

Smokey's distorted reality

Wildfires often bring to mind damage and destruction, but the flames also rejuvenate ecosystems

STORY BY NICK MEADOR



The Sleeper Lake Fire, fueled by organic peat in the ground, consumed more than 18,000 acres last summer. **Right:** Helicopters carrying water to the fire added to the extreme costs of firefighting.

Photographs courtesy of The Nature Conservancy-Jack McGowan-Stinski

It's been updated with the word wildfire, but everyone in America is familiar with Smokey the Bear's motto: "Only you can prevent forest fires."

The commercials confer a sense of responsibility that stays with people throughout their lives, but the Smokey the Bear campaign conveys a distorted reality.

As it turns out, wildfire is a much more complex issue than a one-line slogan could ever cover.

"The Smokey the Bear campaign was really effective in teaching people to be aware of fire as an important force," said Merritt Turetsky, an assistant professor at Michigan State University who studies North American forests and disturbances such as wildfire. "But I think it was a dangerous campaign in that it introduced this concept in society that we must put out all fires."

An ecosystem affected by wildfire may appear charred, but that doesn't mean the ecosystem is destroyed, Turetsky said. "Especially here in Michigan, there are ecosystems that are maintained by fire regimes."

Extreme wildfire heat is necessary to open the thick, waxy pine cones of Michigan's abundant jack pine forests and expose seeds to the soil, according to the Department of Natural Resources. Overall, a habitat recovers rather quickly from such

disturbances, and recently burned areas tend to see the arrival of many rare plant and animal species, leading to much greater species diversity.

Plants and animals that behave similarly in a recently burned ecosystem are welcome company, said Brian Benscoter, a postdoctoral associate in Turetsky's lab. The influx of plants and animals, and the cycling of vital nutrients like nitrogen and carbon, helps an affected ecosystem stabilize. "The system's function will continue or persist even in the event of a disturbance or environmental change," he said.

One such ecosystem that benefits from fire is in Luce County, Mich., where this summer lightning struck and started what soon came to be known as the Sleeper Lake Fire. The location was in a severe drought, and by Aug. 8 the fire was almost 30 square miles in size. The fire eventually consumed a total of 18,185 acres, contributing to much of the 20,863 acres burned by 288 wildfires across Michigan in 2007.

About 1,000 individuals were involved in the firefighting effort, including more than 15 volunteer fire departments, state forest firefighters, the Michigan State police and other organizations such as The Nature Conservancy in Michigan, said Les Homan, a manager with the Department of Natural Resources in Newberry, Mich.

The area where the Sleeper Lake Fire

occurred was mostly marshland, with higher elevation regions filled largely with jack pine and smaller ridges of red pine, white pine, cedar and deciduous trees. The marsh was getting older and was in need of this type of rejuvenation, said Paul Gaberdiel, a state fire supervisor. They'll more than likely regenerate back to those species, said Gaberdiel.

By early September, the Sleeper Lake Fire was mostly contained, and the state began to plan to rehabilitate the area. Both the state and The Nature Conservancy began looking forward to the imminent positive effects, while keeping a vigilant eye on the burned edges to make sure the fire didn't spread. Gaberdiel said that regeneration in the Sleeper Lake area will last between five and 10 years, but the process has already begun. While it could take two to three years before seeing major tree re-growth, new grasses and cattails are already reaching 1 to 2 feet in height.

"I would suspect that next year you'll see some new plants and animals with the onset of spring," Gaberdiel said. 🌱

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