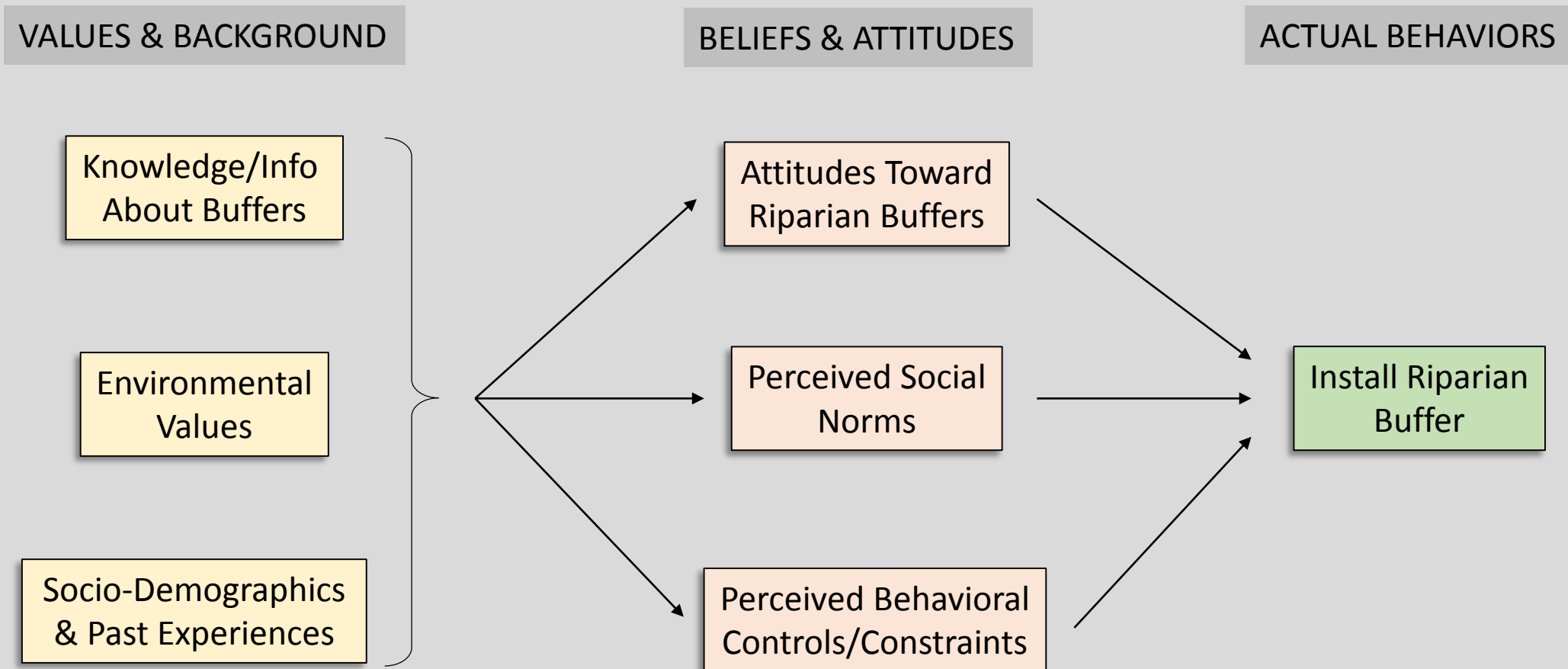
Human Dimensions of Riparian Buffer Restoration

- One size does not fit all – landowners are diverse!



Human Dimensions of Riparian Buffer Restoration

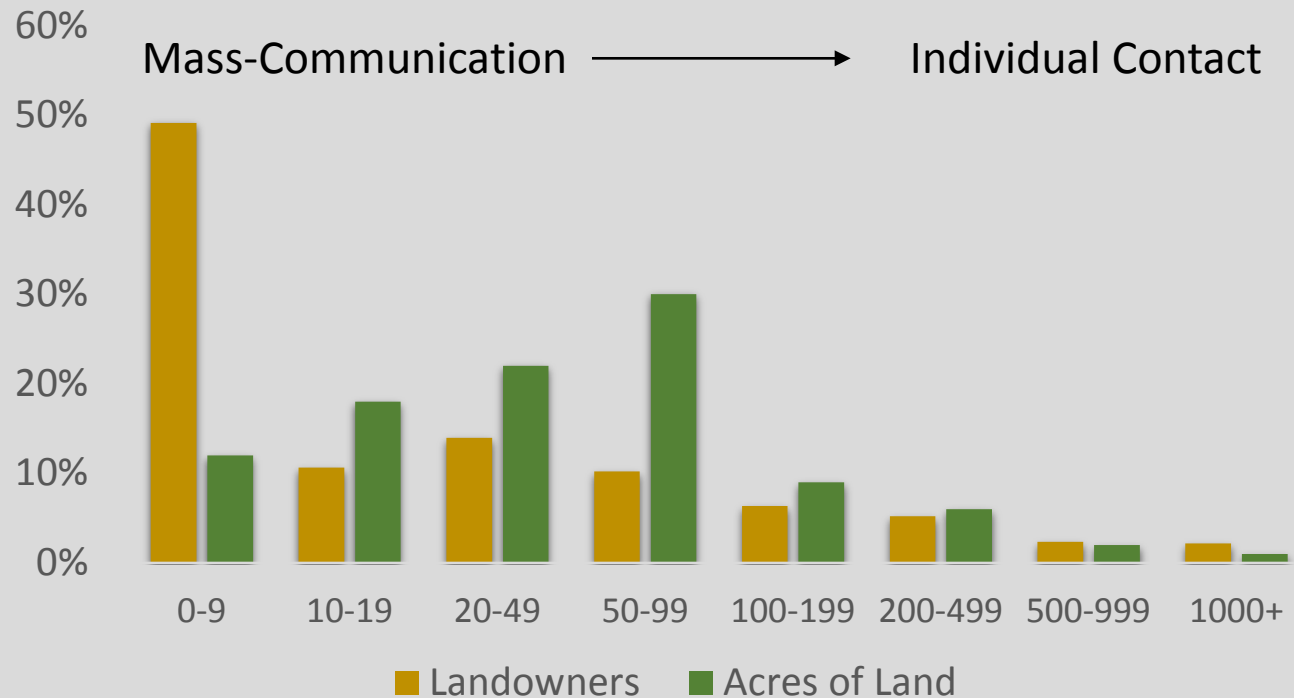
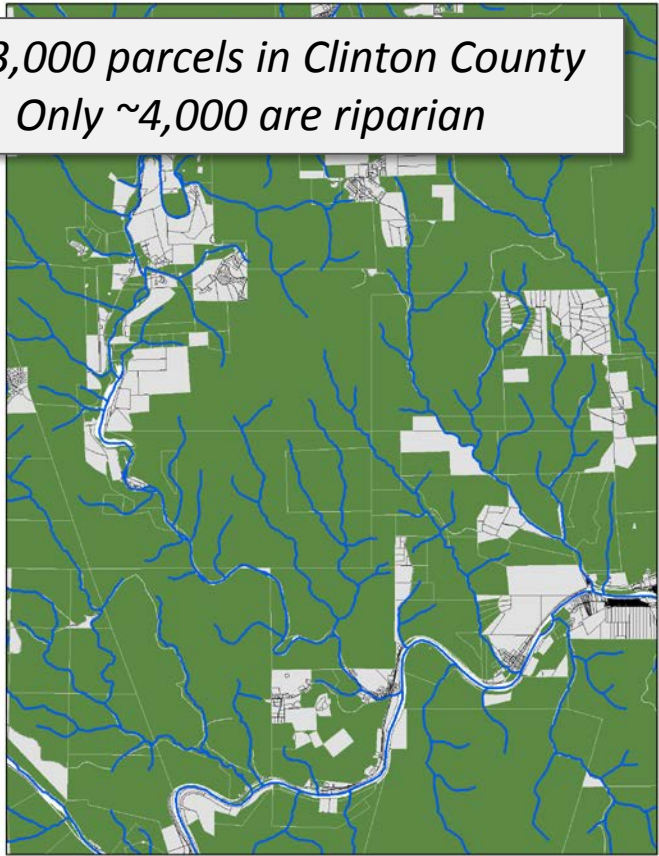
- What motivates landowners to take stewardship actions?



Human Dimensions of Riparian Buffer Restoration

- Prioritize landowners, not just buffers (acreage, agriculture, absentee)
 - Or, “prime prospects” – find willing landowners in high priority areas

*~33,000 parcels in Clinton County
Only ~4,000 are riparian*



“Prime Prospects” Concept

Can we identify landowners who might be more willing than chance alone to install a buffer?

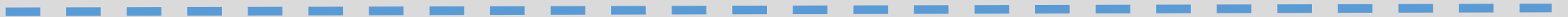
- Begin with a smaller population
- Use consumer data analysis
- Use targeted marketing techniques
- Increase success rates

Partnership among Penn State, University of Montana, and PA DCNR

Funding from PA DCNR/USFS and R. K. Mellon Foundation

Analysis Steps

1. Map land use, streams, and buffer gaps (collaborating with Chesapeake Conservancy)
2. Compile parcel data of PA landowners (currently 33 counties in PA)
3. Identify owners of buffer gaps (merge #1 and #2)
 - a. GIS map of buffer gap owners
 - b. Could begin prioritization, segmentation, and outreach

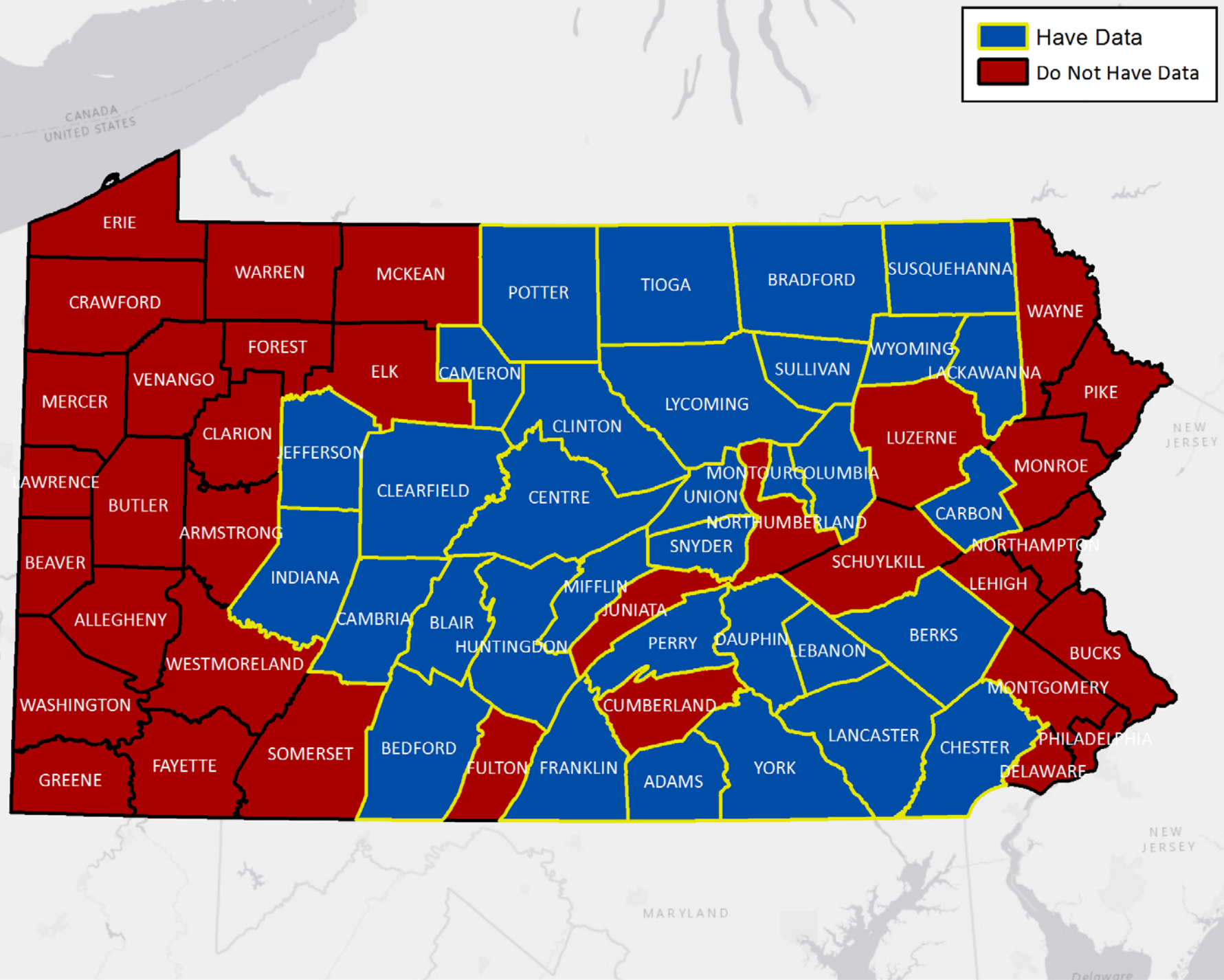


Analysis Steps

4. Consumer Data Analysis:

- Publicly available data about landowners to build profiles of past participants and identify likely future participants
 - What landowners are most likely to install a buffer and where are they located on the landscape
- a. Use past participants to build a model of landowner characteristics
 - b. Using consumer data, identify buffer gap owners matching past participants
 - c. Generate landowner lists by county, watershed, etc. for use in targeted outreach

All while maintaining landowner confidentiality!



Research Component

Does the consumer data approach improve outreach efficiency?

- Random outreach vs “Prime Prospects”
- Effects of different messaging
- Important to track success and failures to refine mechanisms for technical assistance

Progress and Next Steps

- Landowners with buffer gaps identified—data coming shortly
- Landowners with buffer gaps and “score” based on consumer data analysis—this spring
- Efficiency testing
- Begin developing strategies and lists for outreach

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