California Phenology Project: species profile for California Buckeye (*Aesculus californica*)

CPP site(s) where this species is monitored: Sequoia National Park; John Muir National Historic Site

Photo credit: Martin Jambom (flickr)

What does this species look like?

This deciduous species is a large shrub or tree, up to 12 meters tall. The leaves are palmate (the leaflets emerge from a single point) and made up of 5 to 7 leaflets, each 6 to 17 cm long. Flowers are white to pale rose-colored, with petals 12 to 18 millimeters long. The flowers are clustered in an erect inflorescence with many showy, ill-smelling flowers. Only the flowers at the tip of each inflorescence are fertile and produce fruit. Each fruit contains one large (2 to 5 cm) glossy brown seed.

When monitoring this species, use the USA-NPN ***deciduous trees and shrubs*** datasheet.

Species facts!

- The CPP four letter code for this species is **AECA.**
- The bark, leaves, stems, fruit, and seeds of this plant contain toxic glycosidal compounds.
- Native Americans used the ground seeds to poison fish, but the seeds could also be used for food when leached of their poison and mashed.
- Although honeybees are the primary pollinator of buckeye, the nectar and pollen can be toxic to them.

Photo credit: randomtruth (flickr)

Photo credit: James Gaither (flickr)

Where is this species found?

- This species is endemic to California.
- It is found in dry slopes, canyons, and the edges of streams.
- Found at elevations less than 1700 meters

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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Terrie Schweitzer

Breaking leaf buds

A leaf bud is considered "breaking" once a green leaf tip is visible at the tip of the bud, but before the first leaf from the bud has unfolded to expose the leaf stalk or base. ***Can you see the leaf tips emerging from the bud in this picture?***


Eugene Zalenko

Leaves

Can you see the base of the leaflets? New leaflets may need to be bent backwards to see whether the petiole is visible.


Liz Matthews

Increasing leaf size


Cliff Hutson

Colored leaves


Devra

Flowers or flower buds

When monitoring ***flower or flower bud abundance*** *for this species, count each inflorescence as a single flowering structure! For example, if there are two inflorescences with many flowers or buds each, then abundance should be recorded as <3.*


Dawn Endico

Open flowers

Do you see the pollen-producing anthers protruding from the flowers? ***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)!*

Note*: flower phenophases are nested; if you record* ***Y*** *for "open flowers" you should also record* ***Y*** *for "flowers or flower buds"*


Eugene Zalenko

Fruits

The fruit is a large, leathery capsule that changes from green to tan or grayish-tan and splits open to release a large seed when ripe.


randomtruth

Ripe fruits

A fruit is considered ripe when it splits open.
Note*: fruit phenophases are nested; if you record* ***Y*** *for "ripe fruits" you should also record* ***Y*** *to "fruits"*

Phenophases not pictured: ***Falling leaves, recent fruit or seed drop***