

Flor de rocío (*Encelia farinosa*)

Nombres comunes: Hierba ceniza (Cora) / Incienso, Palo blanco (Español) / Hierba de las ánimas, Rama blanca (ND) / Cotz (Seri)

¿Tienes alguna duda, sugerencia o corrección acerca de este taxón? [Envíanosla](#) y con gusto la atenderemos.



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Taxon biology

Encelia farinosa has a bioregional distribution that includes California's eastern South Coast and adjacent Peninsular Ranges, as well as a desert distribution outside California to southwestern Utah, Arizona and northwest Mexico. The occurrences are restricted to elevations less than 1000 meters. Chief habitats are in coastal scrub and on stony desert hillsides.

This desert shrub, also known by the common name Brittlebush, reaches a height of 30 to 150 centimeters, manifesting a single or several trunks. The stems are much-branched above, with young stems tomentose; older stems exhibit smooth bark. This plant's sap is fragrant

Leaves are clustered near stem tips, with leaf petioles 10 to 20 millimeters in length, and with ovate to lanceolate blades ranging from two to seven cm. These tomentose leaves are silver or gray in color.

Inflorescence heads are radiate, and generally yellowish, although the disk flowers can be yellow or brownish-purple.

National distribution ¹

United States

Origin: Unknown/Undetermined

Regularity: Regularly occurring

Currently: Unknown/Undetermined

Confidence: Confident

Description ²

Brittle bush is a native, drought-deciduous, perennial shrub [7,8,21,28]. It grows to about 5 feet (1.5 m). It has a woody base and is rounded and much-branched in form. Thick branches support an umbrella of leaves with few stems beneath [7]. The leaves are 0.7 to 2 inches (2-5 cm) long and 0.6 to 1 inch (1.5-2.5 cm) broad. They are mostly located toward the end of branches [35]. The flowering heads are loosely clustered on long naked branchlets [1,35]. Brittle bush is short lived. On permanent plots in the Sonoran Desert, the maximum observed longevity was 32 years [54].

Brittle bush generally has shallow roots [27]. One study found that the root system of brittle bush on a north-facing slope was composed of a stout taproot and numerous laterals. All laterals bore groups of filamentous roots [8].

Synonym ^{3,4}

Encelia farinosa var. *phenicodonta* S. F. Blake) I. M. Johnston

Mojave desert habitat ^{5,6}

This taxon is found in the Mojave Desert, the smallest of the four North American deserts. While the Mojave lies between the [Great Basin Shrub Steppe](#) and the [Sonoran Desert](#), its fauna is more closely allied with the lower Colorado division of the Sonoran Desert. Dominant [plants](#) of the Mojave include Creosote Bush (*Larrea tridentata*), Many-fruit Saltbush (*Atriplex polycarpa*), Brittlebush (*Encelia farinosa*), Desert Holly (*Atriplex hymenelytra*), White Burrobush (*Hymenoclea salsola*), and Joshua Tree (*Yucca brevifolia*), the most notable [endemic species](#) in the [region](#).

The Mojave's warm temperate climate defines it as a distinct [ecoregion](#). Mojave indicator species include Spiny Menodora (*Menodora spinescens*), Desert Senna (*Cassia armata*), Mojave Indigobush (*Psoralea arborescens*), and Shockley's Goldenhead (*Acamptopappus shockleyi*). The Mojave supports numerous species of [cacti](#), including several endemics, such as Silver Cholla (*Opuntia echinocarpa*), Mojave Prickly Pear (*O. erinacea*), Beavertail Cactus (*O. basilaris*), and Cotton-top Cactus (*Echinocactus polycephalus*).

While the Mojave Desert is not so biologically distinct as the other desert [ecoregions](#), distinctive

endemic communities occur throughout. For example, the Kelso Dunes in the Mojave National Preserve harbor seven species of endemic insects, including the Kelso Dunes Jerusalem Cricket (*Ammopelmatus kelsoensis*) and the Kelso Dunes Shieldback Katydid (*Eremopedes kelsoensis*). The Mojave Fringe-toed Lizard (*Uma Scoparia*), while not endemic to the dunes, is rare elsewhere. Flowering plants also attract butterflies such as the Mojave Sooty-wing (*Pholisora libya*), and the widely distributed Painted Lady (*Vanessa cardui*).

There are a total of eight amphibian species present in the Mojave Desert all of which are anuran species: the [endemic](#) Relict Leopard Frog (*Lithobates onca*); the endemic Amargosa Toad (*Anaxyrus nelsoni*); Lowland Leopard Frog (*Lithobates yavapaiensis*); Red-spotted Toad (*Anaxyrus punctatus*); Southwestern Toad (*Anaxyrus microscaphus*); Great Basin Spadefoot (*Spea intermontana*); Great Plains Toad (*Anaxyrus cognatus*); and the Pacific Treefrog (*Pseudacris regilla*).

The native range of [California's](#) threatened Desert Tortoise (*Gopherus agassizii*) includes the Mojave and Colorado Deserts. The Desert Tortoise has adapted for arid habitats by storing up to a liter of water in its urinary bladder. The following reptilian fauna are characteristic of the Mojave region in particular: Gila Monster (*Heloderma suspectum* NT); Western Banded Gecko (*Coleonyx variegatus*), Northern Desert Iguana (*Dipsosaurus dorsalis*), Western Chuckwalla (*Sauromalus obesus*), and regal horned lizard (*Phrynosoma solare*). Snake species include the Desert Rosy Boa (*Charina trivirgata gracia*), Mojave Patchnose Snake (*Salvadora hexalepis mojavensis*), and Mojave Rattlesnake (*Crotalus scutulatus*).

Endemic mammals of the ecoregion include the Mojave Ground Squirrel (*Spermophilus mohavensis*) and Amargosa Vole (*Microtus californicus scirpensis*); and the California Leaf-nosed Bat (*Macrotus californicus*).

Fire management implications

More info for the terms: [cover](#), [density](#), [shrubs](#)

Fires are infrequent in the Sonoran Desert owing to limited biomass, wide spacing between shrubs and sparse ground cover. Successional studies in creosotebush scrub reveal postdisturbance recolonization by long-lived species is very slow and may require hundreds of years. Fires may have long-term impacts on the structure and composition of this community. Brittle bush is a good colonizer after fire. Fires in creosotebush scrub have resulted in an increase in brittle bush frequency and density. Recent fires have converted creosotebush scrub at Palm Springs to brittle bush coastal sage scrub similar in composition to the stands covering semiarid interior valleys around Riverside, California.

Phenology ²

[More info on this topic.](#)

More info for the terms: [density](#), [resistance](#)

Brittle bush leaves and flowers are formed whenever the water relations are favorable [8]. This can occur any time from November through May [35]. Under extreme drought conditions brittle bush becomes dormant and the leaves are shed [21,50]. Brittle bush also shows seasonal variation

in leaf density and thickness. During times of available water, leaves expand more, are less pubescent, are less capable of reducing water loss, and have lower resistance to carbon dioxide flux. These characteristics are reversed as soil water decreases and the more mesophytic leaves abscise [50].

National nature serve conservation status ¹

United States

Rounded National Status Rank: [NNR](#) - Unranked

Management considerations ²

More info for the term: [density](#)

Brittle bush infestation reduces forage production because brittle bush competes strongly with buffelgrass (*Cenchrus ciliaris*). Several studies were conducted to determine the effectiveness of mechanical and chemical brittle bush control. Mowing killed few plants but temporarily reduced growth. Hand removal resulted in 100 percent mortality, but brittle bush seedlings rapidly reinvaded and densities were equal to pretreatment levels after 3 months. Soil-applied pelleted tebuthiuron and picloram control brittle bush. High intensity livestock grazing reduced brittle bush growth, but caused no significant change in brittle bush density after 3 years [53].

Nutritional value ²

Nutritional values of brittle bush collected bimonthly in the Picacho Mountains of Arizona in 1983 are as follows [19]:

	Dry Matter %	Fiber % Protein %	ADF	NDF	Lignin %
Jan-Feb	36.86	11.04	22.31	30.36	5.48
Mar-Apr	38.23	9.28	20.67	28.86	5.87
May-June	49.56	8.49	28.74	38.98	8.08
July-Aug	72.02	3.28	48.72	63.88	13.64
Sept-Oct	38.28	8.60	28.28	34.84	7.60
Nov-Dec	31.84	12.70	26.11	31.27	8.74

ADF-acid detergent fiber

NDF-nonacid detergent fiber

Nutritional value of brittle bush has also been analyzed by Seegmiller and others [48] and Rautenstrauch and others [33].

Comments ^{3,4}

Plants of *Encelia farinosa* with brown-purple disc corollas, found along the Colorado and Salt rivers, and

common in Baja California, are var. *phenicodonta*. Plants with substrigose leaves, capitulescences branched toward bases rather than distally, and ray florets reduced in both size and number are most often hybrids and backcrosses between *E. farinosa* and *E. frutescens*. P. A. Munz (1959) indicated that I. L. Wiggins had reported var. *radians* Brandegees ex S. F. Blake as occurring in southeastern California; that variety is known only from Baja California.

Common names ²

brittle bush

inceinso

white brittle bush

References

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5. C. Michael Hogan & World Wildlife Fund. 2013. "Mojave Desert". [Encyclopedia of Earth, National Council for Science and the Environment, Washington DC](#) ed. Mark McGinley.
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