Western Bark Beetle Initiative **Region 5**

Enhancing Forest Health and Reducing Wildfire Risk through Prevention Thinning

In 2008, the Los Padres National Forest and Forest Health Protection (FHP) combined efforts to improve forest health to combat insects and diseases and reduce the risk of wildfire on the Mt. Pinos Ranger District. The Pine Mountain Club Project is a multi-year project that will result in the treatment of more than 2,000 acres of forested land. The project area is in the wildland urban interface, which encompasses, or is adjacent to, the Pine Mountain Club community, a school, a Boy Scout camp, and other high-use areas.

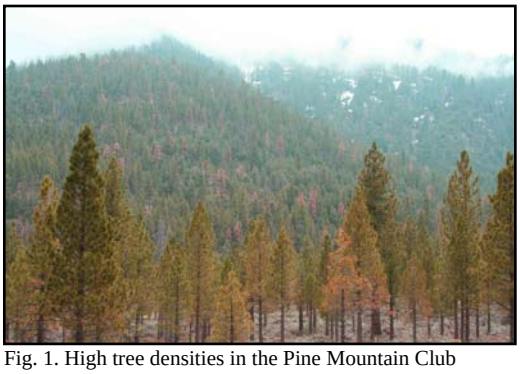

Fig. 1. High tree densities in the Pine Mountain Club Project area are leading to mortality (red trees in background) from the California flatheaded borer.

Insect-caused mortality has been impacting national forest land around the community of Pine Mountain Club for the past several years (Figure 1). High tree densities are leading to mortality of single-leaf pinyon pine and Jeffrey pine from bark beetles and wood borers. Pinyon pine engraver beetles are killing pockets of pinyon scattered within the project area and the California flatheaded borer is killing mature Jeffrey pine along Mt. Pinos, Grouse, and Sawmill Mountains. Both insect species commonly injure and kill pines under stress due to high stand densities.

Prevention thinning will improve tree health by decreasing competition for nutrients and water. Reducing individual tree stress will improve the ability of pines to defend against attacks by bark beetles and wood borers. Thinned forests can also impede bark beetle activity by disrupting their chemical communication. In addition, oruning and masticating shrubs will decrease the risk of catastrophic wildfire by diminishing ladder fuels and reducing the rate of spread.

Fig. 2. Current tree thinning and mastication in a pinyon pine stand to reduce insect-caused mortality and the threat of wildfire.

Southern California FHP and the Mt. Pinos Ranger District, Los Padres NF, combined efforts to maximize forest management goals by conducting tree thinning, pruning, and mastication of understory shrubs. A total of $505,000 (FHP-$205,000 and LPNF-$300,000) was used to thin and treat fuels over 200 acres in 2008 (Figure 2). Tree thinning and fuel reduction have provided a significant buffer against wildfire between the Pine Mountain Community and National Forest land. Prevention thinning is also improving forest conditions along the Mil Potrero Highway, a significant escape corridor for several mountain communities in the event of wildfire.

Our collaborative efforts have resulted in improving forest health and reducing the threat of wildfire on the Los Padres NF. The Mt. Pinos Ranger District possesses a large portion of conifer stands remaining on the Los Padres NF not impacted by severe wildfires. This multi-year forest health and fuels project will provide landscape level protection for these valuable conifer forests.

For more information, contact Tom Coleman, Entomologist, 909.382.2871 or twcoleman@fs.fed.us *July 1, 2009*