Promoting Endangered Species Conservation on Private Lands Using Private Lands Stewardship

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Private Lands

- Global trend towards land privatization
- 60% of US lands are private
- Private lands provide:
  - 61% of grass & pasture land
  - 56% of forest land use
- Over 75% of endangered species rely on private lands for habitat
Loss of wildlife habitat due to:

- Private working lands converted to residential & commercial areas

Financial incentives:

- Not enough funding for ALL private lands

Must understand:

- Motivations for voluntary conservation on private lands
- Definitions of stewardship
Private Lands Stewardship

- Social construct for voluntary conservation
- Very little research on topic
- *Our Def*: A personal responsibility to consider the interests of others when managing one’s private property
To better understand landowner conceptions of PLS:

- Do landowners self-identify as “stewards of the land”?
- Do they feel payment for conservation practices would make them better stewards?
- What motivates their stewardship?
- What activities/behaviors do they associate with PLS?
- What socio-demographic characteristics predict stewardship motivations & definitions?
North Carolina

- Over 80% private land
- 35 endangered animal species
- Threats to wildlife habitat
  - Population growth
  - Urban sprawl
- 5th fastest growing state
NC Farm Bureau county advisory boards
- Key opinion leaders
- Member–elected
- In-person administration
- 100 counties
Prediction Models

- Logistic Regression
  - Backward stepwise
  - AIC model selection

- Dependant Variables
  - Stewardship motivations
  - Stewardship definitions
Independent Variables

- # acres primary decision maker (PDM)
- Past participation in conservation programs
- Education
- Income
- Age
- Stewardship scale *(Jackson et al, 2005)*
- Property rights orientation (PRO) scale *(Jackson et al, 2005)*
Results

- 93 counties participated
- n = 734
- Response rate = 78.3%
- Margin of error = 1.7%
Typical Respondent

- 97% white
- 93% male
- 89% married
- 77% employed in farm/ag
- Average acreage = 252 acres
- Median income = $87,500
- Average age = 59 yrs old
98% self-identified “stewards of the land”

63% felt payments for conservation practices would make them better stewards
<table>
<thead>
<tr>
<th>Motivation</th>
<th>%</th>
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</thead>
<tbody>
<tr>
<td>Future Generations</td>
<td>87</td>
</tr>
<tr>
<td>Family</td>
<td>77</td>
</tr>
<tr>
<td>God</td>
<td>71</td>
</tr>
<tr>
<td>The Land</td>
<td>68</td>
</tr>
<tr>
<td>Yourself</td>
<td>68</td>
</tr>
<tr>
<td>Community</td>
<td>41</td>
</tr>
<tr>
<td>Society</td>
<td>26</td>
</tr>
</tbody>
</table>
How do landowners define PLS?

<table>
<thead>
<tr>
<th>Definition</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintain Property</td>
<td>87</td>
</tr>
<tr>
<td>Use Natural Resources Wisely</td>
<td>78</td>
</tr>
<tr>
<td>Implement Conservation Farming Practices</td>
<td>78</td>
</tr>
<tr>
<td>Control Pollution</td>
<td>65</td>
</tr>
<tr>
<td>High Crop Yield</td>
<td>53</td>
</tr>
<tr>
<td>Leave Natural Resources Untouched</td>
<td>31</td>
</tr>
</tbody>
</table>
Future Gens = past participation - edu + income
God = - # acres PDM + past participation + income
Society = - PRO scale - edu + age
The Land = past participation +/- edu + income
Yourself = past participation - edu + income - age
Community = past participation + age
Family = income
Best Fit Models - Definitions

Control Pollution = # acres PDM

Maintain Property = # acres PDM + stew scale

Impl Conserv Farm Pract. = # acres PDM + past participation + income

High Crop Yield = # acres PDM + edu

Use NR Wisely = # acres PDM + stew scale + past participation

Leave NR Untouched = stew scale - PRO scale + edu + income
Conclusions

- Everyone self-identified as a steward
- Not everyone needs financial incentives to be a steward
- Stewardship associated with others
  - Exceptions: Community & Society
- Conservation not preservation
Conclusions

- **Best predictors:**
  - # acres primary decision maker
  - Past participation
  - Education
  - Income

- Better predictors of stewardship than the stewardship & PRO scale
Respondents view “Stewardship” as a responsibility to voluntarily care for land for the benefit of others.

“Others” includes family & future generations, but not society or the landowners community.
Conclusions

Efforts to use stewardship as a construct for endangered species conservation should focus on benefits to future generations instead of to current communities or society.
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Thank You

Questions?