



# Trumpet Vine

A Bi-monthly Publication for the Master Gardeners of Cuyahoga County

**Joshua Tree National Park**  
**Elizabeth Roche, ANR Educator**  
**Cuyahoga County Extension**

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If you are a National Park fan like myself, you may have heard of Joshua Tree National Park. Located in Southern California, it is where the Mojave and the Colorado deserts meet. The park is well known to climbers and hikers, with its unique rock formations and desert landscapes, looking somewhat like a sci-fi movie. The park is nearly 800,000 acres and is filled with nearly 750 plant species. Plant diversity includes wildflowers, cacti, bryophytes (ferns and mosses), lichen, and other rare plants. Perhaps the most spectacular, and the namesake of the park, is the Joshua Tree. Named after the biblical figure Joshua, twisty, spiky trees grow out of the desert ground and reach for the sky, looking like something from outer space. Native Americans used the leaves for baskets, and were able to eat the flowers and buds. It is quite a spectacular plant!



*A Joshua Tree up close!*

Despite the name, Joshua Tree, this plant is not a tree at all! The Joshua Tree, *Yucca brevifolia*, is a member of the Agave family. It is a monocot in the subgroup of flowering plants that also include orchids and grasses. The Joshua Tree's life cycle begins with the germination of the seed, with survival dependent on rare, well-timed rains. Sprouts grow up quickly, then slow down after about 5 years. The trees can get quite tall, the tallest one recorded at 40 feet. Because these are not trees, it is difficult to tell a Joshua Tree's age. They do not have growth rings like most trees in Ohio (the inside of the trees are actually hollow). They grow about 1.5 to 3 inches per year on average. The lifespan is estimated to be about 150 years; however, researchers guess that some of the park's trees are older than that.

The Joshua Tree blooms into pretty white/green flower stalks on branches after spring rains. Blooming requires correct conditions, rains and brisk temperatures, which stimulate growth. Not all trees bloom; the pin straight trees never got the chance. Pollination requires the yucca moth, which has a symbiotic relationship with the tree. The tree can reproduce via seed or vegetatively, meaning that it can sprout from roots and branches.





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Many desert species rely on the Joshua Tree for survival, as a food source and for shelter. Fun fact: giant ground sloths (that went extinct at the end of the Ice Age) may have been the original dispersers of Joshua Tree seeds. Today, the seeds are dispersed by wind and small animals, including wood rats and birds. Unfortunately, the Joshua Tree's future is uncertain with the changing ecosystem. Longer droughts and rising temperatures make ideal blooming conditions obsolete. Water scarcity causes animals to gnaw through the tree, killing off its vascular system. Sadly, with climate change, the tree may go extinct and join the giant ground sloth as a piece of history.

If you are going to Southern California soon, I encourage you to visit Joshua Tree National Park and see these wonders before they disappear. I had the chance to see these trees up close, and they are spectacular!

For more information on Joshua Tree National Park:  
<https://www.nps.gov/jotr/index.htm>

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A young Joshua Tree recently bloomed (with 5'4" myself as a height comparison).



The beautiful Joshua Tree National Park.



Photo source: <http://www.visitcalifornia.com/destination/spotlight-joshua-tree->