

What could possibly go wrong?

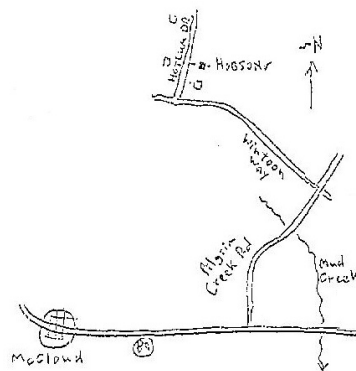
The SAG RAG is published by the Shasta Area Grotto of the National Speleological Society. Grotto meetings are held at different locations on the fourth Friday of each month at 7:30 p.m. Meeting locations are announced in the SAG RAG. Membership dues are \$5 dollars per year and include newsletter subscription. 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 <caverbill@live.com>. For more on SAG, check the web site at <<http://www.caves.org/grotto/sag>>.

CAVE CALENDAR

Apr 24

SAG Meeting 7:30 pm at Hobson's in McCloud

Map to Meeting



SAG RAG SUMMARY

By Bill Broeckel

This time around, it turns out we have a Shasta Valley special. First off, SAG recently completed a re-survey of the valley's biggest and baddest lava tube of them all – Pluto's Cave. The resulting map easily fills out an 11x 17 inch sheet, includes a ground-breaking profile view, and correlates the bitter end of the long dark passage with an interesting, blowing sink on the surface. Connecting looks problematic, but imagine the sweet through trip.

Next we have what I believe is the first ever map of that legendary and somewhat mysterious local feature known as Pythian Cave. This cave is not in lava. Instead, it formed in the side of an exposure of variable-sized cobblestone rocks conglomerated in a limestone matrix. Long ago, Ray Miller once told me that Pythian Cave was the mouth of an ancient river draining into an inland sea, one of Shasta Valley's former iterations. I knew that guy was old, but come on. Some other solutional caves in Shasta Valley are on more restricted private property, but none-the-less still bolster the notion that this is one of those awesome places where the lava really does meet the limestone. It's all in the same valley anyway.

Thank-you to Liz Wolff for these new cave maps, which she also further illuminates with insightful articles covering some of the history of these two caves, both of which remain open to visitation by the general public. Of course that could change in a flash if we behave badly or disrespect the greater good at these points of geological interest. So everybody be nice. **BB**

Shasta Area Grotto Meeting – February 27, 2021

B. Broeckel

The meeting was assembled on Saturday at Hobson's place in McCloud for pre-dinner introductions. Present were Jim & Liz Wolff, Steve Hobson, Melanie Jackson, Kit and CJ McKinley, Bill Broeckel, Arley Kisling, Breanna Kisling, and Jake Pluim from Redding. Break for dinner. The meeting was called to order at 6:55 pm. January minutes approved as read. Note: Minutes are now available on line. Dave will review and post minutes on a bulletin board. Steve will post agendas. Discussion on content and security.

Treasurer's Report: Previous balance – \$573.94. Expenditure – none. Deposits: \$81.00. Petty Cash: \$116.00. Current Total – \$770.94. Reminders: dues are due if not already paid for 2021. Don't forget to sign up for Convention (newsflash: 2021 NSS Convention looks to be virtual).

SAG RAG: Next issue soon. Snail mail # down to 22, address list requested by officers.

Website: Note report above regarding posting minutes and agendas.

Correspondence: BLM Lakeview District contacted Jim Wolff for comment about plans for gating Derrick Cave to protect bats. Jim replied OK, but suggested white-nose precautions to be considered for any open gate times.

Old Business: NSS Convention planning: lots of chatter, opinion and comment on line regarding the fate of the convention. Watch for decisions from the NSS leadership by the end of March. Some grotto members feel they will be too old to lead trips in four years. Other convention related talk addressed vertical competence for vertical cave trips, volunteers for the trips table (Mel and Dan M.), and that registration is in fact already open at this time.

New Business: Possibility for a meeting on the coast at some point this year (fond memories of caving in sea caves). The gate on the road to Barnum Cave has been ripped out of the ground, and the old juniper tree in front of the cave has been felled and made into firewood. The cave gate, however, remains intact. Liz agrees to notify Sam Cuenca (Klamath National Forest – Biology). Steve Hobson has a canyoneering trip coming up soon. Steve and Mel are up for cave trips Thursday-Sundays. Jake is also interested in caving, call or e-mail opportunities.

Trip Reports: Kit and CJ caved with Mother Lode in Natural Bridges, Wool Hollow (not Heater), Rockpile, Crystal Stanislaus, etc. with Ernie Mayer, Katrina, and others. Today Jim Wolff, Kislings, McKinleys, and others (?) enjoyed a productive rope training session in Hobson's "outback" (tall room in the back of his house in McCloud), including rig adjustments, change overs, and setting up systems – everybody learned stuff.

Meeting adjourned for dessert at 20:15.

Stand-in Secretary

BB

John Muir Describes Lava Caves in Northern California By Liz Wolff

Pluto's Cave is a large lava tube near the base of Mount Shasta. Nelson Cash was chasing stray cattle in 1863 when he came upon the entrances to Pluto's Cave. George Tyler and Elijah Heard explored and named the cave in April, 1863. William Brewer visited the cave in October of 1863. John Muir published his description in 1888. Perhaps we can forgive him getting carried away with his imagination. Again, it was Peter Basted leading the survey team in 1983 that determined the length of the cave was 2501 feet.

On the north side of Shasta, there is a long cavern sloping to the northward nearly a mile in length, thirty or forty feet wide and fifty feet or more in height, regular in form and direction like a railroad tunnel, and probably formed by the flowing away of a current of lava after the hardening of the surface. At the mouth of this cave where the light and shelter is good I found many of the heads and horns of the wild sheep, and the remains of camp-fires. No doubt those of Indian hunters who in stormy weather had camped there and feasted after the fatigues of the chase. A wild picture that must have formed on a dark night - the glow of the fire, the circle of crouching savages around it seen through the smoke, the dead game, the weird darkness and half-darkness of the walls of the cavern, a picture of cave-dwellers at home in the stone age

In a north-northwesterly direction from the foot of the pass you may chance to find Pluto's Cave, already mentioned; but it is not easily found, since its several mouths are on a level with the general surface of the ground, and have been made simply by the falling in of portions of the roof. Far the most beautiful and richly furnished of the mountain caves of California occur in a thick belt of metamorphic limestone that is pretty generally developed along the western flank of the Sierra from the McCloud River to the Kaweah, a distance of nearly 400 miles. These volcanic caves are not wanting in interest, and it is well to light a pitch-pine torch and take a walk in these dark ways of the under-world whenever opportunity offers, if for no other reason to see with new appreciation on returning to the sunshine the beauties that lie so thick about us.

Muir, John, 1888. West of the Rocky Mountains. Running Press, Philadelphia, PA 1976. Chapter 10, Mount Shasta, pages 201 and 224-227. (Shamelessly cribbed from a SAG RAG 22(6) article by Bill Broeckel.)

So go the distant historic references for Pluto's Cave. In more modern times it was privately owned until about 1995 when the Klamath National Forest acquired Pluto's and other caves in a land swap. Some of us thought they got the short end of that particular stick what with all the trash and graffiti in the cave. Once the KNF owned the cave SAG volunteered to do an annual cleanup of the trash in the cave. What a chore! That first year the pile of trash probably over-filled a dump truck. Our first clean up brought out bed-springs, mattresses, tires & rims, beer cans & glass, paint cans, lots of broken glass (prizes given for intact bottles!), discarded clothing; coins and other memorabilia were also found. For the many years annual clean ups, we brought out about 50-100 pounds of trash, broke up fire rings and squirmed under many a really big boulder in the mid-section of the cave to garner defunct brands of soda and beer cans. There were at least two other groups that were doing clean ups in the cave during different times of the year. As the years have gone by there is less and less trash proving that a clean cave will maintain better than a trashy one. Now to take care of the spray paint ... Anyone got a sure-fire, portable, non-toxic way to do that?

continued

Pluto's and other area caves bats had been monitored for many years by Dr. Dixie Pierson and Dr. Bill Rainey of the University of California, Berkeley with the help of Ray Miller and other SAG members. Ray devised a "standard" way to make sure where exactly the bats were and not miss any of the cave for the annual hibernation counts. It worked very well. Annually we would count about 265 bats in the cave in early March.

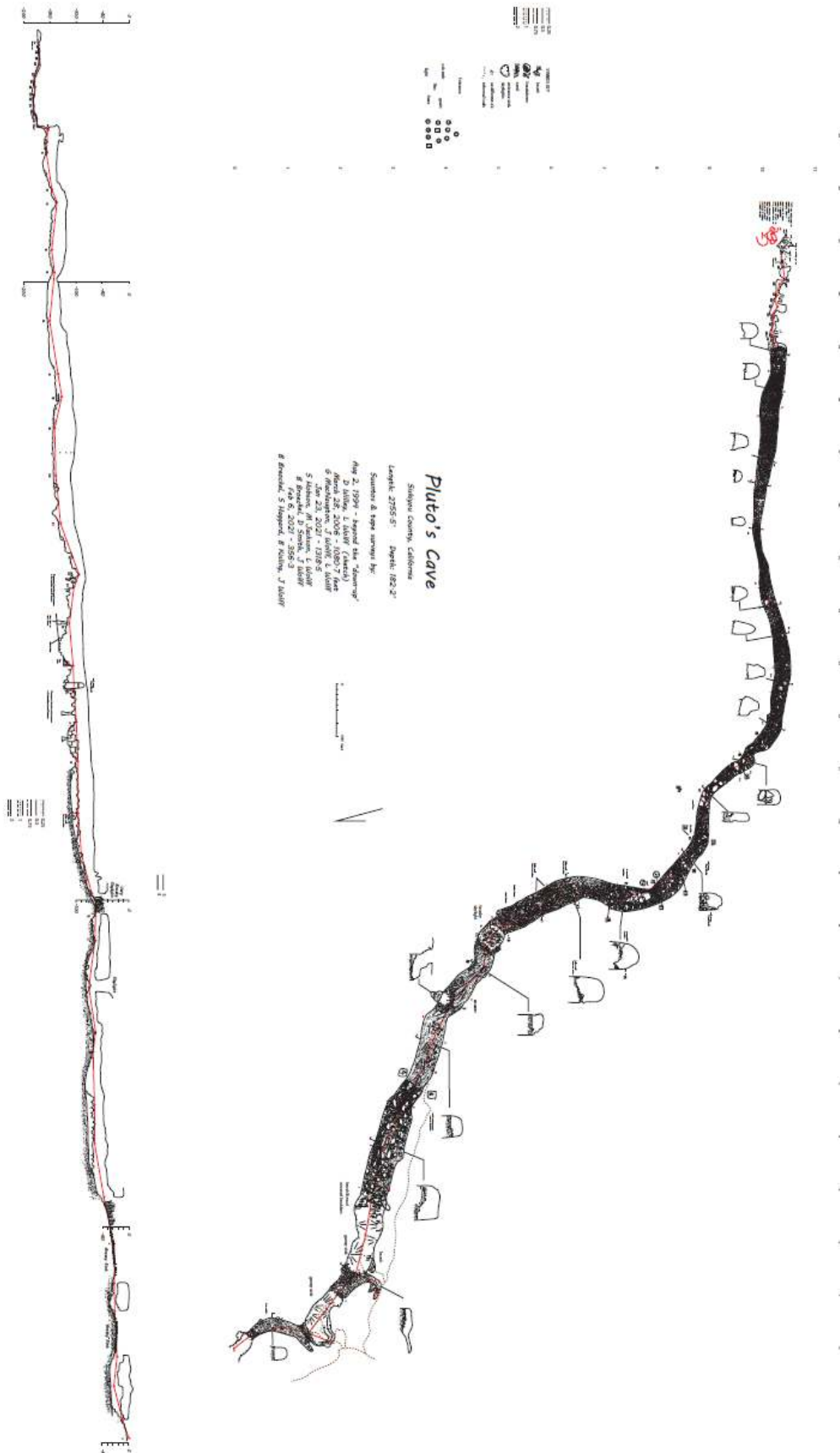
Peter Bosted and crew surveyed the cave in a day, netting 2501 feet. His map doesn't show the mid-section of the cave having huge boulders, giving you a major workout. Reports reached us in 1994 that there was an extension to the crawl at the bottom end of the cave that ended in a lava seal in a 20 foot diameter x 20 foot tall room beyond the crawlway. There was a tricky move called the "down-up" that had to be negotiated to get there. This isn't deep just a little tight back-bend under a rock with no handholds but sand and detritus. I went out there in August with then SAG member Denise Willey to see if we couldn't get through it. I tried first but couldn't get up the "up" side of the spot. Denise, being a little taller than me made it. She then described what she saw with approximate dimensions: short crawl (12-15') to a tight spot, then about 11' to a break in the breakdown wall that let into the 20 foot diameter room with a near-pillar of breakdown in the center. A sand floor surrounded the near-pillar and sported two rat nests of *green juniper*. The ceiling was about 15-20 feet high made up of boulders with crevices going up into the boulders. Fresher air and the green juniper indicated a direct passage to the surface, at least for rats.

I decided several years ago that we needed a newer map of Pluto's that better reflected the broken nature of the cave and when Geoff MacNaughton asked about a possible survey trip, the day of the first resurvey was planned. It took place on March 28, 2006. Geoff, Jim Wolff and I surveyed our way through the "easy" part of the cave, stopping at dusk with 1080.7 feet done.

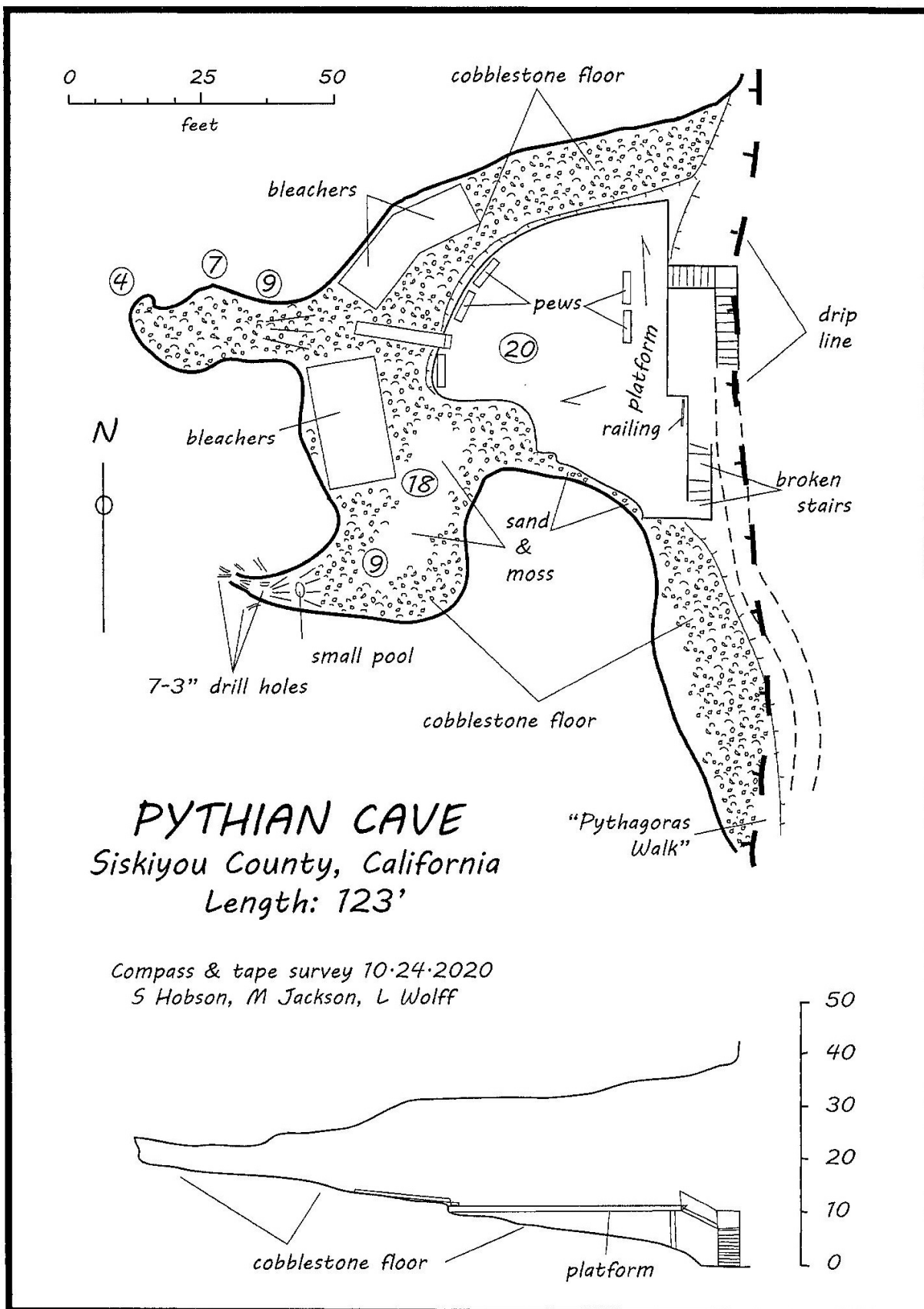
The next trip wasn't until January 23, 2021 when two teams of three entered the cave; one to take up where the previous survey left off and the other to go to the end of the walking passage and survey back toward the entrance. The deep team was Bill Broeckel, Dave Smith and Jim Wolff, the entrance team was Steve Hobson, Melanie Jackson and Liz Wolff. That day saw 1318.5 feet surveyed, with about 200 feet separating the two surveys. The final trip was on February 6, 2021 with one team of four in the cave (Bill, Spencer Haggard, Breanna Kisling, Jim) and another team of three (Melanie, Dave, Liz) on the surface to locate the approximate end of the cave. Both teams were successful in their assignments; the cave team finished the crawl as far as the "down-up" gaining 356.3 hard-won feet of survey. Without the sketched section beyond the "down-up" added in, the total length of Pluto's Cave is 2755.5 feet and depth is 182.2 feet.

The surface team found a shallow blowing sink filled with boulders and passages down between them. Prying one boulder out, more boulder-choked passage was revealed heading roughly north, and no chance (short of using a crane or chemical persuasion) of moving any more of them.

Remarkably, when the cave was plotted and cave entrances adjusted to a google-earth image, the sketched in final room is less than 10 feet from the blowing sink. So ends the saga of the resurvey of Pluto's Cave. John Muir probably visited no more than the sand-floored sections of the cave; but carrying a pitch-pine torch with smoke and soot in your eyes would tend to restrict him to easier passages. His estimate of nearly a mile in length was way off. **LW**



Map: Pluto's Cave



Map: Pythian Cave

Pythian Cave History

by Liz Wolff

According to local geologists, Pythian Cave is eroded from a thick bed of conglomerate in a limestone matrix. The yawning mouth of the cave can be seen from a distance if you look at the right place and time of day. A year-round spring is located at the back of one branch of the cave. Water that collects in a small pool was once piped to ??? Seven drill holes in the walls and ceiling all drip onto a lumpy black flowstone slope where a pool had been chipped out. From the cave mouth the view of the valley, Mt Shasta and other Cascade peaks is phenomenal!

Pythian Cave was owned and used by the Knights of Pythias (K of P), a fraternal organization that has existed since 1888. The group held meetings in the cave from 1925 to 1945. It is located on a 40 acre parcel sold to the International Order of Odd Fellows (IOOF) for \$10 in 1962, with the K of P retaining the right to use the cave at least once a year. In 1940, before buying the cave, the IOOF began using it for one of their ceremonies. The K of P met every year, with interruptions for WWII and when the original improvements, access and platform, needed repair. Since 1994 the IOOF Cave Degree has been resumed in the cave. The cave is also used by the Masonic Order every other year for a degree ceremony. The K of P women's group, Eastern Star, has occasionally visited the cave for their outings. Recently, for at least a short while there was a geocache at the cave, according to the K of P website. The cave is open to the public. No alcohol or firearms are allowed.

When SAG visited, the whole area was clean, except around the parking area by the gate. A half mile hike up the road brings you to the cave, where stairs lead up to the platform and bleachers. On October 24, 2020 SAG members Steve Hobson, Melanie Jackson and Jim & Liz Wolff visited the cave for a quick survey. It taped out to 123 feet in length and the depth is the height of the cave opening, about 38'. A ledge leading to the south that the K of P called Pythagoras Walk extends to the top of the cliff and was the original access to the cave. The cave opening is 75 feet wide, not including Pythagoras Walk. Remnants of a hand railing remain on the Walk.

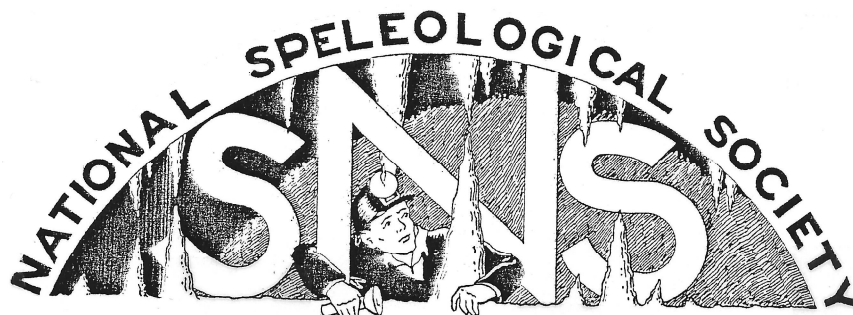
References:

Dr. Paul Dawson, College of the Siskiyous, geologist, 1983

Dr. Ray, College of the Siskiyous, historian, 1986

Dunkin, W, *Pythian Cave, Brief History*: KOPhistory.com, accessed October 2020

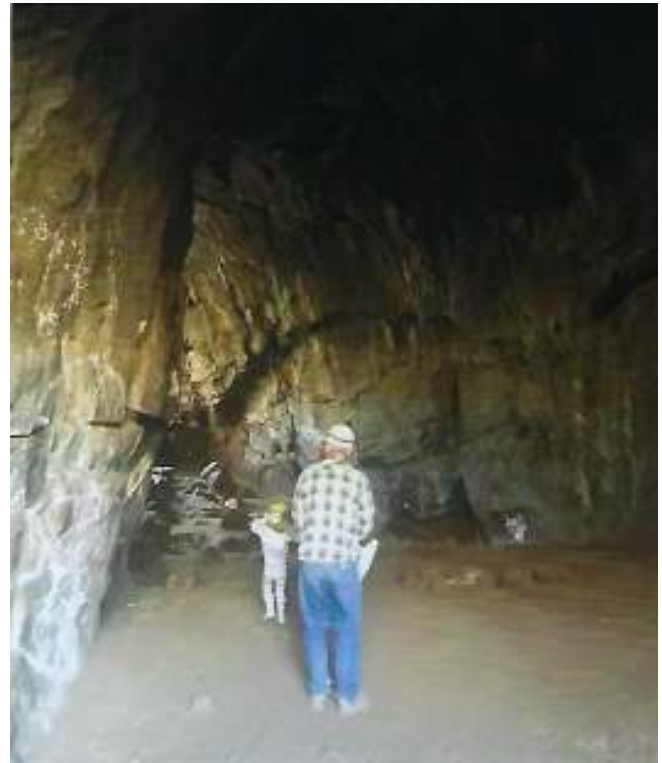
LW



Shasta Area Grotto is an Internal Organization of the National Speleological Society.

THE MISSION STATEMENT OF THE SHASTA AREA GROTTO

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



Pluto's Cave

Anne Walker caving with Grandma and
Grandpa Broeckel

Photos by Becky Walker

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TO:

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