

Synthesizing knowledge on crown fire behavior in conifer forests: we could use your help!

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Abstract. This poster paper presentation provides a summary of the types of information sought from field practitioners regarding the Joint Fire Science Program synthesis project ‘Crown fire behavior characteristics and prediction in conifer forests: a state-of-knowledge synthesis.’

Additional keywords: crowning, free-burning wildland fires, wildfires.

Introduction

The Joint Fire Science Program (JSFP) is supporting a project aimed at synthesizing 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). The present paper outlines a description of items being solicited by the project investigators at this time.

Needs of project investigators

In addition to summarizing the existing scientific and technical literature on the subject, we are actively seeking assistance from individuals in the form of field observations of crown fires and related experiences as well as still pictures (Fig. 1) and video footage; for example, do you have a favourite YouTube presentation (e.g. <http://www.youtube.com/watch?v=KKpBqdf16rE>)? We are looking for firsthand experiences of rare or perhaps unusual observations like independent crown fire runs or specific cases of conditional crown fire activity and crown fire cessation as well as instances of long-distance spotting (>2 km) from active crown fires along with the associated environmental conditions: What was happening climatically? What were the fuel types? Was there anything out of the ordinary? Did suppression play a role?

We are interested in hearing from you as to your opinions on the subject of crown fires and any specific questions and/or research needs/knowledge gaps or areas in fire behavior training that you would like to see addressed in this crown fire behavior synthesis project. For example, when implementing mastication fuel treatments how much material can be left onsite or how long after a mastication treatment is the potential risk of crown fire alleviated? Are there gaps in

knowledge pertaining to crown fire such as the desire for better assessment methods for assessing crown fire risk in a particular conifer forest stand type? Finally, we would really like to hear your general thoughts and experiences pertaining to crown fire. The project team members that are in attendance would particularly like to hear about situations that are unique to the southern United States in regards to crown fire behavior in conifer forests.

For more information

The completion date for this JFSP project was June 30, 2013. To obtain further information on the deliverables associated with the JFSP 09-S-03-1 synthesis project ‘Crown fire behavior characteristics and prediction in conifer forests: a state-of-knowledge synthesis’, visit the project website (<http://www.fs.fed.us/wwetac/projects/alexander.html>) or alternatively the JFSP website (<http://www.firescience.gov/>).



Fig. 1. Crowning associated with the Jackpine Fire in the Willmore Wilderness Park, Alberta, Canada, at 4:29 pm MDT on July 4, 2006. Photo by Emile Desnoyers, Alberta Environment and Sustainable Resource Development.

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