FROM THE EDITOR:

In the last issue of The Survivor Marc Eldridge wrote about a rugged undeveloped place in the desert of Inyo County called Conglomerate Mesa. In 2015 a Canadian mining company, Silver Standard U.S. Holdings, obtained mining rights on the mesa and submitted a proposal to the U.S. Bureau of Land Management (BLM) to drill exploratory holes to identify gold deposits. Since 1984 no less than 9 mining concerns have come to Conglomerate Mesa to prospect for gold. These speculators ranged in size from outfits based in someone's garage to reputable companies already operating successful mines. All of them went away without as much as a shovel's worth of digging. What was worrisome to conservationists in this instance was that Silver Standard was a huge mining corporation, working giant open-pit gold mines in three countries with over 640 million dollars in cash and liquid assets on hand. Mining Conglomerate Mesa would mean excavating over a thousand of acres of land, hundreds of feet deep, forever destroying the place, and company had the know-how and resources to pull off such a scheme.

In October 2017 the BLM issued an Environmental Assessment of the drilling plan with four proposed alternatives for the project with a request for public comments. BLM received 6005 replies, the great majority in the form of 5290 identical comments forwarded from the Center for Biological Diversity or emails from the California Wilderness Coalition. All of these comments and many others endorsed the "no action" alternative. Desert Survivors submitted a letter endorsing the "no action" alternative stressing how the project ran counter to the BLM's goal to provide protection to cultural resources, rare plant and animal species, and wildlife habitat. We also cited the project's detriment to important surrounding lands.

According to the BLM the most common topic of the comments was concern that this project may lead to commercial mining at Conglomerate Mesa, and opposition to any mining. Since the proposal was for drilling, not mining, it was outside the scope of consideration and those comments were not regarded.

On November 14, 20017, the Inyo County Board of Supervisors met to discuss a letter that was expected to support drilling on Conglomerate Mesa. Over 50 concerned citizens attended the meeting with 20 residents giving oral comments to the Board in opposition to the project. After discussion, the Board modified an existing letter to exclude any support of the project's four alternatives. This was considered a huge victory by conservationists since the Inyo Supervisors had a reputation of embracing virtually all mineral extraction.

In May 2018 the BLM released its Environmental Assessment. It dismissed most concerns raised by environmentalists and okayed the drilling project; however, Silver Standard's preferred plan to grade new roads on Conglomerate Mesa to transport drilling equipment, was not chosen. Instead the agency insisted on an alternative that would have the least disturbance on the ground, which required the drilling equipment and supplies to be airlifted to the site by helicopter.
The Desert Survivors Annual General Meeting at
Mission San Antonio de Padua
Monterey County
October 12-14, 2018

This year we will return to Mission San Antonio de Padua for our annual camping retreat and general meeting. Nestled in the picturesque San Antonio Valley, the surrounding terrain has changed little since Juan Bautista de Anza’s expedition passed through here in 1776 on its journey to establish the first settlement at San Francisco. Unlike most missions, this one has no towns built up around it and is relatively remote and tranquil.

Following tradition, we will enjoy Happy Hour on Friday evening followed by a speaker on the Anza Expedition and musicians who will perform music of the Spanish era in California. On Saturday we will hike in the Los Padres National Forest. Evening activities include a pot luck dinner, a slide show on the flora and fauna of California in the 1700’s and music and discussions around the campfire. Optional activities for the weekend include Sunday mass in the beautiful colonial church and a docent led tour of the Mission’s gardens and historic structures.

Our Annual General Meeting takes place on Sunday, where we will discuss organization issues and elect a new board of directors. You do not have to take part in the retreat to attend the meeting. All members are encouraged to join in. Information on paying for the retreat and the schedule of activities will be announced via email and posted on our website: desert-survivors.org.

The Survivor is printed by Minuteman Press, Berkeley, CA
Facebook: Deirdre Cerkanoswicz
Website: Nicholas Blake

The responsibility of the contents and the opinions expressed in this journal is exclusively of the author(s). Desert Survivors is not responsible for errors in the content or any consequences arising from the use of information contained in it. The opinions expressed in the articles in this journal do not necessarily represent the views of the Desert Survivors.
The Desert Tortoise Research Natural Area (DTRNA) is 39.5 square miles of natural habitat dedicated to the official California state reptile, the desert tortoise (Gopherus agassizii). Established as a Research Natural Area and Area of Critical Environmental Concern through Congressional designation and the California Desert Conservation Area Plan in 1980, the preserve contains flora and fauna representative of the Mojave Desert ecosystem. The fenced natural area, protected from grazing, recreational vehicles, and mining, offers researchers unique opportunities for western Mojave Desert study and conservation.

Located on the outskirts of California City, CA, the DTRNA maintains a public interpretive center with self-guided trails, bathrooms, educational kiosks, and on-site naturalists. The preserve has two volunteer work weekends each year, spring and fall. Volunteer work might include fencing repair, signage placement, trash pickup, vegetation restoration, and more. Desert Survivors planned a service trip for the 2018 spring work weekend and eight Survivors gathered on a cool windy evening at Red Rock Canyon State Park to support the mission.

We spent Friday exploring and hiking near Sheep Spring in the El Paso Mountains. The spring has long been a source of water for animals and humans alike, as evidenced by the petroglyphs found on basalt boulders on the hill slopes above the spring.

On Saturday morning, Desert Survivors joined 22 other volunteers for restoration planned in DTRNA’s newest Western Expansion, located to the northwest of the original tortoise preserve in California City and adjacent to the new Los Angeles Water and Power Springbok solar farm off Highway 14 at Cantil, CA. One thousand acres of land was transferred to the DTRNA as compensatory mitigation for destruction of protected species habitat caused by the solar farm. Farmed or ranched until the 1980s (Cantil area has well water and natural springs), the land now suffers from years of invasive plant species intrusion and off road vehicle recreation. Nutritious animal foods – native forbs – are in short supply, but as the ecology improves and the land is restored, the tortoises and Mohave ground squirrels will come. Some of the acreage is fenced and fencing is eventually planned for all as funding allows.

The approximate range of the Desert Tortoise.

Dragging a load of Putin's Imps (aka Russian thistle) to the dumpster.

Volunteers and their harvest of mustard and Russian thistle invasives.
Desert Survivors pulled young mustard invasives sprouting in Cache Creek wash after winter rains. We also pulled and collected Russian thistle (Salsola spp) along the fence lines. The thistle drifts, piled up to 6 feet high and 4-5 feet thick, can ultimately push over the fencing if not curtailed. Altogether, the collective work party packed a 40-yard dumpster to the brim and cleared 2.5 acres of invaders.

Not surprisingly, we didn't see any tortoises given the ongoing drought in Southern California and the unimproved habitat in the Western Expansion. But Desert Survivors did make a dent in the long term effort to provide new home ground for this iconic desert dweller. If you're interested in future work weekends at the Desert Tortoise Research Area or just want a better chance to see a desert tortoise in its natural habitat, visit the Interpretive Visitor Center four miles northeast of California City. Spring is the best time to see tortoises. Not to slight other Mojave Desert residents, the Visitor Center is also a place to see the rare Mohave ground squirrel, lizards, horned toads, and desert birds.

Researchers are closely monitoring desert tortoise populations and working to address the threats they face by the following tips.*

Don’t dump or litter. Desert tortoises can get tangled in trash, and garbage attracts ravens and other predators that feed on tortoises, their eggs and hatchlings. And don’t feed ravens!

It is against the law to touch, harm, harass or collect a wild desert tortoise. When alarmed, tortoises void their bladders and waste precious stored water—a reaction that can prove fatal for tortoises unable to replenish the supply. Stay at least 10 feet away from any tortoise you spot, and keep dogs leashed at all times.

Don’t drive, bike or walk off trails or roads except in designated areas. Cross-country vehicle travel in the desert can crush tortoise burrows, burying the occupants underground or stranding tortoises on the surface where they are vulnerable to predators and deadly temperature extremes. Traveling cross-country also disturbs the soil promoting the growth of invasive plants that are less nutritious for tortoises.

Desert tortoises may seek shade beneath parked cars, trucks and recreational vehicles. If you park in the desert, look under your vehicle before you drive.

Desert tortoises readily cross roads and trails, but the slow-moving species is no match for bikes, cars, trucks and OHV’s. Be alert and proceed with caution!

A pet tortoise released in the wild probably won’t survive and may infect resident tortoises with disease. Wild desert tortoises are susceptible to upper respiratory infections and other diseases linked to captive tortoises. If you have a pet tortoise and can no longer care for it, call the nearest chapter of the California Turtle and Tortoise Club found at www.tortoise.org.

WHAT IF I FIND A TORTOISE ON THE ROAD?

If you spot a wild desert tortoise in its native habitat, it is very important that you not touch or handle it.

The ONLY time it is okay to touch a wild tortoise is in an emergency situation where you encounter a desert tortoise on a road, and in imminent danger of being hit by a vehicle.

If you encounter this situation, follow these 3 steps:

1. Go low and slow – move the tortoise keeping it low to the ground, and move it slowly.
2. Move the tortoise in the direction it was already moving.
3. Place the tortoise in a shady spot 50-100 feet off the road.

* From the Living Desert Zoo & Gardens website, with permission. To learn more about this organization please go to: livingdesert.org.
Our group of five people had just met up and we were getting an orientation at the Hans Flat Ranger Station, the gateway into the western section of Canyonlands National Park, known as the Maze District. We already anticipated seeing a number of remarkable sites within the Maze, such as The Chocolate Drops, Lizard Rock, The Dollhouse, and the ancient pictograph known as the Harvest Scene. What could be even more interesting?

I first heard of the Maze on my last Desert Survivors trip to Utah’s canyon country in 2016. One look at the map, and I felt called to plumb its sinuous labyrinthine depths. Due to its remoteness, I had assumed that it had to be reached by high-clearance 4X4 vehicles. I was having trouble finding other drivers who had the time, and were willing to subject their vehicles to the inevitable pounding that the approach roads would deliver. Then Dave Marcus told me that he had backpacked extensively in the Maze years ago, and that it could be reached by a stiff 14-mile walk from Hans Flat. Game on!

As only five people are allowed on a backpacking permit, I decided to run two back-to-back trips, covering the same territory but with variations, so that I could bring eight other people. So here was my first group: new member Carly Weiss, Kim Coakley, Ron Cohen and Molly Stump. We had a day to kill before heading into the Maze, and we drove north to do some slot canyoneering in High Spur Canyon. En route, Ron opted to leave his 4wd Subaru due to the roughness of the road, which confirmed the wisdom of not attempting to drive to even more remote locations. Kim opted to hike to see The Great Gallery in Horseshoe Canyon, the preeminent example of “Barrier Style” rock art. The rest of us dropped into a little trench, which became a deep slot, and then a deeper slot, winding this way and that until we had no idea which way we were heading. Eventually we came to a 20’ drop, but we were prepared with a rope and harnesses. We could have continued much further to the Horseshoe Canyon River but time dictated that we break out and return to the road. This was accomplished with some scrambling on slabs with a bit of rope assist. After a night at High Spur Camp (reached by a seriously steep and rough road) we parked our vehicles near Hans Flat and headed off to the Maze.

The Amazing Maze

“You’re going to be amazed at what you’ll see right here at the top of Shot Canyon,” said the Canyonlands ranger, pointing to the map. “I won’t tell you what it is, but I guarantee that you’ll be surprised.”

Trip Report & Photos by Neal Cassidy

They backpacked 14 miles before reaching this first water source.
Fourteen miles isn’t a terribly long walk on a nice trail, but when the first half includes a 1400’ descent over talus and in & out of a sandy canyon bottom, and there is no water, it starts to add up. By late afternoon, after the final six miles on a boring dirt road, we were dragging, but our first view from the Maze Overlook rekindled our spirits. Although we were low on water and the next water was 1000’ below us, we opted to camp just below the rim, as we knew that the descent involved some tricky rock-climbing moves and we wanted to be fresh. We endured a blustery evening with poorly pitched tents but we awoke to a glorious morning.

The descent contained some exhilarating steep slab walking, and a few down-climbs on ledges and carved “Moki steps.” Some guidebooks say to take a rope but our intrepid group did fine without one, and after an hour, we stood on damp sand at the bottom. There ensued some discussion about whether or not to filter the spring water (which the park advises) but following Kim and myself, the rest opted not to. Refreshed and inspired by the adventure ahead, we set off in search of the Harvest Scene. “Oohs” and “ahhs” were heard at every turn, as waves of golden sandstone framed against a blue sky were revealed. And then, here was the Harvest Scene, a row of life-size ghostly specters silently observing us from across the centuries. One figure held out an enormous hand from which sprouted a tree, while a bird and other animals cavorted over it. Another figure with insect-like antennae held a sheaf of grain and a fish skeleton in one hand, and flowers in the other. There was even an animal that looked like a cow, though this was a long time before cattle had been brought to the New World.

Our route had to be planned around finding and carrying water, which was only available in the canyons. We wanted to reach the Dollhouse, a distant congregation of eroded stone towers that stood on the plateau high above the Colorado River. So we devised a figure-eight route that would climb out of the Maze, down into adjacent Shot Canyon, over to Water Canyon and hence to the Dollhouse. Then we would cross our route at Chimney Rock and drop back into one of the Maze branches. The next morning, after camping above the last water, we climbed up and out of the canyon on a trail that wound along precipitous edges and up to the road near Standing Rock. When we reached our crossroads at Chimney Rock, Kim suggested that we cache water there for a dry camp a couple of nights hence, thus lessening our need to carry a lot of water from Water Canyon. Now we were about to drop into Shot Canyon. Where was the promised surprise?

When I spotted the stacked stone steps leading down into a circular pour-over, I immediately recognized them from published photographs. Of course! How could I have forgotten these? They appeared to be so precariously placed that one dared not step onto them, yet we learned that they had been in place since Basque sheepherders had built them more than a century earlier to allow their flocks to descend for water. I’m here to tell you that they are solid!
From the lower reaches of Shot Canyon, we crossed over into the Water Canyon and discovered a paradise where ribbons of water fell from a broad meadow into a verdant grotto decked out in ferns and moss. This night, I left the tent packed and slept under a brilliant starry sky.

The morning hike took us meandering through rock formations and in and out of small canyons that led toward the Colorado River. We lunched at Beehive Arch before reaching the Dollhouse, where we set out under a hot sun to find The Bear Panel, whatever that was. Our directions were vague and our hunt proved fruitless. We retreated to a small patch of shade before venturing out again, this time to find The Granary. Despite relying on three different maps which all showed different paths, this search was successful and we located the small "locker box" used by ancestral Puebloans to store grain. The sun was lowering but still high enough to make it a drudge back up to Chimney Rock, where we recovered our water and located a ledge above the Maze for camp.

Next morning, a short descent took us back into the Maze. Our exit plan was to wait until late afternoon before starting the climb, then to go halfway back to Hans Flat in the cool evening. While the others rested, I climbed an unmarked trail to the Chocolate Drops, a formation of four dark rock towers on a ridge between two of the Maze canyons. While there were a couple sketchy spots, I thought that the others could have done it. Our climb out seemed easier than the descent, although I had difficulty getting traction on some of the slabs due to the extra water I carried to cache at the rim. We made camp where the North Canyon Trail met the road, and after a little miscommunication about who was where, we were back at the cars next day around noon. I bid adieu to my comrades and settled into a quiet solo evening with my truck, awaiting the next crew.

What do you know, next day they all appeared—another newbie, Alexandra Studd-Sojka, Kevin Stepelton, Pov Seng and Alan Baldwin. It was a miracle that the last two were there—Alan's transmission blew up in Auburn CA, and after a tow back to the Bay Area and a hasty transfer to Pov's car, they had driven non-stop to make our rendezvous. While taking a supposed short cut to Hans Flat, they had gotten stuck in the sand to boot!

We were supposed to car camp the first night, but we were able to add another night to the backpacking permit, allowing us to steal a march on the dreaded approach slog. Following the next day's now-familiar descent into the Maze, we made camp at what I called the "Flintstones' Lounge," which a solo hiker from Moab had told us about. With our extra day, we decided to attempt the climb to the Chocolate Drops. We all made it, and marveled at the panorama that unfolded all around us as we stood beneath them.

Our route this week was a similar figure eight to the Dollhouse, but we would exit and re-enter the Maze via different canyons. The next day were dodging raindrops. That night, we had no sooner set up tents when we were briefly pounded by centimeter-sized hailstones. The inclement weather continued for the next two days, but somehow we were able to find shelter. At the Basque steps, we encountered four just-graduated Michigan State law students who were on their first backpack. Some people just jump right in! At the Water Canyon camp, we took advantage of low caves above the creek to ride out the most serious rain. This time, we dropped packs and took a side hike to the overlook high above the confluence of the Green and Colorado Rivers.

Armed with more detailed directions, we hunted again for the Bear Panel, and again came up empty handed. Had the bear wandered off somewhere? One more glorious evening on the rim of the canyon, and the next day down the middle of the Maze to take in the Harvest Scene. We made the ascent in record time - this was getting to be old hat - and after a last look from the point, we hightailed it for our final camp. Rising early to beat the heat, we were back at Hans Flat near noon. Before we parted ways, Pov submitted her filled-in naturalist booklet and was duly sworn in as a Junior Ranger.
In a decision that is considered a “win” for conservation groups and a subspecies of bird threatened with extinction, on May 15, 2018 the U.S. District Court in San Francisco, ruled the U.S. Fish and Wildlife Service (USFWS) wrongly denied Endangered Species Act protection for the Bi-State sage grouse when in 2015 it withdrew its threatened species proposal for the animal. The Bi-State sage grouse lives along the central California-Nevada border, in the greater Mono Basin area. Over the past 150 years the subspecies has lost over half its population, half its habitat and two-thirds of its breeding ground. Today the Bi-State sage grouse exists in six small, isolated pockets—four of which are at risk of disappearing altogether.

Desert Survivors was a plaintiff, along with WildEarth Guardians, the Center for Biological Diversity and Western Watersheds Project in the lawsuit filed by attorneys for the Center for Biological Diversity and the Stanford Law Clinic, that challenged the USFWS with this litigation.

In 2013, with a move widely applauded by conservation community, the Fish and Wildlife Service proposed listing the Bi-State sage grouse as a threatened species under the Endangered Species Act, citing perils that included urban sprawl, habitat loss, livestock grazing, invasive species, range fires, mining, energy development, recreation, and climate change. The agency also proposed designating 1.8 million acres of mostly federal land as critical habitat for the bird.

In 2015 the USFWS, did an abrupt about-face and determined the animal did not require federal protection, citing among other things a plan of voluntary measures on private lands, called the Bi-State Action Plan, as adequate for the welfare of the species. This move triggered the lawsuit in which attorneys for the plaintiffs argued that the change by the USFWS was done, “without adequate explanation or justification.”

It should be noted that in 2013 when the USFWS issued the proposed threatened species listing, it triggered a mini-sagebrush rebellion with an immediate, and often angry, backlash from area ranchers, hunters, business groups, off-road vehicle enthusiasts and local politicians. Representatives for these interests set up letter-writing campaigns against the listing during the public scoping process. One group promoting ranchers used the tag line, “Grazing is good for the grouse.” No doubt this political pressure was a factor when the USFWS made the withdraw.

The judge in this case, Joseph Spero, agreed with the plaintiff’s assertions that the service’s 2015 decision on the bi-state population was “arbitrary and capricious”, and the service failed to justify its change of course and deprived the bird of Endangered Species Act safeguards. He rejected the service’s conclusion that the Bi-State Action Plan’s voluntary conservation measures would effectively protect the species. The court also invalidated the agency’s interpretation of “significant” in its “significant portion of the range” policy.

In his May 2018 ruling, Judge Spero asked for remedy briefs from the parties of the suit. On August 25, 2018 he issued a remedy order vacating the 2015 USFWS decision withdrawing the proposed listing and immediately reinstating the 2013 proposed “threatened species” listing status for the Bi-State sage grouse with its proposed designation of 1.8 million acres of “critical habitat.”

“This important victory reinstates crucial protections for these beleaguered birds while a new listing decision is made,” said Lisa Belenky, senior attorney with the Center for Biological Diversity. “Sage grouse in the California and Nevada Bi-State population are in deep trouble, and the Fish and Wildlife Service should do the right thing and shield them from extinction.”

The court directed the USFWS to provide a new opportunity for public comment on the proposed listing and make a final listing decision by October 1, 2019. The USFWS could get a six-month extension if it files a notice that it lacks available data for a decision. It is unclear at the time of this writing if the USFWS will file an appeal.

Without doubt the court order reinstating the proposed threatened species listing will provoke backlash from the same people and interests who were against the plan in 2013. Unfortunately the grouse live in country where many people will look at the measures needed to protect the animals as onerous overstepping by the federal government. And while the court ruling can be considered a win for the Bi-State sage grouse this is just the beginning of many difficult disputes and tricky resolutions and problematic implementations of measures that will be needed to rescue the animal. Saving this besieged bird promises to be a challenging task.
Horses originated in North America between 56 to 35 million years ago. The early equines were about the same size as a dog and thrived in a forest environment eating leafy plants. Over their first few million years they grew larger in size and diversified into several sub species—with changes to their teeth and feet which allowed them to adapt to different and changing environments. About 4 million years ago the genus of all modern horses named *Equus* arose. This animal was particularly important because it adapted to grazing on the ever-expanding grasslands. During the ice ages, with massive glaciers covering the continents, the Bering Land Bridge allowed horses to spread into Euro-Asia and Africa where they diversified into the horses, zebras, onagers and the African wild asses of today. Various species of *Equus*—none of which were horses or donkeys—remained in North America until their extinction, near the end of the last ice age, about 10,000 years ago.

Donkeys were particularly prized when Euro-Americans ventured into the U.S. west because of their hardiness, surefootedness and their ability to carry heavy loads for days through arid landscapes. With the rise of railroads, mechanized transport and the end of small-scale gold mining the "burros", as the Spanish called them, were often turned loose by their owners. The animals were able to survive on poor food and water and their ability to endure great heat. They did not face predation once the wolf was killed off. Burros thrived in the American deserts.

In 1971 Congress passed the Wild and Free-Roaming Horses and Burros Act. The law covered the management, protection and study of "unbranded and unclaimed horses and burros on public lands in the United States". Prior to this time many methods for managing or capturing horses and burros were considered cruel. Ranchers often shot or poisoned wild horses and burros because they competed with their cattle and sheep for grazing resources. Ranchers would also round up herds of wild horses and donkeys using aircraft and motor vehicles and sell them to slaughterhouses as pet food.
By 1973 the Bureau of Land Management (BLM) started a program for rounding up and offering these horses and donkeys to private owners for adoption. This remains the primary method for removing excess horses and donkeys from managed lands, although in recent years the adoption rate has not kept up with the removal rate. The act also provided for the removal of excess animals, the destruction of old, lame or sick animals and even the destruction of healthy animals if range management was required, although the latter almost never occurred. In 1982 the director of BLM issued a moratorium on the destruction of adoptable animals.

The populations of donkeys on BLM and other public lands trespass into National Park Service lands, where their management is handled much the same. Burros are non-native, are feral and are destructive to the ecosystems that they invade by trampling and defecating in water sources, disturbing the soil and competing for food and water with the native animals that live in the area. Groups of burros will often linger at water holes, not allowing other animals access. This has been an ongoing problem in Death Valley since the late 19th century. The General Management Plan of Death Valley National Park approved in April 2002, called on the National Park Service to adopt a “no burro or wild horse” strategy.

Recently Death Valley National Park entered into a five-year contract with the non-profit animal welfare group, Peaceful Valley Donkey Rescue, to remove 2500 burros from the park. The National Park Service does not have the resources to round up these animals. Peaceful Valley Donkey Rescue will capture the donkeys and eventually put them up for adoption. They will lure the animals into humane traps with food and water or drive them with wranglers on horseback into temporary pens—trying not to stress them out. After being corralled the donkeys will be implanted with a chip for identification purposes. They will have their blood drawn and tested for common diseases. Once cleared medically, they will be transported to one of Peaceful Valley Donkey Rescue’s training facilities and made ready for adoption throughout the United States. Any donkeys with medical conditions that would make adoption difficult will be placed in a facility in Texas to receive medical care for life. Any donkeys that are too wild or aggressive for adoption will be placed in one of Peaceful Valley’s sanctuaries.

The modern burro is not indigenous to North America, and has no natural predators to keep their numbers in check. They have a high reproductive rate with an annual recruitment of 20%—doubling its population every 4 years. In many regions this leads to explosions in their numbers and that is detrimental to native wildlife, water sources and vegetation. The project attempts to solve this problem in a humane manner to the burros.

Peaceful Valley has rescued over 9,000 donkeys in its 17-year career. They currently have over 3,200 donkeys under their direct care. In order to accommodate the expected increased influx of wild burros, a new training facility is being built in Arizona. This project will be funded entirely by private donations, foundation grants and corporate sponsorships.

Anyone wishing to donate to this cause can go to their website www.donkeyrescue.org/ and also find out more about what they do. Who knows? Maybe one of you would like to adopt a donkey.
DESSERT ROAD TRIP RESTAURANT REVIEWS

Experiencing the desert is one of the favorite things we do. For most of us, visiting these lands requires long auto travel. Over the years Desert Survivors have driven hundreds of thousands of miles to and from and through the desert. And along the way we have gotten hungry. From Burns to Brawley to Boron and back Desert Survivors have dined in nearly every eatery, along every pike. We know them all and have opinions on every one.

Recently, Chuck McGinn polled several Desert Survivors on their favorite places to eat on a desert road trip. Here are some recommendations of Mike Wells with Charlene Daniels (m+c), Barb Bane (bb), Nick Blake (nb), Karen Rusiniak (kr) and Chuck McGinn (cem). Enjoy... and save room for dessert. — Editor

Barstow, CA: Del Taco
Comments: “Skip the insanity at Mad Greek and stop here. There’s a reason for 4.5 Yelp stars. This is THE Original Del Taco, and it bears little resemblance to the franchise. This is big portions with fresh stuff. Try the massive Barstow Taco.” bb

Bishop, CA: Erick Schat’s Bakkery
Comments: “Popular tourist stop with lots and lots of baked goods. Very good sandwich bar but feels like the Soup Nazi experience.” cem

Kyburz, CA: Shepard’s Oven
Comments: “This not a restaurant but a reconstructed Basque shepherd brick oven located on Kyburz Flat. You can reserve the oven for a private group and to cook in it by calling the Tahoe National Forest.” kr

Cedarville, CA: Country Hearth Cafe
Comments: “Janet does wonders in her kitchen. Freshly baked bread, turnovers and maple bars. Big breakfasts and good dinners. We go out of our way to eat here.” m+c “I’m just thinking you are way out of everyone’s way just to be there.” cem

Fields, OR: Fields General Store, Cafe & Gas
Comments: “Burgers and shakes. Their claim of best in the world is not an idle boast.” m+c “The hostess at the café will frequently leave her post to pump gas.” nb

**Photos:** Yelp, Flickr Creative Commons and N. Blake
Restaurant Reviews

Desert Survivors members have driven hundreds of thousands of miles to and from and through every eatery, along every pike. We know them all and have opinions on every one.

Recently, Chuck McGinn polled several Desert Survivors on their favorite places to eat on a desert road trip. Here are some recommendations of Mike Wells with Charlene Daniels (m+c), Barb Bane (bb), Nick Blake (nb), Karen Rusiniak (kr) and Chuck McGinn (cem). Enjoy... and save room for dessert.

Eureka, NV:  
Pony Express Deli
Comments: Mennonite women prepare an amazing breakfast and lunch. If it’s on the menu, order the cheeseburger soup. Buy a jar of their cherry jalapeno jam.”  m+c

Benton, CA:  
Benton Station
Comments: “Good food. Homemade pies.”  m+c  “There is nowhere else to eat in Benton. Also, they have gas.”  cem

Lee Vining, CA:  
Whoa Nellie Deli
Comments: “Great food at the Mobil Station at the SR 120 junction.”  m+c  “Has better food than a gas station ought to.”  cem

Lee Vining, CA:  
Nicely’s Restaurant
Comments: “Fried Chicken Dinner - yum!”  cem  “With homemade mashed potatoes - double yum.”  bb

Lone Pine, CA:  
Mt. Whitney Restaurant
Comments: “Incredible decor of memorabilia from moviemaking in the Alabama Hills”  cem

Lone Pine, CA:  
Bonanza Restaurant
Comments: “The best thing about this Mexican restaurant is a back-lit silhouette of cowboy-theme images that runs high along the wall behind the counter. Seeing it always makes me happy that I am out in the desert west.”  nb

Death Valley, CA:  
Timbisha Shoshone Tacos
Comments: “An affordable lunch option at Furnace Creek. Helpful tip: Don’t call them Navajo tacos.”  m+c

Olancha, CA:  
Ranch House Café
Comments: “The pie!”  bb  “Good food. Homemade pies.”  m+c

Baker, CA:  
The Mad Greek,
Comments: “Big with the LA to Las Vegas crowd. Had some good shwarma there.”  cem  “Good Mediterranean. Can be busy.”  m+c
It was a location surprising to me—foothills above the Central Valley, but not Sierra foothills, nor the Coastal Range either. And they were not really foothills: up to 5,000+ feet in elevation. It wasn’t easy to get there, 35 miles in 4-wheel drive vehicles, 20 of them on a two-lane road that seemed to have been last paved in the Paleocene Era, and 15 miles past the locked gate on a dirt road cut viciously and often by wandering, deepish erosion gullies. We were in the Diablo Range heading to the purported hideout of legendary 19th-century bandit Joaquin Murrieta.

I rode in the lead car with Nick Blake, who was a man on a mission. He recently purchased a classic off-road vehicle (a 1994 Jeep Cherokee), had chased down and fixed all its fluid leaks, and I had the impression this was a shakedown cruise. He attacked those gullies with sheer momentum—drop, CLANK on the frame front, twist, bump, CLANK on the rear—and the Jeep rolls on as if nothing at all had happened, and so did I, almost. The phrase “bruised kidney” did come to mind, but it turned out I was only a little dazed. Later I thought of it as boot camp for development of what my physical therapist calls “plasticity of body.”

By lunchtime, as planned—Nick had wisely done a dry run a few weeks earlier—we reached a second locked gate, and the starting point for our backpack in to Joaquin Rocks. There was plenty of parking space and—of all things—a new picnic table where we gathered for the mid-day meal.

Here we were introduced to a constant companion throughout the trip: foxtails, the calling card and seed-spreading mechanism of many grasses, including cheatgrass. I knew foxtails from the ramblings of my youth in Southern California, and from the problems they made in my dog’s ears. Cheatgrass and foxtails, I have learned more about since.

Cheatgrass, native to Europe and eastern Asia, was brought by European settlers before 1861 and by 1927 had invaded 49 of today’s states except Florida, but including Hawaii and even Alaska! It is found from the bottom of desert valleys to 13,000-feet mountains. Here’s the kicker: according to the Bureau of Land Management, it probably wouldn’t have outcompeted native vegetation if early settlers hadn’t also introduced large numbers of livestock like cattle and sheep into sagebrush country. No surprise that humans were the culprit and profit the motive. Cheatgrass was the second and most intimate of four separate demonstrations we encountered of humans dishonoring and desecrating the land.

The first human desecration of the land competed with and sobered, on the ride in, our enjoyment of the naturally sculpted lands. The California classic of gently rising and falling light brown hills, growing into real mountains as we ascended but with the same California aspect, excites a kind of joy in beautiful country, with the road traversing back and forth as it rises to mount the steeper reaches. The road itself is a human intervention, which would grate upon us if we were backpacking, but we were part of the intervention and because it made possible our reaching our hiking trailhead the road did not strike me as desecration.
On the other hand, what the motorcycles and off-highway vehicles did to the natural lines of the hillsides and ridgelines, like so many lines of snowboards on advanced slopes, was to deface them. But unlike snowboard lines, which disappear with snowfall and spring, the tracks on the hillsides are permanent scars. They continually interrupted the peace and relaxation of beholding of the hills and mountains, shouting “Humans! Humans!

After lunch we set out on foot toward Joaquin Rocks, hiking along a dirt road. It was lined with cheatgrass and their foxtails—prompting Andy Cominos to put on his ankle gaiters, a wise precaution—but the road rose and fell with the land and it was good to walk, so long as the backpack wasn’t too heavy. The line of backpackers soon spread out, as Neal and Bob and Steve and David Marcus strode out, with the rest of us following as we each found our own pace.

I fell in with Andy, who, as a retired Hollywood cameraman, had cameras—real cameras—and he would shout out when something caught his good and constant eye. “There’s a good shot!” “Look at this!” “I’m going after that!” At 86 years of age and carrying 32 pounds, Andy would squat to get the right angle as if he carried nothing and aim his camera at the “candles” (Yucca blooms), the lichens, the splash of tiny yellow flowering. I had my trusty cell phone camera and agreed with his approach. “What’s the rush? Look at this,” I called. The native Ameri-

cans had a blessing, as they walked the unimpaired land: “May you walk in beauty!” And so it is, the unimpaired land, every step.

The road we walked was not particularly steep. When we came to a footpath that led up to the Rocks, that all changed. We spread out on the single track trail upwards, steeply. Looking up ahead and down behind, I felt for an instant like I was on a mini-Chilkoot Trail from the Klondike Gold Rush, except that I was carrying supplies only for a night, not for a year as the stampeders did.

Joaquin Murrieta, a name that resonates in California history from the era of the Gold Rush, and violence between Anglos and Mexicans. Facts of his life are few, and much of what is known about him is fiction: whipping of Joaquin, ravishing of his bride, loss of a mining claim, lynching his brother. In fact, Murietta and his gang in 3 months killed 22 men. The tradition in Latino cultures of the bandit as social revolutionary is well known, and Joaquin as a well-known and colorful bandit was apparently fertile ground for the myth to grow.

Perhaps 200 yards from where we stood rose the three Joaquin Rocks, and yes they were a sight to behold. The “Stone of the West”, “The Sentinel”, and the “Grand Cathedral”, or as Joaquin called them: La Piedra del Oeste, La Centinela, and La Catedral Grande.

They jutted from the ground, each about 200 feet high and sheer, with about eight or ten feet between them at their bases. The far side of each was sloped so that one could walk up it. We tried first to get to the far side through the gap to the left of the center, but Neal returned from exploration to declare it had too much poison oak. After some thrashing about and scrambling, he found the space to the right of the center to be passable, if somewhat scratchy. Just as we were entering the gap a hallo sounded from the top of the Rock, and a head became visible. David Marcus had made his way through the poison oak and he was now at the crown of “The Sentinel”.

We walked—carefully—up the center Rock, whose slope we estimated at 30 to 35 degrees. To our surprise and disgust we found tire marks and trails up the slope. Motorcycles had been here. One can imagine spinning wheels and roaring, ripping off lichens a hundred years old, or perhaps 500. It would take study. Map lichens in the Arctic, at 8,600 years old, are possibly the earth’s oldest living organisms. One can imagine a motorcyclist miscalculating, losing control, and man and machine, going down sliding and tumbling to the bottom. However, I noticed no dead motorcycles there, and it is beyond imagination that the survivor would carry out his trash.

Nothing is all bad, however, and it must be said that the motorcycles—and boots of course—in scraping off lichens to make trails on this sandstone rock, did uncover clean sandstone which served admirably to hold the grip of our boots going up or down. Nonetheless, though I abhor fences, I’d like to see a strong steel fence here with a passageway admitting only walking humans. Those tire marks were all over the rock, beyond the trails.
At the top of the Rock is the famous "Bottomless Pit." A great roundish hole perhaps 20 feet deep with sheer sides and a vernal pool in the bottom prompted continuing discussion through the rest of the trip on methods of getting out of such pits. Robin then spied a pinprick of light in the far wall about five feet above the water. Upon examination, we agreed that the pit had been breached, and light from the sheer face of the Rock shone through a tiny fissure. Neal opined that there was no more than 2 feet of water in the bottom, and that with the fissure, water would never rise above 6 or 7 feet. Still, that's just enough, don't fall in.

Down the trail and back to our backpacks, we pitched our tents, and had dinner on the trail—literally, we sat on a wide part of the trail, the only open ground for our stoves, and Nick passed a flask. A fine repast and so to foxtails and sleep.

The next morning we broke camp, and packed our packs—now lighter by half the water we carried to start with. Some of us went on to inspect an Indian artifact, others went back to the vehicles, and miraculously, it was just noon as all assembled at the picnic table for another lunch.

Next attraction: back in the vehicles, retrace route—follow the dust ahead and fresh tracks, do not make the wrong decision at forks—back to the highest part of the road, around 5,000' elevation, where there is a modicum of flatish land and tree cover and even a tiny struggling stream for our second night, the car camping night. Here we were necessarily aware of the third dishonoring of the land, because towering above us on one side was a hill of whitish asbestos soil and on the other side was a towering hill of tailings from an asbestos mine.

All through our drive in and back, and hiking, we saw evidence of asbestos mining. That morning as I walked back from the Rocks, the skyline was a faraway ridgeline beyond nearer, lesser ridgelines—the entire scene was a gift of grandeur: nearby, the brown of mature cheatgrass; middle distance, brown punctuated here and there by the green of a low-growing tree; the long view, scrub and tree cover reduced by distance to a modest dark with a hint of green. But wait, in the long view the eye's pleasing survey is riveted by a sight that doesn't fit, a discord, a giant white flag (of defeat?). What is that? It is an asbestos mine and its tailings.

Desecration #3: humans the culprit, profit the motive. It's profit at any cost, preferably to the other than me; such a stance may rightly be called greed, I believe.

We had a good time at the car camp. Most of our group rolled away in mid-afternoon to a point where they could climb the highest point in the range, Mount Benito. Henceforth, rolling down I-5, they could look at Mount Benito and say, "I stood on top of that!" Near at hand, they collected rocks from the summit, hoping to find Benitoite, the state gem, also called the "blue diamond," first discovered in 1907 near the headwaters of the Benito River. It is very rare. Nobody got rich.

That night we had a roaring fire (with wood we brought) in a model fire pit that Neal and friends had tuned by raising its rock wall and bringing fresh dirt to surround the pit with a non-combustible 2-foot border. Nick had stowed away a cooler with a cold beer for each of us, and we told stories and more stories—one theme was, "How I was hurt (or almost killed) by a plant."
The desert seems to be empty, but human endeavor has—along seasonal streams or near springs or wells—built shelter, mills, workplaces and assembled machinery and other materials as necessary. After they have run their course and there being no demand for other use of the land, all those shelters, mills, workplaces and assembled materials stay exactly where abandoned and slowly compost, decompose, return their elements to earth. Coming upon one of these ruins in the desert is always startling because they speak so poignantly of human striving once vibrant with effort and trying again but now over and done with.

The New Idria Quicksilver Mining Company is just such a ruin, but so large an enterprise that it spawned a town, New Idria. Prospectors in 1853 discovered a rich red vein of cinnabar, which yields the mercury used to collect gold from gold ore. The terrain was difficult, the location remote, but already Mexican settlers had homesteaded farms and ranches. It would have been friendly country for Joaquin Murrieta, who passed through, apparently on his way to and from his hideout.

In the morning, back in our vehicles, it was rumble down the road to the final spectacle of the trip—the New Idria Quicksilver Mining Company. We saw stores and bars and churches. Andy took a photo of us standing in front of the last church. Its front wall had simply leaned back about 45 degrees onto the collapsed remainder of the building. In the peak of the front wall there reigned still a simple wooden cross, which as elsewhere in America today seemed more an artifact of another time than an enduring symbol of love and sacrifice.

The New Idria mine was at one time the second most productive mercury mine in the United States, producing 38,000,000 lbs of mercury during its run. Many mining companies go bankrupt as a business tactic, leaving those costs for others to cover. Water will pool in open pits and tunnels, which are usually deeper than the local water table. When mining is active, miners pump out the water, but when the mining stops, so does the pumping. The water continues to pool or flow, interacts with heavy metals in the excavated soils, and eventually tries to find a way out. Or the water remains as a toxic lake in a pit.

The mine was finally closed in 1972, having survived a sale, a name change, a bankruptcy, and a catastrophic drop in mercury prices, yet as late as 1936 it still commanded enough attention that Herbert Hoover visited it. The New Idria mine was at one time the second most productive mercury mine in the United States, producing 38,000,000 lbs of mercury during its run. EPA studies at New Idria estimated the acid mine discharge (ACD) to surface water—a calculation that became alarming when I realized what their unit of measurement meant: L/s means Liters per second. During the 6 “wet” months, the ACD is 24 L/s or 360+ gallons per minute. During the 6 dry months, the ACD is 5 L/s or 80 gallons per minute. That’s a lot of toxic water flowing.

The name Clear Creek is a touching reminder of how things were before profit and greed came to town. It sounded just like a creek, refreshing, but it looked like Mars. It flowed from a pond of orange muck down a tangerine stream-bed. The fourth desecration of the land.

We wandered around, exploring abandoned houses, some with architectural features bespeaking their owners’ pride, others with construction of extensions half-done. Broken glass, spider webs, vines growing into houses. An abandoned trailer with the legend, “AVIS No parking.”

We gathered on the road talking about what we had seen. By law, mines have to put up a reclamation bond, but because mining is a long-term process, the bond rarely covers the cleanup costs, years or decades later. Many mining companies go bankrupt as a business tactic, leaving those costs for others to cover. Water will pool in open pits and tunnels, which are usually deeper than the local water table. When mining is active, miners pump out the water, but when the mining stops, so does the pumping. The water continues to pool or flow, interacts with heavy metals in the excavated soils, and eventually tries to find a way out. Or the water remains as a toxic lake in a pit.

In subsequent years owing to unchecked mercury run-off and contamination, New Idria was declared in 2011 an Environmental Protection Agency (EPA) Superfund Site. The mine’s processing buildings and the over 100 buildings remaining in the town were fenced off.

EPA studies at New Idria estimated the acid mine discharge (ACD) to surface water—a calculation that became alarming when I realized what their unit of measurement meant: L/s means Liters per second. During the 6 “wet” months, the ACD is 24 L/s or 360+ gallons per minute. During the 6 dry months, the ACD is 5 L/s or 80 gallons per minute. That’s a lot of toxic water flowing.

We had to move off the road when a dual-rear-wheel pickup rolled toward us, towing a trailer with quad-runners aboard. On the walk back to our cars, we saw a traffic sign not 15 feet from the contaminated creek where someone placed stickers reading, “The Sierra Club Sucks”. Neal found an old basketball standard and made a two-point shot with a rusty gasoline can he found.

Then another 20 miles in our vehicles back to the Panoche Inn, whose owner was kind enough to allow us to park our city cars there. I said goodbyes to old and new friends, and another Desert Survivor trip—congenial, immersion in the natural world, good exercise, interesting, but in four instances disheartening.
The forecast was encouraging: cooler weather with some potential for rain showers. Encouraging because this trip was a carry-water excursion into the high desert terrain of northern Washoe County, Nevada, and moderating temperatures and cloud cover could potentially help decrease water consumption. Any advantage would help in this scheduled three-day, two-night backpack into the heart of the region known as the Buffalo Hills. We would need those advantages, and more, by the time the trip came to an end.

The Buffalo Hills are remote and lightly untraveled, except for hunting season. They are part of the volcanic uplands that connect the Hart Mountain and Sheldon refuges to the north to the Black Rock region to the east and several wilderness study areas to the south, and ending at the northern terminus of the Sierra Nevada. It is fairly level terrain but not gentle — broken by canyons and rims that provide wide vistas over expanses of sagebrush, swatches of Pinyon-Juniper woodland and dun-colored playas. The geology is defined by basaltic lava flows.

The trip rendezvous was set for 8 a.m. at what turned out to be a rather forlorn intersection in Lassen County north of Susanville on Hwy. 395 named Ravendale. The seven of us were soon off to the trailhead, which lay 20 miles to the east off the Buckhorn Backcountry Byway. After a few miles, the pavement gave way to packed gravel and clay. There were warning signs of its impassability after a sustained rain. There were other warning signs as well, but of a cultural nature. The broad valley leading east from Ravendale to the Nevada border took on a post-apocalyptic feel with scattered and mostly bedraggled ranchettes strewn with the detritus of post-industrialism: rusting vehicles, fencing, sheet metal, strange collections of junk. A veritable garbage dump — sans organic matter. Particularly unsettling was the sight of numerous and seemingly abandoned trailers and RVs amid the sagebrush and shadscale. Were we transiting some Breaking Bad alternate universe?

Thankfully, once out of the valley and into the Bureau of Land Management (BLM) backcountry, the landscape became a high pastoral and liberating for the spirit. After a modest reconnoiter, trip leader Dave Oline led us to our jump-off point into the wilderness at 4.5 miles east of the (unmarked) Nevada border: a half-mile track leading south to Sidehill Spring. But first we needed to convoy vehicles to the planned endpoint of the trip, which encompassed a 12-mile one-way shuttle. The route east provided glimpses of the country to come and our planned descent from the rims as we dodged a herd of sheep. On the way, the huge flat, shallow of Burnt Lake acted as a conspicuous landmark, filled with green grasses and flowers.
By about 11 a.m., we were all back at the trailhead, elevation 5,900 feet, and ready to go. But first another sign, or omen? A young lamb was discovered and it had apparently just fallen dead, its body still soft with no flies or other insects attending to their chores, nor any vultures. There were no predation or bite marks either. A mystery: What had killed it? One possible answer soon became evident.

And so we were off, with most of us carrying packs full of water: 1½ to 2 gallons or more apiece. My back and hips groaned under the weight. Yet the temperature was mild, and the drainage was green and lush; an overflowing trough filled by the nearby spring was a harbinger of things to come.

Our primary destination for this first day was an intriguingly geographic feature named “Hole in the Ground.” But that was still a few miles south, out of the 5 miles or so planned for the day before camping. At first it was easy to walk along the modest jeep trail, but soon it petered out, and the going became tougher. The way was filled with fractured basalt tablets, rocks and boulders. The footing became especially tricky, as the burgeoning grasses, forbs, bushes and flowers obscured our footfall.

The vegetation was resplendent because of the prior three weeks of intermittent rains. Low pressure had parked itself over northern Nevada, and the result was the third-wettest spring in the region’s history. Iridescent blue penstemons and yellow composites lined our route, along with blooming white yarrows and rabbitbrush; even the sagebrush was fat with foliage.

The drainage became narrower, and we soon sighted another spring. It came gushing out of the hillside, and the immediate slopes surrounding it were full of nettles and columbine; higher up there were thickets of chokecherries, serviceberries and willows. And the gurgling channels soon became boggy with mats of watercress leading to a small creek. It was quite the high desert garden.

All through the defile were also the sprigs of the creamy colored flowers of death camas, *Toxicoscordion venenosum.* Perhaps its highly toxic alkaloids and esters had been the cause of the lamb’s demise. Karen Rusiniak noted lithic scatter, and its shards of obsidian were a reminder of the indigenous people who had once made this land home.

The small creek was quite vigorous at times, and it seemed that our water carrying was folly. Some of the group began to talk about draining their cache to save on weight. Others demurred, given the moderate density of cow pies that could potentially be a source of contamination. Soon we came upon an abandoned stone corral, with its perimeter of basaltic rocks and boulders expertly placed. What an effort it must have been to erect such a structure.

The country then opened up as we entered the Hole in the Ground. As calderas go, it was small, with only a 200-foot rim and about a mile in diameter. Was this the source of the region’s lava? Or some secondary event? How old was it? These unanswered questions remain for further research.

What had been shirtsleeve weather began to turn cloudy and cooler. We crossed the expanse of the caldera and began to head south to a small plateau in search of a campsite. Near by was Antelope Spring, which had once been considered as a secondary water source. But with all the water we had run into, the urge to traverse the extra mileage to attain it ebbed.
The footing was still fraught and precarious as we worked our way over the landscape. There was no clear terrain for camping to be found, but in the distance the scrub seemed to open up before small groves of pinyons and junipers. Upon arrival there was enough gravel for some tents, and under the trees the duff provided relief from the rockworks. This would be the campsite. By now, the wind had increased significantly, with clouds beginning to stream in. Despite the difficulties in reaching it, the site was sublime and provided exhilarating views of the Smoke Creek Desert and the peaks surrounding the Black Rock to the south and east, and the high desert peaks of Lassen County to the west. This was high and quiet country, and it felt good to be ensconced in its wildness.

The wind blew all night, and the temperature continued to drop. By daybreak on Saturday, June 10, a layer of clouds covered the sky. The cooler temperatures and shade were a welcome relief to the strong sun of the previous day. Now the route swung west to reach our destination for the next night: a high rim with views of the Poodle Mountains to the east.

The rocky lavascape continued, and the footing seemed to become even more treacherous. Splintered basaltic outcroppings added to the exertion. Seemingly level expanses of sagebrush and grasses needed the skill of a ballet dancer to cross without incident. Piles of horse manure added to the intrigue.

We now entered the drainage of Buffalo Creek and found another gushing spring at the edge of a small rim. Pronghorn pranced in the distance, and we soon spotted wild horses crossing the opposing slope. We descended to a sagebrush flat, crossing a rough 4x4 trail. More rocks—and then finally too many. Vinz Hake took a stumble, hit his head and blood gushed from the bridge of his nose. Gauze pads, pressure and bandages were applied to stanch the flow. Vinz remained alert and active under David’s care. After 90 minutes or so of first aid, and discussion over the trip’s continued viability, the decision was made to cut it short.

We all hiked back the few hundred yards to the 4x4 track, which the map showed would lead us almost all the way back to the cars — in about 10 miles. While I was somewhat disappointed to not continue on the original route, I was happy to get out of the rocks and onto more solid footing. The group made steady progress, with stops here and there to rest and recuperate. We skirted some small herds of cattle and kept hiking and finally ended up on the Buckhorn Byway about a mile east from where we had originally turned off. After 12½ miles for the day, we were back to the starting point. By now, the clouds were thick and gray. The temperature kept dropping, and the raingear came out. Graupel started to fall as we set up a shuttle to retrieve the vehicles at the planned terminus of the trip. Fortunately, the precipitation was not heavy enough to turn to road into a quagmire. Most of us rendezvoused back at a BLM campsite south of Ravendale, where many had camped the night before the trip’s start. Vinz decided to forgo a trip to the Susanville Emergency Room for his injury, and as a fire roared in the cool and breezy night air, we were already reminiscing about our adventure to the Buffalo Hills.
Numerous earlier studies have documented physical abilities, such as muscle endurance and sports performance, begin to drop off at a body mass water loss of 2 percent. The Georgia Tech study found cognitive impairment begins at that same benchmark. For a 200-pound person, this loss equals a four-pound drop during a few hours of moderately intense activity in moderate humidity, a common occurrence in that environment (Brumfield 2018). In the same situation, a 125-pound person would lose 2.5 pounds in water loss. Note for desert hikers: military studies of exercise in severe heat during Desert Shield and Desert Storm (1990) concluded that sweat weight loss can amount to 3-4 liters (6.6-8.8 lbs.) per hour, or up to 10 liters (22 lbs.) per day. Untrained and unacclimatized subjects with lower sweating rates experience more physiological strain (Gisolfi 1993). Millard-Stafford cautioned that older people can dehydrate more easily due to age-related loss of thirst sensation and decreased fluid retention, as the kidneys are less able to concentrate water. Folks with high body fat have lower water reserves than lean people (Brumfield 2018).

**STAGES & SYMPTOMS OF DEHYDRATION**

**MILD DEHYDRATION:** Thirst - Reduced appetite - Skin flushing - Dark colored urine - Dry mouth - Fatigue - Mild headache - Chills - Dizziness.

**SIGNIFICANT DEHYDRATION:** Decreased sweating & urination - Increased heart rate, respiration, and body temperature - Extreme fatigue - Muscle cramps - Severe headaches - Nausea & constipation - Tingling & numbness.

**SEVERE DEHYDRATION:** Muscle spasms - Vomiting - Rapid pulse - Dim vision/ temporary blindness - Painful urination - Confusion - Respiratory depression - Neuromuscular seizures - Unconsciousness. Severe headaches - Nausea & constipation - Tingling & numbness.

Brumfield, Ben

Gisolfi, Carl V.

Wittbrodt, Mathew T.; Millard-Stafford, Milinda

**U.S. troops in Saudi Arabia during Operation Desert Shield (1990-91), where the Army studied the water needs of troops in severe heat. It found that water loss from sweating can be as high as 10 liters per day.**

The Survivor | Fall 2018 21
Happy to be out in the desert on a sunny winter day, at the exit of the Burro Schmidt Tunnel—El Paso Mts.

Death Valley Artist’s Trip: Students and teacher showing off their class work, February 2018.

Below photo: Celebrating six more weeks of winter at the Groundhog Day party.

Desert Survivors summer picnic, July 2018.

A fine lunch, following the Ruth Bancroft Garden tour.

Hiking past the “Doll House”, Canyonlands National Park.

A pair of desert flowers.


It was so damn cold at Lee Flat that 9 campers crammed into this heated van to eat dinner. That night the temperature dropped to 14°F!

Friends enjoying breakfast in the wild.
Photos From Our Trips & Events

Our summer picnic at the Marta Perry family ranch.

Lynne Buckner bundled up for a cold and windy day in the Mojave.

February 2018 Sierra Club Desert Committee meeting.

Marta Perry, Michelle Bashin and Steve Perry at our Groundhog Day party, February 2018.

Laura Cunningham holding class on "plein-air" landscape painting in Death Valley.

Sampling wild onions in "The Maze."

Top photo: Marty Dickies discussing fire hazards around the Saline Valley salt tram at the August 2018 Sierra Club Desert Committee meeting.

Atop "La Centinela"—one of the Joaquin Rocks—May 2018.

Backpacking down the "Moki Steps" in Utah.
Desert Survivors Membership Form

Membership dues are just $30/year, although additional donations are welcome. You can renew your membership by filling out this form and mailing it in with a check to the address shown below.

Name (req’d) _____________________________________________________________

Street Address (req’d) ______________________________________________________

City, State, Zip Code (req’d)__________________________________________________

Phone number: ___________________________________________________________

E-mail address: _____________________________________________________________

(Desert Survivors strives to prevent unsolicited use of members’ e-mail addresses, and contact details, and will not knowingly allow misuse. Our email-list servers guard email confidentiality.)

I want to renew at the following rate (make check payable to “Desert Survivors”):

_____ $30 - Tortoise (basic rate) _____ $50 - Roadrunner _____ $100 - Coyote

_____ $500 - Bristlecone _____ $1000 - Bighorn

Desert Survivors • P O Box 20991, Oakland, CA 94620-0991