

Colorado Daily

Die-off pinned to climate change

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ALBUQUERQUE, N.M. (AP) - Researchers believe the massive die-offs of New Mexico's state tree during 2002 and 2003 could be a harbinger of life in a warming world.

High elevation pinon forests that had survived previous droughts endured as much as 90 percent mortality, according to a team of researchers led by University of Arizona ecologist Dave Breshears.

"Across a whole landscape, this system got whacked," said Breshears, whose findings were reported this week in the Proceedings of the National Academy of Sciences. His team has been doing long-term studies of the Jemez Mountain ecosystem.

Drought weakened the trees enough for bark beetles to kill them, but warmer temperatures - only 1 to 2 degrees Fahrenheit higher than the long-term average - appear to have contributed, the scientists found.

Tree deaths occurred in areas that were relatively unaffected by a drier drought during the 1950s.

"This is a different kind of response than we saw following the 1950s drought," said Breshears, who has been studying pinyon woodlands since the 1980s. "This drought was hotter."

Breshears didn't blame the 2002 die-off on human-caused global warming, saying no single event can be unequivocally linked to the planet's long-term rising temperature trend. But he said dramatic drought-induced changes in the Southwest landscape since the turn of the 21st century are consistent with global climate change projections.

"We're more likely to get more frequent, more intense droughts," Breshears said.

U.S. Geological Survey ecologist Julio Betancourt disagreed with conclusions reached by Breshears' team. Betancourt questioned whether scientists know enough about what happened 50 years ago to be sure the recent drought was worse.

However, he praised the scientists for trying to quantify effects of warming temperatures.

"All of us are seeing these temperatures going up, and we know it's going to have an effect," Betancourt said.