

Project Summary
Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: A study of whitebark pine regeneration after fire in Glacier National Park
Type of Project: Research
Funding Agency: National Park Service, Glacier National Park
Effective Dates: Aug 15, 2002 - Feb 1, 2003
Funding Amount: \$2709
Investigators and Agency Representative: UNIVERSITY CONTACT: Diana F. Tomback, Department of Biology, University of Colorado at Denver, P.O .Box 173364, Denver, CO 80217-3364 NPS CONTACT: Brace Hayden, Glacier National Park, West Glacier, MT 59936 (406) 888-7913
Project Abstract: Half of the whitebark pine in Glacier National Park was killed in the 20 th century by mountain pine beetle infestations. Of the remaining whitebark pine, more than 80% are infected with white pine blister rust and are nearly dead or dying. The loss of whitebark pine in Glacier National Park has important biodiversity implications, including the character of treeline vegetation and as a food source for many species of birds and mammals, including the Clark's nutcracker and grizzly bear. Glacier national Park has experienced a series of fires during the 1990's. Given healthy white bark pine ecosystems, fire provides opportunities for forest renewal. However with the current conditions of THE whitebark pine seed source, it is questionable whether much whitebark pine regeneration has occurred during this decade. Diana Tomback, on sabbatical leave from the University of Colorado, and USGS Ecologist Kate Kendall will examine areas in the backcountry of Glacier National Park that burned during the 1990's in order to determine densities of whitebark pine regeneration and condition of nearby seed source. These regeneration densities will be compared with regeneration densities for whitebark pine in the Bob Marshall Wilderness Complex from similarly aged fires.
Outcomes with completion dates: Diana Tomback will offer a formal seminar, covering the ecology and evolution of nutcracker-pine mutualism, and several talks and workshops. Talks will be presented to park visitors and staff as well as at local community colleges near Glacier National Park and to Denver area schools and universities. Diana Tomback and Kate Kendall will present a seminar to Park staff and managers on their research findings.
Keywords: Glacier National Park, whitebark pine, blister rust
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