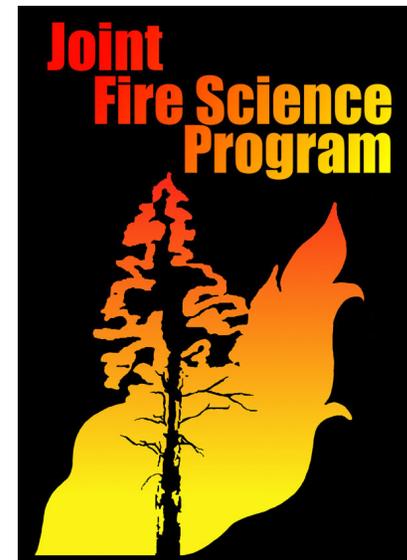


TOWARDS A CROWN FIRE SYNTHESIS:

What would you like to
know and what might
you be able to
contribute?

3rd Fire Behavior and Fuels Conference – October 25-29, 2010 – Spokane, WA

In October 2009, a 3-year project supported by the Joint Fire Science Program was initiated that aims to synthesize the currently available information on crown fire behavior in conifer forests (e.g., the onset of crowning, type of crown fire and the associated spread rate and fireline intensity).



A critical synthesis on crown fire behavior must rest upon as solid a foundation of knowledge as is possible at this time.

A sufficient body of scientific, peer-reviewed and technical literature of a practical nature does in fact presently exist to be able undertake a synthesis on crown fire behavior.



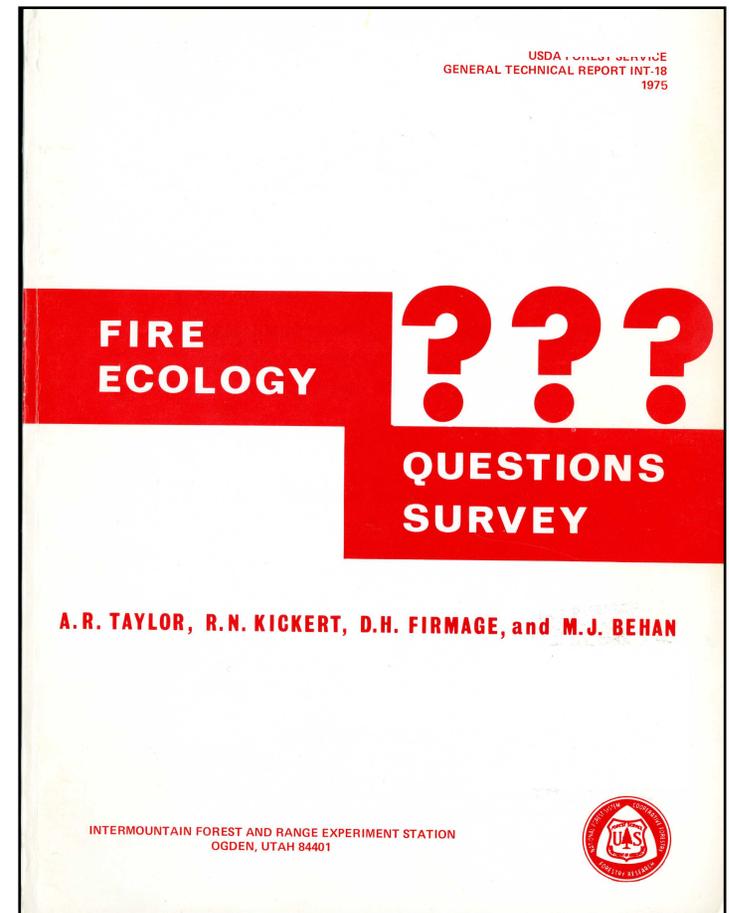
In addition to summarizing the existing scientific and technical literature on crown fires, project members are also **seeking assistance from individuals in the form of field observations of crown fires and related experiences as well as still pictures and video footage.**



Finally, we are interested in hearing from you -- the “end user” -- as to your opinions on the subject of crown fires and any specific questions and/or research needs/knowledge gaps that you would like to see addressed in this crown fire synthesis project.

*What fuel-weather combinations are required to produce a propagating crown fire in northern flatwood forests? –
Rodney W. Sando et al. (1970)*

For example, in a fire ecology survey of land managers and environmental scientists in western North America conducted in the early 70s, several questions were raised that dealt with aspects of crown fire potential:



Will fire in a thinned stand tend to stay on the ground as opposed to crowning? What are the effects of various spacings? What spacing inhibits spread of [crown] fire?

Crown fires are quite a threat in the ponderosa pine of the Black Hills. Extreme burning conditions may cause crowning any time of the day or night. Based on slope, what tree spacing would allow full stocking and yet be most desirable for separating tree crowns to preclude crown fire ignition?

How many tons/acre of fuel are required to support a crown fire in ponderosa pine and in mixed conifer forest in the Southwest?

What stand and crown density is required to carry a fire in standing pinon-juniper stands?

To keep up to date on crown fire synthesis periodically visit the project website

WWETAC : Crown fire behavior characteristics and prediction in conifer forests: A state of know

http://www.fs.fed.us/wwetac/projects/alexander.html

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Project Title: Crown fire behavior characteristics and prediction in conifer forests: A state of knowledge synthesis

JFSP-ID: 09-S-03-1

Principal Investigator: Martin E. Alexander, University of Alberta, Department of Renewable Resources; Miguel G. Cruz, CSIRO-Commonwealth Scientific & Research Organization; David L. Peterson, USDA Forest Service, Pacific Northwest Research Station; Nicole M. Vaillant, Western Wildland Environmental Threat Assessment Center

Status: Ongoing

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General Description: The National Wildfire

Related Links

- Crown Fire Initiation and Spread (CFIS) Software System
- Fire Behavior Assessment Team

Joint Fire Science Program

Internet



Please feel free to contact any member of the project team regarding information, comments, thoughts or ideas:

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