# Western Cave Conservancy

## Protecting the West's Last Frontier

Vol 13 No 1 Winter 2019


### CLOUGH CAVE GATE REPAIR

*Marianne Russo and Steven Johnson*

Clough Cave, located in Sequoia National Park is highly significant due to its very unusual ecology. It is said to have one of the most diverse groups of cave biota in California and in addition is favorite roost for local bat species. Since its location is very close to areas of frequent public access, gates were installed to help protect this resource and its inhabitants.

A few months ago, it was discovered that both the gates protecting Clough Cave had been breached. The WCC was then contacted by Matt Bowers, who inspected the gates with Joel Despain. Since the WCC had put together two successful weekends when the current gates were installed in 2011 (replacing an earlier breached gate), Matt and Joel thought that we would be able to organize volunteers and food service to make the needed repairs. After getting approval from former WCC President Bruce Rogers, Matt took the lead in working with Sequoia National Park, organizing the volunteer welders, ordering supplies, developing menus and doing the myriad of other tasks needed to get the ball rolling. Marianne provided lots of advice since she had been a primary organizer in 2011 and she would be in charge bringing the cooking equipment and a variety of other supplies for the field camp. The Park Service was incredibly helpful, providing a porta-potty, all the ice we could use, extra tables, two large tanks of potable water and rigging gear for the high line needed to move the generators up to the cave. A generous and bountiful supply of food was provided by donations from FoodMaxx and the Sequoia Parks Conservancy, who also paid for all construction materials for the welding job.

On November 1st, Matt and Marianne, along with Steve Ruble and Barb Maeso Ruble arrived at South Fork campground by early evening and spent a couple of hours trying to fit all the

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Bill Roberts cuts steel for the gate repair.

Photo Credit: Steven Johnson

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*Editor* Mark Bowers



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food into the bear boxes. The next morning, Nov. 2nd, other volunteers started arriving and the camp began to take shape. We set up one of the big Western Region tents to house all the cooking equipment and food service area, unloaded the weekend supply of firewood Marianne brought and spent some more time reorganizing the abundant food supplies. Ernie Maier and Barb Maeso Ruble assisted Marianne over the afternoon in grooming the trail up to the cave. While Marianne trimmed back all the poison oak and low hanging branches, first Ernie and later Barb, raked away the loose dry leaves that made the trail very slippery. Here and there Marianne cut steps or leveled off sloped places.

Meanwhile, Roger Mortimer and Jerry Nicklesburg, with the assistance of Ernie Maier and John Bowling, worked on setting up the highline needed to haul the repair equipment up to the cave entrance, along with a safety line for a short section of exposure near the entrance. Fortunately, the amount of heavy gear that

Ernie Maier and John Bowling at the top of the highline.
Photo Credit: Steven Johnson

needed hauling was much smaller than when the gate was installed -- only a couple of generators and some welding equipment were large or awkward enough to require such attention -- so a simpler haul system was used, just to get the gear up past the steep part of the trail. (The replacements for the damaged portions of the gate were small enough that they were just hauled up in a backpack.)

By Friday evening the campground was very full. Along with 16 WCC volunteers who were

Evening at the cook tent—South Fork Campground
Photo Credit: Steven Johnson

present for the gating work, Joel Despain and his class of fifteen CSU Northridge students were settled in, plus five SFBC cavers (who were there for a trip to Soldier's Cave on Saturday) were setting up camp. This weekend was chosen so that Joel would be there to assist a little with an evaluation of the cave to determine if the vandals had done any visible damage, which thankfully they had not. Since he lives so far away now, near Redding in the far north part of the state, we chose the time when he already had plans to be there with his students.

Saturday morning, bright and early, we were up fixing eggs and bacon for everyone's breakfast and getting ready to move the welding gear up to the cave. Park staff were also very concerned about fire safety and provided us with four backpack water sprayers for fire suppression. We were obliged to have two volunteers on duty at the cave when welding was being done and two at the trailhead where the steel cutting was undertaken. Fortunately, the welding work to be done at the cave entrance was in a location that was recessed enough to be away from vegetation or other flammable debris, but open enough to reasonably dissi-

pate fumes from the welding work (keeping it safer for the welders and fire observers), helping minimize the danger; nevertheless, the fire observers had to be vigilant, as the nearby brush was as dry as you'd expect for early November in California.

John Norman and Bill Roberts cut and prepped the replacement bars for the damaged gate pieces in a parking area near the trailhead; meanwhile, two small generators were hauled up to near the cave entrance. John, Bill, and Vincent Clark took turns doing the welding work, as the location was a bit cramped and awkward. Fortunately, everything went quite smoothly, and the repairs were declared finished by late afternoon.

During the afternoon while the welding work was being done up at the cave, several WCC volunteers assisted Joel in teaching his students some basic vertical skills. Ropes were rigged to the bridge over the river and each student got a chance to rappel and climb. By the end of the afternoon all the gate repairs had been accomplished and as it was getting dark the equipment came down the hill and the highline was decommissioned. Then it was time to help with the big Saturday evening dinner. Matt prepared kabobs with a variety of vegetables and meat and Marianne did stir-fry asparagus with onions, mushrooms and walnuts. The SFBC cavers joined us in exchange for doing clean-up after dinner. We also required that Alan Chern, a member of that group, give a presentation of how he discovered the Soldier's key that Joel lost down the first drop in the cave. Quite the hero, he was! We spent a long evening sitting around the

John Norman Welding on the Clough Cave gate.
Photo Credit: Steven Johnson

warm fire roasting marshmallows or making "S'mores" and telling caving stories.

Sunday, Nov. 4th, was the day to pack everything up and head for home. Some folks who had not been able to see Clough Cave on Saturday took an opportunity this morning to visit this relatively small, but beautiful cave. By the afternoon, however, almost everyone had left. Matt, Marianne, John Bowling and Julie Booker were the last ones to leave, taking two Park Service vehicles to drop off at the headquarters on their way. This should be the end of the story, but unfortunately one of the front axles on Marianne's truck broke just as she got back on the pavement a few miles from the campground. This ended up being a huge inconvenience, to say the least. We unhitched my trailer and John towed it out to the headquarters. After leaving Marianne to wait for the tow-truck driver in Three Rivers, John, Matt and Julie went back to collect everything out of her truck and to pick up John's trailer with the region's tents. Then while the tow truck was collecting Marianne's poor truck, Roger Mortimer met up with Matt, John and Julie and transferred Marianne's trailer and all her gear to his SUV which he loaned to her

Matt Bowers and Barb Ruble fixing Friday breakfast
Photo Credit: Ernie Maier

for a few days so she and Matt could get back home with all their gear.

We want to end this story with a sincere thank you to all the WCC volunteers who so willingly spent their long weekend helping to insure the success of this project and see that Clough Cave is once again protected. We also thank the SFBC cavers for their kitchen help entertaining company around the campfire.
The volunteers: Julie Booker, Matt Bowers, John Bowling, Vincent Clark, Mike Dillon, Joel Despain, Steven Johnson, Ernie Maier, Amanda, Nathaniel and Roger Mortimer, Jerry Nicklesburg, John Norman, Bill Roberts, Barb Maeso Ruble, Steve Ruble, and Marianne Russo.

The SFBC cavers: Natasha Burroughs, Alan Chern, Sonya Meyers, Dominik Nadolski and Elaine Scott.

We also want to thank the Sequoia Parks Conservancy and Food-

Maxx for their generous contributions which fed the whole crew over this long weekend.

## SVR Update

Mike Davies

This article is written to provide readers with insights into of one of the projects that has been undertaken over the last couple of years within San Vicente Redwoods (SVR). We will follow up soon with articles on other project work and exciting opportunities at SVR.

As mentioned in the prior newsletter, when CEMEX sold the quarry, they destroyed all records including any maps and historical information on the tunnel system, a series of mined passages which were used to transport marble from beneath the quarry. Despite some inquiries within the caving community we were unable to find any existing survey data or maps. We knew very little other than the water traverses a large distance under the quarry.

So, at the request of the landowners, far and away the biggest project that has been undertaken is to survey and map this underground system. In the following narrative, I will not attempt to describe the history of these tunnels – others can provide a colorful historical accounting far better than I - but this is a very interesting story by itself and hopefully will appear in the newsletter before too long.

What seemed, at first, to be simply a project which we needed to be complete in order to fulfil the landowners' request, has since proven to be far more interesting and rewarding than anticipated. The work is a long way from complete and there are more discoveries to be made. But over the course of our many survey trips, we've encountered many things - mining artifacts, natural cave passages, interesting biota and surprising formations which have grown in a few short decades.

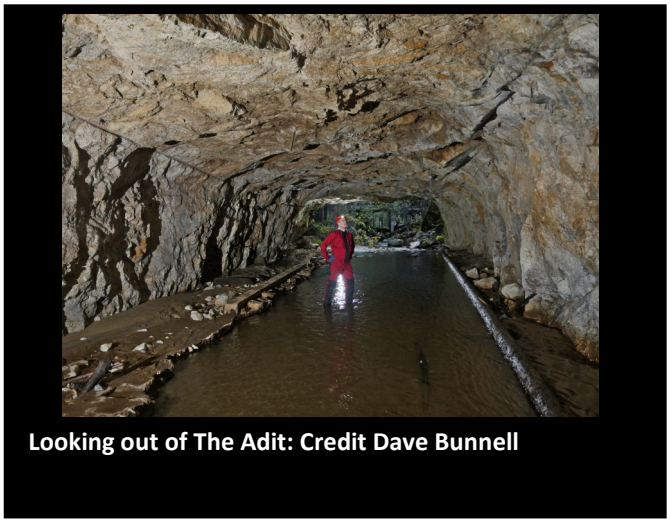
San Vicente Creek starts its journey underground beyond the northern end of the quarry. Water sinks there in the creek bed in the summer and, during the winter, also via the Water Raise, a deep shaft driven by the miners specifically for diverting water away from the quarry floor. All the water that flows through this long underground system, re-emerges at something we've come to call The Adit, the southern end of the system. Water discharges from the system here and flows down towards Davenport. After winter storms, this outflow is an impressive sight.

Survey work started back in 2014, with the first 700 feet of survey logged in just 8 stations. We picked up the effort in the spring of 2017. From inside The Adit, the passage runs almost 1000' dead straight before splitting into 2 passages at the Y-junction.

The survey work appears to be easy in these large tunnels, more than 15 feet wide and 8 feet high, but there are many metal fixtures remaining in the walls and running survey backsights was essential. Even then we saw significant compass deflections at times, requiring some alternate approaches from survey station to survey station.

At the Y-junction, the left-hand branch deviates from the dead straight entrance passage and after a few hundred feet reaches another junction, here splitting again, this time into 3 passages. Water is encountered in all of these branches at some point, with deep water canals in two of them.

During an early trip, we quickly found that one of these canals leads to the surface via a 25-foot shaft, witnessed as two descending cavers forged the connection and met us surveying upstream. The shaft is entered from the "The Swallet" above, which is an exposed bulldozing chamber or mid-level passage. In the winter San Vicente Creek overflows its sinks above the quarry, as well as the Water Raise, thundering down waterfalls onto the quarry floor. Water backs up to a height of 15 feet or more at the entrance to the Swallet taking a tremendous amount of water into the tunnels below and carrying with it huge amounts of debris (and other things) from the surface.



**Looking out of The Adit: Credit Dave Bunnell**

As a consequence, in the passages below, we've found numerous residents washed in, including many salamanders and a rare California red-legged frog. This influx includes a seemingly happy and thriving collection of California Giant Salamanders – the largest group that any of us have seen underground, with perhaps a couple dozen individuals.

Looking to future trips, there is more to explore in all three left-hand branch tunnels, with some digs through blockages possible and climbs into higher level 'manways' all waiting to be done. One climb done in this area has already yielded old mine

Y-junction: Credit Dave Bunnell

Rope Descent from Swallet into Deep Pool: Credit Mike Davies

ladders as well as a passage wide river of thin white calcite.

Back at the Y-junction, we surveyed up the right-hand branch which soon splits once more. The passage to the left is the resurgence of all the water sinking in the creek far to the north but is impenetrable at this location due to rock collapse. The right-hand tunnel continues onwards passing rock chutes (used to drop rock into the trains) on the left and shafts up to higher levels on the right.

These rock chutes are usually supported by wooden posts, but many of them have collapsed, freeing the rock behind them to fall into heaps in the tunnels. The rockpiles then act as dams trapping the sediment behind them. After each collapse the passage shrinks in height or rather the sediment depth increases. Eventually about 600 feet from the Y-junction, the sediment reaches the ceiling of what was once (and I suppose still is) an 8-foot-high passage. But we've persevered digging onwards through these sand blockages each spring to gain several chambers, before reaching one which finally allowed us to climb up into the higher level.

Bruce Rogers Surveying Shaft to Lower Tunnels: Credit Mike Davies

These higher-level passages are mostly (but not always) free from the impact of flood waters and we've found some wonderful things. In the large bulldozing chambers, we see formations that have formed in and around pools of water in a few short decades.

We've found evidence of the miners themselves in other places:

Miners Ladder in Manway

Lettering written in soot on the walls dating back to the 1940s

Old mine lamps, blasting wire and even an old explosives box

A trip in 2018 to survey to the end of the passages in these upper levels took more than 8 hours and there is much more to survey and other possible avenues of exploration as we ascend and descend the various passages accessible to us.

In numerous places throughout the tunnels we have intersected

**Rock Chute: Credit Dave Bunnell**

**Calcite Encrusted Pool (note boot print Credit Dave Bunnell**

natural cave passage. Some of these passages and chambers are very large, extending upwards perhaps 70 feet. Others are small and wind their way in different directions. None of them have been surveyed, so work to do here.

One large remaining mystery is the path the water follows after sinking in the creek far away above the quarry. It is not seen entering the Water Raise during dry conditions and is next seen in the tunnel passage mentioned above. The route it takes to get into the tunnels is unclear, but likely includes at least some cave passage. As we've only penetrated about 60% from The

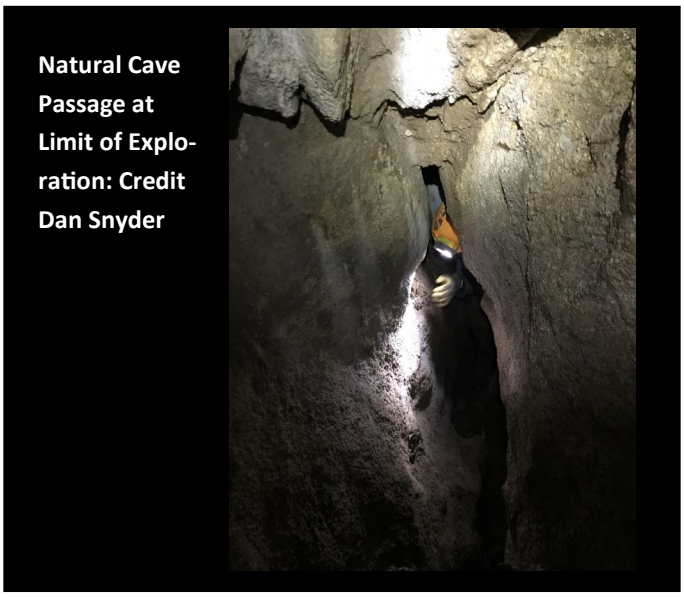

**US Santa Cruz Portland Cement Co. : Credit Mike Davies**

**Rock Bridge in Upper Levels: Credit Dave Bunnell**

**Empty (?) Explosives Box Credit Mike Davies**

Adit to these sinks there's lots more ground to cover, if we can overcome the barriers.

That's where we're at right now, waiting for the winter rains and floodwaters to subside, before pushing the limits once more. If you want to help unravel the mysteries, we're always looking for folks to support this ongoing work. So, if you want to survey, or enjoy wetsuit caving, or just want to see some the



**Natural Cave Passage at Limit of Exploration: Credit Dan Snyder**

historical points of interest in the tunnel system, please let us know.

## Letter From the President

By Steven Johnson

I'd like to begin by stating how honored I am to be selected as President of the Western Cave Conservancy. I've been a fan of the organization since Day 1, and it's going to be a fun challenge to live up to the work done by the previous leaders.

As you may have already heard, there are additional changes to the Board for 2019. Jerry Johnson has stepped up as our new Vice President to fill the vacancy left by Martin Haye, who has retired from the board. We also have a new board member, Rafael Langer-Osuna, who has very generously volunteered to be our "pro-bono" legal counsel.

Although Bruce Rogers has decided it was time to step down from leading the organization, we aren't losing Bruce from the Board: he has been appointed Science Director, a position for which he is well qualified.

The mission of the WCC is to ensure that threatened cave and karst resources in the Western USA are protected, and also to ensure access for responsible use. There's a lot of subtlety in that word, "responsible," and it implies a lot of things. As your new President, I'd like to share what it means to me:

For one, I think it means recognizing that different cave systems have different amounts of human traffic they can handle -- what level of visitation will avoid unreasonable degradation of the cave environment or biota? Every cave situation is different, and for better or worse, there is no one-size-fits-all approach to cave management; some caves can handle large numbers of visitors without issue, but others may require careful screening, both in terms of numbers and of level-of-experience. Either way, the goal is to feel confident that conditions will be preserved for future generations to experience the caves the same way that we do.

For another, it means that access has to be provided fairly, to all qualified people, without favoritism or discrimination. This really should go without saying, but it helps to remind ourselves that sometimes we have to reach out to ensure that all the interested members of our community can share these resources.

And of course, sometimes "responsible" means cooperating with restrictions we may not personally agree with, in terms of access limitations set either by property owners or by law. This can be a bitter pill, but in some situations it's the prudent course of action to ensure long-term access.

Those are my thoughts. I'd love to hear yours. Please feel free to share them with me at steven@westerncaves.org.

Cave softly!

## Windeler (continued from Fall 2018)

We enlarged the hole so that Jerry Sanders, was able to squeeze through and assess the situation. With his directions, after he told us the dimensions of the room, we dug another, adjacent, crawl space, so that we could all move in and out of there, at will. We had a little dinner and then continued the dig, that evening, and continued to follow my lead-the old coil of wire that had been dangling all along, right in front of us. If you recall, Charlie was aging and wasn't interested in the cave, as others had been. And my theory, all along, after several conversations with his niece, Juanita, was that he was getting concerned about his friends, the miners. So, with bottle in hand, one night, Charlie climbed down their wooden ladder-which we found pieces of-had a few snorts and then ascended, again, after placing some sticks of dynamite in strategic places, where he then lit the fuse to snuff out the entrance, for he didn't think that man-at least his friends-were ready for a place, like Windeler Cave. Sunday was the "big push" and we worked like Trojans throughout the day. Just before shutting down for the weekend, Jerry had made one last effort of digging and "Eureka," his shovel blade went into another void, and this one was it! We enlarged the tiny crawl so that we could slither into the first major room, which we dubbed the Entrance Room, finally accomplishing what we had started out to do rediscovering Windeler Cave. Our last efforts paid off with the opening of the cave, but then we were concerned that we needed to reseal the dig, somehow, for

we wanted scientific studies to be done on this cave, as well as exploring it, and preserving it for future generations to see. This was the most pristine cave in the Mother Lode, as far as we knew. We quickly surveyed the Entrance Room and found a crawl way, leading us down through a small formation passageway. There was a forceful breeze blowing, as we slithered on, and this just intrigued us even more so. We climbed up into a fantastic helectite area, which looked out into the Big Room or Junction Room, as some have called it. We took several photographs of the areas that we were seeing for the first time, but feared that we shouldn't go on, for we wouldn't stop exploring, and it was a long drive back to the Bay Area. The others who were packing things in the trucks, getting us ready to go back to our homes, were elated as we crawled back up and shared what we had seen. Several of us almost quit our jobs, right then and there, for we wanted to continue exploring and find out just exactly what had we dug into. The Carlsbad of the West?

We had sought out advisement from the Forest Service, as to what to do, and they advised that we make the shaft safe, so that was to be our objective for the next several trips. We had purchased Kaiser conduit, rated at a high bending strength, tons of concrete, rebar, and other scrap steel for building our shaft. We had discussed our plans, many a time, over meals beforehand, so we knew more or less what we were going to do about building the shaft, so that it was strong and safe, and would last for eternity.

Considering we were still in the mining business, filing our annual reports and all, and now complying with Forest Service directions on the shaft, several weeks were devoted to this part of our venture. And, it almost made one cry when we were shoveling back some of the dirt and rock that we so carefully hauled out of that dig. But considering the way the steel shaft was put in there, we had to back fill it and this was the best way, after all of the other safety aspects of erecting this entrance were considered.

The exploration of Windeler took another interlude, for many of us were registered for the NSS Convention in White Salmon, Washington. So it wasn't until November when we started exploring the cave in earnest. We found out that it wasn't a virgin cave, and we already knew that, but it was the closest thing to being pure that we could hope for. We found spent carbide, markings on the wall-it was amusing that the miner, Zeke, couldn't write his "Z," other than backwards-and knew that the cave had been preserved for the past twenty years. Was man ready for Windeler Cave now? We thought so, but quickly found out that maybe Charlie was right, in that man might not be ready for his cave.

Early exploration and surveying of the cave was done, at times, with only a few cavers, like Ron Heard and Joe Head, who helped in the digging project throughout its phase, even though Ron had never even seen the inside of a cave before. They were young high school students and eager. Where have they gone off to? The three of us pushed the passages and revamped some crawl ways-like the Ray deSaussure Passage, which we dedicated to Ray, for we had seen where he left his initials carved into the rock. This also, proved, that Ray had gone on and found the area that we had labeled, 'The Upside- Down Room." Little did we know that cave graffiti can also be historical, especially for identifying past cave explorers. We tried surveying, also, at this exploration period, and most of us handled one part of the process, although Karl Anania recorded most of the book work, along with myself. Vern Smith drew a lot on the map, as well as myself. Later on, we resurveyed the cave with Carol Vesley and crew, along with Janet Sowers and Peter Bosted doing the cartography, so it was team work all along.

***The WCC recognizes the seriousness of the White Nose Syndrome (WNS) problem that is occurring elsewhere in the country and has produced a short, easy guide for cavers to decontaminate their caving gear and clothing. A copy of this guide is included with the mailing of this newsletter and is available on our website or by sending a request to WCC Secretary, Marianne Russo ("marianne@westerncaves.org"). She or another member of the board will be happy to provide extra pamphlets to share.***

***While, so far, WNS is not known to occur in California, cavers need to be prepared. In fact, the upcoming Western Regional meeting, to be held in Redmond Oregon on Aug. 31 through Sept. 2, will require all gear to be decontaminated before going caving. With the help of our guide (taken from guidelines included on the NSS website) you will be able to be ready for caving where ever decon is required.***