

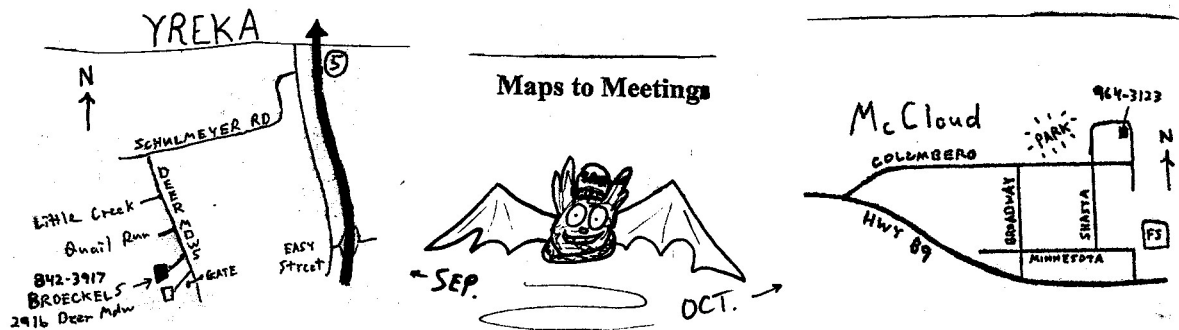


RESCUE IN CATACOMBS

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 2004

- September 3-6 Marble Mountains KMCTF Speleocamp, esp. Labor Day Weekend.
 September 17 SAG meeting 7:30 pm at Broeckel home in Yreka 530-842-3917.
 October 2-3 NCRC self rescue training at Trout Lake, W A, hosted by Cascade Grotto.
 October 2-3 Western Regional in Sonora hosted by Diablo Grotto.
 Contact www.caves.org/region/western/ or MerrileeProffitt (mproffitt@nyx.net).
 October 9-12 Marbles KMCTF Columbus (Native American) Day Speleocamp.
 October 15 SAG meeting 7:30 pm at Wolff home in Yreka 530-964-3123.
 October 16-23 Level 1&2 NCRC training at Cave City Cave (California Caverns), great deal because subsidized in part by WRTC. (western.ncrc.info).
 October 23-31 Crystal Cave Restoration in Sequoia Kings Canyon National Park
 Contact joel_despain@nps.net or shanefryer@nps.net.



SAG RAG SUMMARY (for convenience of CAL CAVER)

SAG devotes this issue to the cave rescue in Catacombs Cave at Lava Beds last May. Liz Wolff delivers the short version. Then Bighorn pretty much fills up the rest of the issue with the long version, more than you wanted to know about Catacombs and the rescue. Watch for more lava lava lava in the next issue as well.

BB

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* Includes notes on Geology. Catacombs is part of the Mammoth Crater Basalt. This lava flow covers 2/3 of Lava Beds, and extends beyond the Monument to reach a total area of 250 square kilometers. The volume of the flow is supposed to be 5 cubic kilometers or more. Many Lava Beds caves, including Catacombs, are contained in this important flow, which dates back to the Pleistocene.

SHASTA AREA GROTTO MEETING July 9, 2004

The meeting was called to order at 7:45 pm at Melanie Jackson's home in Yreka. Present were Jim & Liz Wolff: Neils Smith, Melanie Jackson, Ray Miller, and Bill and Judy Broeckel. "Minutes" from the 6-12-04 grotto meeting at LABE were read from Broeckel's notes. A grotto patch design was voted on. Treasurers Report: Current balance is \$609.47

Correspondence: Bob & Bob had the best price for producing our patches. Half the \$ for the cost of the patches was sent to them. It will probably be 8 weeks after they get back from the NSS Convention before we have any patches. Marilee Proffitt sent the Western Regional Website for the regional information. She suggested it be e-mailed to all the membership. The Regional is in Sonora in October. Kelly Fuhrmann couldn't enter Ancient Palace Cave due to the presence of bats. Bighorn Broeckel received maps of the Black Rock Desert from the ranger there.

Old Business: Grotto patches will cost \$1.89 per patch for 100. It was suggested that members in good standing receive a patch free and that the grotto will reserve a number for future members and the rest would be available for sale.

New Business: At the August meeting we hope to have Mike Hupp and Peter Van Susteren. Mike would like to make a trip to Three Level Ice Cave, Bat Cave, Jot Dean Ice Cave, and Roadside Cave Complex on a weekend or midweek. It was thought that a midweek small group meeting would probably be best. The Forest service wants to make interpretive signs and a parking area at Roadside Complex. A brochure with directions to Roadside and Jot Dean might also be produced. It was suggested that people not be sent to Three Level Ice cave due to the hazards and the bats and that this cave be removed from their existing maps. August meeting will be the 13th at the Wolff's home in McCloud.

Trip Reports: 6-12-04 - Neils Smith and the Wolffs went to Valentine and Mushpot Caves at Lava Beds. Broeckel led a CRF survey team, including Russ Yoder and Arley Kisling, on a Modoc NF project. Sunday, June 13, Matt Wolff and his family saw Mushpot, Valentine, Indian Well, and Sunshine Caves, and have pictures of Joshua (4 yrs old) and Timothy (6 yrs old) to prove they were there. July 4th Marbles - Bill, Judy, and Becky Broeckel surveyed a 185 foot previously known cave. Jim Wolff, Arley Kisling, and others went to Jetstream Cave. They say they were within 8 ft of virgin walking passage. Russ Yoder and Liz Wolff made two trips to Water Complex caves and surveyed 2,075.9 feet. Last, but not least, our very own Ray Miller went to the fiberglass cave complete with rubber bats at Turtle Bay.

The meeting was adjourned at 8:30 pm.

Respectfully submitted, Melanie Jackson

MJ

SHASTA AREA GROTTO MEETING August 4, 2004

The meeting was called to order at 8:19 pm at the home of Jim and Liz Wolff. Present were Bill & Cheryl Kenney, Jim & Liz Wolff, Jim Kottinger, Neils Smith, Ray Miller, Bighorn Broeckel, and guests Peter Van Susteren and Priscilla Franco from Shasta-Trinity National Forest. Franco is Deputy Ranger for the Shasta McCloud Management Unit.

After introductions, the FS presented us with some satellite maps of the Medicine Lake Highlands - very impressive. A new tour map will be produced, in cooperation with Modoc and Klamath National Forests. Van Susteren announced that the new Designated Keepers of the Caves for Shasta-Trinity NF are Brad Rust and Alisha Miller. This reporter knows that Brad is an active caver of the Shascade Caving Society.

Roadside Cave Complex development was discussed. Initially a wide spot for parking off road is proposed, and maybe some interpretation provided. Jot Dean Ice Cave and Roadside Cave Complex are still on the Medicine Lake Highlands tour hand-outs. Much more planning and development will be required for both the new hand-outs (mentioned above) and the development of any cave. It would require a real cave management plan, plus the required amount of FS red tape that it would take to make things happen. But for now, watch for a safe place for people to pull off and visit the cave.

Minutes were accepted as read. No Treasurer's Report. SAG RAG will be printed and mailed by the end of August. No report on the website. Correspondence: e-mail from a person asking for a subscription to RAG. ORCA FONSI. Jim has a hard copy of entire document. NCRC and Cascade Grotto self rescue training to be held at Trout Lake, WA on Oct.2-3, 2004. Western Regional, hosted by Diablo Grotto, website updates and e-mail blurb circulated.

Old Business: Cost share agreement between SAG and Klamath NF brought up and tabled.

New Business: New meetings: Sept. 17 at Broeckel's in Yreka, Oct.15 (Wolffs in McCloud), November (LaForge's on coast), Dec 10 tentatively at Melanie's in Yreka. Cave trip tomorrow (Aug 5, 2004) in the upper Water Caves.

Trip Reports: Washington State caving with J and L Wolff and Russ Yoder. They visited six caves, and at least one was found to have outstanding lava tube features. It was a return to 20 yrs ago caving. So many caves, so little time!

The meeting was adjourned.

Respectfully submitted, Jim Wolff, acting secretary

JW

RESCUE IN LAVA BEDS NATIONAL MONUMENT By Liz Wolff

Ky Ellinwood (11) and Kyra Young (11) were last seen in Catacombs Cave around 4:00 pm on Thursday, May 27, 2004. They were a part of the fifth grade class from Nevada City, CA visiting the monument for a field trip. Both children were dressed in warm clothing: a girl, Kyra, with tennis shoes, jeans, T-shirt, and grey coat, and a boy, Ky, with tennis shoes, nylon pants and a black sweatshirt. They had been equipped with bump caps available at the monument visitor center and one or two flashlights each.

Friday, May 28, 2004, 11:00 am, Liz Wolff of the Shasta Area Grotto (SAG) was contacted by Siskiyou County California Search and Rescue (SAR) Director, Dave Nicholson, with a request for rescuing two children lost in Catacombs Cave. Catacombs is a multi-level, braided lava tube of mainly intact passages, about a mile in length. Most of the cave is fairly dry, with temperatures around 45 degrees.

SAG members who responded were: Bill Broeckel, Jim & Liz Wolff, Russ Yoder, Vern Clift (vacationing at the monument at the time), and Steve Dagitz of Siskiyou SAR, who had been the first non-monument person on the scene. Bill Devereaux, a CRF caver, preparing for a work weekend, was available too. Vern volunteered his services around noon after seeing the helicopters searching, and was told that Wolffs and a couple others would be there around 3:00 pm.

The cavers were briefed, and team one, Vern, Jim, Liz, and Steve, entered the cave about 4:00 pm. They systematically worked their way back into the cave taking every side passage and low crawl, going around every lava pillar, meeting at cross-over points. Their main objective was to check the smallest passages. Jim and Steve exited the cave after getting to Howard's Hole, and Vern and Liz continued on to Cleopatra's Tomb. Vern sat at the climb up to the cross-over, while Liz checked the lower right hand passage, without pushing to the end. After checking the lower left passages, Vern and Liz exited the cave while Russ, Broeckel, and Jim pushed the tight crawl at the end of the right passage.

The kids were found by Russ at 6:40 pm, cold and hungry, but otherwise okay. The two had stayed close together to conserve heat, napped a little, and kept their flashlights off part of the time to save the batteries. They also stayed put after deciding they were lost. There were a lot of happy people at the entrance to the cave when they all got out. After a quick medical check for the kids, all searchers and victims were debriefed at the incident command post and fed, courtesy of Siskiyou SAR. Dave Nicholson was pleased with the grotto's response and results.

The media was there, but kept a low profile, and weren't too "in your face" about interviews and such. They wanted to talk to the kids and the rescuers who found them. Russ headed questions about their condition to Broeckel, who had a better idea of how they were.

Siskiyou County CA contains over 700 known caves. Siskiyou SAR and SAG entered into a cooperative agreement specifically for aid in cave rescues. Two training sessions had been done jointly, one in the SAR vertical training facility and one mock rescue in a local cave. **LW**



Rescue scene at the entrance sinkhole to Catacombs on May 28, 2004 Photo provided by Emmy Young

CATACOMBS RESCUE

By Bighorn Broeckel

Two adults led five children into Catacombs Cave at Lava Beds National Monument. They entered soon after sunset and explored the cave for hours. It was quite late when the group found they were lost near Howard's Hole. After some debate, they decided to try and retrace their route, going back through the Cross Over and out to the entrance. After midnight, a search party led by Phallin Klausman of the Mother Lode Grotto located the lost spelunkers and escorted them back to camp. One of the leaders of the lost group was Melanie Jackson. The other one was me. The date was Nov. 11-12, 1989. The experience got me hooked on caving, and I joined the NSS. My wife Judy and I became active in the Shasta Area Grotto, as did Melanie Jackson.

Over the years, there were a number of return trips to Catacombs. We became proficient

at leading groups of older kids through the Cross-Over and on around the loop. On some of these trips we would check dead ends for leads. These trips ran from 1990 to 1997. Once we even took a Senior Project student around the loop. Her project was "caving" and we felt that Catacombs was a suitable final test, with multiple crawlways and the Cross-Over squeezes.

In April of 2000, my home school kids and I took a Catacombs tour with J.D. Howard. Actually it was a Monument staff person (Mr. Freeman) dressed up to be J.D. Howard, and it was an excellent perspective in Lava Beds cave history.

Then there was John Panches leading a one day Intro to NCRC rescue training, planned around a horizontal field exercise. We evaluated, packaged and hauled an injured person (Steve Dagitz) out of Catacombs. Of course he wasn't really injured, it was just pretend, but still a real eye opener on the ponderous issues and logistics of rescue. This exercise was on

November 5, 2000 and involved Monument staff, SAR people, emergency responders, and cavers.

So when the call came last May regarding kids lost in the Catacombs, at least it was a cave we knew about, even the local cavers. Now a few words about Catacombs:

Catacombs Cave

Of all the 539 known caves at Lava Beds, Catacombs is the most likely one to get lost in. It has over a mile of passage, and is currently considered the second longest cave in the Monument. The longest one is just a little bit longer, and has been gated for a number of years. Only a handful of lava caves in California exceed a mile in length. Among these longer lava tubes, Catacombs is particularly confusing due to multiple junctions, with some connecting passages and some dead ends. The cave is a braided network of lava tubes that once conducted overflow lava out of the

Cave Loop master tube, represented by nearby multiple level stacked tubes such as Sentinel Cave. *Catacombs is truly a natural maze.*

History

J.D. Howard dug open the entrance to Catacombs during a winter storm on Mar 2, 1918. The relatively balmy air inside Catacombs must have been a great comfort to J.D. In those days, he had to walk many miles just to reach the cave area, which was pretty much a wilderness at that time. He was active in the Lava Beds from 1917 through 1933. His cave explorations and discoveries helped lead to the establishment of the National Monument on Nov. 21, 1925 (Presidential proclamation by Calvin "keep cool with Cal" Coolidge).

Howard named the cave for the nooks in the walls, similar to the burial shelves found in the Catacombs of Rome. These nooks can still be seen in the cave today, beginning near the main entrance.

Also near the entrances to Catacombs, J.D. named one cozy spot "The Bedroom". If reclined down in the Bedroom with the lights turned out, it was just possible to detect some daylight. Therefore, a person could sleep there in a sheltered room with a comfortable temperature, and still easily know if it was day or night without getting

up. Since the little side entrance was recently filled in, the light doesn't come through like that any more.

Judging by the number of painted signs he produced in the cave, J.D. must have been keen on Catacombs. Howard's name appears on Cleopatras Sarcophagus, a nice lava raft way down the left side. Another name is written (Mueller) and the date 1925. A note painted on the sarcophagus reads as follows: "Cleopatras grave 100 feet beyond cone's end." This was all done in red color. When we were lost in Catacombs, I remember the kids holding flashlights and gazing upon this inscription with great dread.

Mueller (1921) and Howard (1925) names are also found on another smaller raft, and there is a triangle, dots, and arrows, all done in red paint. Over on the other side of the cave, Howard wrote "The Elephants Rump" on a likely pillar. Shenanigans such as this led past park ranger Gary Hathaway to speculate that Howard must have been drunk when he painted some of these historical cave writings.

Improvements

The CCC improved the area in the 1930s, building trails to the caves, and convenient routes through the entrances. The main Catacombs Cave entrance bottle-necks at a point 6 feet high and

8 feet wide, with handrails and lots of rocks piled along both sides. The other entrance, not far away, was blocked up with rocks sometime after 2000.

The loop road, with a signed Catacombs pull-out and interpretive material available to the general public, makes this cave easily the longest lava tube in the state to which general visitation is so well encouraged. Also, there is a ladder placed in the heart of the cave where people can climb up into an upper level, from which other tubes crossing underneath can be viewed through holes. One pit has some handrails and is quite deep. This ladder serves as a landmark and a destination inside the cave. The portion between the entrances and the ladder has many walking passages and is frequently toured by groups of visitors. Beyond the ladder, the cave continues as offset parallels with several interconnections. The passages are generally smaller, and there are many broad crawlways and low areas. This deeper portion of Catacombs, often one foot high and many feet wide, is wilder and less visited compared to the front half.

Catacombs has been noted by Knox (1959), Halliday (1962), Larson (1989), and many others. The cave is also discussed in detail in USGS Bulletin 1673 (1989). It has long been one of the premier Lava Beds tour caves along the Loop Road.



Historical graffiti in Catacombs. J.D. Howard's initials and the discovery date (Mar 2, 1918) are still discernable 2004 photo by B. Broeckel

Fig. 1. Lengths for Catacombs Cave at Lava Beds

1982	5,300 feet	Lava Beds Underground. Lava Beds Natural History Assoc.
1985	7,475 feet	Rogers, Bruce. Short Rounds, April, 1985, p. 30.
1989	6,900 feet	Larson, Charlie & Jo. Lava Beds Caves (text).
1990	6,903 feet	Larson, Charlie & Jo. Lava Beds Caves (map).
1990	5,300+ feet	NSS Convention Guidebook.
1990	7,500+ feet	USGS Bulletin 1673.
1999	7,475 feet	Rogers, Bruce. SAG RAG 18:5, Sept-Oct 1999, p. 6.
2000	6,903 feet	Lava Beds National Monument Visitors Center handout.
2004	6,901 feet	Gulden's long cave list, based on IUS Comm. in 1997.

Lengths of Catacombs

So exactly how long is this cave, anyway? The greatest number that I've seen for total passage length is 7,500 feet +. That came from USGS Bulletin 1673 in the year 1990. Even this number (not counting the "+" character) is 231 feet short of the longest cave in the Monument. The longest cave has an unstable main entry and is currently gated and not available for general visits. See figure 1 for a sequential list of various lengths which have been put forth for Catacombs Cave.

Ranking Catacombs

So how does Catacombs compare in length with other lava tubes in a greater sense? We have seen already that Catacombs Cave is currently considered the second longest cave at Lava Beds. The facts that follow have been derived from the incredible listings of long and deep caves that Bob Gulden maintains for all to view and enjoy on the internet. Of course, pinpoint location data is not included on these lists.

The length indicated for Catacombs is 1.307 miles (6901 feet). This corresponds with the length as given in Charlie and Jo Larson's book. It is interesting that

the park used this number for updating Gulden's lists, and it also uses a similar length on a current handout.

At this length, Catacombs is the third longest lava tube in the State of California, and the 14th longest lava tube on the continental United States. The really long lava tubes are in Hawaii, and include the great Kazumura Cave which is the longest lava tube in the world with over 40 miles of surveyed passages!

Of all the caves in the USA over all, Catacombs ranks only 715th in length. None-the-less, the natural maze arrangement and many confusing junctions makes it easy for newcomers to get lost in these passages.

Mapping in Catacombs

The information in figure 2 was taken off the Catacombs map in USGS Bulletin 1673, except for the Nieland survey which came off the map in Charlie and Jo Larson's book Lava Beds Caves. As seen in the figure, Catacombs has been getting mapped about once a decade, and the latest version appears to be running a bit late. The map in Larson's book shows the room at the end of the cave where the kids were waiting to be rescued. *OK, what kids are we*

talking about now?

Ky and Kyra go Kaving

The Nevada City School of the Arts is a charter school with extra emphasis on the fine and performing arts. It is an award winning, blue ribbon school. In recent years the school has taken the Fifth Grade class on a week long field trip through Northern California. Some of the goals are to teach the kids outdoor skills and to give them experience with the beauty of nature. This includes hiking on Mt. Shasta and caving at Lava Beds National Monument.

So it was that Mary Elizabeth ("Emmy") Young found herself leading a small group of students on a day of caving. Ky Ellinwood and Kyra Young were in the group, and there was also a third student named Emily Wade. Kyra was Emmy Young's daughter. Emmy's previous caving experience was limited to commercial caves such as Oregon Caves. So they were all excited to get started with this new activity.

Unfortunately, the cave information was missing from their packet of materials. So, the first stop was to the new Visitors Center. Here they quickly gathered what info they could, and augmented their caving gear with more electric light sources and helmets. (Historical note: when I first visited Lava Beds in the 1960s, the monument lent out the old hand-pumped Coleman Lanterns and had no suggestions about hard hats. I remember many rings on the ice floors where people set down the lanterns, and my Dad gashing his head on the ceiling.)

Fig. 2. Catacombs mapping efforts

1920	J.D. Howard
1963	S. Peck, G. Sopher
1974	A.C. Waters, E.W. Pittenger, W. Ruddiman, III
1982	B.W. Rogers
1990	Jim and Libby Nieland

“OK Lets go”

The first two caves Emmy and the kids toured were Mushpot and Indian Well. Everyone had plastic helmets and there were multiple flashlights. In Mushpot they made their way down to the end of the lighted trail. Here the cave continues as a low crawlway. Emmy took one quick look at this and said “OK, let’s go”, meaning let’s go back now, and all the kids followed her out, no questions asked. This became a group behavior pattern they used in subsequent caves.

At Indian Well, they went down to the platform at the bottom of the stairs. A small depression looks like it might go to the left, but pretty rough. “OK, let’s go”, and back up the stairs they went. Next they started taking turns picking caves that sounded interesting. Valentine, Skull, and Hopkins Chocolate all got picked, and were explored without trouble. The team was gaining confidence, and the day was going well. *Then it was Catacombs, Ky Ellinwood’s pick.*

The group entered Catacombs and were immediately confronted with several different passages to choose from. Right away Emmy Young intuitively knew that this cave was different. Even the name “Catacombs” sounds a little mysterious and daunting. Emily and Kyra (*who had ditched her hard hat by this time*) weren’t so sure about this complicated cave. However, Ky is quiet and shy, and because of this might tend to be overlooked at times. Emmy Young decided to honor the more pensive student’s pick, as a teacher might do in class. She determined to tough it out. After all, it had a parking place, sign, and trail just like the others. *How bad could it be?*

Down the walking passages they went, encountering many more junctions. (Catacombs is a very beautiful example of a largely intact, braided surface tube). Eventually they reached an area with lowering ceilings. “OK time to go” said Emmy. But this time Ky and Kyra had spotted a ladder that looked interesting. Emily said “I’m going with your Mom.” Ky and Kyra were already heading for the ladder and the impetuous Kyra called back

“We’ll meet you at the car.” Although she would have reason to regret this over the next 24 hours, Emmy left the cave with Emily, fully expecting the other two to be coming along right behind shortly. But when Ky and Kyra came back down the metal ladder (it leads up to the Boxing Glove Chamber) they took a wrong turn, got confused, and were lost in the Catacombs. The two 5th grade classmates from the Nevada City School of the Arts became a modern day version of Tom Sawyer and Becky Thatcher.



Surface Monument
B. Broeckel photo 2004

Self rescue attempted

It was the afternoon of Thursday, May 27, 2004. The lights they had borrowed from the Visitors Center were due back by 4:30 pm. When the kids didn’t come out of Catacombs, Emmy Young went back in a couple times, calling out their names. No answers. Emmy contacted the Monument, and a lady told her not to worry, this happens all the time, there is only one way out of the cave, just wait at the entrance and if they aren’t out of the cave by 10 pm, call out the park rangers through the camp host.

OK. Emmy got back on her cell phone and called the other adults. The school trip leader was Gary Griffith, a knowledgeable and experienced outdoorsman. He had a good map of Catacombs. Gary recruited three of the dads that were on the trip. They hastily geared up and formed a search party, looking in the cave for three hours without finding the children. Emmy also went back in another

time calling out their names. “Ky!” “Kyra!” Emmy found the cave to be very confusing, like a hall of mirrors. *The complexity of the cave frightened her.*

Rangers to the rescue

Later that evening, Monument Ranger Terry Harris was notified regarding the two lost students in Catacombs Cave. Many of the regular staff cave rescue crew were off duty and had to be called in after hours. For example, one was shopping for weekend groceries in Klamath Falls. At 11 pm, Terry Harris apologized to Emmy Young for the delay, then proceeded to lead search parties deep into the cave and deep into the night. This was a fairly routine scenario for the staff at Lava Beds. They have searched Catacombs often times before with successful outcomes. *This time, however, they were unable to locate the missing children.*

Emmy Young did not sleep that night, and when the Rangers came back without Ky and Kyra, she really started to worry. She contacted a group called “Silent Unity”, a 24 hour on-call prayer group for any people in special need of prayer. Emmy redoubled her own prayers for the children. Other family and friends added their prayers as word of the missing children spread. At this time, Terry Harris and the Monument staff decided to call in the Siskiyou County Search and Rescue Team.

Meanwhile in the cave

Ky and Kyra did not have watches, so they lost track of time. For a few hours they wandered around and tried to find their way out of the cave. They knew they were supposed to catch up with the others, but no matter how hard they tried, they only became more lost and confused. Catacombs has about 50 junction points, some pillars, some longer loops, and some dead ends. The exact route they took through the cave cannot be known. Somehow they ended up beyond a series of low crawlways and in the room at the extreme end of the cave.

They remembered feeling com-

pletely disoriented as they passed the same point several times. They recognized the spot, because Kyra had left the hood of her warm gray coat there. Later on in June, Dan Snyder with a group from the Mother Lode Grotto found the hood. It was quite close to the room where the kids decided to wait for rescue. The hood was in a network of passages just above the room.

About this time, Kyra, who didn't have her plastic hard hat, *bumped her head*. The injury was not very bad, but it was enough of a blow to slow them down for awhile. They took a few minutes to rest and think about their situation.

It was getting late, and they were feeling tired. Although they were completely and totally lost, they knew that Kyra's Mom was out there somewhere worried about them. They had faith that she would see to it that they would be found, and that she would not rest until they were located. All they had to do was wait, and Kyra's Mom would arrange it.

So they settled down for a long wait. They had warm clothes, and they conserved their lights and energy. There was nothing to eat or drink. They huddled together for warmth, and tried to sleep, managing to doze off a few times. They could actually hear cars going by outside, encouraging sounds. People were in those cars, maybe people coming to rescue them *Most importantly, they stayed together and avoided further injury.*

"We were praying" said one. "Yeah, like every five minutes" added the other. (Personally, I believe that the sincere prayers of children are worth extra.) On they waited through what seemed like a very long night, but they felt that their prayers would be answered and that rescuers would come.

SAR on the scene

Dave Nicholson is in charge of search and rescue in Siskiyou County, through the County

Sheriff's office. Dave's team trains regularly and frequently conducts SAR operations on the surface, often evacuating injured climbers off Mt. Shasta. Dave is well aware of the potential for cave rescues in his area. Siskiyou County may have over 1,000 caves, far more than any other county in California, and perhaps in the entire west.

Accordingly, Dave has set up some cave rescue training for his team involving local cavers. The grotto secretary Melanie Jackson is a full fledged SAR team member. Too bad she was off on a motorcycle trip.

Steve Dagitz and Dave Nicholson are both examples of other SAR members who affiliate with caving groups. Also, Dave and Steve have completed full week long NCRC courses in basic and upper level cave rescue. That makes them the best trained and qualified cave rescue people in Siskiyou, a county with many caves, few cavers, and even fewer cave rescuers.

Cavers called out

As Dave realized the gravity of the situation, he called in all the readily available resources to search for the missing children. News services began to broadcast the story across the country. Kids were lost in a cave. An all out effort was underway to find them. This included calling local cavers to help with interior searching. Liz Wolff, current Chairman of Shasta Area Grotto, served as a point of contact. Liz made phone calls to the rest of the Grotto, and Jim and Liz headed out to Lava Beds.

It just so happened that Vern and Linda Clift were actually camping out at Lava Beds this weekend. Jim & Liz Wolff, Vern, and Steve Dagitz entered Catacombs right away, and started going through the cave with a fine tooth comb. Jim and Steve later came out to coordinate with cavers still on their way to join the rescue.

"Oh they'll find 'em"

I heard about the lost kids on the car radio at lunchtime on Friday, May 28. "Oh well" I thought, "They'll get found." I was right, but I didn't know that I would be helping.

It was my day on call, and I had an afternoon schedule to meet. Then my wife Judy showed up to say that Liz had called about the rescue. Judy was thinking about going, but she thought maybe I should go.

Sitting down to think it over, I imagined the kids in Catacombs, now missing for 24 hours. I thought they might be shivering, maybe without light, maybe injured. They were probably in that room at the end of cave. I knew that particular cave pretty well. Maybe I could help. "All right, I'll go."

SAG keeps going

At about 5 pm I was at Lava Beds looking for Dave. Once free from work, it was easy to get ready. I still had cave gear packed in the car from the Nevada trip two weeks before. All I had to do was stop at the store. I picked up Gatorade, chocolate chip granola bars, and lots of batteries so I could stay in the cave for awhile. On the radio I heard that the search area was broadened. In my mind I had a list of places in Catacombs that might still need to be checked. Yet I didn't know how I might be assigned.

Dave was at Incident Command, set up in the new Visitors Center. He and some others were pouring over maps. I pointed on the map where the room at the end of the cave would be, but was met with some skepticism. *However, I got assigned to Catacombs.*

Dave filled me in on the particulars. The kids' weights were 103 and 83 pounds. Oh dread, these kids were half our size! I didn't have kneepads, which are a really good idea in the back of Catacombs. Dave fixed me up with

A CROSS-SECTION OF CATACOMBS AT THE LADDER TO THE BOXING GLOVE CHAMBER SHOWS SIX PARALLEL PASSAGES.

a new pair out of a stash of SAR equipment.

Outside I met up with Jim Wolff and Russ Yoder. Good, we had a relatively strong team of cavers. In particular, Russ can push hard in lava tubes. Wolff and I have also been down the tubes a few times.

At the entrance we met Bill Devereaux. He is a caver and a leader with CRF at Lava Beds. He was doing entrance control on rescue, and entered our names on a clipboard. We've been working more with Devereaux in recent years, so he already knew our names. He said he was glad to see us going in.

To the back of Catacombs

Wolff headed us straight down the right side of the cave. He wanted to get right back there and catch up with Liz and Vern who were still in the cave. I was glad because I knew I would soon get a chance to check that room at the end. That way I could get that out of my system early in the search, and I really thought that spot was our best chance to find the kids. I'm used to recreational caving, so it was strange and different not to look at all the pretty details in Catacombs, and to keep my focus on our purpose.

Ribbons appeared on a few side passages. Somehow I got the idea these were "already been checked" ribbons. Later I found out they were "extent of search" ribbons. Slight difference there. But for us it didn't matter because we were working according to a more independent plan, picking out likely spots freelance. Right?

We caught up with Vern at the cross-over. Liz had gone back through to search some more on the other side. Vern was controlling the junction point, and his knees might have been bothering him some. Vern and Liz had already done some checking on both sides. Wolff and Vern weren't too keen to check my hunch, but Russ was ready to go. I said I wouldn't feel right going on with the search until I had seen that last room with my own eyes. Mostly I'm more of a Ky kind of guy, so such conviction is



Rocks trenched out of the main entrance convert
J.D. Howard's dig into a walkway
2004 Photo by B. Broeckel

out of my usual character. This then is part of why I think some of those many prayers were going through the proper channels, prompting a signal that was actually getting through my generally thick skull.

So I ditched my pack, grabbed a mini-mag, and dove in the crawlway with Russ Yoder. Halfway down the passage we found shreds of black cloth. Dave had told us that Ky was wearing a black sweatshirt. Yet I hardly dared to hope that we would actually find the kids.

My glasses fogged and Russ got ahead. I heard him making his happy sounds and I thought I heard him say "Here they are." Foggy glasses and all, I rushed ahead, popped into a room, and there they were, two scared kids waiting to be rescued, in the room at the end of the cave!

Saving the children

"Lots of people have been looking for you" we said. Even though I didn't know them, I gave them both big hugs. I asked some questions to see how they were doing. They were in good shape and ready to go. I will always be grateful that they took good care of themselves during their sojourn in the cave.

Russ was checking their equip-

ment. They had three operating light sources and were able to use them on the way out. Ky had a helmet, but Kyra did not. We had no spares and decided to let her travel without head protection. She was given constant verbal reminders to keep her head down through the low places. The first crawlway, the lowest, was the reason why that last room was not shown on some maps and was not checked for so long. *We noticed that the kids were able to scamper right through with no problems.*

Back at the cross-over, Wolff was on duty. Vern and Liz were toward the entrance. Wolff had a radio in his pack, contacting the surface with the good news. The kids were a little shy about taking our food and drink. With urging they were able to put down about half of what we had. We also had some spare gloves. Their hands were a bit cold.

It took about 30 minutes to go approximately 2,000 feet to the entrance. They sailed right through the crawls without difficulty. There are a few vertical drops in the cave, but they are so easily avoided that Catacombs is considered an entirely horizontal cave.

Along the way, the kids became honorary members of Shasta Area Grotto. At the en-

trance, they were made to tie their shoes again and were given final instructions. We had them run out of the cave first, where they had heartfelt reunions with their family and friends. Maybe 50 people were out there, including the press and a camera guy from Channel 10 News. It was still light outside. The kids thought it was morning and the sun was coming up. It was actually getting ready to set.

Celebration

Ky and Kyra were checked out in the ambulance, then released to their parents in good condition. Next came a brief debriefing with Superintendent Dornan at Incident Command. By this time it was almost 8 pm. Then it was dinner time, with the SAR cook wagon serving up burgers and all the fixings on long tables improvised in the fire station. There were many expressions of joy and gratitude, and a happy ending was there for everybody.

SAG had afterglow down at the camp of Vern and Linda Clift. I made it back home by midnight. We were very lucky to have found the kids quickly. The only way I can explain it is that, this time, thanks to God, the power of combined prayers came through.



Ky Ellinwood meets his family near the entrance to Catacombs, May 28, 2004
Photo provided by Emmy Young

In the aftermath, a couple of interesting things came out. For one, Lava Beds may ask for a re-map of Catacombs to the current CRF standard. When planning for a possible 3D model of the loop caves in the new Visitors Center, it was discovered that we have no vertical data on the loop caves

surveys, including Catacombs. The second thing; Emmy Young, after going through a terrible ordeal with this rescue, had a suggestion. Maybe a sign could be put up at the Catacombs entrance for newcomers, that this cave is more complicated than the others. That's not a bad idea.

Newsflash! In July and August Lava Beds started a re-map project in Catacombs, and did cave cleanup as well, removing four pounds of trash from inside the cave.

(see page 2 for references and a geology note) **BB**



Kyra Young reunited with her mother and grandmother on May 28, 2004
Photo provided by Emmy Young

SAG RAG

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TO: