

Ligulate Flowers



A **ligulate head** consists entirely of a single flower type, which superficially resembles the ray floret on the radiate head of a compound member of the sunflower family. Tubular at the base and flattened out to look like the petals of an ordinary flower, it is actually a strap-like **ligule**. However, a ligule differs from a ray floret in that it is a perfect (bisexual) flower, and consists of all five lobes of the corolla manifested by five terminal "teeth" reminiscent of the tines on a spork (combination spoon/fork utensil).

Family ASTERACEAE (Dandylions)

Common Dandelion (*Taraxacum officinale*)



Kaibab Lake; Williams, AZ



fluffy seed ball

LV Municipal GC; LV, NV



5-lobed ligules

March

Las Vegas Municipal GC; LV, NV



lobed, lanceolate leaves

LV Municipal GC; LV, NV



LV Municipal GC; LV, NV

- Flowers:** ligulate; bisexual, solitary; 1.5"; yellow; 40 - 100+ individual ligules
- Stems:** mostly glabrous, hollow; green to purplish; upright to spreading; milky sap; to ~15"
- Leaves:** lanceolate; toothed to deep lobed; mostly in basal rosettes; vivid green; 2 - 10"
- Blooms:** April through September; year-round in some areas
- Range:** originally native to Asia, now cosmopolitan in temperate regions
- Habitat:** disturbed areas, lawns, meadows, fields, etc.; Lower Sonoran to Transition Life Zones

Notes:

very common; herbaceous perennial; grows to ~15" in deserts, chaparral, pine woodlands, etc., throughout NA at elevations up to ~9,000'; fruit produced by **apomixis** (asexual reproduction without fertilization); glaucous (grayish green) **calyculi** (cuplike grouping of **bracts**) with ~18 segments forms an involucre that supports the flower head; greenish-brown to straw-colored **cypsela** fruit (single-seeded from double ovary); silver-white, silky, parachute-like **pappus**; found world-wide in temperate regions as a naturalized/invasive plant; aka **Dandelion**, **Blowball**, **Faceclock**; 2 subspecies; leaves, flowers and roots used in herbal medicine (poultice, pain relief, laxative, tonic, etc.) and as food; important food source for numerous insect species

Mojave presence: naturalized native

Family **ASTERACEAE** (Dandylions)

Desert Dandylion (*Malacothrix glabrata*)



bushy shrub

Xmas Tree Pass; Laughlin, NV



**dense carpet of flowers
after sufficient rains**

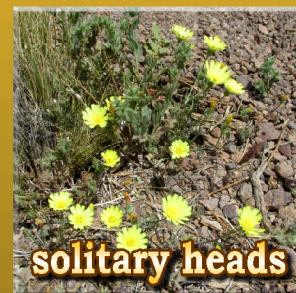
Boulder City, Nevada



5-lobed ligules

March

Dolan Springs, Arizona



solitary heads

Red Spring; Red Rock NCA



tangle of stems, leaves

Dante's View; DVNP

- Flowers:** ligulate; mostly solitary; young central heads reddish; ~2"; lt. yellow to yellow; 40+ 5-lobed rays
- Stems:** erect to spreading; green to purple; mostly glabrous; hollow; milky sap; 2 - 16" tall
- Leaves:** toothed to deep lobed; mostly basal rosettes, some linear to pinnate; alternate; green
- Blooms:** February to July
- Range:** sw deserts of NA
- Habitat:** arid, sandy to gravelly soils; washes, slopes, roadsides, etc.; Lower to Upper Sonoran Life Zones

Notes:

very common; herbaceous annual; grows to 16" in creosote and saltbush scrub to pinyon-juniper woodlands in the Mojave and Sonoran Deserts up to an elevation of ~6,000'; .75" hairless **phyllaries**; small **cypsel**a fruit (single-seeded from double ovary) with bristly **pappus**; similar to **Common Dandylion**, but paler yellow; used by the Navajo to induce vomiting

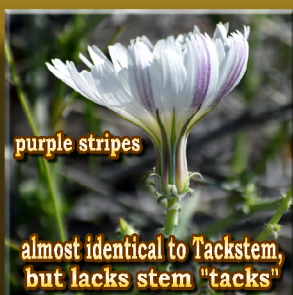
Mojave presence: native

Family ASTERACEAE (Chicories)

Desert Chicory (*Rafinesquia neomexicana*)



Valley of Fire SP; Nevada



Willow Beh, AZ; LMNRA



Boulder City, Nevada



Dante's View; DVNP



Dante's View; DVNP

- Flowers:** ligulate; ~2"; white with yellow centers, purple stripes under ligules; solitary; 20+ ligules
- Stems:** erect, purplish, zig-zagged; glabrous (hairless); milky sap; usually grows through shrubs; to 24"
- Leaves:** pinnately lobed, toothed*; basal rosette, alternate elsewhere; glabrous; 1.5 - 4"
- Blooms:** February to June
- Range:** Mojave and Sonoran Desert, east to TX, south to n MEX
- Habitat:** dry, sandy, gravelly soils along washes, etc.; Lower Sonoran Life Zone

Notes:

common; herbaceous annual; weak stems grow 6 - 24" tall through shrubs (for support and protection from herbivores) in creosote bush scrub to Joshua woodlands from ~200 to 3,500' elevations; .5 - 1" **phyllaries**; **cypsela** with **pappus** of white to dark gray, plumose bristles; aka **Plumbseed**

(* distinguished from **White Tackstem**; both very similar and found growing together; see pg As L6)

Mojave presence: native; ephemeral

Family ASTERACEAE (Gravel Ghost)

Gravel Ghost (*Atrichoseris platyphylla*)



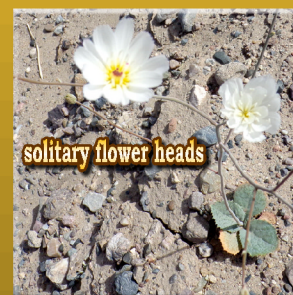
Salt Creek; DVNP



Salt Creek; DVNP



Badwater Road; Death Valley NP



Badwater Road; DVNP



Badwater Road; DVNP

- Flowers:** ligulate; ~1.5"; white with yellow to purple centers, sometimes purple tips; fragrant; 20+ ligules
- Stems:** erect; branched; glaucous; glabrous; 1 - 5'
- Leaves:** oblong; dentate; sessile; flat basal rosette; tiny scales on stems; green above, purple below; 1 - 4"
- Blooms:** February to May
- Range:** sw NA; Mojave and Sonoran Deserts
- Habitat:** dry desert slopes and mesas; Lower to Upper Sonoran Life Zones

Notes:

common locally; herbaceous winter annual; grows to 30+" mainly in the Mojave Desert (CA, NV, UT, AZ), but also the Sonoran Desert (AZ, nw MEX) in creosote bush scrub, desert valleys, and washes to 4,500' elevations; 2- to 4-layered **phyllaries** with club-shaped **cypsela** fruit and white **pappus**; monotypic (only 1 species); aka **Parachute Plant**, **Tobacco Weed**; very similar appearance to **Desert Chicory**, but not closely related other than being a member of the sunflower family; seeds are an important food source for birds and small mammals

Mojave presence: native

Family ASTERACEAE (Tackstems)

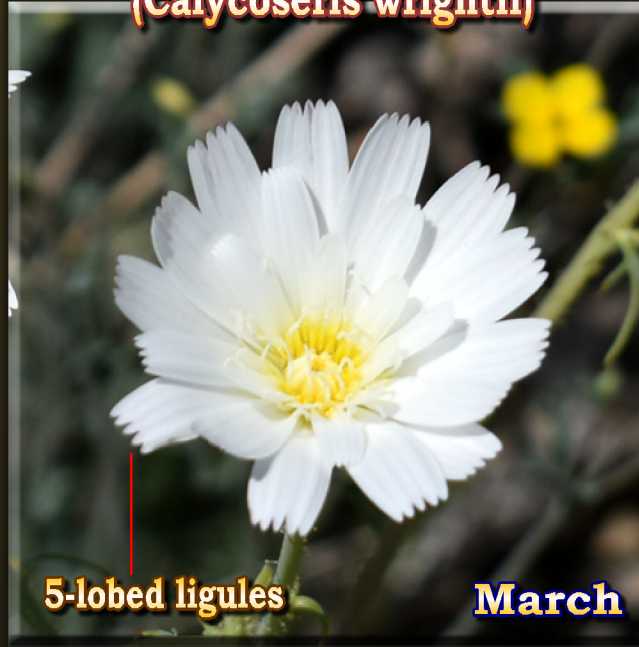
White Tackstem (*Calycoseris wrightii*)



Willow Beach, AZ; LMNRA



Willow Beach, AZ; LMNRA



Willow Beach, AZ; Lake Mead NRA



Willow Beach, AZ; LMNRA



Willow Beach, AZ; LMNRA

- Flowers:** ligulate; ~2"; white with yellow centers; purple stripes below; 20+ ligules
Stems: low branching; glabrous, pale; tack-shaped glands; milky sap; ~12"
Leaves: narrow linear (filiform) and linear-lobed, mostly basal; alternate; 1.5 - 4"
Blooms: March to June
Range: Mojave and Sonoran deserts, east to TX, south to nw MEX
Habitat: dry gravelly slopes, washes, etc.; Lower to Upper Sonoran Life Zones



Willow Beach, AZ; LMNRA

Notes:

fairly common; herbaceous annual; grows to ~12" tall in creosote bush scrub and mesquite stands mainly in the eastern Mojave Desert (CA, NV, UT, AZ) and Sonoran Desert of nw MEX (Baja, Sonora) at elevations of 500 to 5,000'; 2 rows of green, membranous-edged phyllaries (outer row short, uneven; inner row long, linear); brown cypsela with bristly pappus; aka Desert Chickory (not same as Desert Chicory, *Rafinesquia neomexicana*)

(*distinguished from *Rafinesquia neomexicana*; see pg As L4)

Mojave presence: native

Family **ASTERACEAE** (Tackstems)

Yellow Tackstem (*Calycoseris parryi*)



Kingston Mountain; CA



Kingston Mountain; CA



Kingston Mountain Range; San Bernardino Co.; CA



Kingston Mountain; CA



Kingston Mountain; CA

- Flowers:** ligulate, solitary; ~1.5"; light yellow with darker yellow center; 20+ ligules
- Stems:** branched from base; dark red, tack-shaped glands; milky sap; glabrous; 12"
- Leaves:** linear; pinnately divided; alternate; sessile, mostly basal, and inconspicuous; 1 - 5"
- Blooms:** March to May (June in some areas)
- Range:** sw US; Mojave and Sonoran deserts, into Mexico (Sonora, Baja)
- Habitat:** limestone/sandy soils; dry slopes, washes, etc.; Lower to Upper Sonoran Life Zones

Notes:

fairly common; herbaceous annual; grows to ~12" tall in creosote bush scrub to pinyon-juniper woodlands mainly in the Mojave Desert (CA, NV, UT, AZ) and Sonoran Desert (se AZ, nw MEX) at elevations below 6,000'; numerous, membranous-edged phyllaries; beaked, red to purple cypsela with white, bristly pappus; often confused with Desert Dandelion (lacks tack-shaped stem glands); important to birds, small mammals, insects (butterflies, bees, etc.)

Mojave presence: native

Family ASTERACEAE (Wirelettuces)

Brownplume Wirelettuce (*Stephanomeria pauciflora*)



First Creek; RRCNCA; NV



Dolan Springs, Arizona



5-lobed ligules

May

Dolan Springs, Arizona



First Creek; RRCNCA; NV



First Creek; RRCNCA; NV

- Flowers:** ligulate; solitary; ~.75"; pale purple, white, pink; tubular with 3 - 7 five-lobed ligules
- Stems:** upright; one to five, intricately branched*; pale, wood-like caudex*; milky sap; 1 - 2'
- Leaves:** basal: sharply lobed; cauline: tiny, scale-like, clasping, entire; alternate; 1 - 3"
- Blooms:** May to August; to October under right conditions
- Range:** s CA east to TX, WY south to n MEX
- Habitat:** deserts, open/disturbed areas, washes, woodlands, etc.; Lower to Upper Sonoran Life Zones

Notes:

common; perennial herb; grows to ~2' in creosote bush scrub, Joshua and pinyon-juniper woodlands up to ~6,000' elevations in the Mojave and Sonoran deserts and elsewhere in the sw US and MEX; 5 glabrous phyllaries; 5-angled achenes with partly plumose, usually tawny* pappus; aka Desert Straw, Fewflower Wirelettuce, Prairie Skeletonplant; produces latex; closely related to chicories; very difficult to distinguish from other wirelettuces; favorite food of burros in e Mojave; important food, cover, and shelter source for small rodents, birds, insects; used by indigenous peoples for chewing gum (from latex), narcotic, childbirth aid, etc.

(* Slender-Leaf {*Stephanomeria tenuifolia*} is rhizomous; fully plumose white pappus)

(* Whiteplume {*Stephanomeria exigua*} is rhizomous; less branched, wiry appearance; tan to white pappus)

Mojave presence: native

As L8

Family ASTERACEAE (Wirelettuce)

Whiteplume Wirelettuce (*Stephanomeria exigua*)



First Creek; RRCNCA



First Creek; RRCNCA



Red Rock Canyon National Conservation Area; NV



First Creek; RRCNCA



First Creek; RRCNCA

- Flowers:** ligulate; ~ .5"; pale purple, white, pink, rarely rose; tubular with 3 - 7 five-lobed ligules
Stems: upright or spreading; usually one branched stem arising from rhizome*; milky sap; 1 - 2'
Leaves: lower: pinnate, upper: tiny, bract-like, clasping, entire; alternate
Blooms: April to October
Range: sw US into nw MEX
Habitat: dry desert scrub, flat areas, hillsides, etc.; Lower Sonoran to Transition Life Zones

Notes:

common; herbaceous annual, rarely perennial; grows to 2' at elevations of ~2,000 - 8,000' in desert scrub to pine woodlands throughout w US from CA east to NM, and OR south to nw MEX (Baja, Sonora); .75" phyllaries with small bract-like leaves at base; cypselia fruit with tan or white, plumose* pappus; inconspicuous and spindly, usually growing within stout plants for support; 5 subspecies, including 1 in NY; aka Small Wirelettuce; attracts birds, small rodents, and insects (particularly pollinating bees); used by indigenous peoples as a diuretic and to treat measles

(*distinguished from Brownplume {*Stephanomeria pauciflora*} that has a woody base and partly plumose pappus)

Mojave presence: native

Family ASTERACEAE (Wirelettuces)

Narrowleaf Wirelettuce (*Stephanomeria tenuifolia*)



First Creek; RRCNCA



sharp-angled branching

First Creek; RRCNCA



June

Red Rock Canyon National Conservation Area; NV



rhizomatous stem

First Creek; RRCNCA



white, plumose pappi

- Flowers:** ligulate; solitary; ~ .75"; pale purple, white, pink, lt blue; tubular with 3 - 7 five-lobed ligules
- Stems:** upright; rhizomatous; divaricately branched, woody root crown*; glabrous; milky sap; 8 - 28"
- Leaves:** basal: linear to filiform, entire to toothed; cauline: bract-like, clasping, entire; alternate
- Blooms:** May to September
- Range:** w US into CAN and MEX
- Habitat:** rocky ridges, slopes, cliff bases, etc.; Lower Sonoran to Canadian Life Zones

Notes:

common; herbaceous perennial; most widespread of the genus *Stephanomeria*, growing to ~2' at elevations of 1,000 - 9,800' in desert scrub to pine woodlands throughout w US from w CA east to the Great Plains, and CAN (BC, Saskatchewan) south to n MEX (Baja, Sonora, Chihuahua); .75" **phyllaries** with small bract-like leaves at base; grooved, tan **cypsela** with up to 25 bright white, plumose **pappi**; aka **Lesser Wirelettuce**, **Slender-Leaf Wirelettuce**; difficult to distinguish from other wirelettuces, but very similar to **Brownplume** (*Stephanomeria pauciflora*); attracts birds, small rodents, and insects (particularly pollinating bees)

(* less woody than **Brownplume**)

Mojave presence: native