

Meet the new beetles

By JEREMY PELZER - Star-Tribune staff writer - with wire reports | Posted: Thursday, July 8, 2010

CHEYENNE -- In the wake of the mountain pine beetle epidemic, another tree-killing beetle is on the rise in the Mountain West.

The twig beetle, or *Pityogenes knechteli*, has surged in population during the past couple years, breeding in stands of lodgepole pine forest infected by the larger pine beetle.

While twig beetles traditionally don't kill trees on their own, they're now killing off trees already stressed by the pine beetle, as well as trees too small for the pine beetle to infest.

Forest officials in Colorado first saw high numbers of the twig beetle last summer, and it's likely that they've followed the pine beetle into Wyoming in areas decimated by the pine beetle epidemic, such as Medicine Bow National Forest, said U.S. Forest Service entomologist Bob Cain.

"As the mountain pine beetles are using the main trunk of the tree, the twig beetles are taking advantage of that fresh-killed tree," Cain said. "And so you've just got a huge habitat for them."

Medicine Bow forest officials haven't yet conducted surveys to see whether the twig beetle population has jumped in their area, said U.S. Forest Service public affairs specialist Karl Vester.

Like the pine beetle, the twig beetle burrows through the bark of lodgepole pines into the trees' cambium, which facilitates the flow of nutrients. The twig beetles feed on the trees' living tissue, essentially shutting down its circulatory system.

While pine beetles target the main stems of trees greater than 6 inches in diameter, twig beetles prefer branches and young trees between 1 and 5 inches in diameter. The twig beetles do not attack seedlings.

At about 2 millimeters long, twig beetles are smaller than pine beetles, and the holes they burrow into trees are about as wide as a pencil's lead.

A surge in twig beetles following a pine beetle epidemic has been reported in scientific literature dating back as far as 1939. So it's no surprise to forest health experts that the smaller insect's population has risen recently.

Cain doesn't expect the outbreak to be as severe or long-lasting as the pine beetle epidemic has been, partly because there aren't many living lodgepoles left. Also, mortality among younger trees won't have nearly the visual impact that the death of mature lodgepoles has had.

But when twig beetles do infest a tree, mortality takes place much more quickly than in trees hit by mountain pine beetles. A tree attacked by twig beetles will likely turn red and die in one summer, whereas those hit by pine beetles take a year to die.

Traditionally, twig beetles have been beneficial to trees in Wyoming, said Les Koch, a forest health specialist with the Wyoming State Forestry Division.

The beetles usually only target weak or sickly branches of a tree, he said, allowing a tree to grow in a healthier way and reducing the amount of fuel for a forest fire.

They're so good at it, Koch said, that people have learned the best way to prune a tree by watching which branches the twig beetles target.

"Essentially, they are nature's self-pruners," he said.

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