

Project Summary

Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Reciprocal Interactions Between Bark Beetles and Wildfire in Subalpine Forests:
Landscape Patterns and the Risk of High-Severity Fire

Discipline: Natural

Type of Project: Research

Funding Agency: National Park Service

Other Partners/Cooperators: University of Wyoming

Effective Dates: 9/1/2006 - 12/31/2009

Funding Amount: \$69,663

Investigators and Agency Representative:

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Investigator: Dan Tinker, Botany Department, University of Wyoming, Laramie, WY 82071; 307-766-4967;
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Project Abstract:

This project is funded by the Joint Fire Sciences Program, and includes investigators from University of Wyoming, Colorado State University and University of Wisconsin. The project objectives are to combine intensive field studies, broad-scale analyses based on satellite imagery, and aerial photography and simulation modeling to describe the spatial patterns of past and current beetle outbreaks in Yellowstone National Park (YNP) and portions of the Greater Yellowstone Ecosystem (GYE), and quantify the reciprocal interactions of each disturbance on the pattern and severity of the other.

This project involves a "research team" of 4 different co-principal investigators (and associated graduate students) from 3 different universities as well as substantial involvement of NPS personnel. As the research team's leader, Dr. Tinker's contribution will focus on directing graduate student (Bockino) research into fine-scale influences of current mountain pine beetle outbreak, the effects of wildfire on mountain pine beetle outbreak, and synthesis writing.

Outcomes with Completion Dates:

1. Submit an annual progress report to the RM-CESU, in accordance with reporting requirements specified in the Joint Fire Sciences Program, by September 10 of each year.
2. Submit a detailed final report to the RM-CESU, in accordance with reporting requirements specified in the Joint Fire Sciences Program, by September 30, 2008.
3. Participate in the Joint Fire Science Program Principal Investigators' Workshop, as scheduled and appropriate. The PI may receive a request, at the discretion of the Joint Fire Science Program Governing Board, to make a formal presentation at the Workshop regarding the status and update of the project, or to submit a poster describing the project.

Keywords: wildfire, bark beetles, Greater Yellowstone Ecosystem, Yellowstone National Park, University of Wyoming

For Administrative Use Only:

Date Annual Report Received:

Date Final Report Received:

Publications, etc. on file: