

## GREATER YELLOWSTONE WHITEBARK PINE COOPERATIVE

### **Introduction**

Whitebark pine is a “keystone” species throughout the Greater Yellowstone Ecosystem (GYE). Its seeds are a major food source for wildlife, including grizzly bears and Clark’s nutcracker. Mountain pine beetles and white pine blister rust have decimated white-bark pine stands throughout its range.

### **The Challenge**

Conserve the full spectrum of GYE whitebark pine communities in the face of both white pine blister rust and mountain pine beetle infestations.

### **Whitebark Pine Cooperative**

The Whitebark Pine Cooperative first met in 2001 with the mission “to help ensure the long-term viability and function of whitebark pine in the Greater Yellowstone Area”. Numerous individuals had worked on whitebark pine management at the unit level. The cooperative brought together collective expertise from many federal land management units and other interested parties. The Greater Yellowstone Coordinating Committee encouraged and supported the establishment of this group.

The GY Whitebark Pine Cooperative meets annually to:

- Coordinate whitebark pine monitoring and inventory.
- Share technical support and expertise leading to whitebark pine conservation.

- Provide a forum for discussion of whitebark pine viability concerns and for the integration of scientific findings into the management arena.
- Serve as peer group in review of monitoring, management activities, evaluation assessments and restoration activities.
- Apply a strategic approach to whitebark pine management and restoration.
- Serve as a technical advisory group to the Greater Yellowstone Coordinating Committee.

### **Committee Representation**

- Yellowstone National Park
- Grand Teton National Park
- Beaverhead-Deerlodge NF
- Bridger-Teton NF
- Caribou-Targhee NF
- Custer NF
- Gallatin NF
- Shoshone NF
- Montana State University researchers
- University of Montana researchers
- University of Colorado researchers
- FS Rocky Mountain and Pacific Research Stations
- FS State and Private Forestry
- Interagency Grizzly Bear Study team
- US Geologic Service researchers

The cooperative fosters a forum for integrating science, research and management in whitebark pine conservation. The cooperative includes federal wildlife biologists, entomologists and fire ecologists.

## **Past Accomplishments**

1. Developed a key to *ribes* sp. in the Greater Yellowstone.
2. Developed whitebark pine restoration guidelines for the GY.
3. Developed a whitebark pine bibliography for GY managers.
4. Completed a whitebark pine map for the GY.
5. Coordinated development of inventory and monitoring protocols for white pine blister rust.
6. Conducted four years of white pine blister rust monitoring, indicating a 25% rust infection in the GY.
7. Selected potential rust resistant trees, collected seeds.

## **2007 Accomplishments**

- Established 16 new blister rust transects to complete panel of 177 plots in GYE (with 4,731 individual tagged whitebark pine trees). The new transects were primarily on the Bridger-Teton and Shoshone National Forests.
- Reread 32 transects monitored in 2004 in Yellowstone NP to determine trends in blister rust infection rate and severity.
- The protocol for monitoring Whitebark Pine blister rust in the GYE was amended, following external peer review, and approved by the NPS IMR Regional I&M Coordinator.
- Recorded individual tree mortality and indications of mortality from mountain pine beetle.

## **Current Committee Focus**

- Develop a sampling regime for monitoring the status of whitebark in the GYA, using actual inventory results from the GY.
- Develop a strategic monitoring program, including fund raising, to track the status and condition of whitebark pine across the GY.
- Develop a seedbank to help reforest large areas that have been disturbed.
- Further development of blister rust resistant seed stock and nursery establishment for restoration projects. Sow potential rust resistant seedlot and begin 10 year rust screening process.
- Provide training of established inventory and monitoring protocols around the GY.
- Utilize the restoration strategy and prioritize restoration areas.
- Develop a protocol to use satellite imagery to determine wbp mortality from mountain pine beetle to aid restoration priorities.

## **For additional information contact**

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