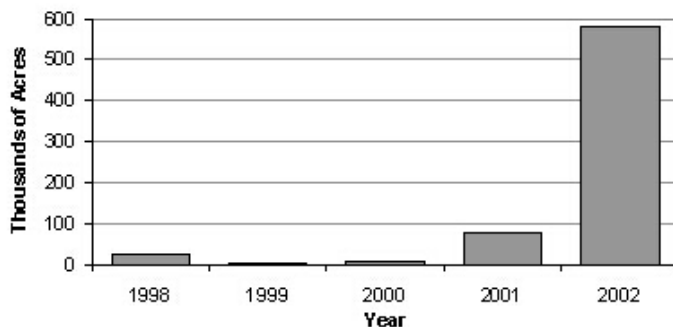


Pine Bark Beetle Situation in Arizona Southwestern Region – USDA Forest Service August 2003

In 2002 the effects of a large bark beetle outbreak across Arizona became apparent. Several native bark beetle species are responding to the weakened condition of over-crowded, moisture-stressed forests. The resulting outbreak has killed millions of ponderosa and pinon pine trees. The trees most affected are those in stress-prone areas. While bark beetle outbreaks have occurred in the past, the unprecedented density of today's forests is leading to extraordinary tree losses.



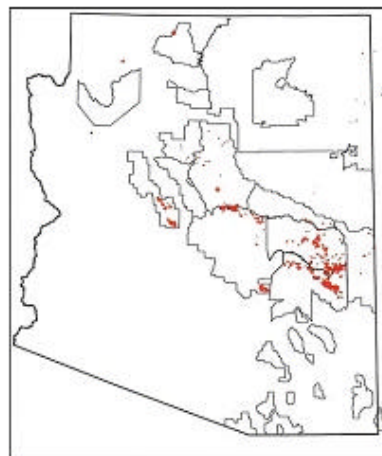
View of ponderosa pine mortality caused by bark beetles in Horseshief Basin, Arizona, 2002.



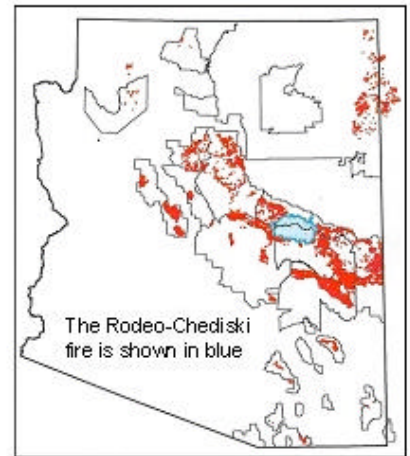
Area affected by bark beetles in Arizona 1998 – 2002.

These native bark beetles typically affect small pockets of trees, but under these conditions, large expanses of forest are being impacted. The area affected in 2002 is a seven-fold increase from 2001 and is a twenty-fold increase over the 1998 to 2001 average.

The affected area has increased dramatically as seen in the maps to the right that show aerial survey results from 2001 and 2002. Although large-scale control measures are not possible, projects involving protection of individual high value trees with insecticide are being conducted. Sanitation removal of infested trees is also being implemented. Thinning to enhance tree vigor is planned. Managers and the public are being educated about activities to minimize bark beetle impacts.



2001



2002