

California Phenology Project: species profile for Joshua Tree (*Yucca brevifolia*)



CPP site(s) where this species is monitored: Joshua Tree National Park



Photo credit: Brian Haggerty

What does this species look like?

This species is tree-like with a thick, often-branched trunk, growing up to 40 feet tall. The leaves are evergreen and linear, tapering to a sharp point. The creamy flowers are bell-shaped and found in tight clusters at the end of stalks. Most flowers are bisexual.

When monitoring this species, use the USA-NPN **broadleaf evergreen (no leaves) datasheet**.

Species facts!

- The CPP four letter code for this species is **YUBR**.
- A monocot in the plant family Agavaceae .
- It has been proposed that the Shasta ground sloth was the main fruit disperser of Joshua Tree before these mammals became extinct.
- Joshua Tree is pollinated by the Yucca moth, which pollinates the flowers while laying its eggs inside the flowers. The larvae then hatch and feed on the seeds.
- Native Americans used the leaves for baskets and the seeds and flower buds for food.
- Joshua Tree got its name from Mormon pioneers.



Photo credit: Jack11_Poland (Wikipedia)



Photo credit: David Scriven

Where is this species found?

- Joshua Tree is an indicator species of the Mojave desert.
- It is found at elevations between 400 and 1800 meters.
- It is found on flat sites, mesas, bajadas, and gentle slopes.
- Prefers well-drained sandy and gravelly soil in alluvial fans adjacent to desert mountain ranges.

For more information about phenology and the California Phenology Project (CPP), please visit the CPP website (www.usanpn.org/cpp) and the USA-NPN website (www.usanpn.org)

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Brian Haggerty

Flowers or flower buds

When monitoring **flower or flower bud abundance** for this species, count each inflorescence as a single flowering structure!



Stan Shebs

Open flowers

Can you see anthers and/or stigma? Most Joshua Tree flowers are bisexual, producing both anthers and pistil.

For example, if there are 2 inflorescences with many flowers each, abundance should be recorded as <3.

Proportion of open flowers should be recorded at the scale of individual flowers, not inflorescences (i.e. estimate the proportion of individual flowers that are open)!



Young YUBR flower bud



YUBR flower bud, which will open soon to reveal an inflorescence (pictured in the upper left photo)

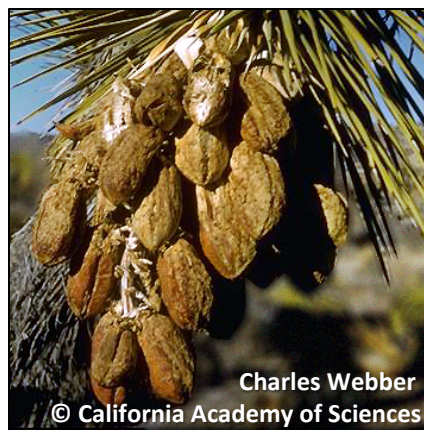
Important Note: USA-NPN flower phenophases are nested; if you say "Y" to "open flowers" you should also have said "Y" to "flowers or flower buds"



Jean Pawek

Fruits

The fruit is a capsule that changes from fleshy green to leathery tan, grayish-brown or brown. Sometimes the skin cracks, and the fruit drops from the plant.



Charles Webber

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Ripe fruits

A fruit is ripe when it is leathery tan, grayish-brown or brown.

Important Note: USA-NPN fruit phenophases are nested; if you say "Y" to "ripe fruits" you should also have said "Y" to "fruits"

Phenophases not pictured: **Recent fruit or seed drop**