

What is Conservation Social Science? (Human Dimensions of Fish and Wildlife Management)



Wildlife Management Institute

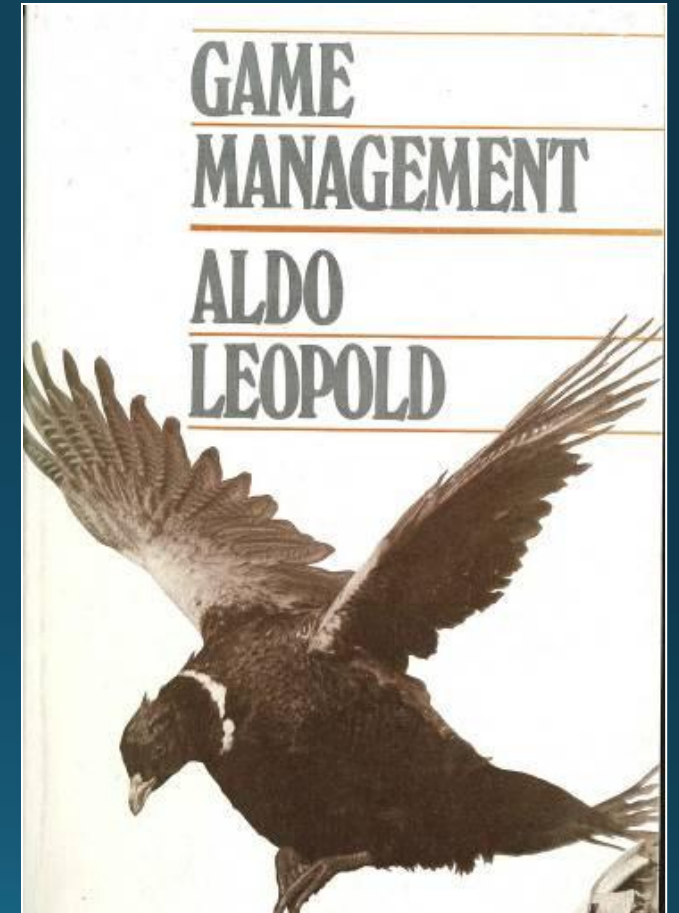
MSCG Project Intent

- Not to replicate or create conservation social scientists in state agencies
- Provide basic information to increase awareness of and about the acquisition and application of conservation social science in agency decision making
- For the purposes of these modules, we'll use the more modern and broader terminology of conservation social sciences rather than human dimensions of wildlife management
- Our use of the term wildlife includes mammals, fish, birds, insects, reptiles, etc.
- WMI deeply appreciates the contributions of Dr. Daniel J. Decker and Dr. Lou Cornicelli to this project

What is Fish and Wildlife Management?

Fish and wildlife management is the guidance of decision-making processes and implementation of practices to purposefully influence interactions among and between people, wildlife, and habitats to achieve impacts valued by stakeholders.

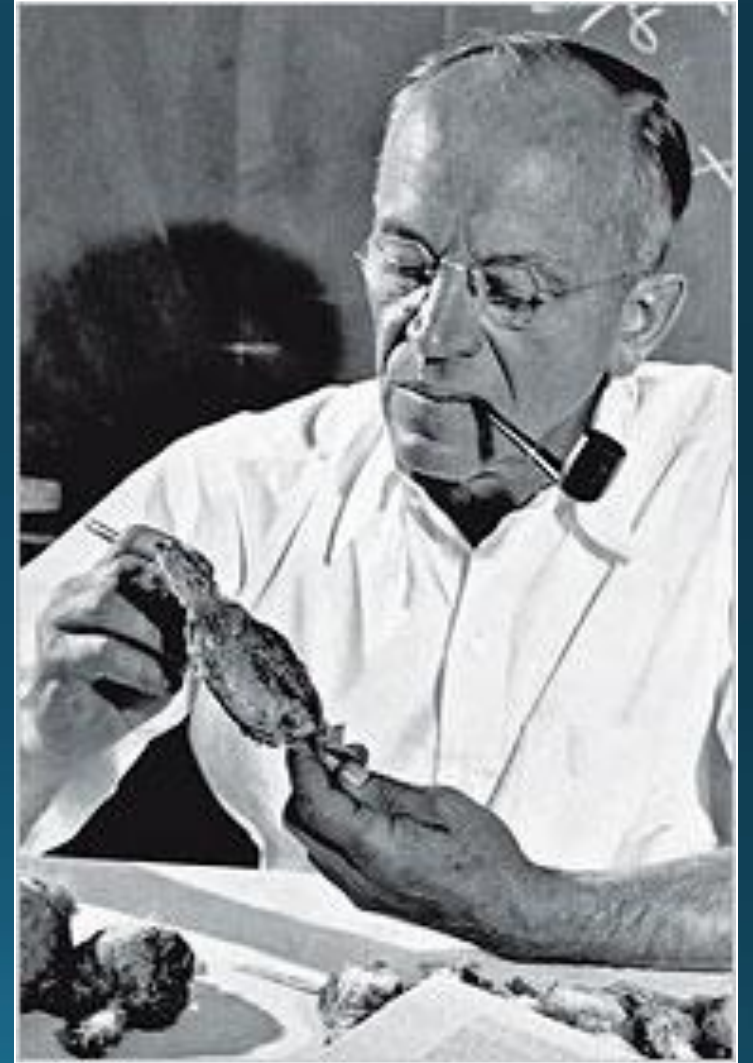
“One of the anomalies of modern ecology is the creation of two groups, each of which seems barely aware of the existence of the other. The one studies the human community, almost as if it were a separate entity, and calls its findings sociology, economics and history. The other studies the plant and animal community and comfortably relegates the hodge-podge of politics to the liberal arts. *The inevitable fusion of these two lines of thought will, perhaps, constitute the outstanding advance of this century.*”



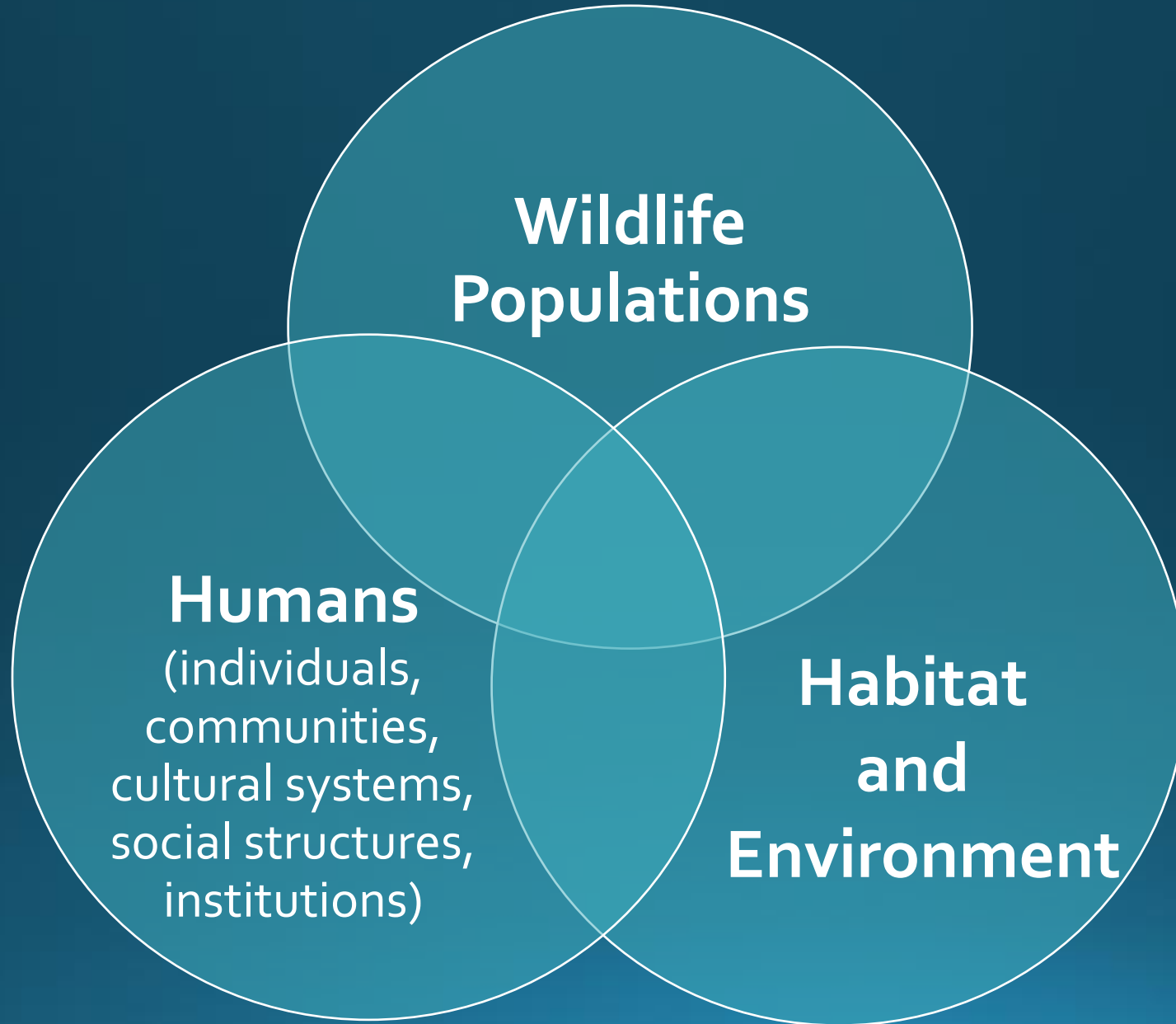
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“The real problem of wildlife management is not how we shall handle the animals... the real problem is one of human management.”

Aldo Leopold (1943)



Fish and Wildlife Management



What is Conservation Social Science?

Application of social science theory and methods to natural resource/environmental management issues.

It attempts to describe and understand human thought and behavior toward wildlife resources to improve management.

General History of Conservation Social Science



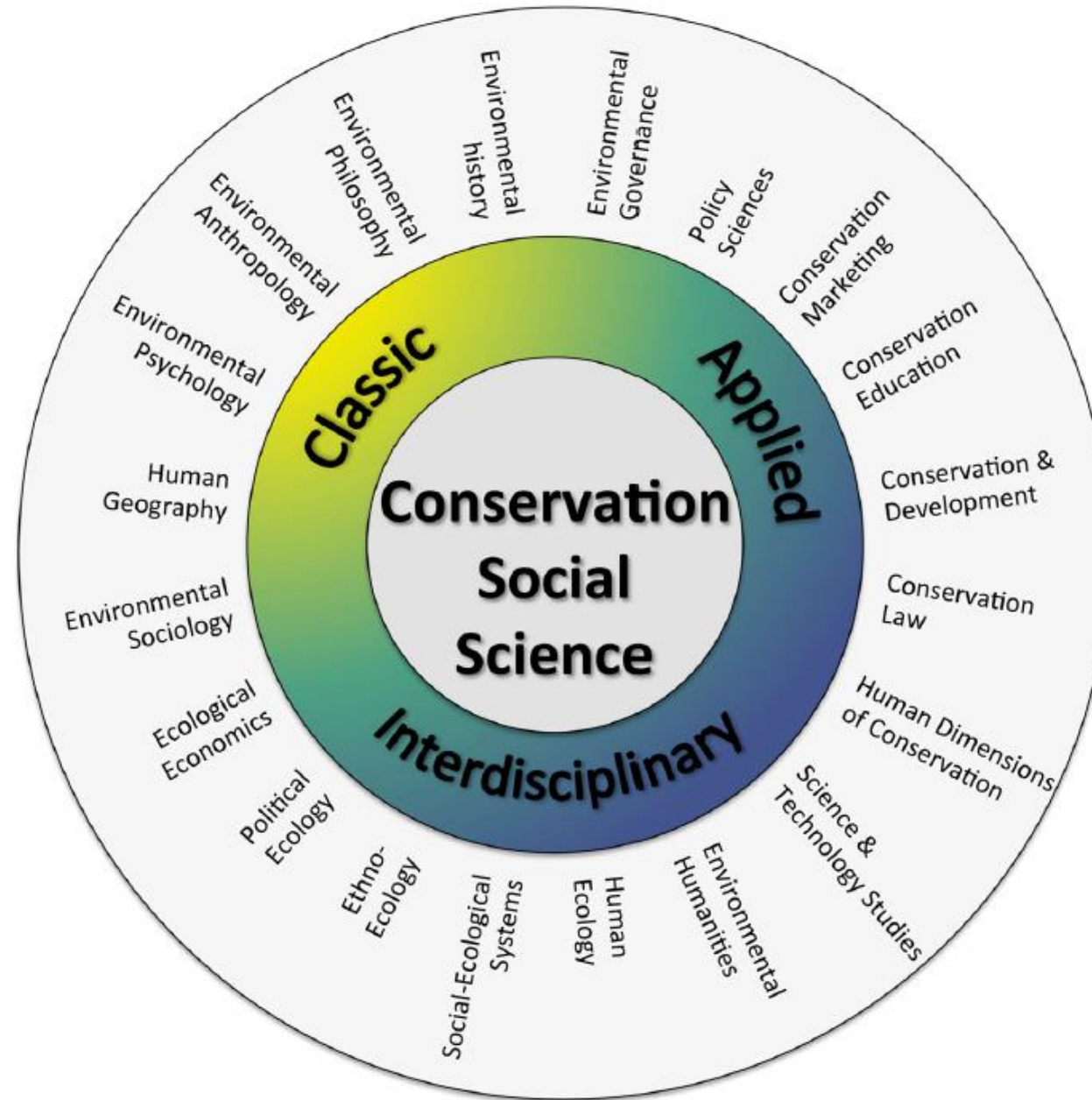


Fig. 3. The conservation social sciences – classic, interdisciplinary and applied traditions.

Conservation Social Science

...management and research focusing on:

- how people value fish and wildlife resources
- how people want these resources to be managed
- how people affect or are affected by...
 - fish and wildlife
 - management decisions and actions

Conservation Social Science

- Wildlife management addresses the interacting and interdependent components and processes that comprise wildlife systems in their entirety
- Everything in a wildlife management system that is not about organisms and habitat is about humans: individuals, groups, social structures, cultural systems, communities, organizations, and institutions
- These components are the “human dimensions” of wildlife management





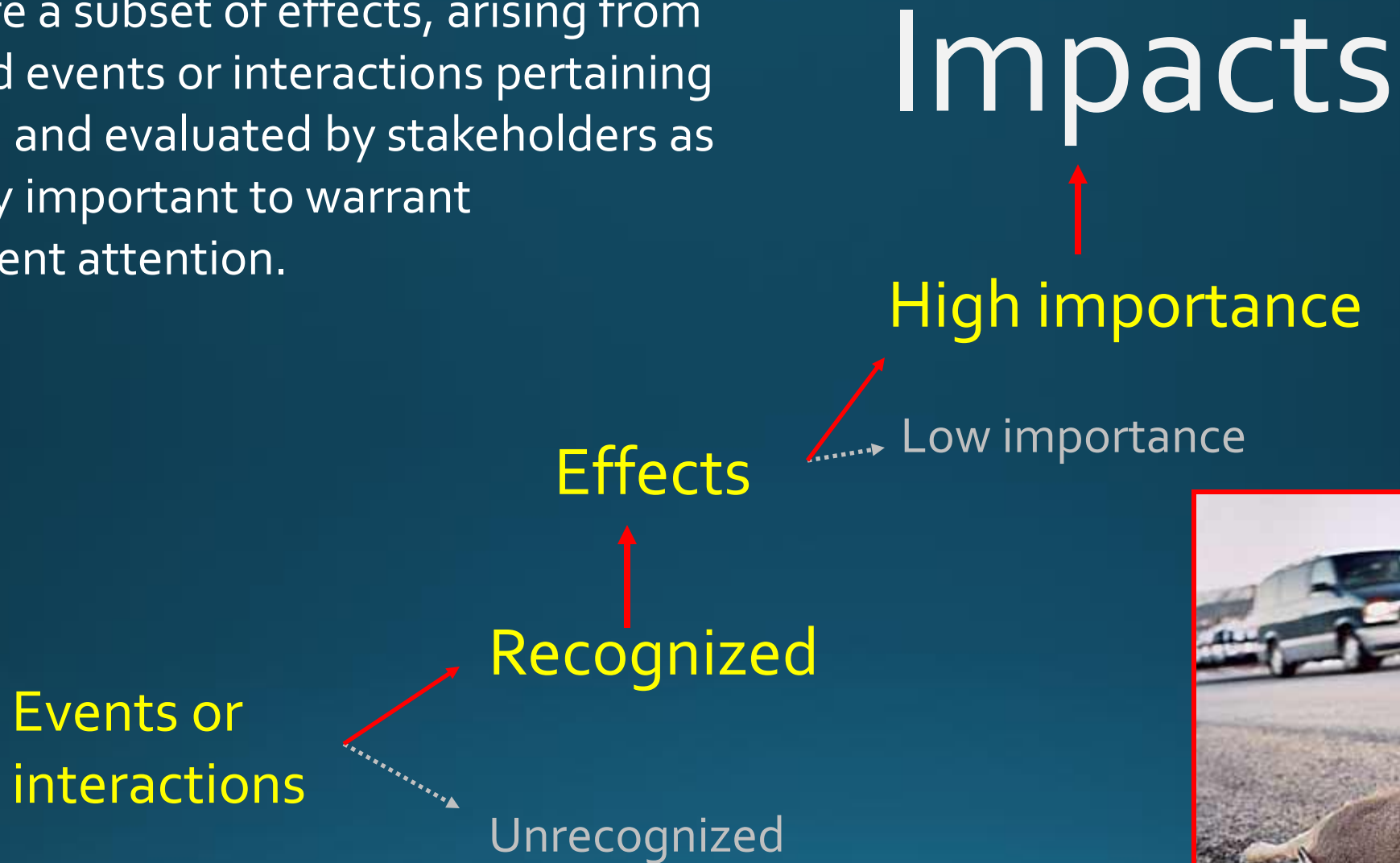
Using Social Science in Wildlife Management

- Provide rigorous and systematic approaches to:
 - Increase knowledge about stakeholders
 - Learn how they value wildlife
 - To inform management decisions that
 - Increase benefits (positive **impacts**)
 - Decrease costs (negative **impacts**)
- Most commonly used:
 - Social psychology
 - Sociology
 - Economics

Impacts

A subset of positive and negative outcomes produced by interactions among and between wildlife, people, and habitats that are regarded by stakeholders as important enough to warrant management attention

Impacts are a subset of effects, arising from recognized events or interactions pertaining to wildlife, and evaluated by stakeholders as sufficiently important to warrant management attention.



Impacts Can Be Positive



Forms:

- Psychological
- Sociological
- Ecological
- Aesthetic
- Physiological

Impacts Can Be Negative



Forms:

- Psychological
- Sociological
- Ecological
- Aesthetic
- Physiological

Conservation Social Science Research

- Three Basic Approaches

- Qualitative

- Inductive, interpretative or open-ended
- Help gain specific insights into motivations, attitudes and behaviors

- Quantitative

- Structured interviews, questionnaires, demographic data
- Help managers understand broader scale implications of actions

- Mixed – methods

- Use of both qualitative and quantitative approaches
- Method(s) selected depends on the information desired
- Developing questions require considerable thought and strategic approach

What Does a Conservation Social Scientist Do?

- Gather and analyze social science information
- Provide recommendations to decision makers based on stakeholder needs, interests and concerns
- Develop and implement recreation/environmental education programs
- Design and implement planning processes
- Design and implement communication, education and marketing efforts

What is a “Stakeholder”?

- Any person who is significantly affected by, or significantly affects, wildlife or wildlife management decisions or actions
 - Includes groups with special interests such as
 - Deer Hunters Association
 - Ducks Unlimited
 - Audubon
 - The Nature Conservancy
 - Individuals
 - Well-organized or not
 - Ad hoc
 - Grassroots

Stakeholder Involvement

- Provide input on management issue, on management actions and evaluation of outcomes
 - Based on desired benefits
 - Increase positive impacts (e.g., provide harvest opportunities, protect scenic views or important habitat for wildlife viewing)
 - Reduce negative impacts (e.g., reduce negative human-wildlife interactions, control overabundant wildlife)
 - Stakeholders are often focused on actions rather than intended management outcomes
 - Resulting actions and outcomes can create NEW stakeholders
 - Can lead to conflict/controversy or collaboration amongst stakeholders
 - Can also lead to better understanding of stakeholder interests

Role of Social Science in Wildlife Management

- Contributes knowledge about:
 - Nature of peoples needs, interests and concerns about wildlife
 - Extent or strengths of those interests
 - Reveal desired outcomes of human – wildlife interactions
 - Subsequent or unintended consequences from management actions
- Allows agencies to make informed, thoughtful and durable decisions

Applying Social Science Insight

- Science (ecological and social) informs decision-makers about:
 - What actions might be taken to achieve desired management outcomes
 - What benefits stakeholders desire
 - Potential outcomes from a management action
 - What might happen if no action is taken
- Does not make the decision about what SHOULD be done
 - People make decisions
 - Social science provides an understanding of the issues surrounding a given situation, but it does not determine WHICH should be used to make decisions
 - Doing what is in the long-term best interest of the public trust resource is an important guiding principle

Resources

- Human Dimensions of Wildlife Management 2nd edition, 2012. Editors: Daniel J. Decker, Shawn J. Riley, William F Siemer. Johns Hopkins University Press.
- Bennett, Nathan J., et al. "Conservation social science: Understanding and integrating human dimensions to improve conservation." *Biological Conservation*. 205 (2017): 93-108.
- Riley, S. J., Decker, D. J., Carpenter, L. H., Organ, J. F., Siemer, W. F., Mattfeld, G. F., & Parsons, G. (2002). The essence of wildlife management. *Wildlife Society Bulletin*, 585-593.
- Riley, S., Siemer, W., Decker, D., Carpenter, L., Organ, J., & Berchielli, L. (2003). Adaptive impact management: an integrative approach to wildlife management. *Human Dimensions of Wildlife*, 8(2), 081-095.