

Sierra Nevada pine tree die-off worsens as beetles thrive in drought

By Lewis Griswold

- The drought is spurring bark beetle populations in the Sierra, leading to massive tree die-offs.
- The dead trees are raising concerns about potentially massive wildfires.
- Loggers blame the Forest Service for not allowing more thinning operations.

PINEHURST — A massive die-off of pine trees in the southern Sierra Nevada caused by beetles attacking drought-stressed trees is turning forests brown and creating a fire tinderbox.

From El Portal in Mariposa County to Kernville in Kern County and beyond, stands of dead trees are striking fear in the hearts of mountain residents.

"You drive around and it's all around us," said Lee Duncan, who lives in Miramonte in Fresno County near Pinehurst. "It's like a gasoline can everywhere."

About the only hope in halting the die-off is for the drought to end, an unlikely occurrence this year as winter ended with perhaps the lowest Sierra snowpack on record.

As a fourth year of drought looms, mountain residents are stuck with the cost of removing dead trees next to their homes and loggers fault the U.S. Forest Service for not allowing them to thin forests. But forest managers say the tree die-off might help Mother Nature.

El Portal resident Jerry Rupert knows all too well the dangers of forest fire. The El Portal fire that burned about 4,700 acres in and around Yosemite National Park last year started behind his home.

Now Rupert warily watches the mountainside across from his home as more pine trees turn brown in a steep river canyon leading to the nearby community of Yosemite West.

"If we get a lightning strike over there, that whole hill is going to go up," Rupert said. "All it has to do is hit one of those dead trees in there — and there are hundreds of them. It's not going to be pretty."

Rupert said he wants the U.S Forest Service to cut down the dead pines to reduce the chances of one being struck by lightning.

"The woods are sick," he said. "They need help."

The sheer number of dead trees is making forestry and fire officials even more nervous about the upcoming fire season.

"There's thousands of acres" of dead and dying trees on public and private lands, Sequoia National Forest Fire Chief Brent Skaggs. "It's going to be a bigger problem than we see."

He said fire managers should operate on the assumption that almost every fire is a severe threat and attack with everything they can: "A quick suppression response is what's going to save us."

Tulare County Supervisor Steve Worthley likened the die-off itself to a forest fire.

"This is every bit as catastrophic," said Worthley, who owns property near Pinehurst.

He was among 100 people who attended a community meeting here last week at which forest officials fielded questions and offered advice about how residents can protect themselves.

Pinehurst resident Dan Slebiss said he cut down six large Ponderosa pines on his 5-acre property and has seven more to go.

"We're lucky we haven't had any fire," Slebiss said. "If everything goes dead, it's going to be a bad place to be."

The California Department of Forestry and Fire Protection — Cal Fire — is advising homeowners to remove dead and dying trees near their homes.

"Clear the brush," said Jim McDougald, Cal Fire planning and protection chief. "If it's within 100 feet of a house, we can require removal. We are actively doing inspections now."

Removing trees on private property often requires the services of a forester or licensed timber operator, said David Shy, Cal Fire division chief and registered professional forester.

A permit is required, but fees are being waived and no permit is needed by do-it-yourselfers who don't sell or barter the wood, he said.

Bark beetles thrive in drought, and the conifer die-off is picking up speed in areas where the U.S. drought monitor map shows exceptional drought conditions, said Beverly Bulaon, a Forest Service entomologist.

In the Pinehurst area, "it seems like it turned this way overnight," she said.

Tree mortality is occurring all over California, but the southern Sierra is particularly hard hit, according to a U.S. Forest Service tree mortality aerial survey.

"In four years of drought, these are ideal condition for western pine beetle," Bulaon said. "There's not much we can do to control it."

Western pine beetles, a native insect, are killing the Ponderosa pines, she said. The insects release pheromones that attract more beetles whose larvae chew into the wood, killing trees in large groups.

Normally, trees produce enough sap to thwart the insects, but years of below-average rainfall have weakened their natural defenses.

Tree mortality from beetle attacks has happened in previous droughts, and only a return to wet years will reduce their populations, she said.

Homeowners wishing to save individual trees that are still green can hire a pest control company to spray a tree with pesticide at about \$100 a tree.

Foresters also said thinning stands of trees cuts the likelihood of beetle attacks.

The dead tree problem is especially bad in Sequoia National Forest, and the logging industry faults the Forest Service for not allowing them to thin stands of pine trees, a technique that helps forests fight off bark beetles, said Larry Duysen, logging superintendent at Sierra Forest Products sawmill in Terra Bella.

"There were 20 to 30 trees per acre until the 1850s," he said. "Now it's 300 trees per acre. They should have gone back to aggressive thinning."

But the Forest Service counters that extreme drought is the problem.

"Current bark beetle populations are so high that even healthy trees may have difficulty fending off attacks," the Forest Service said in a statement.

For many residents, it's too late to save trees on their properties.

Retired schoolteacher B. J. O'Brien has lived in Pinehurst for 30 years.

"I have only one acre and I lost 18 huge Ponderosas. It killed me," she said. "Not only did I lose my trees that I bought my house for, it almost ruined me financially."

She had several trees cut down to keep them from falling onto her home, at a cost of about \$200 a tree.

The logs are piled up on her property because no one seems to want them, she said.

Some dead trees have lumber value but many are good only for firewood, said forester Jeff Gletne at Sierra Forest Products. A dead tree is useful as lumber stock for about a year before deteriorating, he said.

It's not just Ponderosa pines that are dying.

Firs and other conifers are suffering from attack by other species of bark beetles, while incense cedars are dying from lack of water.

At Cedar Grove in Kings Canyon National Park, rangers counted 1,100 dead Ponderosa pines and white firs in and around campgrounds, buildings and roads, and more elsewhere.

Trees will be removed, limbs cut and picnic tables and camp sites moved as needed for safety, said Sequoia and Kings National Park fire management officer John Ziegler.

Even 1,000-year-old giant sequoia trees are suffering in the drought, with more foliage die-back than usual observed last fall and attributed to lack of moisture, but the trees aren't dying, said Dana Dierkes, spokeswoman for Sequoia and Kings National Parks.

Yosemite National Park is also experiencing tree die-off, but no large stands of dead trees are on the Yosemite Valley floor, physical scientist Joe Meyer said.

The silver lining to the tree die-off is that it thins the forest, said natural resources economist John T. Austin, a retired program manager at Sequoia and Kings National Parks and author of "Floods and Droughts In The Tulare Lake Basin."

"From an ecological perspective, this mortality is roughly equivalent to a hot patchy fire," he said. "Trees grow a lot better when stands aren't so dense."

Fewer trees and greater diversity as the forest grows back could result in a healthier, more resilient forest better suited to withstand global climate change, he said.

"Bark beetles are not very selective thinning agents," he said. "They are a crude tool, but the result is more or less what land managers wanted to accomplish."

Longtime Pinehurst resident Lee McComb said she has been through it before.

"We had a die-off 20 years ago," she said. "It's really sad to look up and see all the dead trees."

Staff writer Carmen George contributed to the story. Contact Lewis Griswold: lgriswold@fresnobee.com, (559) 441-6104 or lewGriswold on Twitter.