

The Monarch butterfly is an iconic species for Californians. And it is [heading rapidly towards extinction](#) within the state, as the population counts for the California population this year indicate that butterfly numbers [fell 86% in a single year](#), over a 99% drop since the 1980s, and the size of the population is now small enough that it may not be able to bounce back.

The collapse in the Monarch butterfly population reflects a range of human pressures on the species - climate change impacting the milkweed plant that is the host for the species; increased use of pesticides by agriculture; loss of milkweed to agricultural production, among other factors.

Immediate action to rescue the Monarch in California is essential - efforts to plant milkweed plants, protect winter roosting sites for the butterfly, reduction in pesticide use, and more should begin as soon as possible if we want to save this key part of the Californian landscape. Last year, the state enacted [a new program](#) to provide grants and technical assistance to landowners and others who want to voluntarily help Monarch butterflies, which is a start.

But there is one more thing that this collapse in the Monarch butterfly makes clear: The weaknesses in California's laws to protect endangered species. California has a reputation as an environmental leader, but the California Endangered Species Act (CESA) is in dire need of an overhaul to bring it into the twenty-first century, and make it an effective tool for conservation. There are no end of ways in which CESA could be made better, some of which I hope to cover in future blog posts, but for now I want to focus on one aspect that is relevant to the Monarch, and many other endangered California species.

Even though the Monarch is heading towards extinction in California, it turns out that it's not very clear that it could be protected under CESA. The statute itself on its own terms applies to vertebrates (like mammals and reptiles and birds and fish) and aquatic invertebrates (like abalone and crustaceans), but it doesn't explicitly cover terrestrial invertebrates, like insects such as the Monarch butterfly. If CESA doesn't cover terrestrial invertebrates, that means that the Monarch can't receive protection under state law from human actions that destroy habitat, or even that directly kill Monarch butterflies. In other words, one of the most important tools the state has to try and protect and restore endangered species may not be available for the Monarch - nor may it be available for the wide range of other insects and terrestrial invertebrates at risk in the state, such as native bee species that are essential for pollination. While voluntary measures are an essential component of recovering endangered species, they may often be insufficient - and the regulatory measures of CESA often can be the last fallback for species on the brink.

Terrestrial invertebrates can be listed for protection under the federal Endangered Species Act (ESA) - but the Trump Administration is in no mood to list any new species for protection, and indeed is doing its best to [weaken the federal ESA](#). Indeed, the current political moment highlights the risks of putting all of our conservation eggs in a single federal basket. State environmental protections can be vital to helping maintain and advance conservation efforts, even when Washington is an unreliable partner.

There are arguments that terrestrial invertebrates are already covered under CESA, and the Xerces society, which advocates for the conservation of invertebrates, [has petitioned the state](#) to list four native bumblebee species under CESA. But the legislature could resolve the ambiguity easily, by clarifying that CESA does cover terrestrial invertebrates. It's an essential step to take, if we want to save the Monarch, and other native insect species in California and the ecosystems that depend upon them.