

## Conservationists seek to protect California Joshua trees from climate change

**Janet Wilson**, Palm Springs Desert Sun Published 5:02 p.m. PT Oct. 15, 2019 | Updated 5:09 p.m. PT Oct. 15, 2019

With the [federal government declining to protect Joshua trees from the ravages of climate change](#) and over-development, an environmental group on Tuesday asked California officials to step in and protect the signature desert species.

"The Trump Administration is never going to protect this species due to the threat of climate change," said Brendan Cummings, senior counsel and conservation director for the Center for Biological Diversity. He said on Tuesday that the group had filed a petition with the California Fish and Game Commission to list the Western Joshua Tree as threatened under the state's Endangered Species Act.

The stiff, many-limbed tree is not currently on the brink of extinction, he said, but recent range and modeling studies by University of California Riverside scientists and others have documented that increasing heat is already affecting stands at lower, drier elevations, and that as temperatures continue to rise, [habitat where the species can survive and thrive will be wiped out](#).

"For some species, it's the numbers that matter, and for some, it's the trend and the threats that are coming," he said. "You don't need to know how many passengers were on the Titanic when it hit the iceberg. They were clearly all endangered."

The California Fish and Game Commission was checking whether it had received the petition on Tuesday afternoon, and had no immediate comment. [By law, it has 10 days to certify the petition](#) and send it to the state Department of Fish and Wildlife, which makes an initial recommendation within 90 days on whether protection might be warranted.

If the commission votes to consider protection, the department then typically spends a year or more evaluating biological and other scientific evidence, and within about two years, a final commission vote determines the outcome.

### Feds: Species has adequate habitat

The U.S. Fish and Wildlife Service declined in August to list two species of the Joshua tree for protection under the U.S. Endangered Species Act. Citing lack of evidence of loss of large stands of Joshua trees in three states, they said the species had adequate habitat, much of it on public lands, to weather a variety of threats, including a warming climate.

Wildearth Guardians, a conservation group headquartered in New Mexico that sought that listing, intends to challenge that decision in court, saying the federal biologists did not properly consider ecological niche models predicting how climate change would impact the tree's habitat.

Taylor Jones, endangered species advocate for Wildearth Guardians who wrote the petition, said the Center for Biological Diversity's petition will not affect their plans.

"If anything, the state petition supports our(s) because it represents a significant portion of the species' range," Jones said, explaining that if her group's effort is unsuccessful, a state listing would still put in place important protections for a large part of the tree's habitat.

California's endangered species act is actually more protective of plants, Cummings said, with tougher environmental reviews and permitting restrictions. Despite the state's leadership on environment policies, he said the state has yet to protect a species based primarily on climate change threats.

He was part of the center's team that won federal protection for the polar bear due to changing climate, and hopes the Joshua's tree's similar iconic status will help it win better protection in the Golden State.

"First off, as a matter of law and science, it should be listed as threatened, but also ... under the federal Endangered Species Act, plants are treated as second class citizens," Cummings said.

Part of the threat is tied to young Joshua trees. The plant already faces tough odds establishing a seedling — it's dependent on enough rains to trigger blooms, a single moth species to pollinate the flowers, and the ability of the fragile new growth to withstand withering summer heat and munching rabbits by being located near a larger nurse tree. Rising heat, drier summers and the encroachment of invasive weeds that are blooming profusely based on nitrogen-laced smog have all [altered the natural balance just enough at the edge's of the species' California habitat to tip the balance disastrously](#) if steps aren't taken to stop the damage.

## Habitat loss also a challenge

While climate change is the looming concern for the species, another major one is the mowing down of Joshua trees and bulldozing of large swaths of their habitat across the high desert, particularly in Lucerne, Apple Valley and other private desert stretches on the backside of San Bernardino and San Gabriel national forests.

If the species were listed, development would not halt, but it would need to be done with far stricter upfront reviews and more comprehensive measures to make up for any trees or land that are destroyed, he said.

"The extinction level threat to the Joshua tree is climate change, but it's hard to control that while you're turning a blind eye to rampant habitat loss," said Cummings, who lives in the community of Joshua Tree about a mile north of the national park of the same name. He said he and others have seen Joshua trees illuminated by a spectacular sunset at night and awakened to find they'd been mowed down by dawn.

About 40% of its range is on private land. There are existing local and state laws aimed at minimizing impacts, but "what we've seen is the law is either ignored or the exceptions swallow the rule and the local jurisdictions allow widespread clearing of Joshua trees with minimal process and no enforcement," said Cummings.

If the species were listed, development would not halt, but it would need to be done with far stricter upfront reviews and more comprehensive measures to make up for any trees or land that are destroyed, he said. The protection would indirectly impact national park and US Bureau of Land Management lands, which are supposed to abide by state laws and policies

There is scientific disagreement on whether there is one species of Joshua tree with two subspecies, each dependent on a different moth to pollinate its flowers, or if there are two distinct species. Either way, California law covers species and subspecies, he said.

The ultimate aim, said Cummings, is not to simply prohibit damage to the trees, but to pro-actively bring public and private groups together to determine how to help a well-known and beloved species successfully manage a changing climate. That includes addressing nonnative weeds and increasing wildfires in its historic range as well.

"The idea is to get ahead of the curve," he said. The Joshua tree, because it has protected public land and a whole lot of other private land, it provides an opportunity to collectively figure out how to get adaptation right for an imperiled species as our climate warms."