

Monoecious Plants



Monoecious plants bear unisexual flowers--male (**staminate**) and female (**pistillate**)--on each individual plant. Thus they are **self pollinating**, in that pollen from the male flower dusts the female flowers usually situated below on the same stem. Self fertilization provides the advantage of ensuring survival and spread in the absence of multiple representatives of the plant in the area, but the risk is a genetic weakening of the species. To avoid such a consequence, many monoecious plants can also **cross pollinate**, increasing genetic robustness.

Family ASTERACEAE (Ragweeds)

Cheesebush (*Ambrosia salsola*)



dense shrub

Pierce Ferry Rd; Mohave Co., AZ



narrow linear leaves

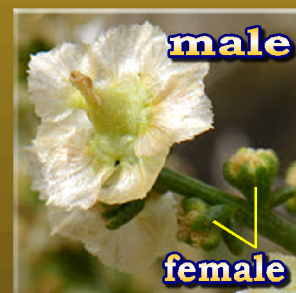
Pierce Ferry Rd; Mohave Co., AZ



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Flowers: .75 - 2"

Male (staminate) Flowers: (cuplike) cream to white; 5 - 15

Female (pistillate) Heads: cream to **yellow**; single flower

Stems: thin, upright, from single base; branched

Leaves: thin linear; entire, except pinnate lobes on some lowest ones; alternate; dark **green**; .75 - 2"

Blooms: March to June

Range: southwestern US; northern MEX

Habitat: gravelly, sandy soils; creosote scrub to pinyon-juniper woodlands; Lower to Upper Sonoran LZs

Notes:

very common; perennial; thrives in alkaline environments (washes, bajadas, disturbed sites, etc.), growing 2-3' tall in sw US (CA, NV, AZ, UT) and n MEX (Baja, Sonora) at elevations of ~600 to 6,000'; male flowers in clusters above female heads growing on leaf axils; winged fruit, pearly white, yellow, or pink to .25" long; short lifespan, but a high rate of seed production; pungent, "cheesy" odor exudes from crushed leaves and stem tips; aka **Cheeseweed**, **White Burrobush**, **Winged Ragweed**, **Desert Pearl**

Mojave presence: native; year-round

Family ASTERACEAE (Ragweeds)

White Bursage (*Ambrosia dumosa*)



dense shrub

Calico Basin; RRCNCA



April

Calico Basin; RR NCA



April

Red Spring; Red Rock Canyon NCA; Nevada



May

spikey, bur-like fruit

Red Rock Cyn NCA; LV, NV



hairy, lobed leaves

Frenchman Mtn; LV, NV

Flowers:	.25 - .5"	Male (staminate) Flowers:	pale yellow; many
		Female (pistillate) Heads:	pale yellow; 2-flowered
Stems:	rigid, hairy, highly branched; longitudinal stripes on the smaller stems		
Leaves:	obovate; lobed, pinnately compound; gray, woolly hairs; .25-1.5"		
Blooms:	March to June; also September to November depending on summer rains		
Range:	southwestern US; northwestern MEX		
Habitat:	creosote bush scrub; Lower Sonoran Life Zone		



January

drought deciduous

Valley of Fire SP; Nevada

Notes:

common; annual/perennial; grows to 8-36" in Mojave Desert creosote bush scrub in CA, NV, UT, south into Sonoran Desert from AZ to n Mex (Baja, Sonora, Chihuahua) at elevations up to 3,000'; 5- to 8-lobed **bract**; spherical, bur-like, lt. brown to purple **fruit** covered with 30-40 spines; male flowers oriented downward to dust female heads below; long lived (to 75 years); aka **Burrobush**, **Burroweed**; like the **Creosote Bush**, the roots produce chemicals that act to inhibit crowding by neighboring plants (reduces competition for limited water);

Mojave presence: native; year-round

Family ASTERACEAE (Sagebrushes)

Basin Big Sagebrush (*Artemisia tridentata tridentata*)



I-15 rest stop; Blackfoot, ID



I-15 rest stop; Blackfoot, ID



Interstate-15 rest stop; Blackfoot, Idaho



I-15 rest stop; Blackfoot, ID



I-15 rest stop; Blackfoot, ID

- Flowers:** discoid; narrow bell shape, 3-9/head, greenish yellow, .16"; triangular, 2.5-6" inflorescence
- Stems:** upright, woody, brown; tree-like with short trunk, often branched at base; 2-6"
- Leaves:** oblanceolate*; shallow 3-lobed tips/entire*; alternate; fuzzy, gray green; aromatic*; 1.5-2"
- Blooms:** July to October
- Range:** western North America
- Habitat:** well-drained soils; arid flats, hills, slopes, etc.; Lower to Upper Sonoran to Life Zones

Notes:

very common; annual; large, evergreen shrub to sub-tree that grows to 9'* (tallest of the four sagebrush subspecies) in intermountain valleys throughout the Great Basin region and into the Great Plains from e CA east to w NE/SD/ND, north to British Columbia, CAN, and south to AZ/NM and Baja California, MEX; most abundant of the sagebrushes; hairy bracts; aka **Big Sagebrush**; crushed leaves produce a distinctive aromatic fragrance*; extremely drought tolerant; important forage plant for wildlife (bighorn sheep, deer, elk, sage grouse, etc.), and nesting site for numerous birds; used as a spice; traditionally valued by native populations for firewood (due to the highly flammable oils in its wood), and as a deodorant; state flower of Nevada

(*rounded, gnarled appearance *rounded to slightly pointed {mostly entire on vegetative stems}; *pungent)

(*distinguished from **Mountain Big Sagebrush**)

Mojave presence: native; uncommon; far ne region

As M4

Family ASTERACEAE (Sagebrushes)

Mountain Big Sagebrush (*Artemisia tridentata vaseyana*)



shrub like

Willow Spring; RRCNCA



typical habitat

First Creek; RRCNCA



December

Willow Spring; Red Rock Canyon NCA; Nevada



tri-lobed leaf tips

curled edges

RRCNCA; LV, NV



erect flower stems

Red Spring; RRCNCA

- Flowers:** discoid; bell shape, 4-8/head, pale yellow to cream; .16"; narrow, 4-6" inflorescence
- Stems:** upright, woody, brown; flowering stalks characteristically rise above crown; 2-4'
- Leaves:** wide wedge*; shallow tri-lobed tips*; curled edges; alternate, fuzzy, grayish green; aromatic*; .6"
- Blooms:** July to October
- Range:** western North America
- Habitat:** loamy/gravelly soils; high elevations with plentiful snow; Upper Sonoran to Canadian Life Zones

Notes:

relatively common at higher elevations; annual; medium-sized evergreen shrub that grows to ~5'* from e CA east to w NE/SD/ND, and WA/MT south to NV/AZ/NM at elevations of ~3,000-10,000'; hairy bracts; aka **Big Sagebrush**; crushed leaves produce a distinctive aromatic fragrance*; extremely drought resistant, and can tolerate greater moisture than *A. t. tridentata*; important forage plant for wildlife (bighorn sheep, deer, elk, etc.), and nesting site for numerous songbirds; used as a spice; traditionally valued by native populations for firewood (due to the highly flammable oils in its wood), and as a deodorant

(distinguished from **Basin Big Sagebrush** by *smaller size; flat-topped crown, *flared outer lobes and rarely entire}

(*sweet-pungent aroma, and *smaller, wedge-shaped leaves)

Mojave presence: native

As M5