

Party Caves



INSIDE: SAG Elections

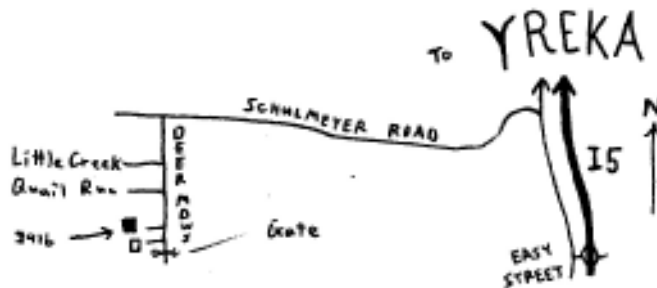
BB

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 2008

Jan 25	SAG meeting at Broeckels in Yreka 7:30 p.m. (530) 842-0287
Feb 15-18	Presidents Day cave conservation weekend at Wolffs in McCloud
Feb 16	SAG meeting at Wolffs in McCloud 7:30 p.m. (530) 964-3123
Mar 14	SAG meeting at Hobsons in Redding 7:30 p.m. (530) 242-8707
Apr 25	SAG meeting (location to be announced)
May 30	SAG meeting (location to be announced)
Jun 27	SAG meeting (location to be announced)
Jul 25	SAG meeting (location to be announced)
Aug 11-15	NSS Convention in Lake City, Florida (352) 271-3203
Aug 22	SAG meeting (location to be announced)
Sep 13th	International Symposium on Volcano Speleology, Korea
Sep 26	SAG meeting (location to be announced) (Dave Smith's birthday)
Oct 24	SAG meeting (location to be announced) (Nominations)
Nov	No SAG meeting this month (wow" the world might stop turning)
Dec 5	SAG meeting (location to be announced)

MAPS TO MEETINGS



January 25 - Yreka



February 16 - McCloud

SAG RAG SUMMARY By Bill Broeckel

Some unpublished meeting minutes surfaced recently, so we have four meetings worth crammed into this blockbuster issue. Check the dates, because one of those meetings goes back to 2006. Francis' Folly comes next. You may wonder what was Francis' folly? Well, I guess our local forest biologist (Francis Mangels) entered this cave solo. That was his folly. OK, sooo... nobody in the Grotto ever does that? Anyway, now that we have established the 1,000+ caves of Siskiyou County, our next trick will be 100 caves over 1,000 ft long. Francis' Folly was a candidate, but we had to find another passage to make it work, and we did" It was an unlikely and interesting passage too, a meander between different levels in the cave. The Folly is a three level cave. I think we counted some vertical shots to get over 1,000 ft. There are some significant drops in the cave, in fact we haven't even gotten into the second level, so it's all good. Survey length currently stands at 1021 feet. Liz Wolff brings us the story. I filled up the rest of the issue with some little caves upflow from Four Balcony Pit. Uncredited photos are mine. Hope you like the newsletter, vote for me and I'll see you in two months.

BB

GROTTO UPDATES By Bill Broeckel

There have been some changes. Some folks would like to cave with the grotto but find it difficult to hook up with all the caving that goes on. To help, we set dates for the whole year (see calendar) and hope to return to the idea of cave trips on the days following meetings. We have drifted away from that a bit in recent years, but trip leaders will try to have something ready. So call the meeting locations ahead to find out what's brewing or simply show up at the meetings ready to cave the next day. We'll see what happens.

January is going to be tough. Any cavers can stay at my place after the meeting. The next day we'll try to go out to the lavas where I have some lower elevation objectives, weather permitting. Alternative is local ridgewalking - Worst case scenario: dig holes in my backyard.(I actually own a small marble sinkhole).

A close look at the calendar also reveals a switch to the 4th Friday for the monthly meetings. This holds for all the months except Feb (tradition), Mar (bats), Nov and Dec (holidays). This change accommodates some schedules better, and leaves more time for the newsletter to get itself done. Next time we should switch to the 5th Fridays.

I think there are still some grotto T-shirts left. If we buy up some more, then maybe we can realize my dream of lowering yearly SAG dues. These T-shirts make fine gifts you know. Also, it is time again to resubscribe and pay membership dues for SAG, unless you are one of those who pay years in advance. On the form on the back page, you will see that dues are to be sent directly to the current Treasurer Steve Hobson. When people pay me, I tend to pocket the cash or lose their checks. This brings us to:

ELECTIONS

Nominations are as follows and the wording comes straight from Sec. Steve Hobson who stipulated no deviations. Please vote for one candidate for each office. Write-ins are acceptable. If you receive a ballot with this newsletter, that means you have been deemed a qualified SAG voter (QSV), and you are eligible to vote. Determining QSVs is actually a very complicated procedure, and it never gets done exactly right. So QSV or not, don't sweat it, send in the pre-stamped ballots if you have one, and it all works out in a way that has to do with the balance of the universe, or something. **BB**

NOMINEES FOR GROTTO OFFICES By Steve Hobson

Chairman Melanie Jackson or Jim Wolff (Mel says vote for Jim)
 Vice-Chair Dave Smith
 Sec/Treas. Steve Hobson

Advisor to the Board Liz Wolff
 SAG RAG and everything else Bill Broeckel **SH**

BAT JOKES

Bighorn Bill



MINUTES FROM SAG MEETING Nov. 10, 2006

NOV. SAG MEETING SAG meeting location: Steve and Susan Hobson's place, Redding, CA - Nov 10, 2006. Attendees: Members Jim and Liz Wolff, Steve Hobson, Bill Broeckel, Dick LaForge, Arley Kisling, Melanie Jackson, and Ray Miller. Introductions: Dave Bunnell (NSS NEWS editor), Matt Bowers (Western Region Chair), John Muldar, Ron Moorehouse, Wayne Cedidla, Seth LaForge and Ania Mitros.

Meeting called to order by Chairman Liz Wolff at 8:05 p.m. The old minutes: the minutes of both Sept. and October meetings were read, corrected, and approved. Treasurer's report: \$625.82. Bighorn submitted a bill for the SAG RAG expenses. SAG RAG Report: Bill Broeckel brought a box full of back issues of the newsletter, offering any and all to those attending. Several took him up on his generosity.

Correspondence NSS Membership Committee sent us stuff on the new Cave Conservation and Preservation book, plus membership packets will be sent to grottos requesting them - Liz Wolff requested some. Kiddie-grams from Etna 5th grade students, who were guided through Barnum Cave earlier this year, by members Liz Wolff and Ray Miller. MOU with Klamath NF and SAG; Mr. Juan de la Fuente sent a reply recently, nothing has been finalized yet. Matt Bowers says there is a new grotto in the Western Region, the Northern Nevada Grotto based in Ely, Nevada. He also stated that the NSS now owns Great - X Cave.

Old Business Steve Hobson told of the recent mock cave rescue that was held in Pluto's Cave. Neils Smith was the subject or victim, and had to be hauled out by (only) six people, and it was clear that they would have needed more manpower to get him to the skylight entrance - where he would have then been hauled to the surface, and evacuated by helicopter. Siskiyou SAR got good marks from Steve, who is NCRC trained, acting as an "angel" around the stretcher, during the mock rescue. Museum Display Liz Wolff will be giving a presentation before the museum board soon, so we can get the approval of the display concept and ideas. Since it is the 25th anniversary of our grotto, we are thinking of a historical theme for the display, using our history as a grotto as a theme to build on. We will have maps of caves, surveying equipment, lighting; rock types that we cave in commonly; and maybe a special issue of the RAG. There will be a stuffed cover (set of coveralls) hanging on a rope, and a Power Point slide show on a computer. It is possible, for summer months, that trips may be led in Barnum Cave. Matt Bowers is sure we could qualify for the Region's Research/Conservation-grant if we apply. Liz Wolff has a BIG list of caves that still need UTMs (hint) and Steve Hobson still needs to get all Shasta Co. caves GPS'd too. As for the MOU with Klamath NF? No Action yet....

New Business Liz Wolff asked Steve Hobson whether the MOU with SCS and USFS is still in force. Steve says yes it is, but it needs to be rewritten. He doesn't see a problem, as the Shasta-Trinity NF "Keeper of the Caves" Brad Rust, a caver, is cooperating in getting a secondary airlock gate installed at Ancient Palace Cave, to stop the drying out of the formations. The bat colony is dwindling too, as the emergence from the only known entrance has become non-existent, indicating there must be another entrance somewhere. Matt Bowers reminded us that the Speleo-ed Seminar will be at the Lava Beds May 18, 19, and 20th, 2007. There will be an orientation to cave rescue; photography; electronics; plus this event (might) turn into a joint regional with the NW Caving Assn. (NCA), our next-door neighbors. Nominations: Chairman: Liz Wolff, Jim Wolff. Vice-Chair: Melanie Jackson. Sec/Treas: Jim Wolff, Melanie Jackson, Steve Hobson.

Trip Reports Melanie Jackson, Liz Wolff, and Jim Wolff mapped in Trenchside Cave and Cedar Cave. Arley Kisling and Jim Wolff went to Adams Homestead Cave and Pluto's Cave for rope practices. Dick LaForge did some canyoneering in the Sierras and Utah this year. Bighorn, with Russ Yoder went to Foxhole Cave; Brushy Hole; and Bears Bed Cave. He also mentioned Squirrel Nut Cave and Waters Cave. Then a boulder cave in Yosemite. Next he did four trips to a Siskiyou Co. lava flow, netting 8 caves, and Creepers Ice Cave. Bighorn, Ray Miller, Liz and Jim Wolff mapped Jarbl Cave. Steve went into Ancient Palace Cave a few weeks ago with an Aussie caver to check for bats. Matt Bowers took the Aussie to Subway Cave later on.

Meeting adjourned at 9:33 p.m. After the meeting, Dave Bunnell showed photos from recently found Ursa Minor Cave, and pictures from caves all over the world" Thanks so much, Dave" Respectfully submitted by Jim Wolff, Shasta Area Grotto Secretary/Treasurer

JW

MINUTES FROM SAG MEETING July 22, 2007

JULY SAG MEETING SAG meeting location: Lava Beds National Monument, CA. July 22nd, 2007. Attendees: Jim and Liz Wolff, Steve Hobson, Vern & Linda Cliff, Dave Smith, Russ Yoder, and Brian Marshall. Past members were Joe Molter, Matt Wolff and the Wolff Pack, and Don Quinton. (Matt Wolff was accompanied by his wife Jenny Wolff, and the "Wolff Pack" kids Timothy, Joshua, and Anna.) (Bill Broeckel must have staggered in later on, he can't even make the evening meetings on time.)

Meeting called to order by Chairman Liz Wolff at 8:16 a.m. The old minutes: the old minutes were read by Steve Hobson and accepted as corrected. Treasurer's report: Collected \$6 from Jim for Don Quinton. Tee shirt sales \$20. Tee shirt cost (40) \$396.83. Copy cost \$3.40 donated by Liz Wolff.

Food cost \$131.12 donated by Steve Hobson. Badges cost \$? donated by Linda Cliff. Checks \$25. Bank statement balance is \$418.64 + petty cash \$118.72 = Total \$537.36. SAG RAG Report: Bill S. went caving so there was no report. Correspondence: none was discussed.

Old Business Reunion: 20-22 July 2007. We did it. The project went well, lots of graffiti was removed from Trench Bench Cave using the prehistoric method of rock bashing and water.

New Business September meeting will be held at Vern and Linda Cliff's. Possible trips include Del Lorna Cave and Nunns Cave. October meeting will be held at Dick LaForge's. (Joe Molter presented a large box of old cave publications he has donated to the grotto archive. This was last seen stashed away in the back of Bill Broeckel's car, but it should fill in parts of the major holes in the "archive", which generally only goes back as far as the beginning of SAG in 1982).

Trip Reports Russ Yoder has been looking around for caves. He found a nasty vertical drop. Dave Smith went to sea caves down south. He said it was a lot of fun. Bill Broeckel went to Bypass Cave and did a little mapping nearby. Liz Wolff finished a whole raft of maps. Liz, Melanie Jackson, and Wayne Cedidla went to Blow Hole Splatter Pit and surveyed it, 212 ft by 48 ft deep. They also performed some aerobic rappelling and picked up trash. Bill Broeckel and Liz Wolff surveyed Tree Pillar Cave. It was a couple of hundred feet. Brian Marshall found a little breakdown cave above Coke Bottle Cave.

Liz summarized our weekend at Lava Beds in an E-mail to Shane Fryer: "Shane, the Shasta Area Grotto attacked the graffiti in Trench Bench Cave and demolished it. Two to four hours had been scheduled for the clean up and it took just over one. There were ten cavers to remove the 13 sites. The paint was lime green underneath the dust, and must have been latex as it came off fairly easily. The most useful tool we discovered was a fist sized rock to bash the paint and loosen it, then it came off more easily with the little brushes. Water was used to soften the paint as well, An awl, a screwdriver and a couple of .small chisels were also used to remove as much of the paint from the vesicles in the lava as we could get.

"Following the clean up we explored Big Ice Cave, connecting to Do Drop In Cave and to the trench just down flow from that. The connection to Do Drop In was a visual across a pit and through a tight crawl; the trench connection was a handshake through unstable breakdown. A stick that was on the floor of the cave was passed through to the surface also.

"A total of 14 past and present SAG members attended the reunion plus four children. David Larson received the commemorative t-shirt for LASE, a grotto history, and a badge. The slide show of early grotto members was attended by a family that wandered into Mushpot Cave and stayed to watch. (They thought we were totally crazed to crawl into, and climb on ropes, in caves for fun). The SAG meeting Sunday morning was short, the caving was fun, and the RC was cleaned up before everyone left. The key was left on the table with the tools and projector.

"Thank-you for the use of the facilities, the projector and the tools. We had a great time. Liz Wolff Shasta Area Grotto Chairman."

Meeting adjourned at 8:40 a.m. Shasta Area Grotto Secretary/Treasurer Steve Hobson

SH

MINUTES FROM SAG MEETING Oct. 24, 2007

OCT SAG MEETING SAG meeting location: Dick and Kathy LaForge's house, Eureka, CA - October 24, 2007. Attendees: Members Jim and Liz Wolff, Steve and Susan Hobson, Dick and Kathy LaForge, and Neils Smith.

Meeting called to order by Chairman Liz Wolff at 8:24 p.m. The old minutes: the Aug. and Sept. 2007 minutes were read by Steve Hobson. They were approved as corrected. Treasurer's report: Liz sold 3 tee shirts for \$10 each (payment not received). \$418.64 Bank Statement + \$111.37 petty cash = \$530.01 total worth of SAG. SAG RAG Report: None.

Correspondence Ernie Coffman reported that George W. Moore had been killed in an auto accident. The Western Region meeting will be held at Pinnacles National Monument. Dave Bunnell reports that Millerton Lakes Cave will be inundated by the Temperance Dam project. See the Western Cave Conservancy website for more info. Hester said that it is good that it is located on BLM land. It gives us a way to fight the project. Bruce Rogers wants to get information on Big Cave, which is located in Shasta County. Robert Nixon says he can't update the website, but if we want to change it the password is ____ We only have one hour at a time to update it. Joel Despain asked about Siskiyou County lava caves. Liz gave him a list of caves that are interesting and over 1,000 feet in length, but no locations. His comment was "WOW".

Old Business No new news on the (Lake Shasta) Dam raising.

New Business Brad Rust wants to know if we are interested in helping with a clean up of Samwel Cave. (No one is interested). He also wanted to know how to get spray paint off. I told him what we had done in Lava Beds, high pressure water, etc., and that we avoided the use of chemicals. Jim & Liz went back east on vacation. They had a good time. Liz added a bunch of stuff to the data base. (Info from Russ Yoder). There are 254 caves in one Siskiyou County area. Ray wants to share the names of caves, but not their locations. This would help alleviate the problem of dual/triple names for caves. Liz contacted Steve Knutson and Shane Fryer about some way to mark them. Meetings: Nov 16th at the Wolffs in McCloud; Dec 21st at Melanie's in Yreka; Jan 25th at Bill Broeckel's house in Yreka; Feb 15th at the Wolffs in McCloud, it is a Sky Party and Cave Cleanup Weekend; Mar 14th at Steve Hobson's house in Redding, Ancient Palace Cave work project.

Trip Reports Jim Wolff, Dave Smith, and Wayne Cedidla worked the Dumb Luck dig. Wayne and Dave then went to Adams Homestead Cave. Bill Broeckel, Jim Wolff, and Liz Wolff went to Sidebottom Ice Cave. It was much larger than originally thought. They surveyed it to the ice. When they looked back they found 299 more feet of cave and it is still going. They found some hands and knee leads, but ran out of time because Bill B. had to be in Mt. Shasta at 6:00 p.m.

Meeting adjourned at 9:24 p.m. Shasta Area Grotto Secretary/Treasurer, Steve Hobson

SH

T-SHIRT SALES

Even if you missed the 25th reunion, you can still obtain one of the fine grotto T-shirts. These are sage green in color, and feature original art on the front illustrating lava and limestone caving in the Shasta Area within the numerals "25". Blue lettering says:

"SHASTA AREA GROTTTO 1982 - 2007 (25) YEARS OF CAVE EXPLORATION". These come in a rather generous men's size large, and there are a few extra large still left. The cost is \$10, plus \$2 for postage and handling. If you arrange with Liz Wolff, you could probably pick up a shirt at a grotto meeting for a straight \$10. If you would like one of these very soft, comfortable, handsome, historical, collectors-item grotto T-shirts, please contact Liz Wolff at POB 865, McCloud CA 96057 or by phone at (530) 964-3123. **BB**

MINUTES FROM SAG MEETING Nov. 16, 2007

NOV SAG MEETING SAG meeting location: The Wolffs house, McCloud, CA - November 16, 2007. Attendees: Members Jim and Liz Wolff, Steve Hobson, Dave Smith, Melanie Jackson, Arley Kisling, Ray Miller, and Bill Broeckel.

Meeting called to order by Chairman Liz Wolff at 7:45 p.m. The old minutes: the Oct 2007 minutes were read by Steve Hobson. They were approved as corrected. Treasurer's report: Arley paid dues of \$6.00; Liz paid for 3 tee shirts \$30.00; Bill submitted a bill for \$20.50 (paid from petty cash); \$16.00 dues and Cal Caver subscription from Mary Rose. This + \$418.64 Bank Statement + \$111.37 petty cash = \$576.01 current total worth of SAG. SAG RAG Report: Bill B. is going to put in more caves including Francis' Folly. Jan/Feb issue will be on the KMCTF.

Correspondence Web hit. We received an inquiry about the grotto from someone in Mt. Shasta. Bill B. sent him a SAG RAG. Dave said he needs more SPAM. Bill B. received a bunch of Kiddie-grams. They were passed around and were viewed by all. Journal of Mammology article (1952) mentions Parrish Cave (Shasta County), possibly Double Door. They were studying bat testicles.

Old Business Local cave makes the cover of the NSS News.

New Business Changing the. SAG meeting weekend. The dates caused problems for a few of us, so it was voted on to change the meeting date to the last Friday of the month. There were a Jot of conflicts so the dates were adjusted and set for the year. Bill B. submitted the 4th weekend, Steve seconded, and voted by the members. Jim was undecided. Meetings: Dec 21st at Melanie. Jackson house in Yreka. Dinner at the China Dragon at 6: 15 pm; Jan 25th at the Broeckel house in Yreka; Feb 16th (Sat) at the Wolff house in McCloud. Ski party and Cave Clean up weekend; Mar 14th at the Hobson house in Redding. Ancient Palace Cave work weekend; Apr 25th; May 30th; Jun 27th; July 25th; Aug 22nd; Sep 26th; Oct 24th, nominations will be held during this meeting; Nov, no meeting; Dec 5th, Bill sings"" Nominations for new officers: Chairman, Melanie Jackson, Jim Wolff; Vice Chairman, Dave Smith; Sec/Treas, Steve Hobson; Editor, Bill Broeckel; Everything Else, Bill Broeckel; Advisor to the Board, Liz Wolff.

Trip Reports Dave Smith went caving with the tourists on his trip to Texas. He visited Bandera Ice Cave on the continental divide in New Mexico, both tours in Kartchner Caverns, a still living cave with very long columns and soda straws, Pristine cave in Arizona, which happens to be run by Cave Nazis. Melanie Jackson and Wayne Cedidla worked the gating project on Ursa Minor and toured Crystal Sequoia Cave afterwards. Bill Broeckel surveyed Sidebottom Ice Cave at 543 feet with additional passage that might be doable if you want to hurt yourself. He surveyed Inverted Tree Pit at 261 feet. The climb down was easy. If you climb into the breakdown there is a hole 30 ft deep with air coming out of it. Bill got dizzy looking into it and it was very loose around it. Jim and Liz Wolff surveyed more of the Labyrinth Cave and Golden Dome. They also added a lot of cave to Mitertite Cave survey.

Meeting adjourned at 9:03 p.m. Shasta Area Grotto Secretary/Treasurer, Steve Hobson

SH



FRANCIS' FOLLY By Liz Wolff**Francis' Folly -- then and now**

The surface of a lava flow is a barren, rocky waste with few plants on the surface, but underneath.... Francis' Folly was discovered in the summer or fall of 1995 by Francis Mangels, a biologist with the Shasta-Trinity National Forest, noting at the time of its discovery that it is a "bio-active" cave, due to the large water pools. He told Jim Wolff about it and they were joined by Melanie Jackson and Liz Wolff, who surveyed the cave at that time; a finished map was never produced. Fall of 2006 Bill Broeckel found the cave and sketched part of it, and then told Liz about it. She told him its identity and went out with him to map an upper level side passage that had been noted in 1995 but not entered or surveyed. This damp breakdown floored passage has a bit of complexity of its own with an upper side room with one wall entirely of breakdown. The passage has a an intrusive tongue which nearly blocks the passage; climbing down six feet gets you into intact passage with a seal of welded rubble at the end. A two foot high tube-in-tube of unknown length is at the bottom of the intrusion. The side passage is 302 feet long.

Francis' Folly is a vertically complex tube with one large pool of water and several small occurrences of ice in the breakdown floors of the lower level. Francis found dipterans, flatworms, fungus gnats, and spiders in and around the largest pools. The lower level begins at a bridge and a skylight before entering the cave proper. It is entirely breakdown floored with small rubble to small bus-sized blocks. The pool is mid-way along this passage from the skylight entrance on the north, to the large walk-in entrance on the south. Above the pool is a short section of mid-level passage that couldn't be reached, that probably goes through to another at the same level below the 23 foot drop from the upper level. Several ice floored holes are found in the breakdown north of the large pool; south of it are larger ice and water floored passages in the breakdown.

The upper level is spacious breakdown floored, dry passage. About halfway along the passage an intact, broad upper level crawl, 11 feet above the floor, goes to the west for about 20 feet. The side passage noted, but not entered in 1995 is in the upper level near the side entrance and turns quickly south. It is damp and breakdown floored. Francis' Folly is 1021 feet long and 59 feet deep. **LW**



Ben Broeckel at south entrance to Francis' Folly – July 4, 1999.
At that time, we didn't know what cave it was, but it looked big!

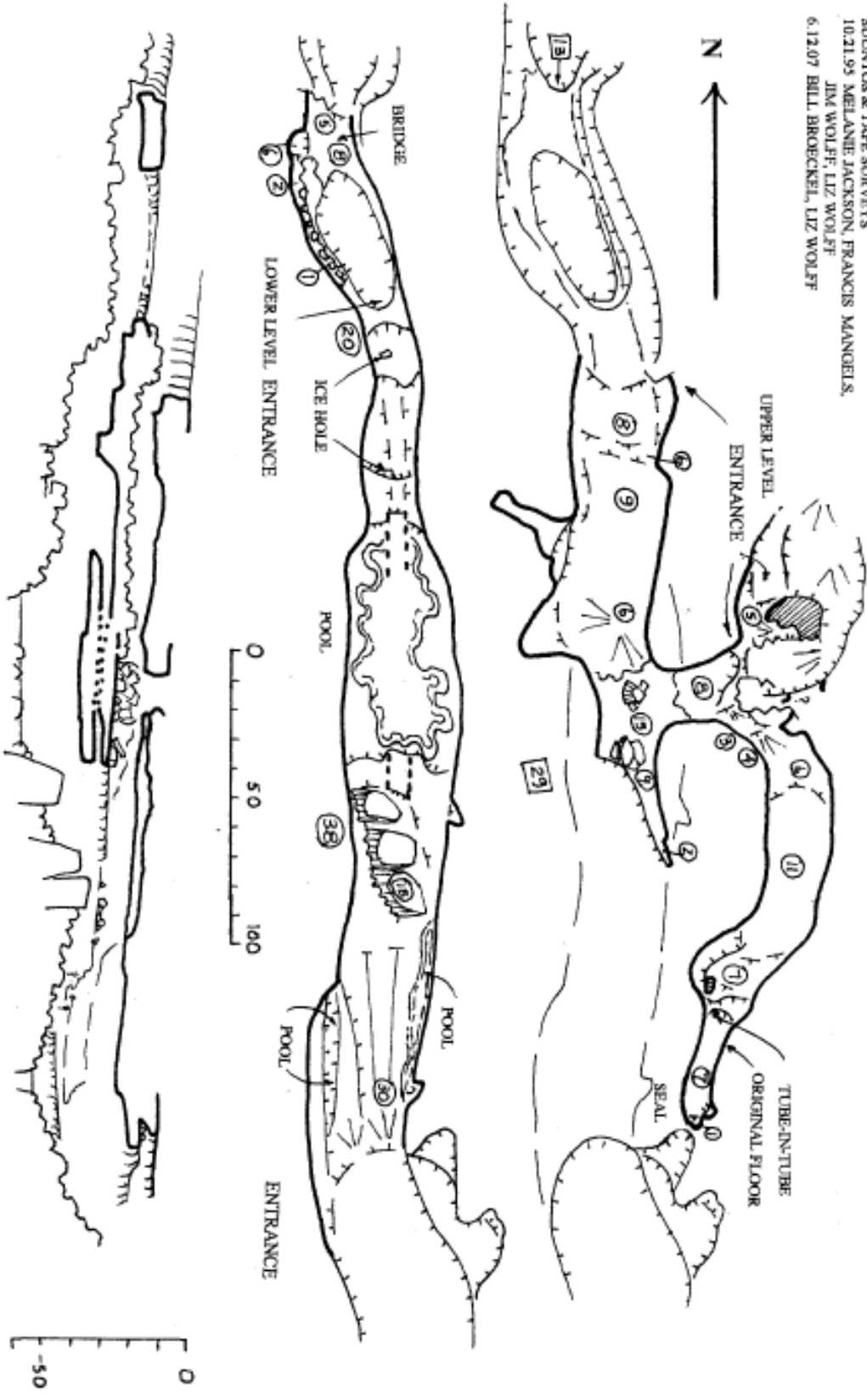
FRANCIS' FOLLY

SISKIYOU CO, CALIFORNIA

LENGTH: 1021 DEPTH: 59

SILVINGOS & TAPE SURVEYS
10.21.95 MELANIE JACKSON, FRANCIS MANGELS,
JIM WOLFF, LIZ WOLFF
6.12.07 BILL BROCKMEYER, LIZ WOLFF

BREAKDOWN THROUGHOUT UNLESS OTHERWISE NOTED



Map: Francis' Folly Cave

CAVES ABOVE FOUR PIT By Bill Broeckel

On July 11, 2006, Ray Miller and Liz Wolff led a grotto survey trip out to the Four Pit area. That was the day we surveyed Jarbl Cave. There were a number of other neglected caves in the vicinity, initiating a whole series of trips over the last year and a half. Jarbl and Jibili Caves have been described previously (SAG RAG 25:6 Nov-Dec 2006). This article will look at the caves along the main trench, beginning with Four Balcony Pit Cave, and moving upflow from there.

Four Balcony Pit Cave

“Four Pit” is a short nickname for Four Balcony Pit Cave, one of the major caves of Siskiyou County. The best reference is Bruce Roger’s article (SAG RAG 8:4), also appearing in the 1989 Speleo Digest. Apparently, the present name of the cave was derived from a combining of two previous names: Four Pit Cave and Balcony Pit Cave. Both of these names appear in Roger’s previous 1980 article on the area (Cal Caver 31:2, June 1980). The cave is also covered in the 1990 NSS Convention Guidebook and Peter Bosted’s review of California cave exploration and mapping in the ‘80s (Cal Caver 40:1). Three of these references include a map of the cave. Surveys were done in 1970 (Baer and Greeley) and 1977 (Rogers, the Parkers, and the McClurgs). From this, Bruce Rogers put together a composite map in 1989, in time for the 1990 NSS convention in Yreka.

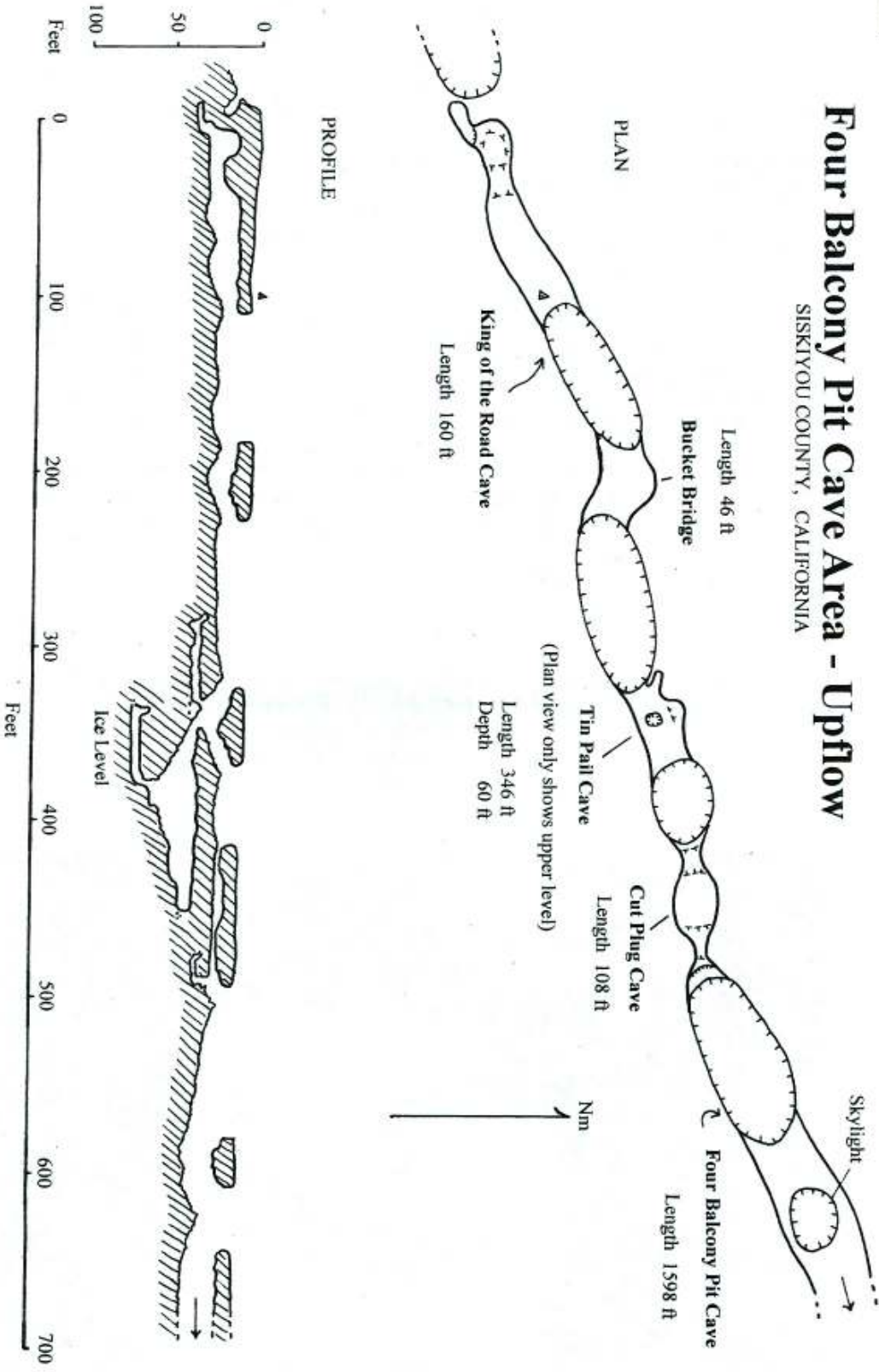
The total length of the cave is 1526 feet. Multiple levels and wedged lava balls add interest. Beginning at the entrance and looking upflow, immediately a bridge type of structure presents itself. The practical, non-vertical way to enter Four Balcony Pit is to walk under the bridge and then go into the cave proper. The walls between the bridge and the cave clearly overhang on both sides. However, the bridge is not depicted on the map. So that leaves it up to us here to make a declaration. That first bit of cave-upflow from Four Balcony-Pit, well, it is part-of Four Balcony Pit Cave. If you want, go ahead and add 72 feet to the length of the cave. Then the new total would be 1598 feet. The depth of the cave was 87 feet. The surface is so flat that any change would only amount to a foot or two. The bridge does double the number of entrances, from one to two. One is horizontal, the other a vertical skylight. The bridge structure portion of the cave is shown on my area map. Other than that, no attempt was made to re-map the major extent or deep complexities of Four Balcony Pit Cave. The 1989 map is pretty dam good and includes a cool profile view.



Westernmost entrance to Four Balcony Pit Cave – 7-18-2006.
Note the smooth pahoehoe pavement on the surface.

Four Balcony Pit Cave Area - Uplow

SISKIYOU COUNTY, CALIFORNIA



Tape and instruments survey: 8-8-06 & 11-18-07. Shasta Area Grotto, National Speleological Society
Ben Broeckel, Bill Broeckel, Judy Broeckel, and Liz Wolff. Cartography: Bill Broeckel © 2007.

Map: Cut Plug Cave, Four Balcony Pit Cave, King of the Road Cave, Tin Pail Cave

Cut Plug Cave

Continuing up the main trend of the flow, there is a large cave entrance at the far end of the trench above Four Balcony Pit. Immediately upon entering, a ledge presents itself, dividing the cave into an upper and lower level. In the face of the ledge, a small lava tube passage is seen in cross section. It is almost completely plugged up with a different color lava. The passage measures 3.3 ft wide and 2.8 ft high. Apparently, this intermediate level passage filled with a lava plug. Then at a later time, collapse between the upper and lower levels left the ledge hanging there and revealed the small plugged passage in cross-section. A photo of this feature is included with this report, and the cave was named for this cut plug.

The lower level is quite cold & tends to retain seasonal ice deep into the summer. Quickly it gets small and difficult, and it may be possible to push it beyond what is shown on the area map. On top of the ledge, the passage gets both narrow and low. However, it continues as a belly crawl that later opens into a walking passage. At the far end of this "room", another crawlway goes out to the upflow entrance. This entrance pops out under the wall of a small surface sinkhole with a large log propped up diagonally. It is easy to climb in and out of the sinkhole, so that it is quite possible to arrange end-to-end trips through Cut Plug Cave.

So to summarize, Cut Plug is a one-room cave accessed through crawlways from both entrances. It features the ledge with the amputated plugged passage, and some cold lower level leads. Total survey length for the cave is 108 feet.

Tin Pail Cave

At the upper end of the same sinkhole with the diagonal log, another cave goes upflow. The walking passage is 44 ft long and leads to another entrance in the next segment of open trench. The width of the passage is about 44 ft or more, so this would be a bridge except for the fact that there is a pit in the floor that goes down to the second and third levels of the cave. Bruce Rogers refers to this cave by name in his 1989 article on Four Balcony Pit Cave (SAG RAG 8:4). Further details are given in a separate article in this SAG RAG (see further). The total survey length for Tin Pail Cave is 346 ft, and the depth is 60 ft.



Transected occluded lava tube in Cut Plug Cave – 12-04-07.

Bucket Bridge

This is the next bit of cave upflow from Tin Pail Cave. It is a 46 ft long walking passage, and has no pit leading down to lower levels. The width measurement was 47 ft, making Bucket Bridge a true bridge, although the cave is a little narrower toward the entrances. The entire passage is well-illuminated by the light of day, and it is possible to move quite quickly through the cave. The through trip may take less than a minute, making this one of the fastest caves in the west. The name comes by proximity to Tin Pail Cave which still has its bucket.

King of the Road Cave

The next cave upflow has a single large entrance facing us. This is the last cave covered in detail by this article, and it is a pretty good one to end on. A large walking passage extends into a dark zone. The floor is covered with breakdown, same as seen in most of the passages in the other caves. The ceiling comes down to helmet level for a spell, then the cave opens up into a terminal dome room. At least it would be a terminal room, except that a little passage over on the left keeps going further. This looks fairly hopeful, but it suddenly ends at a lava seal, and that's it for the man of means by no means, king of the road. The total survey length for the cave is 160 ft.

Next Trench Segment

The next trench segment upflow has reasonable looking cave entrances at each end. However, in both cases the caves are less than 30 feet long, and so I have chosen to not burden the systems with more cave names in this particular instance. Also note that the depiction of this feature on the map is not as accurate as the rest, as it was only paced off after I was disappointed with the extent of the caves as noted. That ends this discussion of the 700 feet upflow from Four Pit. Tin Pail is the real gem of the bunch, and folks, there are a couple more of these out there waiting, maybe just a couple... **BB**



The only entrance to King of the Road Cave – 4-10-07.

TIN PAIL CAVE By Bill Broeckel

Sixty feet below the smooth surface of the lava flow, Tin Pail Cave has a third level where the temperatures are extra cold. An ice slope continues down the 40 ft length of the passage as an ice floor. Progress is made by stoop-walking along breakdown rocks, with the ice floor consistently visible between the boulders. Most surfaces sport sparkling frozen crystals. The passage ends at a wall of rocks and icicles. Ice horizon lines appear high on the walls. So the passage appeared to us on the day we surveyed the cave and first entered this cool passage. It was 11-18-07. The first time I looked at it, on 8-8-06, the low spot that heads down to the third level was completely blocked with icicles like jail bars.

This cave is just over 4,000 ft elevation, and is another one that holds year-round ice. Bill Halliday likes to refer to these caves as “glacieres”. “Glaciere” is the singular form, as opposed to “glacier”, the familiar term for rivers of ice up north, high on mountains, or draped over Antarctica. Sometimes I think the ice in a glaciere might actually be moving like a regular surface glacier. It is most certainly dynamic in a cave. I see ice as a cave-destructive phenomena, moving around like a bulldozer or breaking up the rock by frost fracture processes; forever expanding or receding depending on variations of climate indicators such as average temperature and yearly precipitation. Down in the Tin Pail third level, it looked like the cave was falling apart with more intensity compared to the higher areas.

Background

The earliest reference I have on Tin Pail is from Halliday’s “Caves of California” in 1962. The reference is non-specific, interestingly enough, under the general title “Ice Cave”. The Tin Pail name came from the Bruce Rogers article on Four Balcony Pit Cave published in the SAG RAG 8:4 in 1989. I came across it quite by accident and was delighted to obtain a prior name for the cave. Tin Pail is not the main focus of the article, so it is just mentioned in passing as follows:

“On another hot and sunny afternoon nearly 700 years later, another visitor to the lava fields, who was hunting or trapping, paused at the same arched entrance (Four Balcony Pit Cave). He too, probably conducted the Standard Cave Rock Test and, hearing no growls or splashes, ambled north to adjacent Tin Pail Cave. Here he knew he could cautiously slide into the twilight zone, lower a five gallon square tin pail into the apparently bottomless pit before him and pull it out partly filled with icy cold water. Satisfied, he returned the pail to a ledge under the arched entrance (Tin Pail Cave) and went on his way.”

Well, it turns out that the pail is still there. It helped sell me on the idea that this really was Tin Pail Cave we were looking at. Photos of the pail remnants are included with this article. The pail is not the only artifact to be found in this cave. There are other rusted tins found inside, including a large round -100 fluid oz. tin can not far from the tin pail. Milled wood fragments such as stakes are scattered about throughout the first and second levels. The pit that leads down to the icy third level is surrounded by charcoal. Fragments of partially burned wood are mixed in with the charcoal. Apparently at some time(s) in the past, this was quite the busy cave.



Looking into the western mouth of Tin Pail Cave – 12-4-07.
The tin pail is located on the left side of this entrance.



Remains of the tin pail inside Tin Pail Cave – 4-10-07.

Survey and Description

I felt drawn to this cave and visited six times over the last year and a half. Various tasks were performed such as surface surveys, entrance photos, checking details, and GPS. The best trip was when we mapped the cave proper this last November. I had two good mappers with me (Judy Broeckel and Liz Wolff) and we did some exploration in the natural course of the survey. First we did the upper level from entrance to entrance. Then we dropped down to the bottom of the second level, and I was jazzed to find that the way down to the third level had finally opened up late in the Fall season.

There was no need to chop out any ice. All we had to do was to slide on down, using some rocks embedded or protruding through the ice as footholds to check our slippery descent. It was noticeably colder in there, but the passage didn't go that far. We were able to get our survey data and be dazzled by the beautiful ice, without getting the bad shivers. I wore winter socks, insulated gloves, two pairs of pants, and four layers on top. I am learning to dress warm on map trips inside these glaciers.

Next we finished the second level. We admired the large dimensions of this passage, which felt expansive after the more cramped quarters we had found in the ice gallery below. At the end of this level, the cave tries to have a side passage to the right. The wall has quite an angle. An apron of red dirt comes in this way, and covers a wide area of the floor. Apparently, this is burnt dirt from pre-lava-flow soils that somehow spilled into the cave. Liz Wolff stuck her head under the wall more to the left, and found a blowing gravel dig. The fill material here is grey pebbles, very different from the red sludge described above.

On the way out, we checked a lead on the north wall, near the entrances. We found a gutter passage under the wall that needed to be included on the survey. It extended 60 ft. At one end there was a slab crawl. The other direction ended in a rock dig going up under the surface trench well beyond the regular Tin Pail entrance. We called this gutter "level 1.5". A week or two after the survey trip, I went back to check a detail in this passage, and noted groups of moths clustered on the ceiling just like we see in the marble caves often times.

Tin Pail Cave is a multi-level lava tube cave with ice in the bottom. The total survey length is 346 feet. I'm glad to see this worthy cave described, it deserves a little more love after all these years. Apparently these years included a period of some abuse in the past. I have trouble imagining a pool of water in Tin Pail, but I suppose that those high ice lines down in the third level might be water rings. Note that Four Balcony Pit Cave, just down the line, is almost 30 ft deeper than Tin Pail Cave. We have a few other obscure (new) ice caves here in Siskiyou County that we have surveyed recently. Hopefully the maps of these other interesting caves will get themselves done sometime soon. **BB**

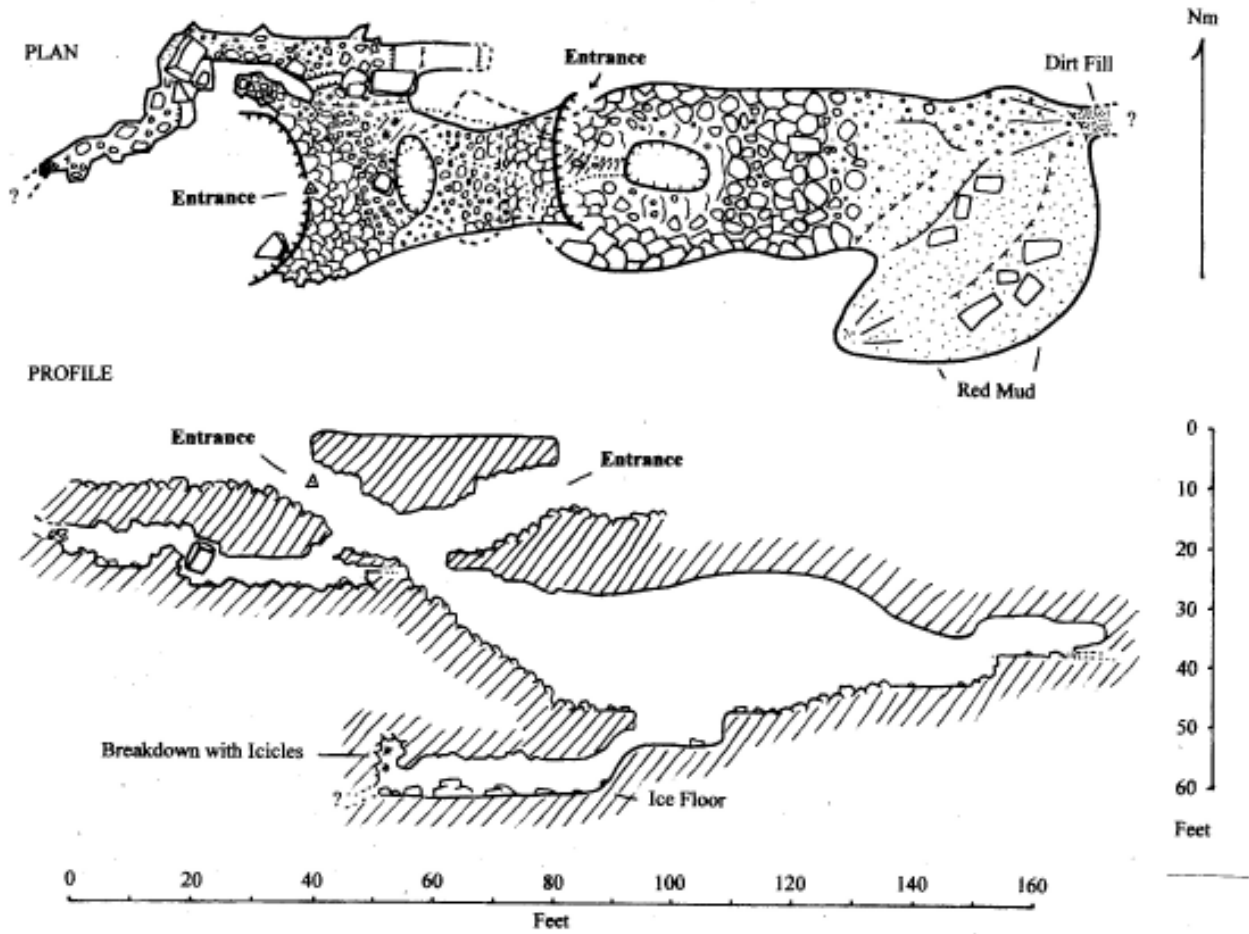


Remnants of the tin pail on the surface, with bailing wire handle – 4-10-07.

Tin Pail Cave

SISKIYOU COUNTY CA

LENGTH: 346 feet DEPTH: 60 feet



Tape and instrument survey: 11-18-07.
Bill Broeckel, Judy Broeckel, and Liz Wolff.
Shasta Area Grotto, National Speleological Society.
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Map: Tin Pail Cave

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