

Integrating Science into Fire and Fuels Management

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Millions of taxpayer dollars are spent on fire / fuels research. Whether research results are effectively communicated and used depends on individual and organizational capacities to communicate and apply science.



Objective:

Identify and understand influences to effective communication and application of scientific knowledge from the perspective of fire / fuels specialists and decision makers in the NPS, USFS, and BLM.

Methods:

Step 1: Literature review & agency meetings → identify influences to effective communication and use of science

Step 2: Case studies with in-depth interviews → understand influences within the context of different agencies, organizational units, and positions

Step 3: Quantitative survey → assess prevalence of these influences among broader populations of managers in each agency

Step 4: Integrate results from case study interviews and quantitative survey

Identifying influences at agency meetings:



Understanding influences through in-depth interviews:

(Example questions and responses)

What's the role of research?

- Understanding the role & effects of fire in natural ecosystems
- Justifying management decisions
- Providing tools to predict fire behavior

Whose job is it to apply research?

- Line officers delegate to specialists
- Fire ecologists and some fuels specialists are the research “geeks”
- Regional offices help the field identify pertinent research

What helps research get used?

- Relevant or interesting topics / tools
- Communication that highlights application in lay person's language
- Word of mouth through workshops, trainings, phone calls

What keeps research from getting used?

- Cultural barriers between managers and scientists
- Cultural barriers between fire managers and resource managers
- Lack of need / relevance to job

What are the challenges to applying relevant & accessible research?

- Time to apply research vs. solving the “issue of the day”
- Conflicting research, from opposite sides of the issue
- Research that contradicts knowledge gained by personal experience

Publications

Wright, V. In Press. Communication barriers to applying federal research in support of land management in the United States. In: Miner, Cynthia; Jacobs, Ruth; Dykstra, Dennis; Bittner, Becky, eds. 2006. Proceedings: international conference on transfer of forest science knowledge & technology. Gen. Tech. Rep. PNW-GTR-XXX. Portland, OR: US Department of Agriculture, Forest Service, PNW Research Station.

Wright, V. 2006. Overcoming barriers to the use of science in National Parks (session summary). In: David Harmon, Bruce M. Kilgore, and Gay Vietzke, eds. People, places, and parks: Proceedings of the 2005 George Wright Society Conference on parks, protected areas, and cultural sites.

