Desert may not fully recover from wildfires, ecologists say

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NATIONAL INTERAGENCY FIRE CENTER

CHECKING DAMAGE: Tonto National Forest fire prevention officer Courtney Baughman inspects a saguaro July 1 that was partially burned in the Cave Creek Complex fire near Carefree.

Standing on the patio of his home near Cave Creek, Bill Victor used to be able to see saguaros, barrel cactus, paloverde and mesquite trees covering the mountains.

Since the mammoth Cave Creek Complex fire scorched the area near his Tonto Hills home two weeks ago, that view has changed a bit.

"All the large mountains around our house are black," Victor said. "They've really been desolated."

Because desert plants are not accustomed to living with fire, ecologists say native vegetation in some of the areas charred by this year's wildfires may never completely recover.

Desert plants have grown far apart for at least 10,000 years and there hasn't been an opportunity for fires to spread, said Mark Dimmitt, director of natural history with the Arizona-Sonora Desert Museum.

But since the 1970s, areas below 3,000 feet in elevation have been invaded by nonnative grasses that are filling bare spaces in the desert and allowing blazes to spread, Dimmitt said.

While fires have been in the desert for only a few decades, it would take native vegetation hundreds of thousands of years to develop resistance to flames.

That means scorched areas of the Sonoran Desert, such as where the Cave Creek Complex fire started last month, won't recover, Dimmitt said.

"Most of the plants there are going to die," he said. "Probably 80 percent of them will be killed by the fire."

The National Interagency Fire Center's Southwest Coordination Center reports that more than 477,323 acres have burned in at least 2,077 fires across Arizona this year. The vast majority of those fires have been in desert scrub and chaparral areas, said Arizona State Land Department spokesman Jon Kohn.

Those figures include the Cave Creek Complex fire, which had scorched at least 248,310 acres.

Between 10 percent and 20 percent of that area was true Sonoran Desert, said Norm Ambos, a forest soil scientist who has toured some of the scorched areas.

Many trees were completely torched in the Cave Creek Complex fire, Ambos said.

Many saguaros in that area were only scorched around the bottom, so they will be able to live another two or three years and produce seeds, Ambos said.

Meanwhile, the faster-growing, more fire resistant nonnative weeds that allowed fires to spread in the first place will have an easier time taking hold of the burned areas, said Daniel R. Patterson, a desert ecologist from the Center for Biological Diversity.

Nonnative weeds not only grow more quickly than native plants, they also suck the moisture out of the soil, making them a problem even once the fire season is over, Patterson said.

"If the status quo continues, this is going to be like a runaway train. Our children and our grandchildren aren't going to know what a healthy desert looks like," Patterson said.