

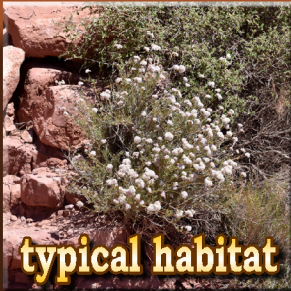
# Buckwheats



Members of the family **Polygonaceae** are generally known by the common names **buckwheats** in the US, **knotweeds** elsewhere. Found worldwide, mostly in temperate regions, species in this large family share a propensity to produce an abundance of tiny seeds that are edible, particularly in the form of familiar **buckwheat flour**. Most are herbaceous perennials with simple, alternately arranged leaves that bear a pair of fused **stipules** at the base of the **petiole** that form a sheath around the nodes of the stem, called an **ocrea**. However, this characteristic is absent in some species. The family has numerous representatives in the Mojave region.

# Family **POLYGONACEAE** (Buckwheats)

## California Buckwheat (*Eriogonum fasciculatum*)



**typical habitat**

Hualapai Plateau; AZ



**satisfied customer**

Red Spring; RRCNCA; NV



**April**

Big Wash Road; Cerbat Mountains; AZ



**linear leaves**

Valley of Fire SP; NV



**erect stems**

Red Spring; RRCNCA; NV

- Flowers:** clustered; 8" cyme inflor.; canescent perianth, exserted stamens; aromatic; white with pink; .25"  
**Stems:** erect to decumbent; numerous; highly branched; woody base; glabrous to woolly; green; 10"  
**Leaves:** linear to oblanceolate; revolute (curled under); clustered at nodes; pilose; green; .6"  
**Blooms:** March to June  
**Range:** southwestern US; Baja and northwestern Mexico  
**Habitat:** dry, gravelly to rocky; desert scrub, washes, canyons, etc.; Lower Sonoran Life Zone

### Notes:

common; perennial; grows to about 4' in sw US (CA, NV, UT, AZ) south into Baja and nw MEX at elevations up to 4,500'; tiny, glabrous achene fruit; aka **Flattop Buckwheat**, **Mojave Buckwheat**, **Yellow Buckwheat**, etc.; 5 subspecies, variable appearance; drought tolerant; host and source of nectar to numerous insects, including bees and caterpillars; traditionally used for food (tea, seeds, etc.) and various medical treatments (analgesic, antidiarrheal, etc.)

**Mojave presence:** native

### Comments:

This species is easily recognized almost year round. The inflorescence of rounded clusters of small pinkish flowers and buds at the tips of the stems are conspicuous in springtime (left), and the aged clusters get rusty towards the end of their season (right).



# Family POLYGONACEAE (Buckwheats)

## Wright's Buckwheat (*Eriogonum wrightii*)



flower clusters

Red Rock Cyn NCA; NV



October

Rocky Gap; Red Rock Canyon NCA; NV



leaf clusters

Red Rock Cyn NCA; NV



montane home

Red Rock Cyn NCA; NV



red nodal leaves

Red Rock Cyn NCA; NV

- Flowers:** bilat. sym.; raceme/cyme; 6 petals (pink midrib), exerted stamen, pink anthers; white, pink; .2"  
**Stems:** erect to spreading; many; highly branched; herbaceous to woody; red nodes; gray green; 60"  
**Leaves:** linear to elliptical; entire to wavy; clustered; tomentose, fleshy, petioled; whitish green; to 1.5"  
**Blooms:** April to October  
**Range:** southwestern US; Baja and northwestern Mexico  
**Habitat:** dry, gravelly to rocky; slopes, canyons, woodlands, etc; Lower Sonoran to Canadian Life Zones

### Notes:

uncommon; perennial; grows to 5' shrub (usually less) mainly in montane habitats of the sw US from w TX west to CA, south into Baja and nw MEX at elevations up to 10,000'; brown, glabrous achene fruit; aka Bastardsage, Shrubby Buckwheat; 7 subspecies (difficult to determine due to variable appearance); host to numerous insects, particularly several species of caterpillars; traditionally used for food (e.g. seeds) and various medical treatments (e.g. emetic)

Mojave presence: native

### Comments:

Though perhaps common overall in its range, this buckwheat is apparently quite uncommon in the Mojave region, and almost certainly only found in higher-elevation environments, like the one pictured here in the Rocky Gap area of Red Rock Canyon NCA in southern Nevada in October of 2017. This is the only specimen I can confirm that I've encountered in my 40+ years living in and exploring the region.

# Family **POLYGONACEAE** (Buckwheats)

## **Sulfur-Flower Buckwheat** (*Eriogonum umbellatum*)



Desert NWR; NV



Desert National Wildlife Refuge; NV



Desert NWR; NV



Desert NWR; NV



Desert NWR; NV

- Flowers:** bell; umbel inflor.; perianth (petals + sepals) with exserted stamens; **yellow to orange**; .25"
- Stems:** erect to sprawling; singular to many; highly branched in shrub form; tomentose; **pinkish**; to 72"
- Leaves:** elliptical (basal) to linear (cauline); entire to undulating; whorled; woolly below; gray green; 1"
- Blooms:** April to September
- Range:** western NA
- Habitat:** dry, sandy to rocky; flats, slopes, ridges, etc; Lower Sonoran to Transition Life Zones

### Notes:

common; perennial; grows as herbaceous mats to 6' woody shrubs in rocky, montane habitats of western NA from Pacific coast east to MT/CO, north to BC/SK, CAN, at elevations of 2,500 to 10,000'; very difficult to identify due to great variability in form; glabrous fruit produces sharp-angled black seeds; aka **Sulfur Flower**, **Sulfur Wildbuckwheat**, **Sulfur Eriogonum**; 30 subspecies; food source for some livestock; important host to various butterfly caterpillars; numerous traditional uses (infusion for eyewash, pain relief, diuretic, etc.)

Mojave presence: native

### Comments:

Though this buckwheat occurs in the Mojave area, it is not a desert plant, per se; it is only found growing in the higher elevations in "sky island" mountain habitats. Uncommon to rare in the region, the specimen shown here was seen near the Desert Pass campground in the **Desert National Wildlife Refuge** in August of 2020 in the pinyon-juniper biome at an elevation of about 6,600 feet.

# Family **POLYGONACEAE** (Buckwheats)

## **Skeleton Weed** (*Eriogonum deflexum*)



**tiny flowers**

Dolan Springs, AZ



**June**

Goodsprings Valley; Goodsprings, NV



**cordate basal leaves**

Goodsprings; NV



**mature plant**

Greenwater Valley; DVNP; CA



**spindly stems**

Frenchman Mtn; LV, NV

- Flowers:** oblong; cymose inflorescence; 6 petals, red midribs; white to pink; .12"
- Stems:** erect/spreading; single; highly branched; spindly to tangled; green (young), red (mature); to 18"
- Leaves:** cordate/reniform; entire; basal; 2" long petioles, woolly below; glaucous to green; 1.5"
- Blooms:** July to October; year-round with sufficient precipitation
- Range:** southwestern US (se CA, s NV, sw UT, nw AZ, w NM); northwestern Mexico
- Habitat:** arid, sandy to gravelly; desert scrub, bajadas, roadsides, etc.; Lower Sonoran Life Zone

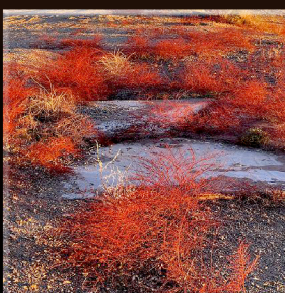
### Notes:

very common; annual/perennial; grows as a spindly to shrubby plant up to 6' tall (usually much shorter) in the Mojave and Sonoran Deserts at elevations up to 4,000'; glabrous, brown achene fruit; aka **Flat-Topped Buckwheat**, **Flatcrowned Buckwheat**, etc.; 4 subspecies; flower clusters on very short peduncle, tepals have cordate base; host plant for butterflies (and their caterpillars), bees, wasps, etc.; provides seeds for various desert birds

**Mojave presence:** native

### Comments:

The mature plant is readily recognizable as a scraggly red-brown "weed" along roadsides throughout the Mojave (left). However, young plants look quite different in their spring debut when they present green, spindly stems with tiny white or pink flowers (right).



Dolan Springs, AZ



Dolan Springs, AZ

# Family **POLYGONACEAE** (Buckwheats)

## Desert Trumpet (*Eriogonum inflatum*)



**tiny flowers**

Dolan Springs, AZ



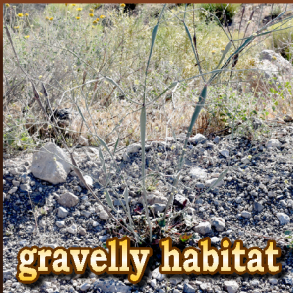
**April**

Pierce Ferry Rd; Dolan Springs, AZ



**basal leaves**

Valley of Fire SP; NV



**gravelly habitat**

Potosi Mtn; Clark Co.; NV



**inflated stems**

Hoover dam, NV

- Flowers:** bilateral sym.; cymose inflorescence; 6 petals (greenish midribs) and sepals; **yellow**; .2"
- Stems:** erect; numerous; forked branching above **inflated nodes**; glabrous; **red to bluish green**; 4-60"
- Leaves:** cordate/reniform; wavy; basal; sparsely hairy; **bluish green**; 1.5"
- Blooms:** March to July; occasionally in fall with adequate precipitation
- Range:** southwestern US
- Habitat:** dry, sandy to gravelly; desert scrub, washes, slopes, etc.; Upper to Lower Sonoran Life Zones

### Notes:

very common; herbaceous annual/perennial; grows to 5' (usually much less) in arid habitats in sw US (mainly in the Mojave Desert) from CA east to CO/NM at elevations up to 6,000'; **involucre** of cup-shaped whorl of fused bracts; glabrous, light brown **achene** fruit; aka **Bladder Stem**, **Indian Pipeweed**, etc.; 2 subspecies; host to numerous butterfly caterpillars; characteristic inflated stems used as pipes by native people; seeds and boiled leaves are edible

Mojave presence: native

### Comments:

The specimens of **Desert Trumpet** *E. i. inflatum* shown here are very widespread throughout the Mojave, and easily recognized by the conspicuously inflated bulge at the end of the stem. They simply cannot be mistaken for any other plant. However, the subspecies *E. i. deflatum* (which is not as widespread) lacks the bulge, thus making identification a trickier matter. The bulge is an evolutionary adaptation to store CO<sub>2</sub> for internal gas regulation.

# Family **POLYGONACEAE** (Rhubarbs)

## Wild Rhubarb (*Rumex hymenosepalus*)



bell-shaped flowers

Valley of Fire SP; NV



dense panicle

Valley of Fire SP; NV



May

Red Rock Canyon NCA; NV



large basal leaves

Valley of Fire SP; NV



stout stems

Dolan Springs, AZ

- Flowers:** pendant, whorled; terminal panicle; 6-parted; fleshy; green, pink, tan; .6"  
**Stems:** erect; singular; unbranched; stout, glabrous; brownish green; to 48"  
**Leaves:** oblong to obovate; entire to curled; basal; green; to 24"  
**Blooms:** March to May  
**Range:** southwestern US; northern Mexico  
**Habitat:** dry, sandy to gravelly; desert scrublands, grasslands, roadsides, etc.; Lower Sonoran Life Zone

### Notes:

common; perennial; grows to 4' (though usually shorter) in semi-arid to arid environments of the sw US from TX west to CA, south into northern MEX at elevations up to 5,000'; aka **Canaigre Dock**, **Tanner's Dock**, **Ganagra**, **Miner's Lettuce**, etc.; 2 subspecies; characteristic whitish, membranous **ocrea** (sheath at base of leaf pedicel that envelopes the stem), giving rise to the plant's specific name (**hymenosepalus**); pink to brown **pod** fruit bearing .2" red-brown **achenes**; roots are a source of **tannins** used for "tanning" leather, and a reddish-brown dye; young leaves and stalks are edible (similar to the cultivated hybrid **Rhubarb** *Rheum x hybridum*)

Mojave presence: native

### Comments:

As with all wild edibles, care must be taken to evaluate your body's reaction to the plant! Consume small portions, wait a short time, then determine if any potential allergic results develop, such as tingling, itching, numbness, etc. The main offending chemical is **oxalic acid** that gets

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more potent as the plant ages.

# Family POLYGONACEAE (Rhubarbs)

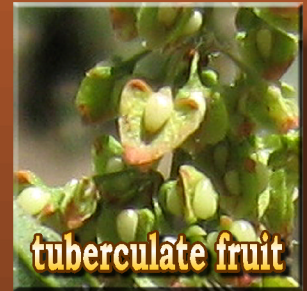
## Curly Dock (*Rumex crispus*)



tiny flowers



June



tuberculate fruit



dense panicle



large basal leaves

Horse Thief Spring; CA

Horse Thief Spring; Kingston Range; CA

Horse Thief Spring; CA

- Flowers:** irregular; dense terminal panicle; 6 tepals; jointed pedicels; yellowish green to pinkish; .25"  
**Stems:** erect; few to numerous; simple to lightly branched; stout, ribbed, glabrous; reddish; 10"  
**Leaves:** linear to lanceolate; entire, wavy; basal, cauline; alternate; glabrous; green; 12"  
**Blooms:** April to September  
**Range:** native to temperate Eurasia; introduced world wide  
**Habitat:** moist soils; roadsides, meadows, woodlands, etc.; Lower Sonoran to Transition Life Zones

### Notes:

common; herbaceous perennial; grows to 5' throughout much of temperate NA and elsewhere at elevations up to 9,000'; flowers can be staminate (m), pistillate (f), or perfect (both), 10-25 per inflorescence; ocrea (sheaths) are deciduous; reddish brown tuberculate fruit, .08" achene; 3 subspecies; aka Yellow Dock; used traditionally for limited medicinal applications (swelling, skin irritations, anti-diarrheal, etc); young leaves and stems edible in moderation (contain toxic oxalic acid and its salt calcium oxalate); host to various insects, especially butterflies and moths

Mojave presence: introduced/naturalized

### Comments:

Unlike its cousin, Cairn Dock *Rumex hymenosepalus* (Wild Rhubarb), curly dock is quite uncommon to rare in the arid Mojave except at higher elevations that provide adequate precipitation. The only specimen I've encountered in the region is the one shown here at Horse Thief Spring near the Beck Mine in the Kingston Range, located in San Bernardino County, California.