

# Cactids



Barrel, beehive, and fishhook cactuses are just a few of the members of the tribe **Cacteae** in the subfamily **Cactoideae**. Such cacti are recognized by several distinctive characteristics: spherical to short columnar growth, ribbed to warty unsegmented stems, and non-sheathed spines of various shapes. The **areoles** produce various numbers and shapes of spines, but no **glochids** (bristles), such as produced by opuntias. The perfect (bisexual), perianthic, usually **diurnal** flowers present variously colored tepals, giving rise to fleshy fruit. Native to the deserts of the Western Hemisphere, cactids are common throughout the Mojave Desert, with at least a dozen or so species represented.



# Subfamily **CACTOIDEAE** (Barrels)

## Desert Barrel Cactus (*Ferocactus cylindraceus*)



**typical habitat**

Potosi Mtn; Spring Mtns; NV



**poking some fun?**

Mohawk Hill; Clark Mtn; CA



**June**

Visitor Center; Red Rock Canyon NRA; NV



**showy flowers**

Goodsprings; NV



**colorful spines**

Red Rock Cyn NCA; NV

- Flowers:** perianthic; bowl-shaped; broad apical ring; stigmas, stamens yellow; **color** (red midline); 3"
- Stems:** cylindrical barrel; solitary; unbranched; stout, erect, fluted (ribbed); gray green; to 72"
- Leaves:** spines; smooth; radial (bristly), central (flat; transverse ridges); white to **red**; to 6"
- Blooms:** May to September
- Range:** southwestern US; northwestern Mexico
- Habitat:** well-drained, rocky; desert scrub to pinyon-juniper woodlands; Lower to Upper Sonoran LZs

### Notes:

common; perennial; grows to 6' in the Sonoran and Mojave deserts from s NV/sw UT south to Baja and nw MEX at elevations up to about 5,000'; scaly, round, yellow, fleshy (young) to tan, leathery (mature), 2" fruit; 12-30 spines (4 central) per **areole**; nectar glands present on areoles; aka **California Barrel Cactus**, **Cliff Barrel Cactus**, **Spiny Barrel Cactus**, etc.; 2 subspecies; moist flesh foraged by wildlife; buds, flowers, fruit eaten after boiling by native peoples

Mojave presence: native

### Comments:

The pair at left in the **Red Rock Canyon NCA** looks like typical youngsters--carefree and unkempt! Whereas the mature elder at right near the Kingston Range in CA in June, 2016, is much more stately--as well it should be after a couple hundred years of weathering! Love the upper lower left shot--reminds me of some playful pranksters having fun at the expense of a couple of

**Ca2**

young "ish" lovers!





# Subfamily **CACTOIDEAE** (Cottontops)

## Cottontop Cactus (*Echinocactus polycephalus polycephalus*)



Death Valley NP; CA



**April**

Boss Mine; Goodsprings District; NV



**showy flowers**



**interlaced spines**

Death Valley NP; CA



**cottony fruits**

Boss Mine; Goodsprings; NV

- Flowers:** perianthic; bowl-shaped; apical; yellow stigmas, filaments; woolly bases; fragrant; **yellow**; 2"
- Stems:** cylindrical barrel; one to many (branched from base); longitudinal flutes (ribs); gray green; 18"
- Leaves:** spines; flattened; interlaced; stout, straight or curved; canescent; **straw yellow to pink**; 3"
- Blooms:** June to August
- Range:** southwestern US; northern Mexico
- Habitat:** arid, rocky; desert scrub, slopes, etc. to Joshua woodlands; Lower to Upper Sonoran Life Zones

### Notes:

common; perennial; aggregates grow to 3' tall and wide in the Mojave Desert, the Colorado Desert in CA, south into Sonora, MEX, at elevations of 1,000 to 5,000'; oblong, densely woolly, dry, 2.5" fruit bearing black, .125" seeds; 6-14 spines (4 central) per **areole**; no nectar glands on areoles; aka **Many-Headed Barrel Cactus**, **Clustered Barrel Cactus**, **Woolly Cactus**, etc.; main subspecies of *E. polycephalus*; attracts various pollinators; wool used by birds, rodents for nesting material; native peoples ground seeds into meal, used spines as fishhooks, needles, awls, etc.

Mojave presence: native

### Comments:

Of the two subspecies of the cottontop cactus, *E. p. polycephalus* is the more common and widespread. It is best distinguished from its cousin (next page) by its larger growth and densely woolly fruit.



# Subfamily **CACTOIDEAE** (Cottontops)

## Grand Canyon Cottontop (*Echinocactus polycephalus xeranthemoides*)



**rocky habitat**

West Rim; Grand Cyn; AZ



**interlaced spines**

West Rim; Grand Cyn; AZ



**December**

West Rim; Hualapai Plateau; Grand Canyon; AZ



**solitary flowers**



**spikey fruit tips**

West Rim; Grand Cyn; AZ

- Flowers:** perianthic; bowl-shaped; apical; yellow stigmas, filaments; woolly bases; fragrant; **yellow**; 2"
- Stems:** cylindrical barrel; one to many (branched from base); longitudinal flutes (ribs); gray green; 15"
- Leaves:** spines; flattened; interlaced; stout, straight or curved; canescent; **straw yellow to pink**; 3"
- Blooms:** June to August
- Range:** southwestern US
- Habitat:** arid, rocky; desert scrub, slopes, plateaus; Lower to Upper Sonoran Life Zones

### Notes:

uncommon; perennial; aggregates grow to about 2' in the Grand Canyon region and Mohave Co., AZ, into the Gold Butte area of southern Nevada in the Mojave Desert at elevations of 1,500 to 5,500'; oblong, dry, fruit with yellowish spikes and **scales** protruding from tip; 6-14 spines (4 central) per **areole**; **no** nectar glands on areoles; attracts a variety of pollinators

**Mojave presence:** native

### Comments:

Of the two subspecies of the Grand Canyon Cottontop, *E. p. xeranthemoides* is the less common. The specimens shown here were photographed in March, 2016, and October, 2018, at the West Rim of the Grand Canyon on the Hualapai Reservation. It is best distinguished from its cousin by its **smaller growth** and the yellowish **spikes/scales** protruding from the less woolly fruit.



# Subfamily **CACTOIDEAE** (Beehives)

## Beehive Cactus (*Coryphantha vivipara*)



**rocky habitat**

Hualapai Plateau; AZ



**bicolored spines**

Hualapai Plateau; AZ



**May**

Hualapai Plateau; Mohave County; AZ



**floral "tophat"**

Hualapai Plateau; AZ



**fleshy fruit**

- Flowers:** perianthic, funnellform; usually solitary; pinkish filaments, yellow anthers; pink; to lt purple; 2"
- Stems:** globed to short cylindrical; erect to squat; solitary to many; unbranched; tuberculated; green; 8"
- Leaves:** spines; smooth; stellate, interlaced; straight to curved, bicolored; tannish with brown tips; 1"
- Blooms:** April to June
- Range:** western interior North America
- Habitat:** sandy to gravelly; desert, prairie to montane woodlands; Upper Sonoran to Transition Life Zones

### Notes:

uncommon; perennial; grows to about 8" tall, 4" wide, in a variety of habitats from n MEX north to sc CAN, Great Plains west to the Basin and Range at elevations of 3,500 to 8,000; fleshy, oval, green to brownish red, 1" fruit (seeds germinate in fruit, thus viviparous, giving rise to the specific name vivipara); synonymous genus *Escobaria*; areoles monomorphic on elongate, grooved, 1" tubercles, bearing ~20-30 spines each (3-12 central); aka **Desert Beehive**, **Rose Beehive**, etc.; potentially many subspecies (still debated); tolerant of a wide range of temperatures; host to bees

Mojave presence: native

### Comments:

Though widespread throughout their range, these beehives are rather uncommon and easily overlooked. As such, it is even more uncommon to find one in bloom. In fact, the only I have ever encountered in full flower is the one shown here presenting itself on the Hualapai Plateau near the West Rim of the Grand Canyon in May of 2020.



# Subfamily **CACTOIDEAE** (Beehives)

## Desert Spiny star (*Coryphantha chlorantha*)



**rocky habitat**

Red Rock Cyn NCA; NV



Red Rock Canyon National Conservation Area; NV



**floral "tophat"**

Red Rock Cyn NCA; NV



**white spines**

Red Rock Cyn NCA; NV



**half-eaten meal**

Red Rock Cyn NCA; NV

- Flowers:** perianthic, funnellform; apical clusters; fringed outer tepals, pale filaments; **orange**; 1.5"
- Stems:** spherical to short cylindrical; usually singular; erect, unbranched; tuberculated; **green**; 6"
- Leaves:** spines; smooth; stellate; straight, in dense aggregates; white with brown tips; .8"
- Blooms:** April to June
- Range:** southwestern US (Mojave Desert)
- Habitat:** rocky; ledges, cliffs on carbonate rocks in Joshua/pinyon-juniper woodlands; Upper Sonoran LZ

### Notes:

uncommon; perennial; grows to about .5' tall in the Mojave Desert (mainly eastern) at elevations of 1,500 to 5,500'; fleshy, oval, green to brownish red, 1" fruit, bearing small brown seeds; dense groups of 18-40 spines (16-30 radial; 2-18 central) per **monomorphic areole** on each knobby **tubercle**; spine clusters pressed close against stem (serves to reflect heat, thus tolerant of excessive heat); aka **Desert Pincushion**, **Yellow-Flowered Pincushion**, etc.; considered by some authorities to be a subspecies of *C. viviparia* (taxonomy under debate); host to insect pollinators, mainly bees

Mojave presence: endemic

### Comments:

Not only is this pincushion uncommon, it's diminutive size contributes to the cactus being easily overlooked and unrecognized when not in bloom. The dense cover of closely packed pale spines, and peachy orange flowers are diagnostic traits to look for. I was fortunate to find the specimens shown here in bloom at the **Red Rock Canyon NCA** in the spring months of 2017 to 2019, and partly eaten in January of 2019 (lower right).

**Ca6**



# Subfamily **CACTOIDEAE** (Fishhooks)

## Common Fishhook (*Mamillaria tetracistra*)



**rocky habitat**

Lake Mead NRA; NV



Hoover Dam Lodge; Lake Mead NRA; NV



**funnelform flower**

Lake Mead NRA; NV



**bicolored spines**

Lake Mead NRA; NV



**"nipple" fruit**

Lake Mead NRA; NV

- Flowers:** perianthic; funnellform; fringed tepals, green stigmas; shades of pink (white margins); 1.5"
- Stems:** spherical to cylindrical; usually singular; erect, unbranched; tuberculated; green; 10"
- Leaves:** spines; smooth, thin; stellate; longest spine hooked on end; white (radial), brown (central); 1.5"
- Blooms:** April to August
- Range:** southwestern US; Baja California and Sonora, Mexico
- Habitat:** sandy to rocky; desert scrub to Joshua woodlands; Lower to Upper Sonoran Life Zones

### Notes:

uncommon; perennial; grows to 10" tall, 3" wide (usually much smaller), in the Mojave Desert south to nw MEX at elevations of 450 to 5,400'; elongated, fleshy, red, nipple-like, 1.5" fruit bearing black acorn-like seeds with unique, corky appendage; 30-65 spines (mostly radial; 1-4 central) in several ranks per areole on long, dimorphic (producing flowers or spines) tubercles; aka Nipple Cactus, Desert Fishhook Cactus, Corkseed Cactus, etc.; fruits edible

Mojave presence: native

### Comments:

Though widespread in its range, this small cactus is still somewhat uncommon to encounter--especially in bloom! Its inconspicuous size also contributes to it being easily overlooked. However, it is much more readily recognized when its distinctive, red, nipple-like fruit is present. Additionally, look for the hooked central spines that define the genus. I spotted the individual shown here near the Hoover Dam Lodge in the Lake Mead National Recreation Area in May of 2019.