

Fire Poppy (*Papaver californicum*)

Poppies hold a special place in the hearts of Californians. The California poppy (*Eschscholzia californica*) received its common name long before it officially became the state flower in 1903. Early Spanish settlers referred to the California coast as the “land of fire” because of the prominent display of poppies on coastal hills.

The fire poppy (*Papaver californicum*) is another native California wildflower, also in the *Papaveraceae* family, that is much more dependent on fire and other disturbances. An annual herb endemic only to California, this species grows in chaparral and oak woodland communities within coastal ranges from Napa County to San Diego County. Fire poppies can vary in height from 30 to 60 centimeters tall, nodding as they bud, then standing erect as they bloom. Its bright inflorescence typically consists of four red-orange petals that are green at the base, with yellow filaments and anthers, and a green pistil, a stark contrast to the charred environments they are adapted to. Fire poppies are obligate fire followers—they rely on fire or some other disturbance to germinate.

I had the rare opportunity to survey Pepperwood Preserve in Sonoma County for any fire-followers, species that occur after a fire event, after the Tubbs Fire in October 2017. Rachel Kesel, the One Tam Conservation Management Specialist, had invited me to join her on a survey around Devil’s Kitchen. Since fire poppies tend to grow in chaparral habitats and usually occur after a fire event, taking a cue from the smoke to germinate, there was a chance we would come across them as the conditions and habitat type were favorable. In chaparral habitat, fire poppies tend to bloom abundantly where they have an established seed bank. This species’ seeds can remain viable in the soil for several decades before a fire event causes them to germinate. Despite their long dormancy, individual flowers may only bloom for a couple days. Fire poppies may continue to appear a couple years after a fire until the chaparral species return to shade out the

annuals. While conducting our survey with the thought of finding fire poppies in the backs of our minds, we came across other species of interest such as redwood lilies (*Lilium rubescens*) in the burnt forest understory, as well as Brewer’s redmaids (*Calindrinia breweri*) and Jepson’s leptosiphon (*Leptosiphon jepsonii*) in the chaparral and grassland habitats. Ultimately, our search did not uncover any fire poppies in the regrowth.



Findings of fire poppy, from top: In Black Mountain Open Space Park in San Diego, CA. From the Holy Fire in Cleveland National Forest in Santa Ysabel, CA.

Although we did not come across any fire poppies, this does not mean they were absent. In that same year, fire poppies were found blooming on Mount George in Napa County, an occurrence which had not been seen in over 50 years. With its seeds’ long potential for dormancy, the fire poppy shows an ability to survive in an ever-changing environment. Fire is a natural part of California’s landscape and many endemic species have coevolved with infrequent yet intense burns. While fire is a necessary part of the fire poppy life cycle, improper burning regimes may affect this species — too frequent fires may enable proliferation of non-native annuals, while fire suppression may leave the seeds with no way to germinate. Like many endemic species, the resilience of fire poppies depends on proper land management and human involvement in California’s fire regime.



References

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