California Phenology Project: species profile for Eastern Mojave Buckwheat (Eriogonum fasciculatum)



CPP site(s) where this species is monitored: Santa Monica Mountains National Recreation Area, Joshua Tree National Park



What does this species look like?

This perennial shrub can be up to 2 meters tall and 3 meters wide. The leaves are clustered at branch nodes and are leathery in texture; some varieties have white fuzz below, whereas others are glaborous. Leaves are a grey-green color, and rolled along the edges. The small flowers are 2.5 to 3 millimeters diameter, white to pinkish in color, and arranged in a dense clusters.

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

Photo credit: Stan Shebs

Species facts!

- The CPP four letter code for this species is **ERFA**.
- This species was used by Native American groups to treat headaches, diarrhea, and wounds.
- This species is visited by a variety of butterflies, and is an important source of nectar for honeybees in dry areas.
- Can form associations with mycorrhizal fungi to aid in seedling survival and the colonization of new sites.



Photo credit: Brian Haggerty



Photo credit: wanderingnome (Flickr)

Where is this species found?

- Found in dry slopes, washes, and canyons.
- A member of sagebrush scrub, desert scrub and coastal sage scrub plant communities.
- Found at elevations less than 2300 meters.
- In California, it is distributed in the Southern Sierra Nevada, Central West CA, Southwestern CA, East of Sierra Nevada, and Deserts.

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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Young leaves Young leaves are generally thinner and lighter colored than mature leaves. Similar to other species in Mediterranean and desert ecosystems, Buckwheat may respond to precipitation events with a flush of new leaf production. If water becomes unavailable after growth is initiated, however, then leaf expansion may be arrested, resulting in many small leaves on the plant. These responses to water availability (initiation of growth followed by arrested growth when the resources give out) can be confusing for observers. If you are unsure of what you are seeing, do not hesitate to circle ? on the NPN datasheets. With more experience, you may be able to distinguish between newly produced young leaves vs. old, small leaves. As you observe this species throughout the year, take note of the differences between new and old leaves– color, texture, and size can all be used to identify young leaves!



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.



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

Open flowers

You can see the pollen-producing anthers emerging from the flower in the photo to the left. **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)!



Fruits

The fruit is tiny and capsule-like, partially enclosed in a spent flower base (calyx), with many such spent flower bases tightly clustered together. The spent flower base changes from green to light brown or rusty brown as it dries out.



Ripe fruits

A fruit is considered ripe when the spent flower base enclosing it has turned light brown or rusty brown. **Note:** fruit phenophases are nested; if you record **Y** for "ripe fruits" you should also record **Y** to "fruits"

Phenophases not pictured: Leaves, Recent fruit or seed drop