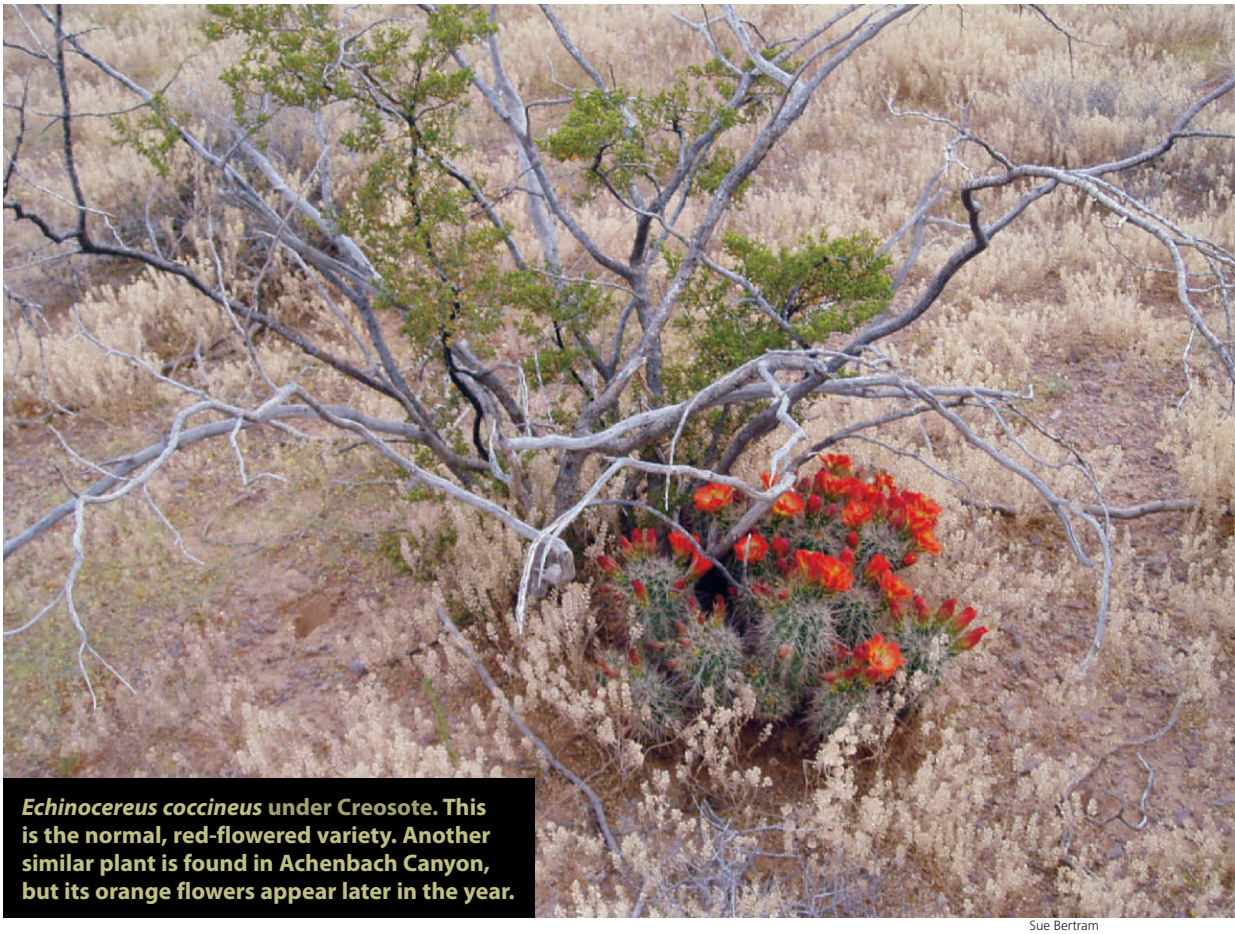
ROOT GORELICK

Hiking New Mexico's Achenbach Canyon

Achenbach Canyon is an easily accessible, but seldom hiked trail near Las Cruces, New Mexico that has, over the past decade, become one of my favorite destinations. This is both a short drive, just east of the city in the Organ Mountains, and a short hike, which even after two dozen visits still delights with its plants and scenery. Depending on how much time you spend examining the plants and whether you explore any of the trails at the end of Upper Achenbach Canyon, the hike lasts about 2–4 hours. The trail begins at an elevation of roughly 1500 m elevation, and on May 2, 2005, we ended our hike in the relatively flat area of Upper Achenbach Canyon at roughly 1700 meters, although you could continue up for another 500 m, climbing the ridge that separates Achenbach Canyon from Soledad Pass.

Even on the drive to the trailhead (see "Getting There," p 136), you will start seeing cacti. All along Soledad Canyon Road there are



***Echinocereus coccineus* under Creosote. This is the normal, red-flowered variety. Another similar plant is found in Achenbach Canyon, but its orange flowers appear later in the year.**

Sue Bertram

◄ **Top Many younger plants of *Echinocereus viridiflorus* ssp *cylindricus* at this locale are entirely white-spined; red spines emerge a few years after reaching flowering age.**

Middle A branched *Echinocereus viridiflorus* ssp *cylindricus* nestled in a prickly pear. The red-and-white banding of the spines and the brown flowers are characteristic of this subspecies.

Bottom An orange-flowered, twenty-four-headed clump of an *Echinocereus* species in Upper Achenbach Canyon. Although it grows at a higher altitude, this population flowers a few weeks earlier than the crimson-flowered specimens of *E. coccineus* that grow in the alluvial fans at the western base of the Organ Mountains.

lots of *Echinocereus coccineus* and *Coryphantha macromeris*, and at the turn-off from Soledad Canyon Road onto Ladero Canyon Road, immediately to the north, is a hill with petroglyphs and some small clumps of *Echinocereus stramineus*. Along Soledad Canyon Road and at the Achenbach Canyon trailhead, there are several *Echinocereus fendleri*, although these plants are often difficult to find. With their dark purple flowers, however, they cannot be mistaken for any of the other *Echinocereus* species that occur in the area (except maybe for the much larger *E. stramineus*).

You can begin hiking at the unlabeled Achenbach Canyon trailhead, though the trail is not easily discernible, because it dips below the horizon here, unseen. I have only once seen another person hiking along Achenbach Canyon trail, but nowadays there seems to be reasonable cellular phone reception along parts of the hike.

Throughout Achenbach Canyon there are many specimens of *Echinocereus viridiflorus* ssp *cylindricus*, which show the extreme variability in spine color of this taxon. Other species of *Echinocereus* are largely missing from Achenbach Canyon, except for a plant found in the upper portions of the canyon that could be labeled *E. triglochidiatus*. The stems of this plant resemble many forms of *E. coccineus*, but the plants here flower much earlier than do nearby *E. coccineus* plants that grow in alluvial deposits at substantially lower elevations. I also recall the plants here having orange flowers, and hence this population represents either an orange-flowered form of *E. coccineus* or, more likely, the hybrid with *E. dasyacanthus* known as *E.* ×*roetteri*.

The trail descends from the parking area to a small knoll with a beautiful view of Soledad Pass. There are many healthy plants of species common throughout this region: *Echinocereus viridiflorus* ssp *cylindricus*, *Cylindropuntia imbricata* (Cane Cholla), *Fouquieria splendens* (Ocotillo), *Dasylirion wheeleri* (Sotol), *Yucca baccata* (Banana Yucca) and an *Opuntia* species.

After a short walk by an old dam built to hold water for cattle there is short climb up loose scree.

▲ Throughout the southern Organ Mountains, ***Dasylirion wheeleri*** (Sotol) is ubiquitous. As you climb to higher elevations, *Juniperus monosperma* (One-seeded Juniper, dead in this photo) begins to appear.

◀ *Echinocereus fendleri* at the Achenbach Canyon trailhead. This plant is literally growing in the parking area, but it is virtually unnoticeable except when in flower.

▼ This cristate barrel cactus, growing with *Yucca baccata*, is about 70 cm in diameter and has three linear meristems. Although cristate specimens of *F. wislizeni* are rare, I have seen a couple of others in the southern Organ Mountains. Their ripe fruits make a good snack during winter.

Usually the area behind the dam is empty, though occasionally, after heavy rains, it gathers some water, after which the area becomes carpeted in the pretty, purple-flowered *Verbena bipinnatifida*. The top of this dam also marks the beginning of less disturbed portions of the canyon where the most impressive cacti grow.

Just above the dam there are many plants of *Ferocactus wislizeni*, the largest barrel cactus native to the United States. Young plants reach fully 30 cm across before they grow even a few centimeters tall, and they can be quite well hidden by the herbaceous vegetation that overtops them. Once—and only once—I stepped

◀ ***Echinomastus intertextus.*** **This diminutive cactus can be found growing in fairly large populations throughout Doña Ana County, NM, both in mountainous settings and alluvial fans. It is the first cactus to flower each year in southern New Mexico, often at the end of February.**

▲ **A ubiquitous cactus found in rock cracks throughout the area, *Mammillaria meiacantha* seldom extends more than a few millimeters above the surface. It has pale flowers with a very light, rose-colored mid-stripe and showy red fruits.**

right onto one, and instantly I knew what I had done as the spines went right through my sandals and into my foot without any noticeable damage to the plant. Older specimens of *F. wislizeni* are 1.5 m tall and bear orange flowers rather late in the year (August through October). Their yellow fruits ripen several months later and make for a fun snack during winter hikes. Just above the dam was once a pair of crested specimens, but I watched one of them slowly die a few years ago. The other remains healthy and now possesses a few linear meristems.

Here the trail begins a steep ascent for about 100 meters. One-seeded Junipers (*Juniperus monosperma*) begin appearing on this climb, and the Sotols become much more numerous and healthy. There are usually lots of nice wildflowers here, such as the yellow Evening Primrose (*Oenothera primiveris*) and Paintbrush (*Castilleja* sp), to make this slightly arduous part of the excursion more tolerable. Oddly, along Achenbach Canyon the only members of the Agave family are *Dasylirion wheeleri* and *Yucca baccata*. *Yucca elata*, *Agave lechuguilla* and other *Agave* species are conspicuously absent.

At the top of the ascent is a saddle between the hills. Saddles are usually the best spots to search for small cacti, and this one is no exception. In the mid 1990s there was a large population of *Echinomastus intertextus* here, some of which were enormous, branched specimens (well, enormous for this species, at 10 cm tall and up to 8 cm across). I slowly watched this population die back over the past decade, apparently from natural causes, and now only a few smaller seedlings remain. These are unbranched, seemingly healthy, spherical, sexually mature plants that are two to four centimeters in diameter. The population dynamics of this species would make for an interesting study.

Views from the saddle are spectacular. Looking south, you can see the remaining western flank of the Organ Mountains including the southwesternmost peaks of Peña Blanca, Pyramid Peak and Bishops Cap. A few more steps along the trail to the east brings you to the first sizeable group of *Mammillaria meiacantha*, which seem to be everywhere on the south-facing hillside above the trail. The distal tips of their tubercles are usually purple, while the area between the tubercles is green. Often the flat tops of their stems are flush with the ground, but judging from their more elevated stature here (they protruded a few millimeters above the surface) the winter of 2004–5 was wetter than usual. In early May their flowers had not yet opened, but even when open their petals are an unspectacular pinkish white; the red fruits are much more noticeable. At this locale there is almost one *M. meiacantha* for every two meters square of rocky soil, and they even grow in almost vertical rock cracks, with their flat tops flush to the steeply sloped rock face.

At this point, the trail ascends into a pair of large switchbacks where the scenery opens up to panoramic vistas, and small arroyos define the path where each switchback makes a 90° turn to the south. Along these switchbacks chollas (*Cylindropuntia imbricata*) and prickly pears (*Opuntia engelmannii*) are at their healthiest,

and specimens of *Echinocereus viridiflorus* ssp *cylindricus* and *Mammillaria meiacantha* can be found. On the rare occasions when it flows, the stream flowing through Achenbach Canyon starts a quick descent here into a waterfall. Above that the stream flows through a gentle channel, which I call Upper Achenbach Canyon.

Upper Achenbach Canyon is a pleasant place, without any substantial uphill hiking. It is essentially a narrow riparian corridor, beyond which lie many specimens of *Echinocereus viridiflorus* ssp *cylindricus* and *Yucca baccata*, which on our visit were in full flower, though beetles appeared to be parasitizing the *Y. baccata* ovules. We also saw a small swarm of honey bees waiting for warmer weather. Even in May it is cool in these hills, as winds from the west get channeled into the west-facing canyons of the Organ Mountains, making Achenbach Canyon one of the most reliably windy places I have hiked. Further above the riparian corridor are more *Juniperus monosperma* and some majestic hills.

On this visit we stopped our hike at the base of a massive jumble of lichen-covered rocks. From prior visits I know that the trail continues further upstream, where it soon bifurcates. The northbound branch leads to a fan-shaped ridge dividing Achenbach Canyon from Soledad Pass. The eastern branch ascends a smaller ridge leading into the next drainage to the south. Along this fork of the trail I have seen 25 cm tall specimens of *Echinocereus viridiflorus* ssp *cylindricus* no wider than typical ones.

▲ ***Cylindropuntia imbricata*** **with ephemeral leaves (they taste good!).**

► **A swarm of honey bees (*Apis millifera*) keeping warm in Upper Achenbach Canyon with *Dasylirion wheeleri* leaves in the background.**

▼ **A beetle on *Yucca baccata* flowers.**

Along either branch of the trail in Upper Achenbach Canyon you quickly run into signs that warn: US Military Property—Keep Out. These signs mark the edge of the Army's Fort Bliss, a bombing range extending from El Paso to White Sands. While working for the New Mexico Cooperative Fish and Wildlife Research Unit in 1997, I got to see how much of a bombing range it really is—exploded and unexploded ordinances densely litter the flat desert of the Tularosa Valley immediately east of the Organ Mountains. All but the western edge of the Organ Mountains are included in the required ten mile buffer zone around Fort Bliss and the contiguous White Sands Missile Range. Between these two bombing/missile ranges, much of the Organ Mountains is inaccessible, including here, where Achenbach Canyon continues east along Soledad

Upper Achenbach Canyon with *Juniperus monosperma*.

GETTING THERE

The Achenbach Canyon trailhead is about a fifteen minute drive from New Mexico State University, which is located at the southern tip of Las Cruces at the junction of Interstates 10 and 25. From Interstate 25, take the University Drive exit (Exit 1) and travel east on University Drive towards the Organ Mountains. University Drive will turn into Dripping Springs Road once you leave the Las Cruces city limits near Tortugas Mountain ("A Mountain") and the Farm and Ranch Heritage Museum. Immediately before the paved road turns to dirt (this could change in the near future), make a right turn onto Soledad Canyon Road and drive south for less than a kilometer. At the Talavera Fire Station, Soledad Canyon Road will turn east (left). Stay on paved roads until you are almost at Soledad Pass. The road will have climbed dramatically. Make a right turn (south) onto Ladero Canyon Road, which is currently unpaved. Proceed down Ladero Canyon Road for less than a kilometer. Just past the bottom of the big hill, make a gentle left hand turn onto the small jeep track. Drive one or two hundred meters east to the small, circular loop of the barely discernible parking area (32˚16′N, 106˚38′W for those with maps or GPS).

Pass. In many ways, the buffer zone forms a wonderful, but perverse, nature preserve.

In 1997 I had the privilege of seeing much of the buffer zone along Soledad Pass. After spending a month trying to gain access to this area (the military really does not want anybody in the buffer zone while they are bombing, even though I never saw any bombs or missiles there), I spent two glorious days traversing Soledad Pass by truck and the surrounding hills on foot. It is a beautiful and pristine area, with only a few long-abandoned wooden shacks and small cattle tanks. The eastern end of Soledad Pass contains a perennial stream that runs for three or four kilometers. I do not recall seeing many cacti or succulents there; Soledad Pass itself is too much of riparian area, with massive sycamores (*Platanus wrightii*) and cottonwoods (*Populus fremontii*). The surrounding hills are gently sloped and perhaps of too high an altitude for Chihuahuan Desert cacti. So if you only care to see cacti (and even if you don't mind be arrested) the military signs are probably a good place turn around and end your tour of Achenbach Canyon. ❖