

EXPLORING THE SOCIAL PERCEPTIONS OF WILDFIRE IMPACTS AND SEVERITY

An overview of approaches
and initial insights

Travis Paveglio
Hannah Brenkert-Smith
Troy Hall
Chad Kooistra
Matthew S. Carroll

Overview

- Introduction and goals
- Case study selection
- Delphi process with key informants
- Initial case study and preliminary results
- Potential papers and theory building

Introduction and Goals

- Perception of wildfire risk, impacts driven by complex factors
 - Knowledge of local ecology, damages, backcountry vs. WUI, satisfaction with firefighting efforts
- Wildfires can have short-term and long-term effects on social systems



Introduction and Goals

- A need to better understand:
 - What influences potential vulnerability and exposure to wildfire impacts
 - How local characteristics and experience with fire impacts influence ability to moderate fire impacts
 - How biophysical exposure matches perception of impacts

Case Study Selection

- ◎ Initial list of potential cases
 - Disaster or Fire Management Assistance Declarations
 - Cutoff of 2000 or later (changed to 2005)
 - Additional info sought (e.g. damages, cost, evacuation)
- ◎ Resultant list of 80+ fires
 - Narrowed by other factors such as losses, evacuations, perception of fire severity, fire size and duration

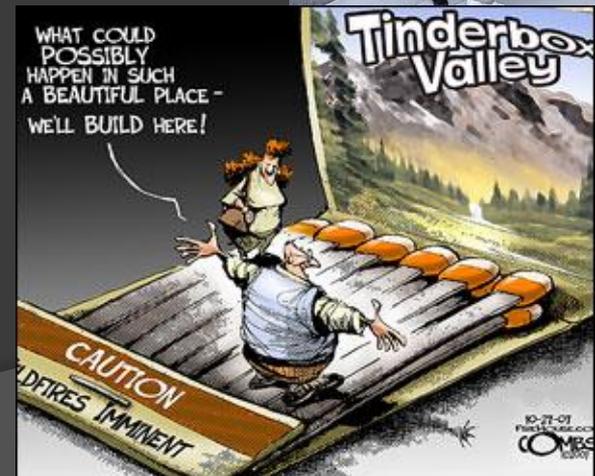


Key Informants and Delphi

- Key informant interviews with fire professionals and local leaders
- Two focus group-style panels (9 participants) comprised of academics and USFS researchers
- Semi-structured interview protocol

Initial Insights

- Examples of characteristics influencing perceived wildfire impacts or severity to social systems
 - Social disruption
 - Aesthetic impacts
 - Economic or property losses
 - Fires that defy expectation



Initial Insights

- ⦿ Additional characteristics influencing perceived wildfire impacts on social systems
 - Extent of smoke
 - Duration of event
 - Size of area burned
 - Phase shifts in plant communities
- ⦿ Distance of these impacts to social systems is a key intervening variable

Dayton Case Study

- ⦿ Met multiple criteria for social impacts
- ⦿ 44 key-informant interviews with 48 participants (77% response rate)
- ⦿ Key informants included
 - Fire managers, community leaders, impacted residents



Initial Themes

- ⦿ Columbia Complex Fire was perceived as “extreme” because:
 - ⦿ Loss of local control
 - Road blocks, evacuation, inability to fight the fire
 - ⦿ Incompatibility of firefighting perspectives
 - Structure vs. resource protection
 - Potential loss of timber, crops
 - ⦿ Distrust of federal/state firefighting services



Initial Themes

- ◎ Fire in mixed-use, WUI landscapes
- ◎ Not the “typical” wheat fire
 - Exceeded local expectations, preparations
 - Multiple fire starts, speed of spread, weather



Initial Themes

- ⦿ Social upheaval and long-term changes
 - Ouster of sheriff
 - “Blue cards” and state level policy
 - Further distrust of outsiders
- ⦿ Our fire/their fire
 - No ownership, less severity associated with School Fire
 - Fire proximity and everyday life

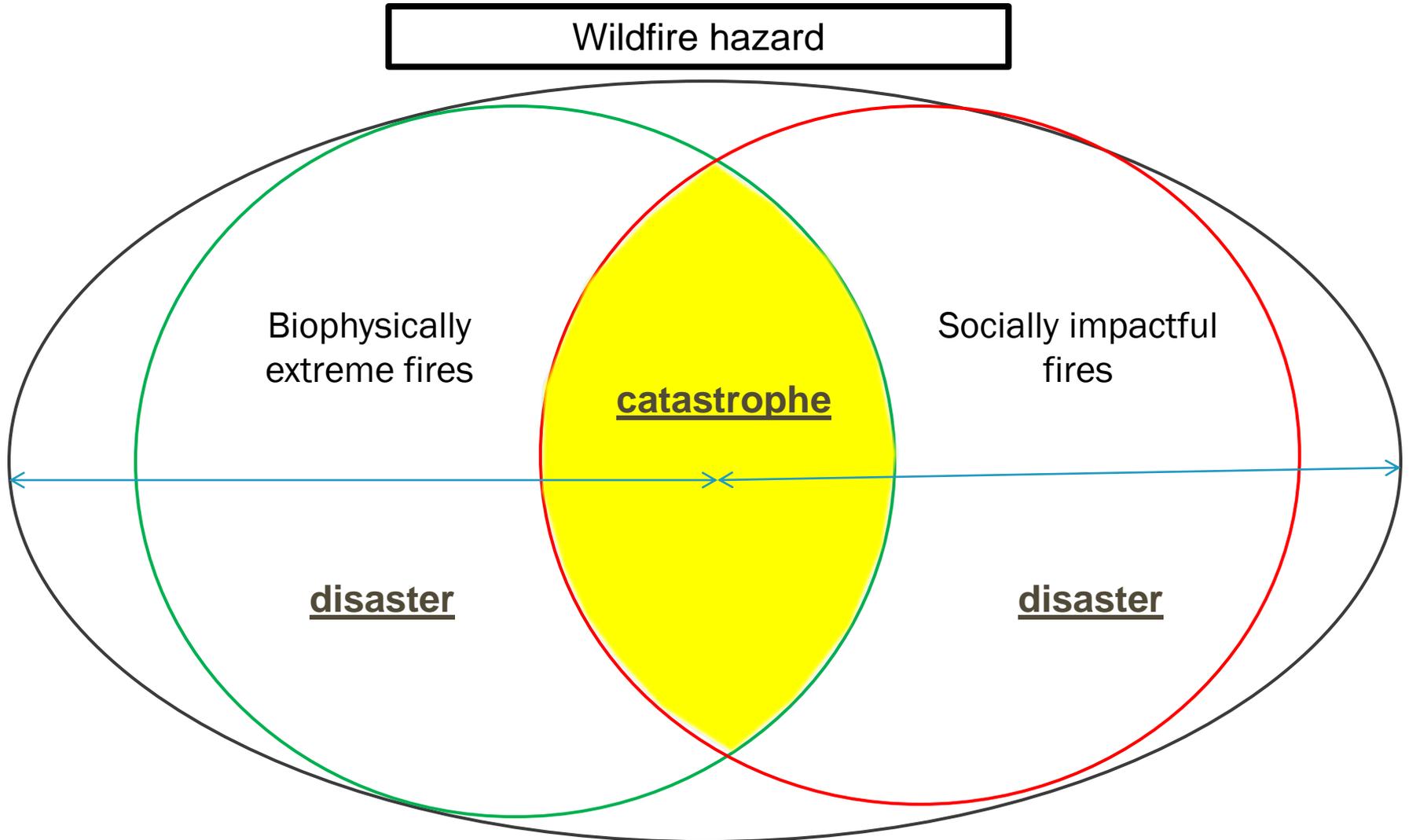
Potential Early Publications

- Firewise for whom? Community diversity and approaches for creating fire-adapted communities
- ‘Put the wet stuff on the hot stuff’: Different firefighting approaches as a source of conflict



Theory Building

- Coupled natural and human system



Theory Building

- ⦿ What influences the size of the intersection?
 - Fire proximity to social system or WUI
 - Perception of land management and suppression response
 - Perception of biophysical impacts
 - Segment of social system affected by or aware of fire impacts
 - Mitigation and land management efforts

Theory Building

- Further characterizing socially impactful fires

Socially Impactful Wildfires

Social conflict/disruption

- Disagreement over management
- Breakdown of services

Losses and damages

- Infrastructure
- Private property
- Resources

Landscape use changes/aesthetics

- Landscape recovery/loss
- Recreational/resource use

Next Steps

- ⦿ Selecting case studies with different primary influences on wildfire impact/severity
 - Dahl Fire, Montana
 - Losses and damages/area aesthetics
 - East Zone Complex
 - Area aesthetics/social disruption



Questions?

