

The Weekly Plant

4 September 2014

Common names: Arizona caltrop; orange caltrop; Arizona, summer, desert, or Mexican poppy

Scientific name: *Kallstroemia grandiflora*¹

TAV location: Drive toward Tucson on Old Spanish Trail. Beginning at Rocking K Ranch, look for the large, low-growing clumps of bright orange flowers. They are particularly noticeable on the left side of the road, along the white fence, just past the farmer's market.

Discussion

Arizona caltrop is one of our showiest summer annuals. The orange flowers are more than an inch across, with a deep red-orange accent at the center. Always a summer bloomer, this annual's growth depends on the monsoon rains. In good years, Arizona caltrop can carpet large areas and rival the showiness of our spring wildflowers. Each plant can reach 3 ft high and spread over 5 ft wide. In a bad year, only the seeds in the moistest spots germinate.



The leaves are opposite and compound, up to 3" inches long. The flower stalk arises from the base of a leaf, is always longer than the leaf, and holds just a single flower. That flower has 5 petals, 10 stamen, and a single pistil. The pistil has a long style on top that persists as the fruit matures. The fruit has 10 segments that split apart at maturity.

One interesting thing about Arizona caltrop is its family relationships - the ones it has and the ones it doesn't have. Some of the common names (Arizona poppy, desert poppy) make you think it is in the poppy family (Papaveraceae). No, it's not. Not even close. I think the name arose because



of the superficial resemblance to California poppy (*Eschscholzia californica*) (right). The flowers are about the same size and color but there the resemblance ends. Contrast Arizona caltrop (poppy) with California poppy: summer vs. spring bloom; 5 petals vs. 4; dark green compound leaves vs. grey-green leaves with very narrow segments; a large spreading plant vs. a small, compact plant; hairy stems and leaves vs. hairless stems and leaves. Still, that flower color. .



Arizona caltrop is related to one of our most common native plants (are you ready?) - creosote bush (in the Zygophyllaceae or caltrop family). I must admit I struggle to see the resemblance. Five petals - OK. Fruit with a persistent style - OK. But the flowers don't resemble one another, and neither



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do the leaves. This is one time when I'm going to have to trust the experts.

Top left: flower, leaf, and fruit of Arizona caltrop. The style can be seen in the center of the flower. The leaves are opposite and each have 8-14 leaflets. If you look closely at the fruit, you can see the vertical lines where the fruit will split apart. The persistent style is quite prominent.

Right: California poppy showing the bright orange flower, the fruit, and leaves (red arrow). Compare these to those of Arizona caltrop.

*Bottom left: creosote bush (*Larrea tridentata*), one of the closest relatives of Arizona caltrop, showing the somewhat similar fruit (persistent style, divided into vertical segments). The flowers and leaves, however are very different.*

¹ Tropicos is the source of the currently accepted scientific name: <http://www.tropicos.org/>.