

Ecology

Call for action

Wildfires kill thousands of giant 'sequoia' trees

LOS ANGELES, Nov 22, (AP): Lightning-sparked wildfires killed thousands of giant sequoias this year, leading to a staggering two-year death toll that accounts for up to nearly a fifth of Earth's largest trees, officials said Friday.

Fires in Sequoia National Park and surrounding Sequoia National Forest tore through more than a third of groves in California and torched an estimated 2,261 to 3,637 sequoias, which are the largest trees by volume.

Nearby wildfires last year killed an unprecedented 7,500 to 10,400 giant sequoias that are only native in about 70 groves scattered along the western side of the Sierra Nevada range. Losses now account for 13% to 19% of the 75,000 sequoias greater than 4 feet (1.2 meters) in diameter.



Jordan

Blazes so intense to burn hot enough and high enough to kill so many giant sequoias — trees once considered nearly fire-proof — puts an exclamation point on climate change's impact. A warming planet that has created hotter droughts combined with a century of fire suppression that choked forests with thick undergrowth have fueled flames that have sounded the death knell for trees dating to ancient civilizations.

"The sobering reality is that we have seen another huge loss within a finite population of these iconic trees that are irreplaceable in many lifetimes," said Clay Jordan, superintendent of Sequoia and Kings Canyon National Parks. "As spectacular as these trees are we really can't take them for granted. To ensure that they're around for our kids and grandkids and great grandkids, some action is necessary."

California has seen its largest fires in the past five years. Last year set a record for most acreage burned and this year, so far, is running second.

Tree deaths this year might have been worse if heavy rain and snow Oct. 25 hadn't dampened the fire. Fires burned from August last year into January.

Measures

After last year's Castle and SQF Complex fires took officials by surprise — and drove some tree lovers to tears — extraordinary measures were taken to save the largest and oldest trees this year.

The General Sherman tree — the largest living thing on earth — and other ancient trees that are the backdrop for photos that rarely capture the grandeur and scale of the giant sequoias were wrapped in foil blankets.

A fire-retardant gel, similar to absorbent used in baby's diapers, was dropped on canopies that can sit above 200 feet (60 meters) tall. Sprinklers watered trunks and flammable matter was raked away from trees.

The measures helped spare the Giant Forest, the premiere grove of massive trees in the park, but the measures couldn't be deployed everywhere.

The bulk of the Suwaneo grove in the park burned in extreme fire in the Marble Fork of the Kaweah River drainage. The Starvation Complex of groves in Sequoia National Forest was largely destroyed.

The greatest amount of damage was done in Redwood Mountain Grove in Kings Canyon National Park. The inferno became so intense it created a fire cloud that whipped up 60 mph (97 kph) winds.

A fire ecologist accurately predicted the areas that would burn hottest, but nothing could be done in such erratic conditions to save trees in the second-largest grove, said Christy Brigham, chief of resource management and science for the parks.

"That's even more heartbreaking to me that we knew it and we couldn't take action to protect it," Brigham said.

Groves with the worst damage stand like timber graveyards with blackened trunks soaring high in the sky. Canopies have faded from vibrant green to a rusty shade. Many damaged trees are expected to perish in three to five years.

Save the Redwoods League, which lost the Waterfall tree — one of the world's largest — in 2020, suffered losses this year in its Red Hill Grove.

"We need to call this situation in the giant sequoia what it is: an emergency," said league President Sam Hodder. "Just a few years ago, it was considered unprecedented to lose a handful of giant sequoia to wildfire in a season, but now we're losing thousands."

In 2013, the park had done climate modeling that predicted extreme fires wouldn't jeopardize sequoias for another 50 years, Brigham said.

Drought

But that was at the start of what became a punishing five-year drought that essentially broke the model.

Amid the drought in 2015, the park saw giant sequoias torched for the first time. Two fires in 2017 killed more giant sequoias. Just over 200 giant sequoias were killed in the fires that served as a warning for what was to come.

"Then the Castle Fire happened and it was like, 'Oh, my God,'" Brigham said. "We went from the warning sign to hair on fire. To lose 7,000 trees in one fire is crazy."

An accurate mortality count from last year is not available because crews were confirming how many trees died when lightning struck Sept. 9, igniting the Windy Fire in Sequoia National Forest and two fires that merged to become the SQF Complex in the park, Brigham said.

Not all the news in the park's report on the fires was bleak.

While flames burned into 27 groves and large numbers of trees were incinerated, a lot of low-intensity fire that sequoias need to thrive will clear out vegetation and the heat from flames will open cones so they can spread their seeds.

There was also less damage in many of the groves where the park has routinely used prescribed fire to clear out accumulated vegetation under cooler and more humid conditions. Those successes emphasized the need to expand that work and, where that's too risky, begin thinning forests, Jordan said.

However, areas where fire burned so hot that seeds were killed and trees can't regenerate may need additional help. For the first time, the park is considering planting seedlings to preserve the species.

"I'm not ready to give up on giant sequoias," Brigham said. "This is a call to action to better protect the remaining old growth and make our Sierra Nevada forests wildfire resilient, because the fire's coming."

If seedlings are planted, though, it will take hundreds of years to replace the trees that were lost.



Assistant Fire Manager Leif Mathiesen, of the Sequoia & Kings Canyon National Park Fire Service, looks for an opening in the burned-out sequoias from the Redwood Mountain Grove which was devastated by the KNP Complex fires earlier in the year in the Kings Canyon National Park, Calif., Friday, Nov. 19. (AP)



This aerial photo taken with a drone, shows beachgoers as workers in protective suits continue to clean the contaminated beach in Huntington Beach, Calif., on Oct. 11, 2021. Officials were investigating an oil sheen spotted Saturday, Nov. 20, near last month's crude pipeline leak off Southern California's coast. (AP)



Padilla



Carbajal

Discovery

Officials probe oil sheen: An oil sheen spotted in the ocean near last month's crude pipeline leak off Southern California dissipated within hours, but its source remains a mystery, authorities said.

The US Coast Guard on Saturday dispatched aircraft and boats to investigate the oil sheen measuring about 70 feet (21 meters) by 30 feet (9 meters) off the coast of Orange County.

The source of the sheen was not immediately determined, and it was not known when it was first spotted, the Orange County Register reported.

As of about 2 pm Saturday, the sheen was no longer visible, said Jenna Driscoll, liaison officer with the California Department of Fish and Wildlife. Coast Guard officials said Saturday night that the sheen had not reappeared and that they would continue monitoring the area.

"It could be nothing, it could be something, but we want to be sure we get an investigation out quickly," Orange County Supervisor Katrina Foley told the Register on Saturday. "We don't want to repeat what happened last time." (AP)

Experts assessing restoration: A team of northern Minnesota researchers is evaluating the results of millions of dollars of major restoration work on dozens of trout streams across the state in the last decade.

In addition to finding out whether trout have returned, the state needs to know if realigning creeks has upset their natural connection with groundwater or if it has unintentionally made some problems worse, said Valerie Brady, aquatic ecologist for the University of Minnesota Duluth Natural Resources Research Institute.

"When you do these big, earth-moving type projects, you stand the chance that it can really muck up that stream's connectivity with the groundwater," Brady said.

Erosion is the root problem forcing major restorations. More streams will be realigned in the coming years as they continue to wash away land near homes, roads, bridges and businesses, the Star Tribune reported.

The work will be funded from the state's Environmental and Natural Resources Trust Fund. The group will focus on up to seven streams near Duluth and in the Arrowhead region, but hasn't selected them yet. The project will take about four years to complete. (AP)

Coronavirus

Austria enters nationwide lockdown

Get vaccinated or get COVID: Berlin

BERLIN, Nov 22, (AP): Germany's health minister said Monday that the rapid rise in coronavirus cases means it's likely everyone in the country who isn't vaccinated will have caught COVID-19 by the end of the winter — and some of those will die.

Official figures showed more than 30,000 newly confirmed cases in Germany over the past 24 hours — an increase of about 50% compared to one week ago. Hospitals have warned that ICU capacities are nearly exhausted, with some patients having to be transferred to other clinics far away.

Health Minister Jens Spahn urged Germans to get vaccinated, including with booster shots if their first round of inoculation occurred more than six months ago, to reduce the risk of serious illness.

"By the end of this winter pretty much everyone in Germany (...) will have been vaccinated, recovered or died," Spahn told reporters in Berlin.

He acknowledged some had described this view as cynical. "But it's true. With the highly contagious delta variant this is very, very likely and that's why we are recommending vaccination so urgently," said Spahn.

Germany expects the European Union to approve vaccines against COVID-19 for children aged 5-11 at the end of the week, he said. School-age children have among the highest infection rates in the country.

The EU will begin shipping vaccines adjusted for younger children on Dec 20, with Germany initially getting 2.4 million doses, Spahn said.

Meanwhile, Austria went into a nationwide lockdown early Monday in a desperate effort to contain spiraling coronavirus infections.

The lockdown in the Alpine nation comes as average daily deaths have tripled in recent weeks and some hospitals have warned that their intensive care units are reaching capacity. The lockdown will last at least 10 days but could extend to 20, officials said. People will be able to leave their homes only for specific reasons, including buying groceries, going to the doctor or exercising.

Austrian Chancellor Alexander Schallenberg also announced last week that Austria will introduce a vaccine mandate as of Feb 1. The details of how the mandate will work aren't yet clear, but the government has said that people who do not adhere to the mandate will face fines.

Schallenberg apologized to all vaccinated people on Friday, saying it wasn't fair that they had to suffer under the renewed lockdown restrictions.

Earlier, Austria had tried out a lockdown just for unvaccinated people but it did not slow infections enough.

"I'm sorry to take this drastic step," he said on public broadcaster ORF.

Not quite 66% of Austria's 8.9 million people are fully vaccinated, and inoculations have plateaued at one of the lowest rates in Western Europe.

Austria is among several Western European countries where infections are rising rapidly and where there are concerns that vaccination rates are insufficient to hold off a winter surge at hospitals.

Pressure

Thanks largely to inoculations, hospitals in Austria are not under the same pressure they were earlier in the pandemic, but many are still straining to handle rising numbers of COVID-19 patients while also attempting to clear backlogs with exhausted or sick staff.

Austria's new lockdown is its fourth since the pandemic began and comes as the country has struggled without success to stop spiraling case numbers. On Friday, it reported 15,809 new infections, an all-time high.

Christmas markets, restaurants and most stores are closed for at least 10 days, while kindergartens and schools will remain open for those who need them, but all parents were asked to keep their children at home if possible.

After 10 days, the lockdown's effects will be assessed. If virus cases have not gone down sufficiently, it can be extended to a maximum of 20 days. After that, the lockdown will be lifted for all vaccinated people but could stay in place for those who refuse to get vaccinated, the government says.

The new measures, especially the vaccine mandate, have been met with fierce opposition among some in the country. A Saturday protest in the capital city of Vienna drew 40,000 people, according to police, including members of far-right parties and groups.

Also:

RUSSIA: Russia's coronavirus death toll was still hovering near all-time highs Monday, but the number of new infections continued to decline.

The state coronavirus task force reported 1,241 COVID-19 deaths, down from the pandemic's record of 1,254 recorded last week.

The task force also reported 35,681 new confirmed cases, reflecting a steady downward trend since early November when the daily numbers topped 41,000, the highest level since the start of the pandemic.

The surge in deaths comes amid low vaccination rates and lax public attitudes in Russia toward taking precautions. About 40% of Russia's nearly 146 million people have been fully vaccinated, even though the country approved a domestically developed COVID-19 vaccine — Sputnik V — months before most of the world.

Russian President Vladimir Putin said that on Sunday he got a booster shot of Sputnik Light, a single-dose version of Sputnik V that he received in the spring. Putin said he was feeling fine and felt no side effects.

The Kremlin has delegated the power to introduce restrictions to regional authorities depending on the local situation, and many provinces across Russia have tightened restrictions, allowing access to public places only to those who are immunized or test negative for the virus.

Kazan, the central city of the Russian province of Tatarstan, on Monday became the first in Russia to start demanding QR codes proving vaccination, past illness or a negative coronavirus test on public transport.

About 500 people were denied access to public transport in the city of 1.2 million, and a conflict between a passenger and controllers led to a brief suspension of service on one of the city's tram lines.

The Russian Cabinet has submitted new legislation that would restrict access to many public places, as well as domestic and international trains and flights, to those who have been fully vaccinated, have recovered from COVID-19 or are medically exempt from vaccination. The legislation, which is set to take effect early next year, has already triggered protests across the country.

In total, Russia's coronavirus task force has reported over 9.3 million confirmed infections and 265,336 COVID-19 deaths, by far the highest death toll in Europe.

Some experts believe the true figure is even higher. Reports by Russia's statistical service, Rosstat, that tally coronavirus-linked deaths retroactively reveal much higher mortality. They say about 462,000 people with COVID-19 died between April 2020 and September of this year.

Russian officials have said the task force only includes deaths for which COVID-19 was the main cause, and uses data from medical facilities. Rosstat uses wider criteria for counting virus-related deaths and takes its numbers from civil registry offices where registering a death is finalized.

National marine sanctuary eyed: A federal agency announced that it is taking a step toward designating a new national marine sanctuary off the central California coast that would be named for the region's Indigenous people.

The proposed Chumash Heritage National Marine Sanctuary would span 7,000 square miles (18,130 square kilometers) off San Luis Obispo and

Santa Barbara counties, the National Oceanic and Atmospheric Administration said.

The area's ecosystems are rich in wildlife, provide habitat for threatened and endangered animals and serve as nurseries for commercially and recreationally fished species.

The designation was proposed in 2015 by the Northern Chumash Tribal Council to recognize and preserve tribal history, protect marine resources and create new opportunities for research and economic growth, NOAA said.

"I am thrilled the Biden administration has taken this step to protect our coastal areas from further oil and gas drilling and strengthen our state's \$1.9 trillion coastal economy, which is propped up by tourism and commercial fishing," said US Rep Salud Carbajal, a Democrat who represents the coastal region.

"This designation will honor the heritage of the Chumash, who first sailed and fished this coastal region, and will preserve the natural beauty and unique ocean ecology that is vital to the local economy," said Sen Alex Padilla. (AP)



A woman is vaccinated against the coronavirus and the COVID-19 disease during a special vaccination campaign event in a sports hall in Magdeburg, Germany, Sunday, Nov. 21. (AP)