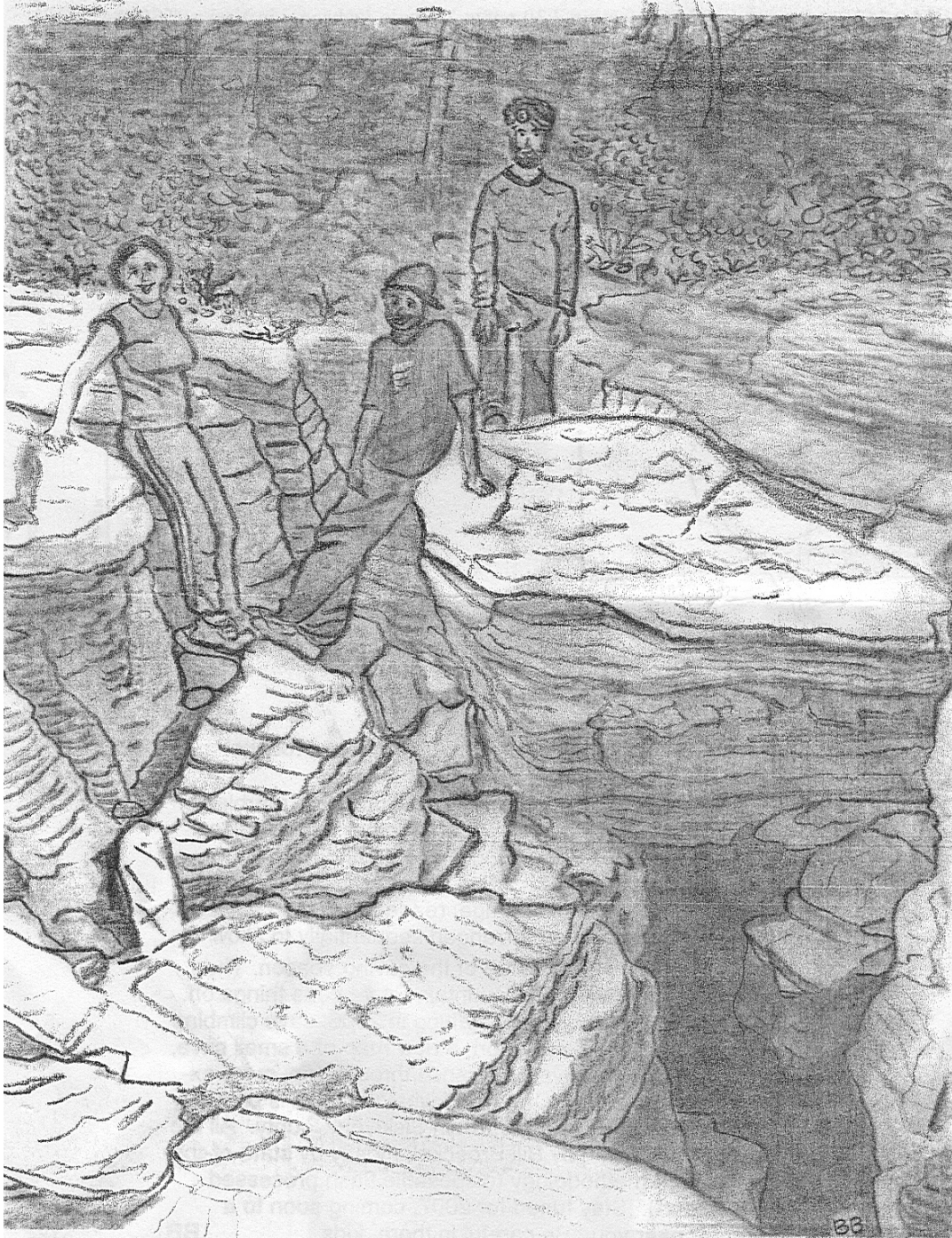


# sag rag

26:1 January-February 2007



Becky Broeckel, Benyam Broeckel, and Larry McTigue  
at the entrance to Black Mountain Pit #4 – July 3, 2006

**INSIDE: KMCTF activity in Siskiyou County – 2006**

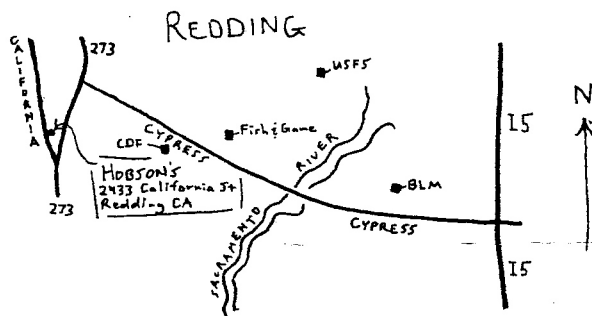
The SAG RAG is published by the Shasta Area Grotto of the National Speleological Society, Grotto meetings are held at different locations the fourth Friday of each month at 7:30 p.m. Meeting locations are announced in the SAG RAG, Membership dues are \$6 dollars per year and include newsletter subscription. Original material not otherwise noted is copyright to the SAG RAG. Such material may be copied with credit given to the author and the SAG RAG. For use outside of the caving community, please seek the permission of the author or editor first. Send material for publication any time to Bighorn Broeckel, 2916 Deer Meadows Road, Yreka, CA 96097 or <jbroeckel@snowcrest.net>. For more on SAG, check the web site at <http://www.caves.org/grotto/sag>.

## CAVERS CALENDAR 2007

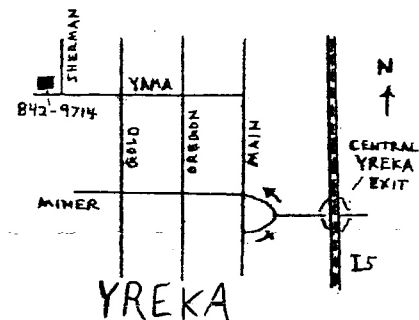
Mar 16	SAG meeting 7:30 pm at Melanie Jackson's in Yreka (530) 842-9714.
Mar 17	Bat Day at Turtle Bay, contact Liz Wolff (530) 964-3123.
Apr 20	SAG meeting 7:30 pm at Hobsons in Redding (530) 242-8707.
May 18-20	SAG meets at Speleo-Ed Seminar in Lava Beds National Monument.
June 15	SAG meeting 7:30 pm at Hat Creek, contact Broeckels (530) 842-0817.
July 20-22	SAG 25 <sup>th</sup> Anniversary Reunion Weekend at Lava Beds National Monument.
July 23-27	NSS Convention in Marengo, Indiana.
Oct 13-21	Crystal Cave Restoration in Sequoia-Kings Canyon National Park.
Oct 26-28	Western Regional at Pinnacles National Monument hosted by SFBC.

### MAPS TO THE MEETINGS

#### APRIL



#### MARCH



### SAG RAG SUMMARY By Bighorn Broeckel

Another season of sub-alpine caving in the marbles of Siskiyou County is reviewed in another jumbo edition of the SAG RAG. Everything we could find from 2006 gets compiled here, with some reports rated R for some rough situations and language, reader discretion advised. The various reports are arranged sequentially to allow readers to follow the course of the caving season. Then a review article on Black Mountain Pit #4 caps things off.

There is a little bit of everything in 2006: cave climbing in Bigfoot, an accident report, a new map of a small cave, a Meatgrinder/Discovery Entrance through trip, more extension in Drystream Cave, and what we think is probably the first ever cave diving effort in Siskiyou County. All the photos were taken by Bill Broeckel, mostly by state-of-the-art low-tech methodology (disposable flash processed by Walmart). Stay tuned for 2007, coming soon to a summer near you. Be careful in there, kids.

BB

### THE MISSION STATEMENT OF THE SHASTA AREA GROTTTO

The Shasta Area Grotto is a conservation minded organization devoted to the protection and study of caves and their contents.

SAG Meeting at Wolff's, McCloud, CA. December 8, 2006

Members attending were: Judy and Bill Broeckel; Ray Miller; Liz and Jim Wolff.

Meeting Opened by Chairman, Liz Wolff at 8:03 pm.

Minutes were read and corrected.

There was no Treasurer's Report by me.

SAG RAG Report – Bill says that he might put out a Jumbo issue, some with ballots for eligible members. He has plenty of material for the newsletter, for awhile.

Correspondence –

– Matt Bowers, Western Region Chair, sent us the western region meeting schedule, and we are scheduled with Shascade Caving Society to host the 2010 Regional. The SFBC will be hosting the 2007 at Pinnacles Natl. Monument on Oct 26-28, 2007. Matt also informs us that we are potentially eligible for the Western Region's Conservation Grant, and he gave us an example on how to fill out the grant application.

– From the KMCTF2 list, we learned that past member, Steve Knutson, has published a book on Oregon Caves. Scott Linn had a better link <http://caves.org/service/bookstore/#new> that takes you to the description and photo of the dust cover in the NSS Bookstore web page.

– Matthew Farnell is selling cave calendars for 2007, from "Caves of the Northwest" or "Oregon Caves". Plus you can choose your own pictures from a gallery – a unique option.

– Joel Depain sends us the word that a TV show, NASCAR Angels, are offering to fix a cave park's volunteer's car - free! Interested? Contact us, for a copy of the particulars.

– Elizabeth Hale, from the Oregon Caves Natl. Mon., notified us about the Finding of No Significant Impact for the Environmental Assessment of the Oregon Caves' Subsurface Management Plan.

– The NSS' BOG needs a Web site designer.

– The NSS Internal Organization (IO) Annual Report for 2006 is now due.

– Ken Siegrist sends us an Associated Press release about an outbreak of E. coli found in Mammoth Cave National Park. They don't know if it is from humans or animals yet, however, no one has become ill. One section of the cave is now closed – Mammoth Dome. Park Officials have considered options to reopen it, including another Plexiglas cover.

– Ray Miller brought along many Kiddie-Grams, from the 3<sup>rd</sup> grade class of Dunsmuir Elementary School, whom Liz and Ray took into Barnum Cave, earlier this year.

– Bill Broeckel mentioned he saw that the Butterfly formation in the Caverns of Sonora was damaged.

– Jim mentioned that there are two more NSS cavers in Grants Pass, OR. I will send them SAG membership application forms.

– Liz wrote to Juan de la Fuente of Klamath NF – no answer. She feels he is probably burning his "use-or lose" annual leave right now, so she doesn't expect to hear from him now, until the first of the year!

OLD Business

– Museum Display. The museum Board approved of our proposal. We have a \$50 contingency clause, for our cost. Liz made a logo. We will use a manikin. We have Jan, Feb and March to get the display done. Ray suggests we use a TV with DVD/CD player as an option to the PowerPoint idea. Liz displayed a scale model of the display room, table and display case.

– New Meeting Date Sequence Now Started. – Third Friday of Each Month.

– Speleo-Ed Seminar, Liz will be teaching a Cartography Workshop.

– Any additional nominations of SAG officers? There were none.

NEW Business –

– Ray reported on Turtle Bay Museum's "The Day of the Bat", which is tentatively scheduled for Mar 17<sup>th</sup>. Cavers have been invited. Question, do we, SCS or both of us participate? Liz asked Ray to get more info for us. It is a good opportunity to represent the NSS. Someone will ask the NSS about a discount on the brochures that they normally provide new members.

Trip Reports –

– Bill went last Tuesday, the 4<sup>th</sup> to the lavas and mapped Ice Candle Cave to 260 ft long. He said that Ernie Coffman found it 10 years ago. Bill also mentioned mapping in Ancient Palace Cave and finishing up the upper cave, down to the bottom of the rope.

– Liz, Melanie and Jim did some resurveying in S. Labyrinth Cave, during the Thanksgiving weekend CRF expedition, at Lava Beds National Monument.

Meeting Adjourned at 9:16 pm

**JW**

## KMCTF SPELEOCAMP JULY 06

By Steve Knutson

We had a successful July 4 weekend KMCTF trip. Bill Broeckel, Randy Studebaker, Ethan Donahue, Lindsay Koestner, Scott Linn, and Larry McTigue plus a couple of Bill's grown kids (Becky and Benyam) were in attendance. Bill did some scouting in the Wooley Creek area; Bigfoot was entered by Scott, Ethan and Lindsay, heading for the Chthulu Room climbs, but the Lurking Fear was too wet to go down, so they just familiarized themselves.

Bill et al mapped Black Mtn Pit #4. Skunk Hollow and Wahahshun were checked for digs, and I went around the upper karst putting GPS on every hole I could find, and the RP's (reference points). Both RP8 and RP1 are down. We will get this GPS info up on the website for downloading soon. There were several holes I think have never been worked on, but it's hard to be sure. I got about 50 holes so far, but didn't get all the known caves yet. Anyone up there at any time, please put GPS on anything you go to.

Note your DATUM!!! and report that with your data. I am using WGS84, UTM... And don't assume what your datum is. Actually look and see. Without that, the data is useless. The plastic name tags I put on known caves about 10 years ago have all but disappeared, from deterioration of the plastic. Damn that biodegradability... The snow was mostly gone, but was heavy in some large sinks and in many sheltered ones.

One of the static, blue ropes that Scott had donated, had been left on top of the rope garbage can, as it had not fit last fall when we packed that stuff up. Over the winter it had been chewed by rats or something, but white PMI nearby had not been so chewed. It is still my thought that rats chew only on rope that has a sweat or food smell on it from being handled with bare hands. In the past, rope in the grain shed bin would have rat nests inside the coil, but not be chewed. Best to rig a rope with gloves on, in my opinion.

The weather was great. The parking lot was never full. Overall wilderness use is down. Susan Tebbe from the U.S. Forest Service was there, cleaning out the cabin. We talked with her briefly on the way out. For packers currently working, she recommends Duane Eastlick and Ken Smith. They're good guys.

Bill reports that he cleaned up a cache at the camp below the cabin, with containers marked NSS and NAG. I have sent an inquiry to Steve Hobbs at Redding. Please ask around as to who's stuff that is. I am also inquiring about the second rope in the Bigfoot Discovery Entrance, as that is just a bad situation. Juan de la Fuente, geologist with the National Forest says he is working on the new MOU. **SK**



Ethan Donahue pushes the extremities of Black Mountain Pit #4 on July 4, 2006.

**JULY SPELEOCAMP 2006** By Bill Broeckel

June 30 – Judy dropped me off at the trailhead late. Some of the trails were closed due to wildfires, but I was able to hike right on up to camp, getting in about midnight. Larry McTigue was there, already sleeping I think. I didn't even notice he was there. I just set up my bivy and crashed.

July 1 – I was in a mood, so set out on a long hike. I talked to Larry before leaving and took a moment to show him the Skunk Hollow entrance. I walked by Immaculate Shaft, Snow Pit Cave, and then the Meatgrinder entrances to Bigfoot. From there I went over the entire mountain and a long ways west, beyond all traces of marble, and where there are large mountains that don't have names. It was a very quiet night where I slept on a ridge, and there were no people.

July 2 – Returning to the marble this time casting south, eventually I slouched back into Speleocamp, which was now in full swing. My feet were sore and I was hungry and over-heated. Besides Larry McTigue (pronounced with a long "i"), others present in camp were Lindsay Koestner and Ethan Donahue (moving to Portland), Scott Linn, Steve Knutson, and Randall Studebaker (with the Coast Guard and related to Roger Jones). Then two of my kids walked into camp (Becky and Benyam Broeckel) at dusk to cheer up their Dad. Without much to show for my long hike I was happy to see some family. By this time I had set up my big green tent, so it was easy to make some room for their sleeping bags. Also, they brought extra food!

July 3 – Ethan, Lindsay, and Scott headed for Chthulu by way of the Big Room in Bigfoot Cave. However, they were turned back by high water in the Lurking Fear. Steve did GPS on the upper karst relocating some of the more obscure caves such as Arch Pit.

Larry, Becky, Benyam and I went to Black Mountain Pit #4, starting to gather some data for a map of that small cave. Back early from the Bigfoot trip, that group wanted some more caving. Randall then joined them for some touring and vertical practice at Wahahshun & Planetary Dairy Caves. Benyam and Becky hiked out that evening, so I had the green tent to myself, and the extra food. I began to recover from my arduous hike.

July 4 - Ethan, Lindsay, and I went back to Black Mountain Pit #4 and added some details. We pushed further into some breakdown off the side passage and again back up near the ceiling in the main room. Ethan climbed over a large block as another route into the small rat room underneath the same block. This was a morning trip. Everybody hiked out by the end of the day. I think I was the last to go, and I took some time to tidy up some caver's stash which had been disturbed by bears. I borrowed a couple helmets from the stash the previous day for my kids, so in my mind this work was kind of a repayment for that. Also, we need to nurture the reputation of all cavers in these mountains, just as a general rule of conduct. **BB**



Lindsay Koestner admires moonmilk and millipede in Black Mountain Pit #4 on 7-4-06

**CAVE CLIMBING TRIP REPORT** By Matt Covington

Here's the report for the climbing trip the weekend of August 18-20, 2007. Jason Hoorn, Greg Milano, Sam Chang, Andy Casarez, and myself arrived at the trailhead around 11AM Friday morning, and left for the valley around noon. After arriving we set up camp and retrieved a few ropes from the cache. Several of us planned to enter the Discovery Entrance, & scope out some of the climbing leads that Steve had described. Upon arriving at the entrance, there were two ropes rigged. One was the "Redding group's" rope, the other appeared to be a KMCTF rope, but I wasn't sure. I pulled the Redding rope & rigged a rope from the cache since I was uncertain of the history of the other rigged line. The Redding rope is now in the cache.

Sam and I descended to the bottom of the pit. Jason and Greg had planned to follow but opted for a quick trip to Skunk Hollow instead. We entered the cave around 5:30PM. Sam and I proceeded to Echo Dome just upstream from Cave Junction. There were three domes there, two of which had possible leads. The lead in Echo Dome itself looked small-to-non-existent. However, a dome just to the north had an interesting looking offset dome/room above it. It would, however, be a multi-pitch bolting adventure to get there.

We then proceeded to the Meat-grinder stream. Steve had described a "monster dome" along the stream passage there. We found the dome and pierced the blackness with our headlamps. It was probably around 80-90 feet tall with what appeared to be a sizable passage heading off from it. There was also a loud splooshing sound (like a consistent drip into a pool of water) coming from above ... intriguing indeed. This would also be a long involved bolting route. However, we're interested in checking it out in the future. For Saturday we decided to head to the Chthulu, Room area because there were several climbs there which seemed doable in a day. I had previously scoped out some of those climbs. That area would also give our sherpas (some of whom were visiting the cave for the first time) more of a chance to poke around and see other things.

Saturday morning John Lane, his brother Michael and Robin Winters arrived in camp. We entered Bigfoot at 11:30 AM with a large group of eight people. This is really too large of a group for waiting in the Discovery Entrance, but with such a large group it did make hauling the climbing gear fairly trivial. Our plan was to travel together to the Chthulu Room and then split into two groups; one would stay with the climb, the other would check leads and learn the nearby cave.

Upon arrival in the Chthulu Room (by way of Hanging Rocks), we scouted out several different climbs, first, the dome that was supposedly taking air from both directions. As far as I could tell there was only air coming from one direction, and a lot of it (from the passage headed over the Big Room). I climbed the first tier of the dome up to a ledge where I could get a better look. It continued as a 40-50 ft tall fissure. I couldn't see any definite passage, but there could be some there. Also, as far as I could tell there wasn't any air headed up the dome.

Second, we looked at the lead up the small passage that heads WNW from the room, above the entry passage. The lead at the end of this passage looked possibly free-climbable (though one might want bolts for protection). It led to a fairly good looking passage with a bit of water trickling out. I don't remember whether there was airflow, but it is marked as such on the map.

Third I checked the lead at the far north end of the room. It was a two-tiered climb which was possibly free-climbable. Judging by what is on the map, I assume that the first tier has been climbed, and the second is the lead. It looked like it could go somewhere, but it was hard to tell from the bottom.

Finally, we noticed several climbing leads in the main room itself. One was on the west wall (above the WNW passage). It heads up a small chute for about 60 ft before popping into a void above. There is some water trickling down the wall. Near the center of the room, maybe 80-90 ft off of the floor is a large looking lead with lots of flowstone coming from it (it's the source of all the flowstone coating on the rocks on the floor). This looked quite enticing, but it is also a very challenging climb. It could be most easily reached as a traverse from the western wall of the room, but it will still be a 2-3 pitch climb.

We decided to climb to the lead on the western wall because it looked doable in a day. It had the added benefit of getting us 1/2 way to the big lead above. I racked up and started bolting up the wall. Meanwhile, the others went to scope out the Dry Borehole and make sure we could get to the Lurking Fear without rope (we hoped to exit by this route). As I finished placing my 4<sup>th</sup> bolt, they returned with news that it was straightforward to get out that way.

Greg and John were coming back up out of the breakdown from the Dry Borehole when we heard Greg say, "Whoa!! John! Are you clear??" The boulder he was on top of was starting to shift. John replied with a, "No! No! I'm not clear!" This was followed by a terrible sound of crashing boulders and horrific screams by both John and Greg. We all thought we were hearing the sound of John being crushed or severed in two. This was followed by screams for help. Those watching the climb bounded across the room to see what had happened.

The floor and ceiling of the choke had simultaneously collapsed sending John into a freefall. He fell about 10 ft before stopping and being pinned under two different boulders. He was able to slither out from under the rocks, but it was obvious that his leg was badly injured. Aside from that he was intact. After a few minutes it was decided that he could probably make it to the entrance on his own power. We couldn't tell if anything was broken, but the x-ray later showed that he broke his fibula right below the knee.

We used a few forward scouts to figure out the best route, while the others helped John. He was able to cave out from there in 3 hours. We had everyone out of the cave by 1AM. John hiked out the next morning.

Luckily this story had a happy ending, but it was a reminder to all of us that the Marbles caves are a very serious cave environment. This unstable breakdown was on a main route. Countless cavers had climbed across the rock that fell. For some reason it chose this time to fall. A serious injury in Bigfoot, in which the victim is unable to rescue themselves, is likely to become a fatality. John seems to be recovering well and it appears that he won't be needing surgery. Sam and I plan to return to finish the climb sometime later.

**BIGFOOT TRIP ACCIDENT** By John Lane

Matt Covington has filed a trip report that accurately communicates this accident. At the request of Steve Knutson, I am providing a first hand explanation. The following is my version of the accident that occurred at approximately 17:30 on Saturday 19 August 2006 in Bigfoot Cave.

Matt Covington and others were busy bolting a climbing lead in the Chthulu Room while Greg Milano, Robin Winters and I left the room to investigate the possibility of making a connection from the Chthulu Room to the Terminal Room via the Dry Borehole. At the Terminal Room, Robin left Greg & me to rejoin the climbing group. Greg was in front of me by approximately twenty feet as we caved through the Dry Borehole on our way towards the Chthulu Room.

At the connection to the Chthulu Room from the Dry Borehole there was a Geo-Metro-size rock smeared with mud from caver traffic. Greg was on one side of the rock with his upper body sticking into the Chthulu Room and I was on the other side of the same rock when he said "Are you clear?" I responded with "No, clear from what" as I scooted up directly behind and lower than Greg but on the same side of the large rock. I was literally two inches from him and standing on the same pile of rocks as Greg when he again said "Are you clear?"

Before I could respond, the pile of rocks that I was standing on collapsed and I fell approximately 10 feet onto the floor of the cave. As I fell I went under the Geo-Metro-size rock which then toppled on top of me becoming wedged between the ceiling and the floor of the passage directly over my lower body. During the fall my left leg was smashed between the large rock & another rock. A different rock weighing approximately 400 pounds came to a rest on top of my chest.

Greg called for help from the climbing group and told me not to move as he assessed the stability of the rock jumble. He asked if I was okay to which I replied "I am fucked up, can you get this rock off my chest?" I told him that I could breathe but my leg was on fire. Greg then came down to me and between the two of us we managed to move the rock off my chest and let it flop to where I had been laying. I then shimmied under the Geo-Metro-size rock into the beginning passage of the Dry Borehole.

By this time the whole group had gathered around me as Greg performed a primary assessment. I was dressed in IMO coveralls with knee pads and expedition weight polypropylene underneath. The coveralls were still intact and there was no indication of bleeding. I didn't want to expose my leg thinking that the polypro was holding my leg together. We decided to wrap an ace bandage over the polypro. I drank some water and ate two 200 mg Ibuprofen tablets and decided that the closer I could get to the entrance the better the situation would be.

While the climbing group packed their gear, I gave my pack to my brother to carry, and Greg, Robin, and I began negotiating the Dry Borehole. We tried to split the group into two in an effort to avoid a bottleneck at the ropes but we all managed to exit at about the same speed.

While the climbing group packed their gear, I gave my pack to my brother to carry, and Greg, Robin, and I began negotiating the Dry Borehole. We tried to split the group into two in an effort to avoid a bottleneck at the ropes but we all managed to exit at about the same speed. We exited the cave via the Terminal Room, the Lurking Fear, Big Room, Cave Junction, Discovery Creek and Discovery Entrance. By the time I arrived at the Discovery Entrance pit, Sam was just beginning his ascent.

I was the next to ascend and exit the cave. I figure it was about 21:30 when I fully exited the cave. I then hobbled back to camp and waited until 01:20 when the last person (Matt) arrived at camp.

The following morning my left leg was swollen in excess of 2 times the normal size. Getting upright and putting my boots on was very difficult. I left camp at about 08:30 and arrived at the trailhead at about 13:00. Hiking out was extremely difficult. I arrived in Chico at 17:00 and went to sleep shortly afterward.. Monday morning around 08:30 I went in for x-rays. Because of the nature of the accident they x-rayed everything. The injury was a fractured left fibula with the ball behind the knee broken off. Since the fibula is not a weight-bearing bone, surgery was not needed and I should recover without incident.

I perceive this unpleasant incident as a freak event. The passage had been passed by many other cavers and at least five others on the same day. We all know that rocks fall and gravity is unstoppable. Greg felt with the side of his foot that the large rock was balanced. Somehow, by the large rock moving slightly, the rocks below became dislodged causing the floor to drop out from under us. Greg was left holding onto the rocks with his feet dangling in space. I look forward to going back to that passage and reassessing this incident. Limp lightly. **JL**



Wilderness foot trail way off in the hills on 7-2-06

## CAVE DIVING TRIP REPORT By Mark Fritzke

*Thanks to Steve Knutson for connecting me with caver/diver Jeff Waugh. Jeff was extremely well-prepared and professional, and I am confident we will succeed in penetrating some of the sumps that have stymied many of the connections and extensions we have worked on for the last 30 years.*

August 25, 2006. Two weeks shy of the 30th anniversary of my first Marbles trip, I hoped to resolve a mystery: "Where does the sump in Upstream Cave go?" After ten months of e-mails and planning, cave diver Jeff Waugh, Bill Broeckel, and I met at the trailhead parking lot at 7AM. Jeff had two 40 cu.ft. dive tanks and two duffels with 32 pounds of lead to divide among us. In addition to my personal gear (tent, stove, food, vertical gear, drysuit and caving gear), I added a tank and a duffel. I decided to use my old kelty frame pack to support the behemoth load, and by 9:30AM we were ready. I had to bear-hug the pack to lift it to a picnic bench and again to lift it to the table for a pre-trip photo. I crawled into the pack straps and lurched forward – "Ugh" – it weighed well over 100 pounds.

We staggered up the trail and I didn't stop for two hours until I was nearly at a major fork. While I ate breakfast, we found discussing any topic of the day to be much more rewarding than subjecting ourselves to more "cruelty to animals". After another hour, we split from the trail near a creek. We dumped our packs and filled water bottles to add another 10 pounds to our loads. I couldn't find a convenient log to support my pack, so Bill and I hoisted it against a tree while I tried to get into the shoulder straps again. Even then, I was about to turn turtle until we managed to get the beast up and over my feet.

I was aiming for the skyline at the marble bench, but even with a walking stick I could only push up the slope for 100 feet before stopping to let my breathing subside to less than a desperate heaving. Blinking through the sweat, I was grinding away in increments of 50 feet, then 30 feet, 10 feet, 5 feet, until I had to crawl between a pair of closely spaced trees and lurch the final 25 feet to the plateau. I couldn't go on. I just stood there gape-jawed and heaving until I found a flat spot and let the pack drop. "We're camping here!"

After a few hours of camp set-up and recuperation, we were ready to stumble up to the cave. The runoff from last winter's 180%-of-normal snow pack had altered the streambed. Some places had been scoured up to two feet below last year's level, while a dig Matt Covington and I began in October 05 completely filled in, and the 4-foot diameter by 20-foot long log hovering above another dig had floated away. Just before sunset, we donned cave suits at the entrance of Upstream Cave and began ferrying in the tanks and duffels.

Bill and I were the last cavers to visit the cave back in 1993, when I investigated the sump after 17 years of trying to attract a cave diver to the area. The sump is at the end of a 50-foot-long knee-deep pool, and just past a side passage that leads to a long crawl and the upper end of the cave. Here the floor drops from calf deep to waist deep, and the ceiling drops from 8-ft and appears to flatten just below the water surface.

I had taped 10 feet of poly pipe onto a snorkel, and assured myself I could exhale and still inhale fresh air. This was purposely a self-limiting set-up that would allow me to push a shallow sump, since one can't inhale against the water pressure below about 2.5 feet of depth. As Bill held the other end of the hose above the water, I crept gingerly into deeper water to avoid disturbing silt clouds and tried to adjust to the 35-degree temperature. I wore swim goggles and trained my light on the mysterious deep blue-green pool ahead. Dipping my head into the pool provoked repulsive thoughts, "Get out



100 pound packs on the cave dive trip 8-25-06





Jeff Waugh in Upstream Cave on 8-25-06.

you idiot!" but I forced myself to endure the head-shrinking cold.

Below the surface, I could now see that the ceiling was not flat, since the index of refraction had misled me. Instead the 4x5-foot tube dove to a low point 6-feet down, where my snorkel would be useless. I was determined to have a look-see, so I hyperventilated and pushed myself into the blue depths. As the ceiling flattened out, I could see the white-walled tube bending upward, and the ceiling appeared to rise to a silver reflection about 15-feet ahead, but my goggles were fogging and I just couldn't be sure. I came up for air and made another attempt, but I had disturbed the silt floor enough to cloud the view, and this time I couldn't see more than 5-feet. My head felt like it was about to pop from the cold. I had to quit. So much for snorkel diving!

Now, Bill, Jeff, and I dragged the gear through the entrance tube, over a marble ledge and down a low-wide cobble-floored passage. After 80-feet, Bill stopped where the ceiling dropped into sand with only an inch of airspace and began digging. Although I had dug here before, this time we had to dig for three feet before popping into a descending rift. We fed gear down to some muddy slabs before where the passage flattens into a sandy-floored tube. Compared to most caves in the area, this was pleasant passage, and we dragged duffels and tanks through sand dunes while carefully avoiding banging the tank valves and clogging them with sand and mud. After 250 feet, I saw an alcove on the right and peered into a 20-ft tall chute just wide enough to stand in and suit up. The main passage bent down to the left and right before plunging through a low arch at the beginning of the sump pool.

We had already had a long day, so we stashed the gear and discussed the logistics for tomorrow. I offered to Jeff, "Do you want to go see the sump?" but he declined since we were really tired and didn't want to get wet by wading through 50-feet of pool. We exited the cave and returned to camp for a quick dinner before crashing for a well-earned rest.

Saturday morning, we were full of anticipation, and I briefed Jeff on the passage junctions I expected him to discover on the other side of the sump. After 30 years of pushing and digging every cave in the vicinity and numerous dye traces, I had a fantasy cave all mapped out in my head. We had a CB-radio in a ziploc for Jeff to call me from the other side of the sump. I had already proved this method could work, when we communicated between teams in Bigfoot & Trail Junction Caves. I hoped he would find a connection with the stream from Bigfoot/Trail Junction/Sinking Stream Caves and evidence of a potential entrance where the passage passes under the surface streambed. Maybe Bill and I could exit the cave and find a spot directly over him and pound on the surface boulders until we had an audible connection! The ultimate discovery

would be the confluence between the two major underground streams. Would he find this "Holy Grail" spot I have sought for 30 years? I began to talk in terms of "when you get to the other side of the sump" instead of "if".

This time my pack was so light I tossed it onto my shoulders, and we strolled over to the cave and quickly suited up under a fly-infested hot and sweaty sun. As we entered the cave, I dragged a pack with my drysuit and "Disler stakes", 8-inch long PVC pipes cut at an angle at one end and notched at the other for anchoring the dive line. We breezed through the cave, and Jeff entered the dome-alcove to suit up. We traded places so I could suit up (for a support position) while he set up the tanks and regulators. Bill took photos and Jeff and I each dragged a tank through the wet crawl to the other end of the pool. After 30-feet, the ceiling rises to walking height just before a tube emerges from the left wall.

Suddenly I looked up to see Jeff standing on a sand and cobble beach and wondering where the sump was. Huh? In the 17 years between 1976 and 1993, there had never been anything but a pool here, progressively deeper toward the sump. Now, it was apparent that a flash-flood type event had blasted several cubic yards of sand and cobbles from the side passage and nearly filled the sump. I won't repeat the expletives, but I was shocked and disgusted. How could a passage be "exactly the same" for all those years and now get filled in by some cataclysmic event(s)?

At the end the passage dipped into a shallow pool, just over a foot deep and 3-ft wide. As I urged Jeff to check it out, he removed his dive reel, and gamely stuffed a single tank into the pool and proceeded to wallow head first under the dipping ceiling. His exhaled bubbles burst to the surface pool and echoed into the chamber as I stood on the beach and wished the passage bigger. Ahead, he could barely see over a sandy berm where the passage appeared to continue on the other side. But it was just too small for a fully rigged diver with two tanks. We had to abort!

We dragged all the gear back out of the cave, and emerged in relatively good spirits despite our disappointment. We drained the air out of the tanks to lighten the load four pounds for each tank, and returned to camp. We stashed 32 lbs of lead for a future dive attempt. .and I took Jeff and Bill on an evening tour of the lower karst and showed Jeff some of the other dive possibilities. He was impressed by the amount of work we have invested in exploring and surveying 30-miles of alpine cave system, and he is excited to return to help unravel more secrets. Bill and I were impressed with Jeff's preparation,



Jeff Waugh staged to dive in Upstream Cave 8-26-06

competence, and years dedicated to acquiring a high-level of diving expertise.

We shall return, but it would be nice to have more sherpas next time, since most of the other cave dive sites are much more remote and would require more manpower to reach. Many thanks go to Bill and Jeff for a safe and well-executed trip, and to Steve for 32 years of leading the KMCTF and organizing all the data and mapping.

**MF**



Jeff Waugh approaching sump in Upstream Cave on 8-26-06.



Jeff Waugh in Upstream Cave on 8-25-06.  
Note organic bits of flood debris on the walls.

**AUG 29, 2006 DAY TRIP** By Bill Broeckel

I needed to get back up and retrieve some gear I had left on the dive trip. Mostly this was just some camping equipment that was in a small tent. I left it on purpose to lighten my load on the way back to the trailhead with the diving kit. This time I was lucky to have the company of my beloved daughter Becky, so there was plenty of conversation to pass the time along the trail.

We were happy to see that the tent was undisturbed, and it didn't take long to pack the things up and leave minimal traces of our recent campsite. Becky agreed to enter Drystream Cave. We made it down the series of short climb downs at the regular entrance. Then we looked around at the parts of the cave that are easy and fun to explore near the entrance.

When the 400-foot crawl became crawly, we turned back. In the other direction, we found a loop, and saw where the cave continued as a tall, narrow crevice. Becky found a pothole with some water in it. I told her it was a wishing well, so she closed her eyes, made a wish, and tossed in a cobblestone.

It was good to have just one more day as Daddy with his little girl (Becky is 20 years old now, by the way, how did that happen?). She didn't tell me what her wish was. **BB**

**SEPTEMBER SPELEOCAMP 06**

By Bill Broeckel



Becky Broeckel in Drystream Cave 8-29-06.

I did not personally attend the main thrust of the speleocamp on the weekend of Sep. 2-3, 2006. Here is some gossip gathered up from various sources. Jerry Davis, Steve Knutson, Mark Harder, Mark Fritzke, Larry McTigue, Lindsay Koestner and Ethan Donahue were all in camp (Lindsay and Ethan now engaged – congratulations!). There were others as well, for example, Jerry Davis usually has Geology students along, and Mike Green arrived with a person named Emese, as we shall see in his article. Jerry had very nice digital area maps with KMCTF data superimposed.

No cave survey was done. However, Steve continued on his GPS data gathering project. Larry and Mark Harder were fatigued and moving pretty slow, but others were up to a couple of Bigfoot trips. On Saturday (Sep. 2) there was a bop trip into the Discovery Entrance as an orientation for the newcomers.

The next day enthusiasm arose for something more adventurous, and a plan was hatched to attempt a Meat-grinder/Discovery through trip in Bigfoot Cave. Some route-finding difficulty helped make sure there was enough adventure to go around while everyone experienced a truly awesome multi-pitch tour.

Mark Fritzke also found time for one of his famous “push trips”. This one involved an underwater dig and a bit of a hike to measure the output from a distant spring. **BB**

**BIGFOOT CAVE** By Mike Green

Over Labor Day weekend, Emese and I traveled to Northern California to meet up with Steve Knutson (Peru Expedition leader) and a few other cavers. Our plan was to tour the Bigfoot Cave System while visiting the beautiful marble karst's features. The area was breathtaking! Opposed to the limestone hillsides I am accustomed to seeing in TAG, large marble sinks littered the landscape.

We arrived at the trailhead at approximately 12:15AM (a 6.5 hour drive from Sacramento) to begin our 6-mile hike in the dark. Before reaching the parking lot, a giant mountain lion ran in front of the car and up the hillside. Emese assured me that it was a privilege to see a mountain lion, especially one of that size, but I still began to wonder how safe we were hiking at night. After finding the parking lot, we began humping around 100 lbs of gear up the mountain at 1:00AM, and arrived at the campsite some few hours later.

The next day, we met many cavers from all over the west coast, in addition to reminiscing old stories about Peru with Steve. After introductions, a group of six went into the Discovery Entrance (a.k.a. the Historical Entrance) of the Bigfoot Cave System (pit series ~120'). The trip was intended for us to look around and to get a feel of the mountain's cave environment. The cave was pretty amazing. Giant marble and calcite formations hung from all sides of the large stream passage; however, the biology of the cave is very limited by the temperature (~35 degrees). Within 8 hours, the group had left the cave and returned to base camp.

Sunday was by far the most interesting day of the entire trip. Steve, who did not enter the cave, lead Emese, Ethan, and myself up the rugged marble terrain to Bigfoot's highest entrance, the Breathing Entrance (a.k.a. Meatgrinder). This is a staggering 900+' above the Discovery Entrance, making the cave the ninth deepest in the United States. Upon entering the cave, I noticed that all of the walls were made of a polished, white and blue marble that made me comment that, "This must be a cave for the rich."

The entrance drop of about 75' was soon followed by five or six other drops with the deepest measuring just over 120'. After the pit series is where the real fun began. Downclimbs, belly crawls and rock squeezes all in wet 35-degree passages with a strong wind blasting and super-cooling the water where we reluctantly pressed forward. After a little under a mile of horizontal cave traversing (~800+' below the entrance), we encountered our first and only problem concerning route-finding.

I first ducked into an ear-dipper that flooded my quasi-dry suit with freezing cold water, only to be

followed by a crawl/dig for about 50'. I reached an area where I could see standing room, but was separated by a gravel deposit. I began to dig and crawl forward, only to become stuck in a pool that was just short of my nose. Blowing bubbles in the water, I was forced to remove my helmet to retreat from the water filled passage.

Completely drenched, I began to search for another way forward while Ethan continued the dig. By this point, Emese (poor girl) had ripped open her PVC suit and was huddled in the corner for warmth. I searched the tracked-up canyon passage only to return three times to a collapsed ceiling that did not appear to continue. I returned to the dig to find Emese still shivering in the alpine breeze and Ethan asking me if he could return out of the failed water dig. We all felt a sense of desperation as we realized that we would have to return the way we came (again, ~800' deep, a mile of crawling, and many, many pits to climb).

I knew that this would require the three of us another 6-7 hours on top of the 5 hours that we had spent up until this point. Frustrated, I told Ethan to forget the dig, and that it was time to begin our long, painful journey out of the top entrance; but, I hesitated and decided that I would not let Bigfoot make a fool of me so easily. I attempted one final time to locate another way out, only to return to the top of the canyon once again.

This time, I began tossing rocks every which way (mostly out of frustration), and then collapsed on the ground exhausted. Feeling depressed, cold, & ready to leave the cave, I happened to look up and something caught my eye. Where I had been throwing rocks wildly was a footprint! I resumed rock removal, this time more intently. On the other side was a sight for sore eyes; a station point!

A short crawl after this, I appeared at the top of a heavily traversed room of Bigfoot Cave! We had made it out of the Meatgrinder section of the cave system, and had now arrived in the more extensively explored Bigfoot Cave. After collecting the team, we all got our second wind, and soon arrived at the junction only after a few hundred feet of walking passage. After the junction, the way on was fairly simple considering that we had explored this part of the cave on Saturday. We all climbed out the pre-rigged entrance ropes and were out into daylight with a total traverse time of only 6.5 hrs. A standard for a crossover trip is approximately 6 hrs, but this is with explicit knowledge of the route through the cave (according to Steve).

**MG**

**UPSTREAM CAVE UPDATE**

By Mark Fritzke

On Labor Day weekend, I used a hoe to enlarge the entry of the Upstream Cave sump, hopefully to diveable dimensions. I also measured the flow of a particular spring, at about 0.2 cfs, or 90 gpm. "Tis the season" for digging in Dry-stream, and I have a tentative trip lined up for the Fall to reduce a 400-500 pound slab blocking one of two leads. I also plan to push a sand-filled dig where Matt and I made 10 feet of progress last year, with the addition of a metal sheet we can use as a sand sled. If we succeed, a 2,000-foot gap to Sinking Stream Cave awaits us. (See further-ed). **MF**

**SEP 5, 2006 DAY TRIP**

By Bill Broeckel

I checked a couple details in Black Mountain Pit #4, and took a photo of the tag. Even though I couldn't wiggle a way out from the back of the cave, the old tag number makes a pretty certain identification. From there I did general ridgewalking and found a half dozen small caves. I quit looking at 5:00PM and was still able to pick up my wife in town at 8:00PM. I mostly ran down the trail in order to pull that off. Back down at the car, I talked to Ben Miller and Joe Berg in the parking lot for a couple minutes. They were just getting ready to hike in and were planning to survey Two Hammer Hole. **BB**

**SEPTEMBER SPELEOCAMP 06**

By Mark Fritzke

Last weekend (Sep. 9-10, 2006), I returned with a group of non-caver friends, and hoped to rendezvous with Ben Miller and Joe Berg. However, I met them hiking out on the trail, so I only ended up doing a quick bop to the Skunk Hollow entrance room with my friends.

Ben and Joe surveyed 279 feet in Two Hammer Hole, and used GPS to locate the entrance versus Skunk Hollow. They said the cave is definitely not a part of Skunk Hollow. They reported someone's stash strewn throughout the cave, with granola bar wrappers and batteries trashing this "wilderness" cave. **MF**



Entrance to small cave with old tag #014. I think this might be Spring Cave, 9-5-06.

## DRYSTREAM CAVE TRIP REPORT

By Mark Fritzke

*Well, the cave gods smiled a bit, and we explored another 100 feet! Thanks to all who have helped so far. It rained before I could get back to survey our booty, but we're not into the long-anticipated big stuff yet. Read on and enjoy.*

On Oct. 21, 2006, Mike Egan and I returned to capitalize on the two-trip dig Ethan Donahue and I opened up. At the end, Ethan and I excavated a 4x5x7 foot tall room and trenched the floor down just enough to gain entry into a horizontal pancake tube in the floor. Mike and I began by stabilizing a slab perched above the hole in the floor. I approached the funnel in the floor with a "dumpster-dive", plunging headfirst and rolling onto my back to stuff myself into the 1.5x1 ft marble tube. With my knees hyper-extending and my heels dragging around the corner this was an intimidating and irreversible one-way trip.

After 10 feet, the ceiling raised just enough to roll onto my stomach, and I struggled to swing the hammer at a ceiling projection without backswinging into my face or smashing my knuckles. Although the passage appeared to "Y", the right lead was only an alcove. The beginning of the left lead was so flat I had to crawl into the right lead and twist abruptly left to progress forward, a maneuver that only seemed possible if I ended up on my back.

I trenched the floor and pushed the slimy mud

and cobble matrix into a mound ahead of me, blocking my view. I stashed the larger blocks in a slot in the wall and slid forward until I was nearly encased in a human-body tube of bedrock and mud. The ceiling ahead arched and appeared to dive back into the cobbles, but there had to be some open passage to account for the persistent airflow. I tossed a cobble over the mound and heard it fall into a toilet bowl and tumble down a slope into a chamber. Yes, what a wonderful sound!

There was definitely a bigger void just ahead, and I began tossing all my digging rubble into it. I slithered forward and suddenly the floor collapsed under my shoulders into an underlying marble tube, much more spacious than the miniature-coffin confining my body. I rotated my upper body until I could weakly swing a hammer at some projecting ledges and extruded down into a spacious bedrock tube 6-feet wide and 2-feet high. Over my shoulder I could see past my tailings pile to a pool. Aha! This was the other side of the main passage that dives into a pool, and I had just bypassed the sump!

Ahead, the passage expanded to 10-feet wide by 3-feet tall, by far the biggest space in the last 300 feet of the cave. I turned back and used the short-handled hoe to scoop the body-tube out to bedrock dimensions, nearly spacious at 12-inches high. Mike was doubtful about diving into the tube headfirst, so I slid back to guide him feet-first, describing how to torque and push his boots into the twisting tunnel.

After he joined me in the big tube, we surged



Mark Fritzke gearing up for Upstream Cave on 8-25-06.

forward into a rectangular 4x5-ft white marble passage. To our dismay, the dimensions narrowed to 3x3 then 2x3, and after an unfettered 60-feet of open passage I was digging again. I removed one obstruction and a narrow septum dividing the passage into two nostrils. I had nowhere to put an unwieldy slab until I dug a pocket in the floor and stuffed it. I squeezed past another slab with just enough clearance to exhale and push forward. I reasoned I could slide ahead and find a place to turn around, so we could both work together on sliding it out of the way. But as I exhaled and slid downward, I could feel the walls constricting my chest into a slight twist and back arch. My helmet burrowed into the sand floor until I could only see the sand/cobble floor 2 inches from my nose.

Craning my head up, I could see the passage ahead was an unrelenting 6-7 inches high. Although the sand and cobble floor was easily trenched, my arms were beginning to tingle and go numb. Mike worked on the slab while I kicked at it. Eventually he slid it into the middle of the passage, blocking my retreat, and I was becoming increasingly uncomfortable in my self-imposed tomb. I exhaled and attempted to slide backwards, but after five minutes of struggle I had only retreated 4 inches. My coveralls weren't sliding; there was too much friction. When I inhaled the ceiling and floor gripped my upper body. I was tired and it was time to leave, but I couldn't.

As Mike tilted and spun the heavy slab, the walls reverberated with the crunching and grinding. Each time I said, "Mike, I need to back-up now!" he insisted on continuing to move the slab. The cold breeze filtering past me provided minimal respite from my constricted position. Finally, he stuffed the slab out of the way, and tugged on one foot while I struggled again to back-up. I wriggled and pushed a quarter of an inch on my left, then on my right, left, right, left until I nearly popped out like a cork. Ahhh!

Altogether, we had extended the cave another 100 feet, and now we lumbered back to the entrance, exiting at 2:30 AM after a 10-hour trip. We were too wasted to go far, so we hiked up to a campsite 100 yards above the entrance. Mike surprised me with two bottles of beer, and we toasted our success around a small fire. As I nodded off waiting for dinner to cook, I surmised we now had 350-400 ft of cave to survey since I began this extension in 2001, enough "booty" to declare the next trip will be a survey trip. **MF**



Mark Fritzke in Upstream Cave, August, 2006.



**BLACK MOUNTAIN PIT #4**

By Bill Broeckel

## DESCRIPTION

The first 12-foot drop is down an open pit. The second one is a smaller hole that may look daunting at first glance. Once you drop down into the hole a little, then it is possible to see what needs to be done. Both pitches are climbed with simple bridging moves.

There is a good feeling when a foot is securely planted on the floor of the lower area. The room is 10x10-feet in cross-section & about 30-feet long. A hole in the floor goes down 9-feet into the breakdown. Several

blind leads beckon on the far wall. The best one is the highest one. Climb up to a ramp. From the top of the ramp, it is possible to mantle up to a small meandering passage.

A body-sized dome is choked with rocks at the top, but some daylight filters in. Further along there is a crack that approaches the surface, but is too narrow for me. Also, I looked up to see the underside of an exceptionally big example of the notorious Marble Mountain Death Spider. The main entrance seems to work out OK for this cave.

The one major side passage is really the salient feature of the "cave. It is defined by the

huge block of rock that dropped out of the ceiling, tilted, and tipped forward. There are three ways to enter the "Rat Room" underneath the monolithic block. Also, there is a route to scramble over the top of the rock, reaching the darkest, furthest reach of the cave, & bypassing the Rat Room entirely.

The Rat Room features wall-to-wall soft, organic floor covering and a certain pungency. Beyond this area, the cave rises up to end in breakdown, where there are some very modest displays of moonmilk. The total surveyed length for Black Mountain Pit #4 is 206 feet, and the depth 43 feet.



Entrance to Black Mountain Pit #4 on 7-3-06.



Old tag #020 on Black Mountain Pit #4, 9-5-06.

## HISTORY

Vern Smith discovered and named Black Mountain Pit #4 on the Labor Day Weekend KMCTF Speleocamp of 1982. The cave was surveyed and tied in by surface survey the following day by Mike Sims, John Blum, and Vern Smith. Vern wrote up an article with all the details which can be found in the Diablo Grotto newsletter (Devils Advocate 15: 10, Oct 1982, pp. 89-90). He does mention that tag #020 was placed at the entrance.

Steve Knutson is to blame for the sequential nomenclature of the Black Mountain Pits. I believe that October Pit (old tag #000) is the original Black Mtn Pit, or Black Mountain Pit #1 if you will. Steve really got the ball rolling with BMP#2 in 1976 and BMP#3 in 1977.

Black Mountain Pit #2 was connected to Nicked Jagged and the Rolling Stones Cave

about 1988, by cavers from the Mother Lode Grotto. Thus it was incorporated into a bigger cave, to which it became a lower entrance. Black Mountain Pit #3 still stands as a cave of its own, with a dicey free climb down to some 400-feet of borehole walking passage. The upper entrance also still bears an old tag (#017).

So in 1982, when Vern and four others visited BMP#3, and then found a new cave nearby, it was pretty natural to name it Black Mountain Pit #4. Since then, the cave has been rediscovered a couple times and given new names, such as Packrat Cave. However, no finished map of BMP#4 has appeared that I know of – that is, not until now.

I first saw BMP#4 in 2002 and didn't know what it was or that it was fairly easy to climb down into the cave. I came back with Becky in 2005, and we pretty much explored the whole

thing and deemed it to be worthy of a finished map. I made it a personal priority in 2006 and actually made two survey trips out of the small cave on 2 consecutive days last July.

The first day I had two of my kids along, and we set up a climbing belay to make sure everyone had a good chance to get into the cave. It didn't take long for a comfort zone to set in and pretty soon everyone was swarming all over the cave like rats on a derelict ship. The next day we went back and did survey/pushing on a few leads, but they didn't go far, and we considered the job done. I forgot to take a photo of the old tag #020, which is still attached just above the entrance. On my day trip in September I stopped by for that, and also checked on some details for the map.

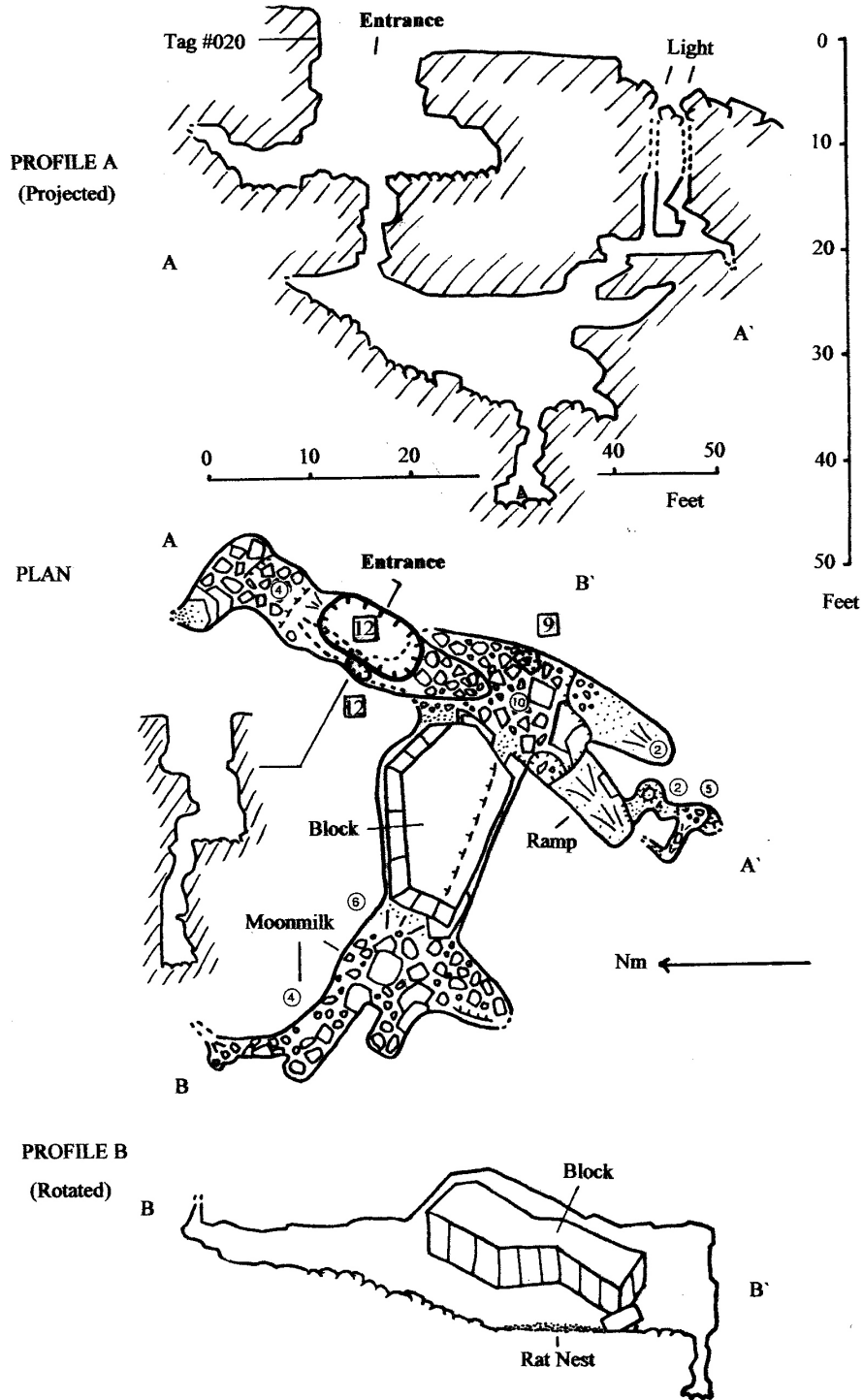
So there you have it, the first finished map of Black Mtn Pit #4, ever, as far as I know. **BB**

# Black Mountain Pit #4

SISKIYOU COUNTY

CALIFORNIA

LENGTH 206 feet  
DEPTH 43 feet



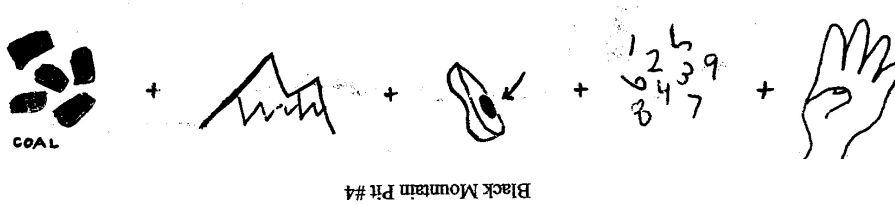
Tape and instrument survey: July 3&4, 2006. Klamath Mountains Conservation Taskforce.  
Becky, Benyam and Bill Broeckel, Ethan Donahue, Lindsay Koestner, Larry McTigue.  
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Map: Black Mountain Pit #4

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**STAMP**

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