Human Dimensions Research for Adaptable Community-Based Fish and Wildlife Management

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Definitional Issues

• “Community” masks complexity.
  – Multidimensional scaling issue

• “Adaptive” connotes everything from muddling through and trial and error to active experimental management.
  – Darwinian connotation: accommodation to circumstances.
Tug of war
Tug of war
Tug of war
Tug of war
Tug of war
Tug of war
Tug of war
Motivations for community-based

• **Alignment**: scales of management to scales at which people “interact” with resources.

• **Inclusion** of stakeholders in management processes... “shared governance.”
Deer Management Units
Michigan 1859 - 2012

Trend toward increased number of management units

1859 1887 1918 1948 1979 2009
Toward smaller scales of engagement
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.

Consequences of lag time

- No lag time

- "DESIRED" vs. OBSERVED

EXISTING IMPACTS

TIME
Consequences of lag time

Short lag time

EXISTING IMPACTS

TIME

DESIRED

OBSERVED
Consequences of lag time

Exisiting Impacts

Desired

Observed

Longer lag time

Time
Fish and Wildlife Management

Habitat Dynamics
- Directed at influencing slowly affects
  - Wildlife Population Dynamics
- Which affect acceptability, compliance, and effectiveness of
  - Human Dimensions Dynamics
  - Quickly affects

Fish / Wildlife Populations
- Affects frequency and quality of
  - Wildlife-Human Interactions
  - Which affect interpretation of

Management Interventions
- Which leads to

Objectives for Desired Wildlife-Related Impacts
- Which leads to

Gap Between Existing and Desired Impacts
- Which are compared with existing impacts and create a

Desired Impacts
- Interpreted by humans as creating

Existing Impacts
- Which are compared to desired impacts and create a
Thoughts...

- **Impact orientation** shifts concentration away from only manipulating animal populations.

- **Impact orientation encourages integration of HD** rather than a tag-on to accommodate to the environment.

- **Adaptability improved by shortened lags** between intervention and realization – facilitated by impact orientation.
Thank You

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Number of wolves counted in Michigan and Wisconsin 1980-2011

Michigan Recovery Goal