

What you need to know about the Australia bushfires

After an already devastating start to its fire season, Australia is bracing for things to get worse. *The Verge* will update this page with news and analysis as the fires rage.

What's happening?

Australia is bracing for things to get worse

Dozens of fires erupted in New South Wales, Australia in November and rapidly spread across the entire continent to become some of the most devastating on record. An area about twice the size of Belgium, roughly 15 million acres, has burned. At least 18 people are dead, including at least three volunteer firefighters, and more are missing. More than 1,000 houses have been destroyed, hundreds more damaged. As blazes intensified in the days leading up to New Year's Eve, thousands of people who were forced to evacuate sought shelter on beaches across New South Wales and Victoria. Over 100 fires are still burning.

The smoke has become another disaster. On January 1st, Australia's capital recorded the worst pollution it's ever seen, with an air quality index 23 times higher than what's considered "hazardous." Smoke in the city crept into birthing rooms, stopped MRI machines from working, and triggered respiratory distress in one elderly woman who died soon after she stepped off a plane.

The smoke has even reached New Zealand, 1,000 miles away, where it has created eerie scenes atop glacier-covered peaks.

Although there have been fires across all of Australia's six states, New South Wales has suffered the worst. Nearly half a billion animals, including mammals, birds, and reptiles, likely lost their lives in the blazes in New South Wales alone

– a staggering loss which is probably an underestimate, according to the University of Sydney. Eight thousand koalas, a third of all the koalas in New South Wales, perished. About 30 percent of the koalas' habitat has also been wiped out. The devastation only adds to existing pressures on Australia's unique ecosystems. The continent is home to 244 species, including the koala, that are not found anywhere else. The region also has the highest rate of native mammals becoming extinct over the past 200 years.

"The potential impacts on wildlife are devastating," Crystal Kolden, an associate professor of fire science at the University of Idaho who studied wildfires in Tasmania in 2018, tells *The Verge*. "There won't be a full accounting for how bad it actually is for years." Some ecosystems like eucalyptus forests are prone to fire and will come back. But Kolden points out that Australia is also home to pockets of vegetation, inhabited by species that have managed to survive for millions of years. "These really incredible remnants of, you know, the era of the dinosaurs essentially, [are] not adapted for fire and when it burns, it will be gone."



A koala named Pete from Pappinbarra at The Port Macquarie Koala Hospital on November 29, 2019 in Port Macquarie, Australia.

Photo by Nathan Edwards/Getty Images

Summer extends from December to February in Australia, with fire season typically peaking in late January or early February – so the disaster is expected to continue. On January 3rd, officials warned that conditions would get worse over the following few days. “It’s going to be a blast furnace,” New South Wales Transport Minister Andrew Constance said to *The Sydney Morning Herald*.

What does climate change have to do with it?

Firestorms are not new to Australia. It’s typically hot and dry, similar to conditions in California or the Mediterranean. Eucalyptus forests in Australia have a unique relationship to fire; the trees actually depend on fire to release their seeds.

This season’s fires, however, are unprecedented. It’s a much

earlier fire season, and the fires have gotten very big, very early, Kolden tells *The Verge*. Weather conditions feeding the fires are historic. Australia suffered its hottest day on record on December 18th at a scorching 40.9 degrees Celsius (105.6 degrees Fahrenheit). Extreme heat and drought create more tinder to fuel fires. The heightened intensity and frequency of wildfires falls in line with scientists' predictions for a warming world.



Photo by David Gray/Getty Images

"The reality is, this is a function of climate change – this extreme heat, these extreme conditions that are so volatile and are producing the types of intensity and early season burning that we do not normally see in Australia," Kolden says.

Australia Prime Minister Scott Morrison is facing heat for his own inaction on climate change. Morrison's administration faced criticism for thwarting global efforts to complete a rulebook for implementing the Paris Agreement during a United Nations conference in Madrid in December. Morrison also got

backlash for taking a vacation to Hawaii – which he ended up cutting short – in the midst of the fires.

How are the fires being fought?

Australia relies heavily on volunteer firefighters, especially in the rural bush where much of the fires are burning. Their fire response relies more heavily on community efforts compared to places like the United States with a centralized fire management system. The current crisis has led to some policy changes. As volunteers missed work to fight local blazes, Morrison announced in December that they would be compensated. To bolster the local forces, the Australian military sent in its own aircraft and vessels. Help is also coming from abroad: the United States and Canada have sent firefighters to battle the blazes.

“It’s not humanly possible”

Experts tell *The Verge* that under the extreme conditions, there’s not much more that firefighters can do until the fires run out of fuel and burn themselves out. “It’s not humanly possible to prevent [these fires] or put them out,” Timothy Ingalsbee, executive director of Firefighters United for Safety, Ethics, and Ecology based in Oregon, tells *The Verge*. “We have put so much of our strategy for living in fire environments all on firefighters, all on suppression, reacting to blazes. And, you know, now we are facing conditions, given climate change in particular, we can’t do that.”

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