

Project Summary

Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Mapping Whitebark Pine Distribution throughout the Greater Yellowstone Ecosystem

Type of Project: Technical Assistance

Funding Agency: National Park Service

Other Partners/Cooperators: Montana State University

Effective Dates: 8/30/2004 - 4/30/2006

Funding Amount: \$26,467

Investigators and Agency Representative:

NPS Contact: Robert Bennetts, Greater Yellowstone Network I & M Program, 1648 South 7th Ave, Bozeman, MT 59717, 406-994-2281 (ph.), 406-994-4160 (fax), Robert_Bennetts@nps.gov

Investigator: Rick L. Lawrence, Montana State University, Department of Land Resources and Environmental Sciences, College of Agriculture, P.O. Box 173492, Bozeman, MT 59717-3490, 406-994-5409 (ph.), 406-994-5122 (fax), rickl@montana.edu

Project Abstract:

This project will be an extension of the current mapping effort and will form the sampling frame used by the GYE Interagency Whitebark Pine Monitoring Program from which probabilistic samples will be derived.

The objectives are:

- Develop and document a repeatable, systematic technique for mapping predicted occurrence of whitebark pine.
- Incorporate training data newly-collected from aerial photo interpretation into image classification model.
- Conduct field measurements to determine the accuracy associated with the aerial photo interpreted data.
- Produce an interim draft-version map predicting presence/absence of whitebark pine throughout the Greater Yellowstone Ecosystem.
- Incorporate ground validated data collected by the summer 2004 GYE Interagency Whitebark Pine Monitoring Project survey crew into the accuracy assessment of the draft -version map.
- Produce a final map, based on all training data collected and compiled by fall of 2005, predicting presence/absence of whitebark pine.
- Incorporate ground validated data collected by the summer 2004 and 2005 GYE Interagency Whitebark Pine Monitoring Project survey crew into the accuracy assessment of the final map product.
- Develop metadata of newly collected/compiled data and previously collected data in accordance with FGDC standards.

Outcomes with Completion Dates:

Training and validation data, metadata, interim map of predicted whitebark pine occurrence, final map of predicted pine occurrence, Final report, due 4/30/2006.

Keywords: whitebark pine distribution, whitebark pine mapping, Greater Yellowstone Ecosystem, Greater Yellowstone Network, Montana State University

For Administrative Use Only:

Date Annual Report Received:

Date Final Report Received:

Publications, etc. on file: