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Bark beetle threat looms in the Sierra

By Jeff DeLong
jdelong@rgj.com

Pockets of pines in the Mount Rose area and other stretches of the Carson Range are turning brown -- a disturbing sign that an insect assault that has decimated millions of acres of forests to the east could be headed for the Sierra.

Whether that occurs or not, experts say, could likely depend on this winter's weather.

"The potential is there. If we continue with this dry weather, it could pretty

much take over," said Gail Durham, forest health specialist with the Nevada Division of Forestry.

What could take over is the mountain pine beetle, an insect smaller than a grain of rice that has already destroyed vast swaths of timber in Colorado and other nearby states.

"That little bugger has devastated a lot of property in the Rockies and in Canada," Nevada State Forester Pete Anderson said. "The potential is real high we could have a problem in the Sierra as well."

The threat looms as Nevada has begun to recover from another beetle infestation by the pinyon ips, which killed off millions of acres of pinyon pine until the attack began to slow over the past few years, Anderson said.

But other bark beetles, particularly the mountain pine beetle, are waging war against western forests. According to a 2007 report by the Council of Western State Foresters, more than

7 million acres of timber contained dead or dying trees due to beetle assault, with another 22 million acres under the threat of significant mortality over the next 15 years.

This level of bark beetle-caused tree mortality is the highest in recorded history, the report said.

Evidence that the problem could be happening locally surfaced in pockets of lodgepole pines around Mount Rose, at Heavenly Mountain Resort near South Lake Tahoe and in the Little Valley area between Reno and Carson City, foresters said.

"It's still at the very beginning stages but we're watching it very closely," Anderson said. "It's pretty grim."

A healthy tree can easily fend off attacks by a few beetles by secreting resin and essentially booting the bugs out of its bark. But when trees are unhealthy in overcrowded stands, particularly when stressed by drought, their defense mechanisms are weakened.

Beetles attack successfully and while doing so, secrete perfume-like pheromones that attract hordes of aggressive bugs that can overwhelm trees relatively quickly.

During a lengthy drought the Sierra suffered from the late 1980s through the early 1990s, bark beetles posed serious problems.

In the Lake Tahoe Basin alone, 30 percent of pines and firs were killed during an infestation by three species of bark beetles, said Gary Blomquist, a biochemist at the University of Nevada, Reno and an expert in pheromone secretions by bark beetles.

Thinning activity undertaken around Tahoe since then would likely help reduce the scope of another major infestation there, but the danger remains significant, Blomquist said.

"A couple of more dry years and it could get back to being pretty bad," Blomquist said. "The solution would be a couple of wet winters."

Dan Owen, an entomologist with the California Department of Forestry and Fire Protection, said bark beetle activity is "beginning to pick up" on the Sierra's west slope but the situation appears worse in Nevada and other areas along the eastern front.

"Most of the mortality has been happening on your side, on the east side," Owen said.

Owen agreed another dry year could mean big beetle trouble throughout much of John Muir's famous Range of Light.

"This year is going to be a big deciding factor," he said.

Additional Facts

Don't spread the problem

- The Nevada Division of Forestry is concerned people cutting firewood could bring bark beetles to town, where they can attack ornamental trees.
 - Store any newly cut green firewood away from ornamental trees. Split the wood immediately. Cover it with thick black plastic, burying the edges of the sheet at least 6 inches deep. Heat under the plastic should kill the bugs.
 - If wood is more than a year old and dead, most beetles will have already left in search of live trees.
- Source: Nevada Division of Forestry.
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