

Chollas



Chollas and their kin, the **club chollas**, are members of the tribe **Cylindropuntieae** in the subfamily **Opuntioideae**. Such cacti are recognized by several distinctive characteristics: usually **arborescent** growth, branching **cylindrical** stems, and spines enclosed in leathery epidermal **sheaths** that slough off as the plants age. The areoles, manifested as **tubercles**, produce various numbers of spines/**glochids** (bristles), depending on species. The large, perfect (bisexual), perianthic flowers have brightly colored tepals, giving rise to dry or fleshy fruit. Individual species are distinguished by tubercle size and shape, color of flower tepals and filaments, and type of fruit produced. Native to the deserts of the southwestern US and northern Mexico, chollas are common throughout the Mojave Desert, with at least 14 species and numerous hybrids represented.

Subfamily OPUNTIOIDEAE (Chollas)

Buckhorn Cholla (*Cylindropuntia acanthocarpa*)



typical habitat

Hualapai Plateau; AZ



October

Valley of Fire State Park; Clark County; NV



showy flowers

Dolan Springs, AZ



aging fruit

Dolan Springs, AZ



elongated tubercles

radial spines

Red Rock Cyn NCA; NV

- Flowers:** perianthic; bowl-like; apical; red stamen filaments, yellow anthers; yellow to red orange; 2"
- Stems:** slender cylindrical; open branching; elongated tubercles (1.5 x .4"); green; to 12"
- Leaves:** spines; needle-like, straight; radial clusters; straw yellow to reddish; to 1.5"
- Blooms:** April to June
- Range:** eastern Mojave Desert; northern Sonoran Desert
- Habitat:** sandy to gravelly; desert flats, washes, slopes, etc.; Lower to Upper Sonoran Life Zones



spine sheath

Notes:

very common; perennial; grows as a tree-like shrub to 10' (usually less) in the eastern portion of the Mojave Desert from sw UT south into the Sonoran Desert at elevations up to 5,000'; bristly glochids and 12-30 sheathed spines of different lengths (central spine longest; 1.5") per tubercle; spiny, green (turning brown), dry fruit; propagates mainly by vegetative reproduction; aka **Staghorn Cholla**, **Colorado Buckhorn Cholla**; 6 subspecies; flower buds roasted by native peoples (good source of Ca and Fe)

Mojave presence: native

Comments:

This cholla is one of the most common in the eastern Mojave, and is easily recognized by its open branching; the outermost stems are reminiscent of deer antlers (left), thus the name "buckhorn" cholla. In bloom, the flowers are distinctive for their stamens (red filaments and yellow anthers), similar to

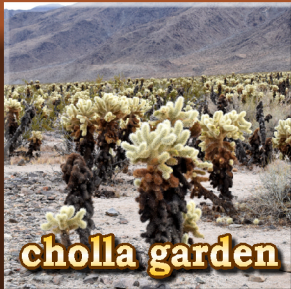
Op2

no other cholla in its range (except hybrids).



Subfamily **OPUNTIOIDAE** (Chollas)

Teddy Bear Cholla (*Cylindropuntia bigelovii*)



Joshua Tree NP; CA



Eldorado Cyn; Nelson, NV



Eldorado Canyon; Nelson, NV



Eldorado Cyn; Nelson, NV

- Flowers:** perianthic; bowl-like; solitary; greenish yellow (tinged with red); 1.5"
Stems: cylindrical; densely branched, somewhat whorled; prominent, oval tubercles (.3"); blue green; 7"
Leaves: spines; straight, reversely barbed; densely clustered, of equal length; straw yellow; 1"
Blooms: March to June (sometimes again in the fall)
Range: southwestern US (se CA, s NV, w AZ); Baja California and nw Mexico
Habitat: sandy to rocky; desert flats, washes, slopes, etc.; Lower Sonoran Life Zone

Notes:

uncommon; perennial; shrubby to arborescent (tree-like) with woody trunk, growing to 5' or more in the Mojave and Sonoran deserts of the sw US and nw MEX at elevations up to 3,000'; 8-15 interlaced, sheathed spines per tubercle; yellowish, egg-shaped, spiny, fleshy to leathery, tuberculated, 1.5" fruit bearing usually sterile seeds (species propagates mainly by vegetative reproduction); aka **Jumping Cholla**, **Bigelow Cholla**, etc.; often used as a decorative plant for desert landscaping; fruit, buds, and stems traditionally eaten by native peoples

Mojave presence: native

Comments:

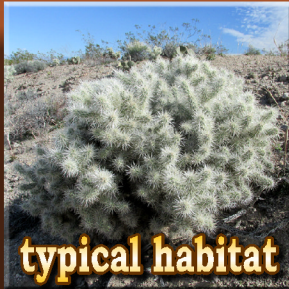
Although uncommon in a general sense, particularly when compared to the prominence of other cholla species, teddy bears can be quite common locally, especially in **Joshua Tree National Park**, such as those shown here populating the Cholla Garden area in November of 2020. Otherwise, the only other stands I have encountered in the Mojave are those I found flourishing in Eldorado Canyon near Nelson,

Op3

Nevada, in March of 2018.

Subfamily **OPUNTIOIDEAE** (Chollas)

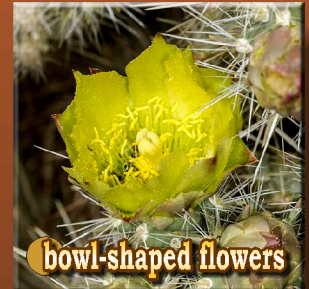
Silver Cholla (*Cylindropuntia echinocarpa*)



typical habitat
Meadview; AZ



April
Christmas Tree Pass; Clark County; NV



bowl-shaped flowers



interlaced spines

Mojave Nat'l Preserve; NV



spine-covered stems

Christmas Tree Pass; NV

- Flowers:** perianthic; bowl-shaped; solitary; whitish style and stigma, green filaments; green yellow; 2.5"
Stems: cylindrical; densely branched from base; prominent, oval tubercles (.6 x .4") *; gray green; 4"
Leaves: spines; needle-like, straight, interlaced, densely clustered, of unequal length; gray to white; 2"
Blooms: March to June
Range: southwestern US; northwestern Mexico
Habitat: arid, sandy to gravelly; desert flats, slopes, to Joshua woodlands; Lower to Upper Sonoran LZs

Notes:

very common; perennial; grows as a shrub or tree-like plant to 6' in the Mojave and Sonoran deserts at elevations below 6,000'; dry, round, tannish-gray, very spiny, bur-like, 1" fruit; 6-22 interlaced, sheathed spines per tubercle; aka **Golden Cholla**, **Wiggins' Cholla**

Mojave presence: native

Comments:

This species is one of the most common in the Mojave. However, its appearance can be quite variable throughout its range--from short shrub to a highly branched tree--and can vary in apparent luster from silvery (due to the dense clusters of white spines that almost completely cover the stems) to more golden before the tawny spine sheaths fall off (accounting for two of its common names). Very similar to the **Buckhorn Cholla** *C. acanthocarpa*, the silver cholla can be distinguished by the width of its tubercles*, which is slightly less than double the length.

Subfamily **OPUNTIOIDEAE** (Chollas)

Blue Diamond Cholla (*Cylindropuntia multigeniculata*)



typical habitat

Desert NWR; NV



densely spined

Red Rock Cyn NCA; NV

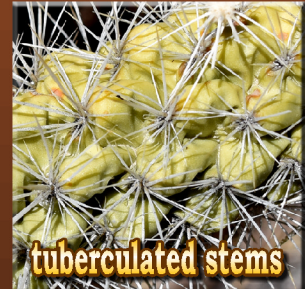


December

Oak Creek; Red Rock Canyon NCA; NV



small flowers



tuberculated stems

Desert NWR; NV

- Flowers:** perianthic; cup-like; solitary; yellow style, stigma, filaments; greenish yellow to orange; 1"
- Stems:** cylindrical; dense, lateral branching; usually 1 trunk; small, oval tubercles (.2 x .1"); green; 1-2"
- Leaves:** spines; needle-like; straight, spreading, densely interlaced, of equal length; white; 1"
- Blooms:** April to June
- Range:** northeastern Mojave Desert (Clark Co., NV; Mohave Co., AZ)
- Habitat:** dry; gravelly to rocky; desert scrub to Joshua woodlands; Lower to Upper Sonoran Life Zones

Notes:

rare (common locally); perennial; grows in mats or as a compact shrub to 3' mainly in southern NV in a very limited corridor of habitat west of Las Vegas (also in the nearby Las Vegas Range, the Gold Butte region, and reportedly in nw AZ) at elevations of about 3,000 to 6,000'; listed as **Critically Endangered** due to limited range and potential for habitat loss; yellow, round, leathery spineless, tuberculated fruit with few seeds; 10-14 interlaced (obscuring the stem), sheathed spines per laterally flattened **tubercle**; 2 subspecies (one with spiny fruit; found in the Gold Butte area)

Mojave presence: endemic; rare

Comments:

I have only encountered this rare cactus in the region encompassing the **Red Rock Canyon National Conservation Area** (especially its type locality, Blue Diamond Hill) and one specimen shown above along the Mormon Road in the **Desert National Wildlife Refuge** northwest of Las Vegas. I have yet to recognize it in Mohave Co., AZ, where it has supposedly been recorded.

Subfamily **OPUNTIOIDEAE** (Chollas)

Chuckwalla Cholla (*Cylindropuntia chuckwallensis*)



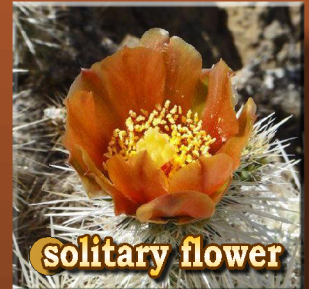
typical habitat

Joshua Tree NP; CA



November

Joshua Tree National Park; CA



solitary flower



densely spined

Joshua Tree NP; CA



whorled stems

Joshua Tree NP; CA

- Flowers:** perianthic; bowl-shaped; solitary; pinkish style, stigma, filaments; **yellow, orange, purplish**; 2"
- Stems:** cylindrical; densely branched, whorled; several trunks; long, **oval** tubercles (.33 x .6"); **green**; 4"
- Leaves:** spines; needle-like, thin; interlaced, straight, of **equal** length; white to **straw yellow**; 1.5"
- Blooms:** March to April
- Range:** endemic to deserts of southeastern California
- Habitat:** dry; gravelly to rocky; desert scrub, slopes, etc.; Lower to Upper Sonoran Life Zones

Notes:

uncommon; perennial; grows as a decumbent to erect shrub to 4' tall, 7' wide, in s CA northeast of the Salton Sea in southcentral Riverside County south into north-central Imperial County at elevations of about 1,200 to 5,000'; named after its center of distribution, the Chuckwalla Mtns; **gynodioecious** (produces either bisexual or pistillate flowers); tannish, dry, spiny, bur-like, obovate, 1" fruit; 10-21 interlaced (obscuring the stem), sheathed spines per **tubercle**

Mojave presence: native

Comments:

This rather uncommon cactus was misidentified for decades as **Silver Cholla** *Cylindropuntia echinocarpa*. It was finally recognized as a distinct species in 2014. The two species are almost identical in most characteristics, but best distinguished in bloom by flower color (greenish yellow in the silver; yellow orange to reddish purple in the chuckwalla); and out of bloom by the chuckwalla's rather whorled branching. I encountered the specimen shown here in the **Joshua Tree National Park** in November, 2020.

Subfamily **OPUNTIOIDEAE** (Club Chollas)

Whipple Cholla (*Cylindropuntia whipplei*)



erect growth

Visitor Center; RRCNCA; NV



August

Desert Pass; Desert National Wildlife Refuge; NV



apical flowers

Visitor Center; RRCNCA; NV



spiny fruit

Desert NWR, NV



bicolored spines

Visitor Center; RRCNCA; NV

- Flowers:** perianthic; bowl-shaped; solitary; greenish stigmas, yellowish filaments; yellowish green; 1.5"
Stems: cylindrical; ascendantly whorled around central stem; prominent, short tubercles (.3"); green; 6"
Leaves: spines; flattened at base; interlaced; bicolored, white to pale red-brown; 2"
Blooms: May to June
Range: southwestern US from se NV east to Four Corners region
Habitat: gravelly; slopes, washes, ridges, etc.; Joshua to pinyon-juniper woodlands; Upper Sonoran LZ

Notes:

uncommon; perennial; grows as prostrate mats or erect shrubs to 4' in the sw US from the Desert NWR in se NV east through s UT and n AZ at elevations of 5,000 to 7,500'; fleshy, greenish yellow, spiny to spineless, cylindrical, 1.5" tuberculated fruit; 3-8 spines (usually 4 long central spines surrounded by shorter, deflexed, radial spines) per tubercle; aka **Clokey Cholla**, **Plateau Cholla**

Mojave presence: native; rare (extreme ne)

Comments:

In the Mojave region, the whipple is found in the Sheep and Las Vegas ranges in the **Desert National Wildlife Refuge** adjacent to the Nevada Test Site about 25 miles northwest of Las Vegas, NV. The specimen shown here near the Desert Pass Campground in the LV Range in August, 2020, is the only one I have encountered in its natural habitat. The specimen at the **Red Rock Canyon NCA** visitor center was most likely transplanted.

Subfamily **OPUNTIOIDEAE** (Chollas)

Pencil Cholla (*Cylindropuntia ramosissima*)



typical habitat

Hualapai Plateau; AZ



perpendicular spines

Joshua Tree NP; CA

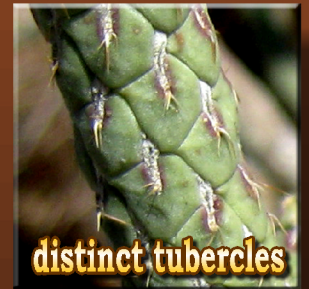


April

Christmas Tree Pass; Clark County; NV



colorful tepals



distinct tubercles

Calico Basin; RRCNCA; NV

- Flowers:** perianthic; radial symmetry; solitary; pink, orangish, brownish, etc.; .5"
Stems: thin cylindrical; branched; diamond-shaped tubercles (.3"); green (drying to gray); 4"
Leaves: spines; needle-like; perpendicular to stem; bicolor (grayish with straw-yellow tips; 2.5"
Blooms: April to August (not necessarily every year)
Range: southwestern US; Baja and northwestern Mexico
Habitat: sandy to rocky; desert flats, washes, Joshua woodlands; Lower to Upper Sonoran Life Zones

Notes:

common; perennial; sprawling to arborescent, grows to 6' in the Mojave and Sonoran deserts of sw US and nw MEX at elevations up to 4,000'; 0-5 (usually 0-1) spines per tubercle; small (to 1"), dry, spiny, reddish-brown, bur-like fruit; aka **Branched Pencil Cholla**, **Diamond Cholla**, **Holy Cross Cholla**, etc.; host to numerous butterflies and moths

Mojave presence: native (mainly eastern region)

Comments:

This species is common in the Mojave, and is easily distinguished from other chollas in its range by its pencil-like stems, sparse density of spines that grow perpendicular to the stems, diamond-shaped stem tubercles, and unassuming flowers that are much smaller and less showy compared to most cactuses. It is also the only pencil cholla in the Mojave, which makes identification

even easier!



dried flowers