

SAGRAG

MAY-JUNE 1994

VOLUME 13 NUMBER 3



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. Material intended for the next newsletter is due by the 10th of the even month.

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CALENDAR

July 8, 1994	at 7:30 PM SAG meets at Suttons.
August 12, 1994	at 7:30 PM SAG meets at Kottingers.
July 30 – Aug 14, 1994	(see p.9) NCRI field camp at Trout Lake.
Sept. 17-18, 1994	(see p. 3) Western Regional at Sequoia N.P.

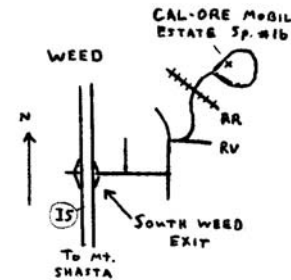
EDITORIAL

This issue is full of wonderful caving opportunities. Keep reading ...

Cave of the Republic: Happy highways to those grotto members headed for the Texas convention. Just how big are the Lone Star caves anyway? Detailed reports expected. Batology: Here we have Part 3 of Ray Miller's "All About Bats" series. Ray welcomes volunteers to help with ongoing bat research. Call (916) 926-2440 if interested. Cave Hunting: Jim Wolff has many unchecked cave leads, see p. 4 & go hunt! Rescue Stuff: SAG RAG is thinking about a rescue supplement this summer when plans are ready and to include the other articles mentioned in Dick's Newsletter Review. Great Opportunity: Dick LaForge also has information about trips to HURRICANE CRAWL CAVE in Sequoia National Park. The cave was featured in the Winter 1993 Cal Caver. A cave specific management plan has been completed and was signed on May 2, including research trips. The first project is photo-monitoring and documentation. Sign-ups are now open. Call Dick (707) 443-2626 or Joel Despain (209) 565-3717. Newsflash: The Double Hole Lava Flow does it again! Arlie Kising comes out of caving retirement to discover BEARTOOTH CAVE, a medium sized lava tube with only a single, small, vertical entrance. Watch the SAG RAG for more details.

(Continued on back page.)

MAPS TO SAG MEETINGS



Map to Sutton's House



Map to Kottinger's House

SAG MEETING May 13, 1994. Present were Neils Smith, Liz & Jim Wolff (hosting), Bill, Cheryl & Zane Kenney, Jim Kottinger, Ben Sutton, Melanie Jackson, Ray Miller, Bill Broeckel, Bill Fitzpatrick of Southern Oregon Grotto (formerly JSG), and visiting Richard Stewart.

Jim W. called the meeting to order at 8:15 PM. The minutes were approved. Treasurer's report: balance \$511.38. Communications: letter received from Steve Kadel of Arizona State University requesting lava tube information for research in progress with Ron Greely.

Old Business: The T-shirts are done!! Western Regional (see below). The SAG library inventory was passed around. A cave information file and a grotto rope log were also noted. Cave register supplies are exhausted. Jim K. priced supplies needed for the JOT DEAN CAVE register. Jim K. has also checked the BAT CAVE register with no new entries since last time.

New Business: SAG gets 3 votes at the NSS Convention Congress of Grottos. Liz, Jim, and Neils are headed for Texas and are willing to be COG delegates for SAG. Joel Despain will be the western clearinghouse for caves to be nominated as significant. Ray Miller is currently involved with 8 local caves of biological interest (i.e. bats). Jim W. has developed a "new member pack" that includes application materials to the NSS, SAG, Western Region, ACCA, & BCI, NSS publications list, SAG project list, and (you add here). SOG chairman Ron Osbourne is a new SAG member.

Trip Reports: Bill B. reported on privately owned MARBLE MOUNTAIN CAVE and a trip of 17 people including the owner, his son, and members of SOG and SAG, and representatives of the BLM and the State of Oregon. Ben walked in S CANYON and found a cave with a part of a jaw bone. Ben also took Barbara Williams (USFS) to PLUTO and BARNUM CAVES. Ray took a 3rd grade class from Mt. Shasta to BARNUM CAVE. Neils gave a presentation to a Boy Scout troop from Susanville. The meeting adjourned at 9:21 PM.

WESTERN REGIONAL September 17-18, 1994. Sequoia National Park. Hosted by Diablo Grotto and combining a symposium on cave conservation, great scenery, and great caving! Tentative program: Friday – Arrive, check-in. Saturday – Speleo-lympics, auction, Western Region business meeting, photo salon, cave trip sign-up, and cave conservation symposium with speakers Joel Despain, Christopher Richard, and Janet Sowers. Sunday – Caving. Church, Soldier's (clean-up), Crystal, etc. Monday – (optional) more caving, also swimming with rock slide, hiking.

Camping: The National Park Service has offered Buckeye Flat Campground. There will be no additional fee to camp there, but only 56 cars can be parked in this campground (please carpool). Food: The Diablo Grotto will provide meals Saturday through lunch on Sunday. Please limit the extra food you bring because space is limited in the bear proof food lockers. Cost: Adults \$25 (\$15 w/o meals) Children 5-15 are \$10/\$5.

Registration:

If you register before August 31, you will receive a token for free Sequoia Park admission (a \$5 value).

_____ Adults, (x \$25; \$15 without meals)	\$ _____
_____ Children aged 5 - 15, (x \$10; \$5 without meals)	\$ _____
_____ '94 Western Regional T-Shirts (s m l xl xxl) @ \$10	\$ _____

Name _____

Address _____

City, state, zip _____

check for vegetarian meals

Mail to: 1994 NSS Western Regional c/o Jim Hildebrand
 2480 Indian Drive, Palo Alto, CA 94303

All About Bats

ECHOLOLOCATION

Echolocation is the animal equivalent of sonar. Pulses of sound are emitted, followed by a silent period to detect the faint returning echoes. Animals using echolocation include the toothed whales and their relatives, and some species of birds, shrews and bats. Only bats use their vocal cords to produce sound for echolocation. Other animals use clicks and whistles.

The primary purpose of bat echolocation is navigation and food acquisition. Most bat calls are in the ultrasonic range, frequencies much too high for humans to hear. As sound does not carry very well in air, the effective range of bat echolocation is a few feet at most. As the bat closes in on its prey the pulses become shorter and of a higher frequency. This lessens the range but increases the accuracy. It has been demonstrated that bats can identify prey species from return echoes, and thereby avoid bad tasting food.

Bats make sounds for reasons other than echolocation. They show displeasure, communicate with other bats, and issue warnings to other species. Some of these calls are Of low enough frequency to allow humans to hear them. People most often become aware of bat calls when they intrude into a bat roost.

Ray Miller

CAVE HUNTING

by J. Wolff (916) 964-3123

“You gotta find ‘em in order to explore ‘em”! It is nice to head right for your favorite cave, put on your gear and there you are, underground in no time flat!

But you have to realize that originally the cave’s discoverer may have spent many hours searching over old topo maps asking any old timers still living in the area for any cave leads and spending time combing those brushy hills, fighting back old growth poison oak, ticks and the heat – just so you and your fellow grotto members can explore a particular cave.

So, you see, There is more to it than just looking for caves, it is the countless hours of your underground time, spent to find a new cave, or a “lost cave”. The commitment involved for each cave hunter exacts its high price of sweat, blood and tears.

Are YOU willing to spend some time this summer, chasing down cave leads, scouring the countryside for new caves? If so, call me or see me. I would love to have you along!

SAG TRIP REPORT by B. Broeckel

On the day following the May SAG meeting, Jim and Liz Wolff, Neils Smith, Ben Sutton, and Bill Broeckel teamed up and hit the lava flows for a multi-cave extravaganza. We walked, found caves, got lost, did vertical, did cave survey, surface survey, pushed passages, and toured some known caves that needed visiting. This was all part of Jim Wolff's physical therapy and rehabilitation program. Actually we had to throw rocks at him to keep him out of the caves. We didn't want him to get hurt.

GAPING HOLES [Catwalk Cave – pdf ed.] – This was the get lost part. We couldn't find the right entrance. We were hoping to retrieve some lost gear. Instead we found a cave we didn't know existed. The sizable sinkhole was marked with a large cairn. It got real crawly, so we moved on. After-all, we had to think about Jim, saving it for him, you know.

FLOWERPOTS – Now, for the vertical part, Jim's virgin pits. A group of three circular cavities was located near the edge of a flow. One was a climb down, the other two were rigged and dropped. The deepest went down 12 feet to a patch of ferns. These flowerpots did not appear to be associated with lava tubes, but were curious features and must have an interesting theory of formation.

ISLAND ICE CAVE – Cave photography time, yes we did that too. We admired the ice. One big fellow missed reaching the floor by an inch. Outside, we surface surveyed upflow to the next cave, and surveyed newly named NORTH ISLAND CAVE, over 200 feet long ending in breakdown.

SIGNAL FLAG CAVE – We made some progress into the terminal breakdown area, but were unable to actually break through. Besides, we had Jim to think about, and somebody mentioned pizza ...

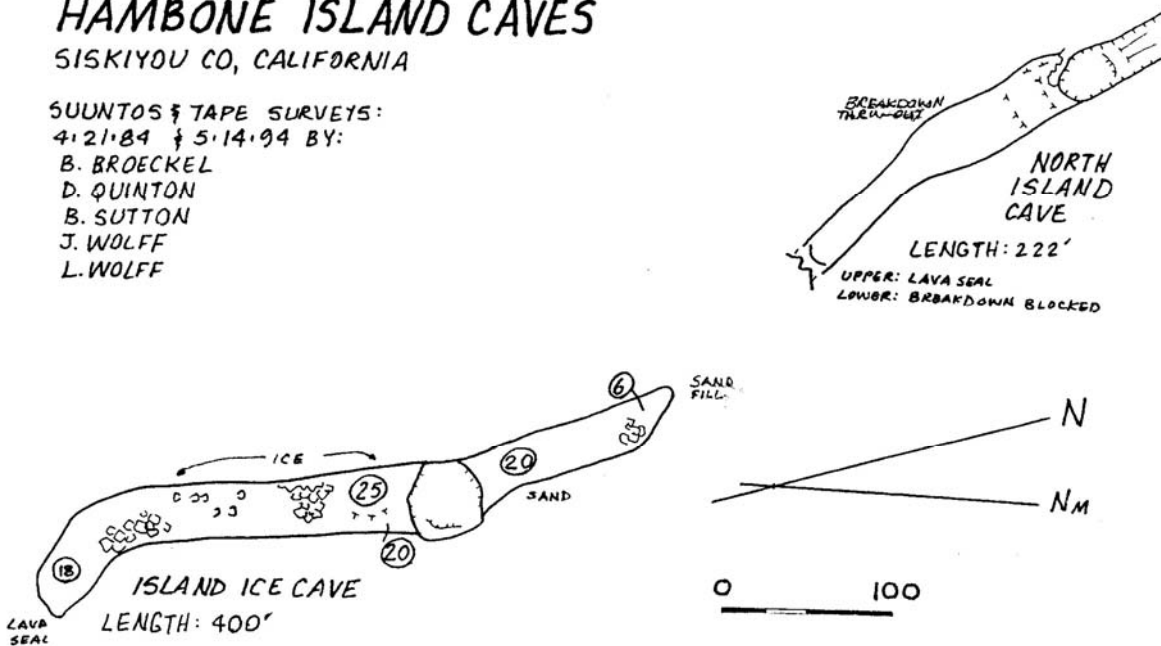
HAMBONE ISLAND CAVES

SISKIYOU CO, CALIFORNIA

SUUNTOS & TAPE SURVEYS:

4.21.84 & 5.14.94 BY:

- B. BROECKEL
- D. QUINTON
- B. SUTTON
- J. WOLFF
- L. WOLFF



Map: Island Ice Cave, North Island Cave

NEWSLETTER REVIEW 6/12/94

by Dick LaForge

Caving season is here! Time for those hot hikes down the canyons, sweaty brush thrashes and campfires under clear nights. Enjoy!

Your overcommitted correspondent has not been out caving yet, being preoccupied with spring yard chores and gardening. Mark Fritzke, however, has been to French Creek to do some dye tracing to attempt linking a higher sink to the main creek, to see how much vertical and horizontal potential there is. In other words, how rewarding a dig in the sink might be.

Your enthusiastic editor is scheduled for an expedition to Lechuguilla in the beginning week of July (July 4 at -1000 ft). In March there was a major break-out in the Western Borehole on an expedition led by Miles Hecker and about 1.5 miles mapped for the expedition. A LEARN trip shortly after mapped 2.58 miles, and there are said to be many leads left in the Western Borehole. We will see.

To prepare for this, I am building a new "ultimate headlamp". This is based on the D alkaline cell, which is the cost-effective and weight-effective choice for long trips. Rechargeable batteries weigh at least twice as much as alkaline cells for the same amount of power. This system is based on a new voltage regulator made by caver Willie Hunt of Indiana. I read about it on CAVENET, and have ordered one and am putting the system together.

The idea is this: You know that an alkaline cell does not put out a constant voltage over its lifetime. The voltage starts high and gradually drops. This means that at first the bulb gets more voltage than it was designed for (and gives more light and shortens its lifetime). As time goes by, the voltage drops and so does the light output, until at some point it is so dim that you decide to change batteries, even though there is some power left. This is especially a problem with halogen bulbs, the most efficient bulb for a bright beam, as their output drops off rapidly with decreasing voltage.

The voltage regulator will take a high starting voltage and reduce it to a lower and constant voltage, the voltage the bulb was designed to run on. For example, I am using 5 D cells, which when new put out about 8 volts. The regulator drops that to 5.2 volts, which is just right for the 425, or HPR 50 (.8 Amp) or HPR 55 (.5 Amp) (my choice) bulbs. (HPR bulbs are halogens.) Only near the end of their life does the output of the 5 cells drop below 5.2 volts and the bulb start to dim. The voltage regulator takes very little power itself.

One problem with this is finding, or rather, making, a 5 D cell battery holder. I discovered that D cells will fit rather nicely into plastic drain pipe, the type that connects to the bottom of your sink. I put three in one piece and two in another, and soldered all the connections with short pieces of wire, to eliminate those voltage-wasting pressure connections. I wrapped the sections length-wise and cross-wise with duct tape to make a unit. The output wires are a two-wire push-connector. I plan on making up these 5-cell units before a trip. Need to change batteries? Just plug in another unit.

The other challenge is finding a place to house the circuit board, which is only 1 by 1.7 inches and weighs 0.5 ounce. There is also a switch and two medium size capacitors to put into the package. This all fits nicely into a short piece of plastic water pipe of 1.25 inch size. This gets duct taped to the battery package and connects to it and to the headlamp cord with push-connectors. This three-pipe unit fits nicely into one of Jim Wolff's USFS canvas canteen holders, the kind that goes on your belt.

I realize this is not enough information for you to actually copy my design. That's because it is not done yet and may change. Also, the voltage regulator did not work right when I got it, so I am still sorting that out. If this project is successful I will write it up more completely

For very detailed information about the voltage regulator, send a SASE to:

Willie Hunt
1600 Maplecrest
Bloomington IN 47408-1253

The cost is \$25 for the parts, or \$35 assembled and tested. This is for the higher-output halogen bulbs. For lower-power lamps it is \$20 and \$30.

Stuff from other newsletters: Last time Vivian Loftin's (Diablo Grotto) very exciting account of a caving trip to New Zealand was reprinted. The June 94 Devil's Advocate has her account of a second trip, made in January 1994. It is equally stimulating, but long and quite like the first. I suggest you borrow it from the library.

It's always fun to read accounts of first caving trips, because it takes us back to our own distant but well remembered introductions. Somehow that excitement is never quite repeated. From the same June 1994 Devil's Advocate is an account by Glenn Powell of a visit to the local Medicine Lake Highlands ice caves. It's also interesting to see how people appreciate your familiar local caving areas when visiting them for the first time.

Speaking of lava tubes, the April 1994 Speleograph announces the NCRI caving field camp at Trout Lake, Washington. This is an outstanding lava tube area and family participation is encouraged.

Speaking again of lava tubes, CLARIFICATION OF RECENT HAWAII CAVING NEWS, by Bill Halliday, from The Explorer May 94, does what it says in regard to the depth records recently made in Hawaii lava tubes and pits.

Note that the California Caver, Vol 42 #3, has an extensive article on hypothermia. You all got it, so we don't need to reprint it. Study it carefully!

To really take up space (if there is enough), there are two nifty articles in the Valley Caver, Spring 1994. One, by Marianne Russo, is an account of a practice rescue session in Rippled Cave led by Mark Bowers on March 19-20 or this year. To go along with this is an account by Martin Haye of his experience as a "victim" in the practice rescue. Mark Fritzke was at this practice. Both articles are well written and interesting to us who may be doing similar practices some time. "You don't know till you've tried it!"

That's it! I'd like to close with a poem gotten from the CAVENET from Ken Byrd. It was written by Bruce Unger, who died in a drowning accident in Colorado about 10+ (?) years ago.

EACH MAN KILLS THE CAVE HE LOVES
by Bruce Unger

Each man kills the thing he loves. A lesson no one learns.
The years pass on, the people too, and yet this fact returns.
The Inquisition, seeking souls, destroys more than it saves.
The trapper wipes the beaver out. The caver, he kills caves.
Last week you found a virgin room, all filled with angel hair.
Enjoy it now, while there's still time; next year, it won't be there.
For cavers' boots and cavers' packs will pound it into dust
'Cause there's a lead cross the room, and push it cavers must.
The first ones through will choose their route not where the fibers lay.
The second follow in their tracks.... Or sort of, anyway.
At first a few and then a lot, the caver traffic gains.
And still the beat of vibrammed feet. The caver traffic gains.
And still the beat of vibrammed feet, 'till only dirt remains.
Now cavers cross the formless room, completely unaware....
They're heading for the newer cave, to see the angel hair!!
So when you find that special spot with which none else compares,
Only tell your closest friends.... And hope they don't tell theirs.
And when you're in that moonmilk crawl and must put down your glove,
And smear your crud along the wall..... YOU KILL THE THING YOU LOVE!!!!



Flowstone in Marble Mountain Cave.

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NCRI Caving Field Camp, Trout Lake, Washington, July 30-August 14, 1994 THE SPELEOGRAPH 30:4

The Northwest Cave Research Institute (NCRI) has been coordinating caving field camps in the Pacific Northwest since 1985. These field camps are open to interested cavers on a first come, first served basis. Participants come from all regions of the US, other countries, and range from world class cavers to people new to cave exploration. The NCRI project for 1994 will be held at Trout Lake, Washington from July 30 - August 14. The area is one of the major lava cave areas of the world. Work is being done under a signed contract with the Mt. Adams Ranger District, USFS. The focus of the work will be the location, inventory, and exploration of caves located on the Mt. Adams Ranger District. The Forest Service is providing a private campground located a few miles west of the town of Trout Lake. If you participate you can expect to work forty hours each week locating and conducting inventory work in the areas known caves. In addition we will be working very hard to locate new caves that will provide opportunities for exploration. This year's project offers a world class recreational area to work in, the opportunity to meet cavers from across the US and around the world. Our expectation is for a well-rounded group of participants and family participation is encouraged. Project fees range from \$65/week (kids' 13-16, under 13 free), to \$200/entire project individuals, to \$350/entire project (family of four). The project fees pay for project expenses and all food. We expect this to be a very popular project, so sign up early! For information write: NCRI, 9417 8th Ave. NE, Seattle, WA 98115. (206) 569-2724 after 7:00 PM (PST).

Clarification of Recent Hawaii Caving News

THE EXPLORER May 1994

The Winter 1994 field season of the Hawaii Speleological Survey got a bit garbled in the March EXPLORER. The deep new volcanic pit temporarily is being called "Pit 6083", after a benchmark on its rim. It is on private land, and the ranch manager is consulting with Hawaiian authorities to determine a proper Hawaiian name. The pit is shown on the Hualalai Quadrangle. It is almost 15 miles by VERY bad 4x4 road from a paved road, in inhospitable volcanic terrain where permission to visit is rarely granted. The outer pit is about 450 feet deep, entirely overhanging except for occasional sharp ledges which caused three rope caterpillars on the first descent. On a ledge about 50 feet above the floor is an inner pit which bells out to a depth of 862 feet below the spillover point of the rim. This makes it the deepest pit in the US, and the deepest listed volcanic pit in the world. However, I have seen what may be a deeper one in Australia and I am trying to get information on it now. Other volcanic pits are present on the NW and SE rift zones of Hualalai Volcano, including one of potential exceptional scientific importance. It is located directly above the world-famous Kaupulehu xenolith beds but permission has not been forthcoming for any further pit exploration on this ranch. We are seeking access to others, and ask the vertical caver community to do nothing that might harm our negotiations. We have been successful in obtaining access to a 200-foot volcanic pit (300 foot total depth) on another ranch on Mauna Loa Volcano and expect to organize scientifically-oriented pit work elsewhere on the Big Island as soon as proper landowner relations can be established. Vertical cavers interested in participating should contact me at 6530 Cornwall Court, Nashville, TN 37205, (615)352-9204. The earliest possible date for this vertical work will be mid-July 1994.

Regarding Kazumura Cave (NOT Casamora Cave!), under Kevin Allred's leadership Hawaii Speleological Survey teams have nearly doubled the previous length during the Winter field season. While the exact length has not been totaled, it is now clearly the longest lava tube in the world. But it should not be considered the deepest cave in the US. Because they run parallel to the surface and are rarely as much as 60 feet below it, lava tubes should be listed separately from limestone caves in tables of longest and deepest. The highest point in Kazumura Cave is at about 2260 feet, and the lowest at about 240 feet, so it has a vertical extent of approximately 2020 feet. But its maximum depth below the surface is only about 60 feet, and it has about 30 entrances, two of which almost segment it, so it is of no interest to vertical cavers.

Pit 6083 and the other volcanic pits mentioned above are pit craters, not lava tube phenomena. While two pit craters in other parts of the Big Island have rift tubes at the bottom, these do not.

The lower end of Kazumura Cave (formerly called Lower Paradise Park Cave) has been declared KAPU, and all cavers should respect this closure by native Hawaiian authorities.

by Bill Halliday, Chairman, Hawaii Speleological Survey

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From Devil's Advocate, June 1994, vol. 27, no. 6, pages 62-64

The Blurred Experience of My
First Cave (or Three)

by Glenn Powell

Some time ago I discovered two people at work that spent beautiful weekends in cold, humid darkness. Intrigued, I confessed my childhood interest in doing the same. I was treated to a brief slide show at work and a couple of grotto meetings before I settled on the advise of Jim Hildebrand to try the McCloud area lava tubes. As a first time caver, I must now apologize for any misused terminology or lack of reverence toward unknown traditions in my recollection of the trip.

The excitement of the experience and the beauty of the caves themselves has blurred into a singular experience even though I know we visited three caves. The trip began on Friday night as we gathered the group of Jim Hildebrand, Charlie Hotz, Doug Bradford, John Moreno, Gretchen Bruce, Merv Martin, and Laura Kalogerov. The long drive was capped by a chill rain that Jim adeptly avoided by detouring through Bartle. By 1:00 am we had located a campsite (beautiful by daylight) and set camp. The following morning, apparently in keeping with tradition, we awoke as necessary and set forth in search of Gaping Holes. Jim's 4 year old maps and directions were quite thorough and with little speculation we located the appropriate place to park setting

forth to look for a pit with a tree. When the pit was finally located, it was astonishing. Astonishing because of its size, 50 feet deep and across. I never would have imagined that such an unusual structure would exist in what appeared to be just an arid forest. Also astonishing because it took eight of us two passes to find it.

The descent into the cave was relatively short (they tell me) and uneventful...and well past noon (another tradition). Being third down I followed Charlie into the small section of the cave towards the road. It was perhaps 100' long and well decorated (for me) with ice formations. I was immediately struck by the clarity of the ice. Each unique and sometimes textured formation seemed to exist only through indirect light. I was transfixed until the lure of the larger cave, the other direction, enticed me away. One thing I noticed at this point and throughout the remainder of the trip, no one hurried me. If I wanted to stay longer, or take a closer look at something, that was fine, in fact, the reason for caving. I guess I have too many strong memories of vacations with my parents, but I was pleasantly surprised that the pursuit of the experience was an unspoken priority. We traversed the cave noting the varied formations; I can visualize them, though I'm uncertain of the terminology. The pahoehoe, a-a, some ledges and small draperies were all interesting in

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From Devil's Advocate, (continued)

their newness to me, but I think a bit uneventful for those who had seen more impressive decorations and had mainly come to see the ice. We exited the cave around 3:30 and returned to the cars, carefully noting the compass point to the cave entrance for the next time.

After a brief discussion, some of the group volunteered to return to camp and start dinner and a fire. The rest of us ventured through old directions and vague recollections of uncut forest (no longer) to locate Four Balcony Pit cave. We located a trench system and followed it to its end where we located the cave entrance. Most of my memories of the cave formations have merged, now indistinguishable as to which was observed in any specific cave. The one specific memory of this cave was our encounter with bats. There were two groups of 4 and 5 bats sleeping near the ceiling. Charlie, in the lead, stopped immediately. While I knew bats were essentially harmless towards humans, I was confused by Charlie's sudden concern upon seeing the bats. He quickly explained that his concern entailed calculations as to whether these bats may be hibernating (it seemed too late in the year) or roosting (it seemed too early in the year). If either case were true, our presence could cause the bats to prematurely awaken or to drop their newborns, both potentially resulting in death. It was quickly

decided that the prudent thing was to turn around and return to the entrance. While I knew the falseness of bats threatening humans, I never realized that humans could so threaten bats. I am continually impressed by cavers' environmental awareness.

The following day, we easily located the entrance to Three Level Ice cave. This was the capping experience of the weekend. Although Jim indicated that the cave had been far more decorated in a previous trip, I found the existing decorations to be absolutely fascinating. We saw ice bacon, draperies...all kinds of things and all crystal clear. My favorite was across the ceiling of the first level. 3/4" blades of ice, perhaps 3/4" long, had formed in hexagonal arrays. The physical properties of water had apparently influenced the formation of these larger crystals. The simplicity and beauty of the formation has etched itself as my key memory of the weekend. On the second level was a shallow ice floor, perhaps 2' at its deepest. The floor was again, crystal clear which caused me some sensory confusion. Raised in the northern midwest, clear ice indicates thin spots on a frozen lake. I kept expecting to fall through the ice floor and soak my boots. On the third level was another ice floor, opaque and perhaps 8' thick. The ice floor had drawn away from one wall allowing us to see the thickness and the layering. Jim handed

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From Devil's Advocate, (continued)

his flash units to those that climbed down the side of the floor and we were all entertained by the dissipation of the flash through the ice. The floor radiated the flash, silhouetting all those on top. It was really cool. I hope Jim's photos turn out.

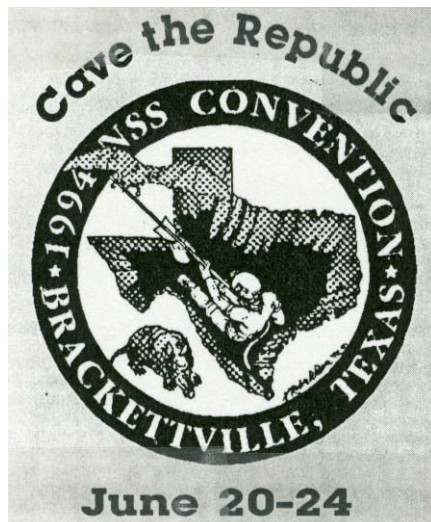
After three level ice we all packed up and headed south for home. A final group dinner in Williams concluded the trip. I was sorry to see it end. While three caves was a fairly relaxed itinerary, and lava tubes are not technically challenging, I found the whole weekend a great adventure of new experiences and education. It was a great start to what I hope will be a long history of spending beautiful weekends in cold, humid darkness.

EDITORIAL (continued from P. 2)

Cover Explanation: Detail of flowstone found in a small dome-pit in MARBLE MOUNTAIN CAVE, from a photo taken April 30, 1994. Bill Fitzpatrick (503) 779-1201 is working on behalf of Southern Oregon Grotto and the caving community at large to propose further objectives for this exceptional private property limestone cave located in Southern Oregon. The white flowstone photo shown on P. 8 was also taken in Marble Mountain Cave. Bill would welcome any ideas, comments, or thoughts you might have about this complex, densely decorated cave. Therefore in Summary: Summertime is cave time. There are lots of good things happening and caving opportunity is abounding. Take advantage! **Get** involved! Get **underground!** And don't forget to send your reports in to the SAG RAG. See you in the caves **BB**

SAG RAG
524 Annie Street
Yreka CA 96097

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