

Thomas Jefferson explored caves, described caves, surveyed caves, and drafted cave maps. This is a copy of the first known Virginia cave map, of Madison Saltpetre Cave, and was done by Thomas Jefferson (map available courtesy of the Virginia Speleological Survey website).

**INSIDE: Update on SAG's Hat Cave Project**

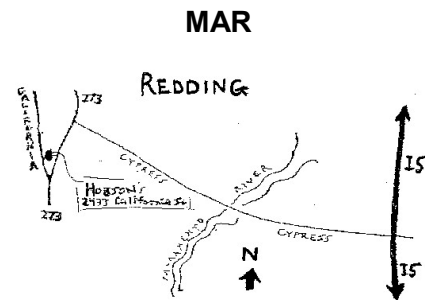
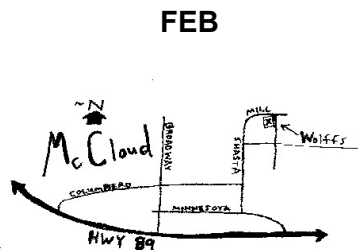
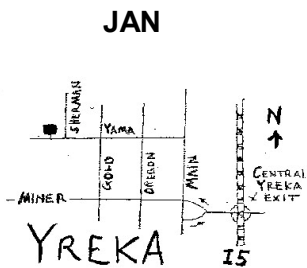
The SAG RAG is published by the Shasta Area Grotto of the National Speleological Society. Grotto meetings are held at different locations on the fourth Friday of each month at 7:30 p.m. Meeting locations are announced in the SAG RAG. Membership dues are \$6 dollars per year and include newsletter subscription. 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 <caverbill@live.com>. For more on SAG, check the web site at <<http://www.caves.org/grotto/sag>>.

**CAVER CALENDER 2013**

- Jan 25 SAG meeting 7:30 pm at Melanie's in Yreka 530-842-9714
- Feb 22 SAG meeting 7:30 pm at Wolffs' in McCloud 530-964-3123
- Mar 22 SAG meeting 7:30 pm at Hobson's in Redding 530-242-8707
- Mar 22-24 NSS BOG at Menlo Park
- May 17-19 (?) Speleo-Ed at Prather (near Millerton Lake NE of Fresno)
- Aug 5-9 NSS Convention at Shippensburg, PA
- Aug 30 – Sept 2 Western Regional at Trout Lake, WA
- July 2016 NSS Convention at Ely, NV



**Maps to Meetings**



**SAG RAG SUMMARY**

By Bighorn Broeckel

Many thanks go out to Grotto officers Liz Wolff, Dave Smith, Steve Hobson, and Melanie Jackson for duties fulfilled and willingness to keep on going for another year. We still need the rest of us to submit completed ballots to make it official (see further). Here comes the end of the world, well, at least the end of the year, and time for some self-evaluation. I, for one, have been slacking off caving this last year, don't know why, still love caves though. One exception was Hat Creek, with lots of quick easy little caves, and short approach hikes. So this Hat Creek issue was inevitable. More thanks going to Liz Wolff, who completed maps of nine (9) Hat Creek caves in 2012, including a big one (Sweet Sinkers). It took twenty years for Sweet Sinkers to show up on the project. We can't really claim we discovered it, not with the old jeep road going right up to the edge of the big main sinkhole entrance, and a geocache in there. However, I'll bet the cave was never mapped before. Hey, how about that President Thomas Jefferson, the guy was a freak'n cave mapper. Check it out on the VSS (Virginia Speleological Survey) website. George Washington was a caver too!

**BB**

**Sweet Sinkers**

Sweet Sinkers Cave with friends

From L. Wolff

Caver Dr G.O. Graening of Sac State University, armed with collecting permits, contacted Liz Wolff and Bill Broeckel to lead a bunch of biology students to some caves to look for wildlife, bugs mostly, in the caves. He was planning for the Earth Day weekend 2012, and got an UNDER-earth weekend instead. His students were introduced to the cave environment, some cave science, survey and the critters that could be found underground. Four SAG members, Bill Broeckel, Chris Kennedy, Jim & Liz Wolff met G.O. and eleven (or so) students at Cave campground Friday April 20, 2012. All of the students were introduced to cave survey & cartography in bunches of three or four, then used cave maps to find their way through another cave to look for bugs. They got more than they bargained for, finding bugs that should only have been found at the snowline on high peaks. The students found cave survey to be tedious, but after using the existing maps to find their way around Christmas Tree Cave, saw how useful they were.

The cave Bill had chosen for the survey exercises was a recently discovered one he called Sweet Sinkers as it has several skylights, most of which are climbable. The locale is at the southern end of the rift zone that is the source of most of the lava for the valley as far north as the Radio Astronomy observatory.

Sweet Sinkers West Cave has lower levels on either side of the passage, down through breakdown to about floor level, but both sides were blocked with ice at the time. "Little people" (lava stalagmite) formations are found on one side of the passage. Most of this cave is walking passage over breakdown, but a portion is mud floored with a rafted block and a lava rose poking through the mud next to an alcove. A skylight is located mid-way through the cave. The cave ends blocked with breakdown. It is 204 feet long and 13 feet deep.

The main Sweet Sinkers Cave begins with a tiny squeeze entrance to a crawl down a sand slope. A large diameter root wriggles its way down the slope nearly to the bottom of the sand. From here the cave is mainly walking sized. From this point the students got a tour of the rest of the cave before going off to look for bugs in Christmas Tree Cave and Christmas Tree North. After lunch with the students and G.O., SAG was back out to Sweet Sinkers to continue the survey. Some interesting complexity was found in a side passage, and Liz and Chris's survey was joined to Jim and Bill's at the last skylight, and we had to call it a day. We did take the time to "scoop" the rest of the cave and check out the vent and another entrance before leaving.

We were back with more of SAG to continue the survey on June 22. Steve Hobson and Dave Smith joined Liz and Chris to survey upflow in the main passage. Around a couple of pillars, perched upper level rooms, and an interesting "scapula" shaped rock on the wall, the survey stopped at the end of a side passage. More breakdown floored the main passage, leading up to more pillars, a perched upper level and another side passage.

At the campout/SAG meeting that night we met prospective SAG members Dennis & Kim Rechel and their boys Luke and Lane, Doreen Hill and Jim Cork.

continued

One of the boys liked caves and the other liked rock climbing, but we converted him to a caver before the weekend was out. On the 23<sup>rd</sup> we decided to survey Chris's new entrance cave. It is named Sandfill Cave, 281 feet long and 23 feet deep. Most of the cave is crawling height, with sand or sand and cobble floors. We saw a beetle and one flying bat while we were surveying. Both boys were asking, "What's down there?" and with an adult trailing, got to go where no man had gone before, or at least hadn't in a good long while. Exploration was the name of the game for the day, while the survey plodded along in the excited explorers' wake. Almost every passage ended in sand or rubble fill, hence the name. The only one that didn't is a short intact side tube with a coralloid covered floor and a lava seal.

The next day, following the exodus of the longer-range members, Steve, Dave, Chris, Bill and Liz continued the survey in Sweet Sinkers. Up into the breakdown, under the breakdown and up a lava fall into a side passage, up to the rubble filled, but breezy and dig-able end of the cave. On the return the perched upper passage was surveyed, with Bill braving the move to get into it. It went 27 smooth-floored feet to a pinch. Thus ended Sweet Sinkers. It is 1084 feet long and 38 feet deep.

This left some sand-filled sinks and one small cave to survey. Bill Returned Sept 28 to pick up Thomas Jefferson and Thomas Jefferson Annex caves, 63 feet in Thomas Jefferson and 42 feet in the Annex. **LW**



SAC State student on survey in Sweet Sinkers West 4-21-12.



Luke and Lane Rechel take a break in Sweet Sinkers Cave 6-23-12.



Dennis Rechel with his boys Luke and Lane at Monster Pit 6-23-12.













Ceiling detail in Sand Fill Cave 6-24-12.

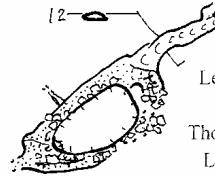


Steve Hobson on survey in Sand Fill Cave 6-24-12.

### Sweet Sinkers Cave, pg. 1

Map Symbols Used

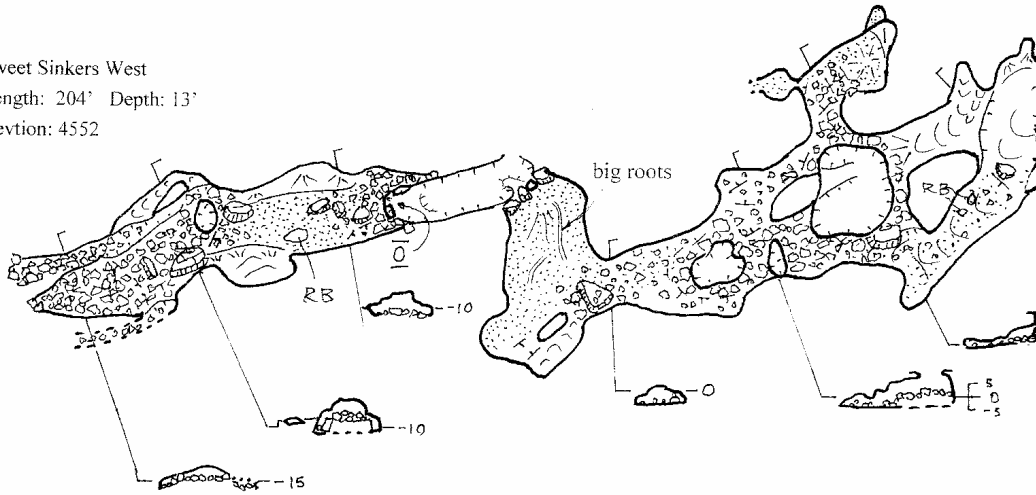
-  cave walls
-  sink hole/entrance
-  ceiling height
-  ceiling height change
-  ropy lava
-  ledge
-  lava fall/slope
-  rafted block
-  breakdown
-  sand/mud



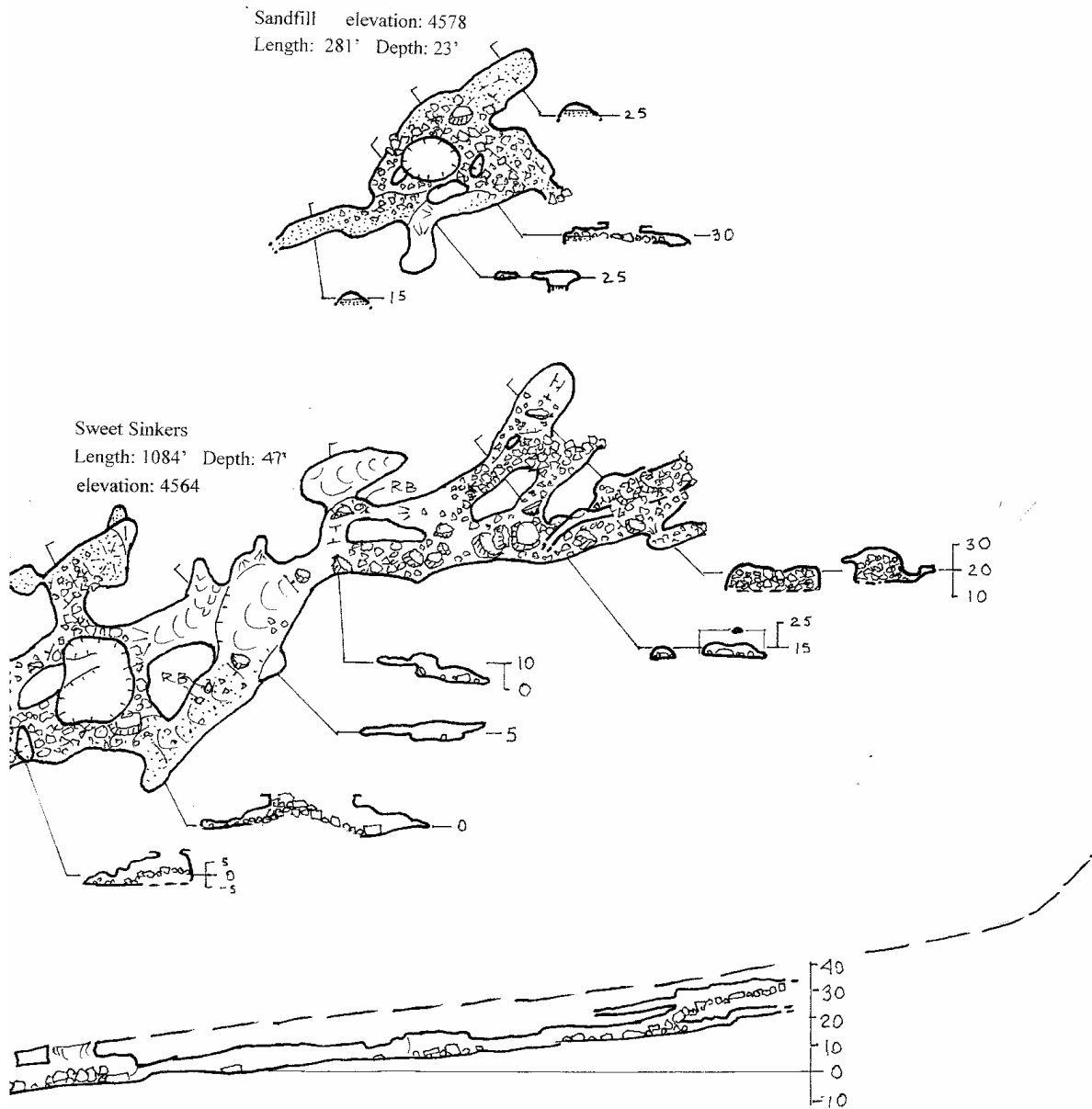
Thomas Jefferson  
 Length: 63' Depth: 7'  
 elevation: 4572  
 Thomas Jefferson Annex  
 Length: 42' Depth: 6'

Sweet Sinkers West  
 Length: 204' Depth: 13'  
 elevation: 4552

Sweet Sinkers  
 Length: 1084' i  
 elevation: 4564



### Sweet Sinkers Cave, pg. 2



Map: Sandfill Cave, Sweet Sinkers, Sweet Sinkers West, Thomas Jefferson, pg. 2



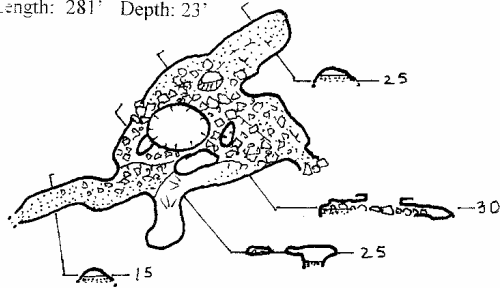
### Sweet Sinkers Cave, pg. 3

## Sweet Sinkers Caves

Shasta County, CA

©2012 L. Wolff

Sandfill elevation: 4578  
Length: 281' Depth: 23'



Suunto, Tape & Disto surveys by

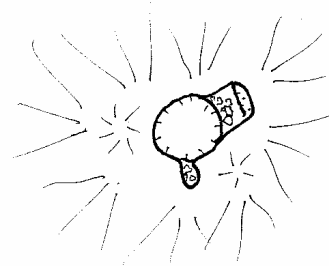
SAG:

B Broeckel, J Cork, S Hobson, C Kennedy  
D Rechel, D Smith, J Wolff, L Wolff

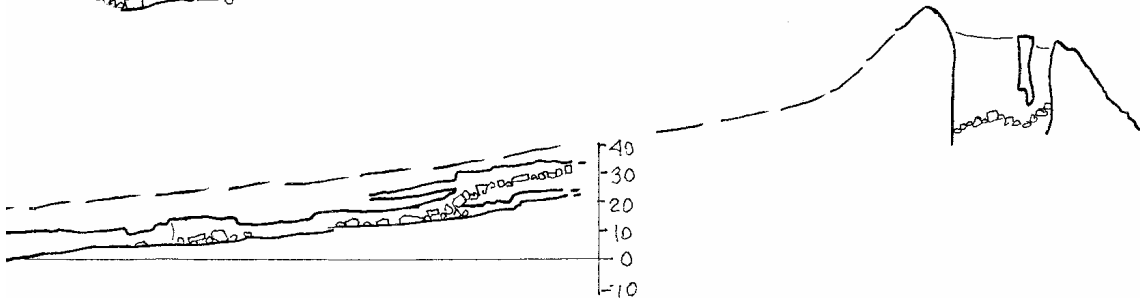
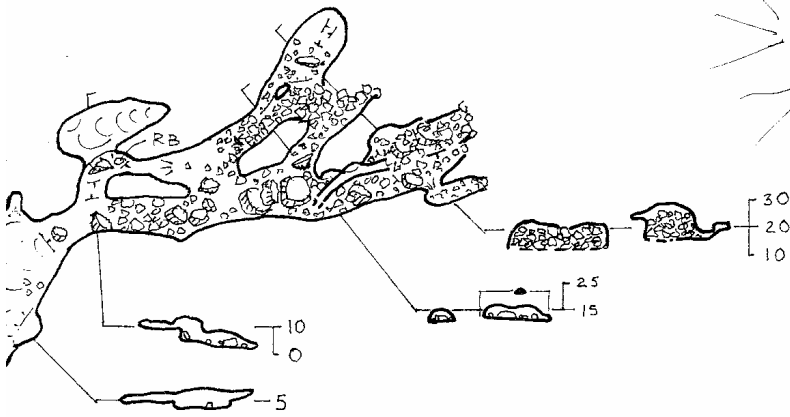
Sac State students:

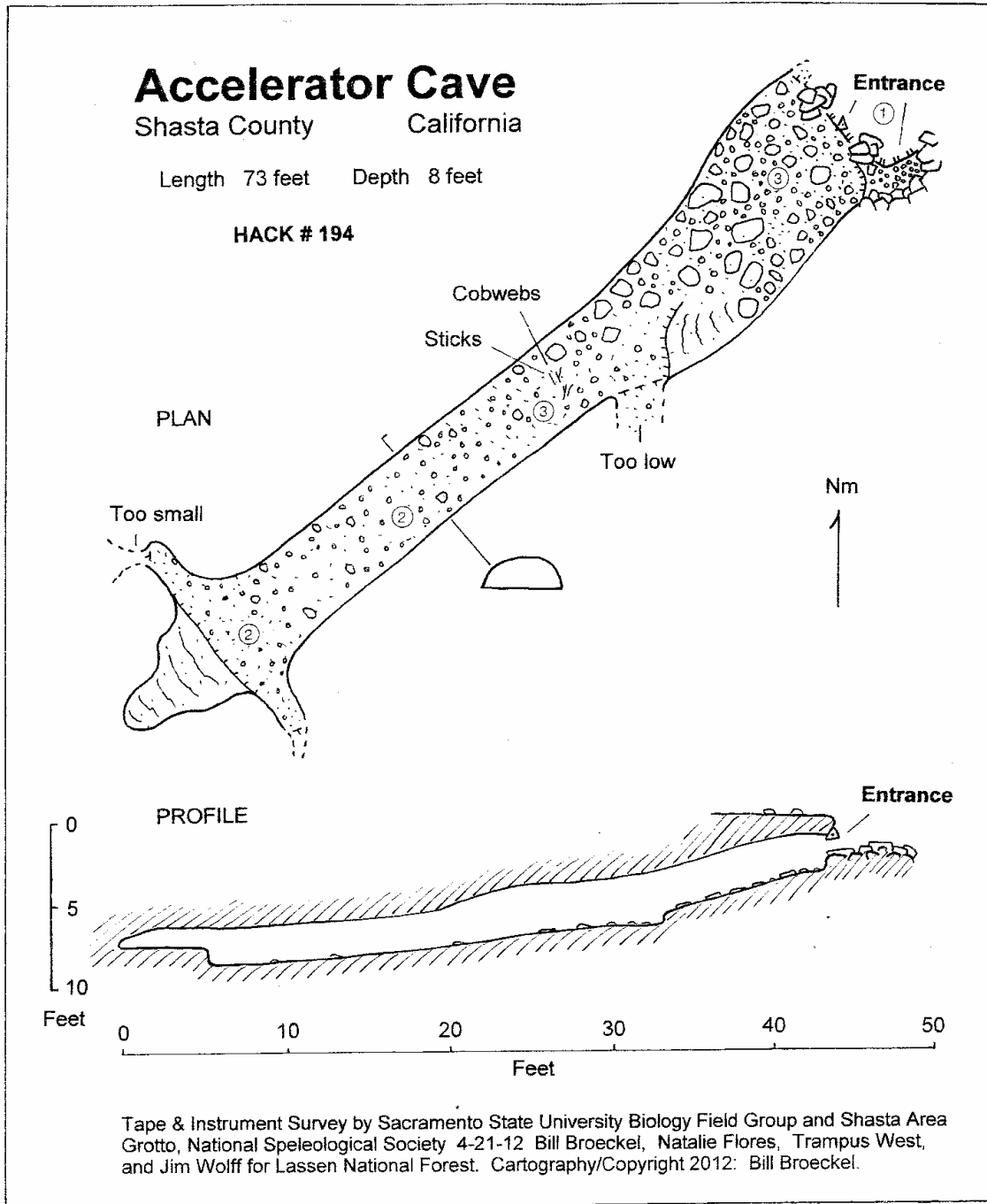
M Arghandiwal, S Borstein, N Cullen  
N Flores, C Gray, D Hackney, G Rodriguez

Apr 22 – Sept 28, 2012



Monster Pit elevation: 4649  
Length: 14 & 18' Depth: 47'





Map: Accelerator Cave

**HAT CREEK CAVE JOURNAL 2012**

By Bighorn Broeckel

Introduction: This cave project has come along a fair distance since the "50 Caves of Hat Creek" Western Regional in 1999. This year has been especially notable due to increased Grotto/Forest collaboration (e.g. Fuzzy Bunny sinkhole clean-up), work done by the SAC State Biology field research group (bio-inventory of multiple caves) and the completion of the Sweet Sinkers survey. Sweet Sinkers went over 1,000 feet, including some sweet walking passage, and became the 7th Hat Creek cave to pass that 1,000 foot mark. A couple other project landmarks were quietly achieved. The total number of surveyed caves at Hat Creek passed 200 (actually now up to 205), and the total surveyed passage length is currently beyond eight miles. What follows is a blow-by-blow journaling of a busy year at Hat Creek.

**1-29-12** The Enterprise Cave survey was completed. The cave is shaped like the Starship Enterprise. Nearby, the tiny Tribble Cave was also mapped, and all this just ahead of a big snowstorm. Oh the trouble with tribbles.

**2-12-12** Boot Scoot'n Cave survey, this one at a lower (less snowy) elevation and found previously in a burn. Incoming snowstorm again.

**2-21-12** Two more small caves near Boot Scoot'n yielded to survey – Twin Bridges and Marginal. Then moving to a higher area, the car sank into a mud bog and required digging and many sticks under the tires before it could pull itself out. Still Stump-on-a-Lump got mapped, and a few other unknown caves showed up.

**2-26-12** Cascadia Cave finally gets a survey, definitely old business, waiting all these years just because it is a bit of a squeeze getting in.

**3-4-12** After a major snow event, dusty Powder Puff Cave was done. A muddy cave it was this day, but at least the air was breathable.

**3-24-12** Formal Grotto trip with Neils Smith, Jim & Liz Wolff, Melanie Jackson, and Dave Smith. The group was able to survey three caves: Surfs Up and Fuzzy Bunny were old business from Liz Wolff's and Ray Miller's previous investigations. Flat Rat was a contrived add-on just above Surfs Up. Some scouting up there too. (SAG RAG 31:2)

**3-30-12 and 3-31-12** Windy camping at Surfs Up. Makaha Cave became surveyed in the evening, and Malibu first thing in the morning. Then a snowstorm pounced. We barely made it home with no chains along and only one working windshield wiper. A half dozen cars slid off the Hatchet Mountain escape route to Redding. Note: it is quite possible to be snowed in at Hat Creek.

**4-3-12** Warmer day ahead of the next storm. Small Potatoes and Pop Top were mapped. We saw Enchanted Chimney for the first time. It was a perfect day to run around so we tracked down a bunch of caves for the GPS gadget.

**4-17-12** Another nice day, but we had to dismantle a downed tree across the road in order to reach the work area. Daffy Duck wathh tthhhhurveyed, just below Makaha and Malibu.

continued

**4-20-12 to 4-22-12** SAC State Biology Field Group was deployed and bioinventory under permit was done in Subway, Christmas Tree, Christmas Tree North, and Rusty Caves. Some of the students were introduced to cave survey and exploration at Sweet Sinkers West, Sweet Sinkers, Whirligig, and Accelerator Caves. The faculty lead was Geo Graening. The grotto members helping out included Chris Kennedy, and Jim & Liz Wolff. The students had an in-depth field experience & the Saturday night zombie party was also interesting.

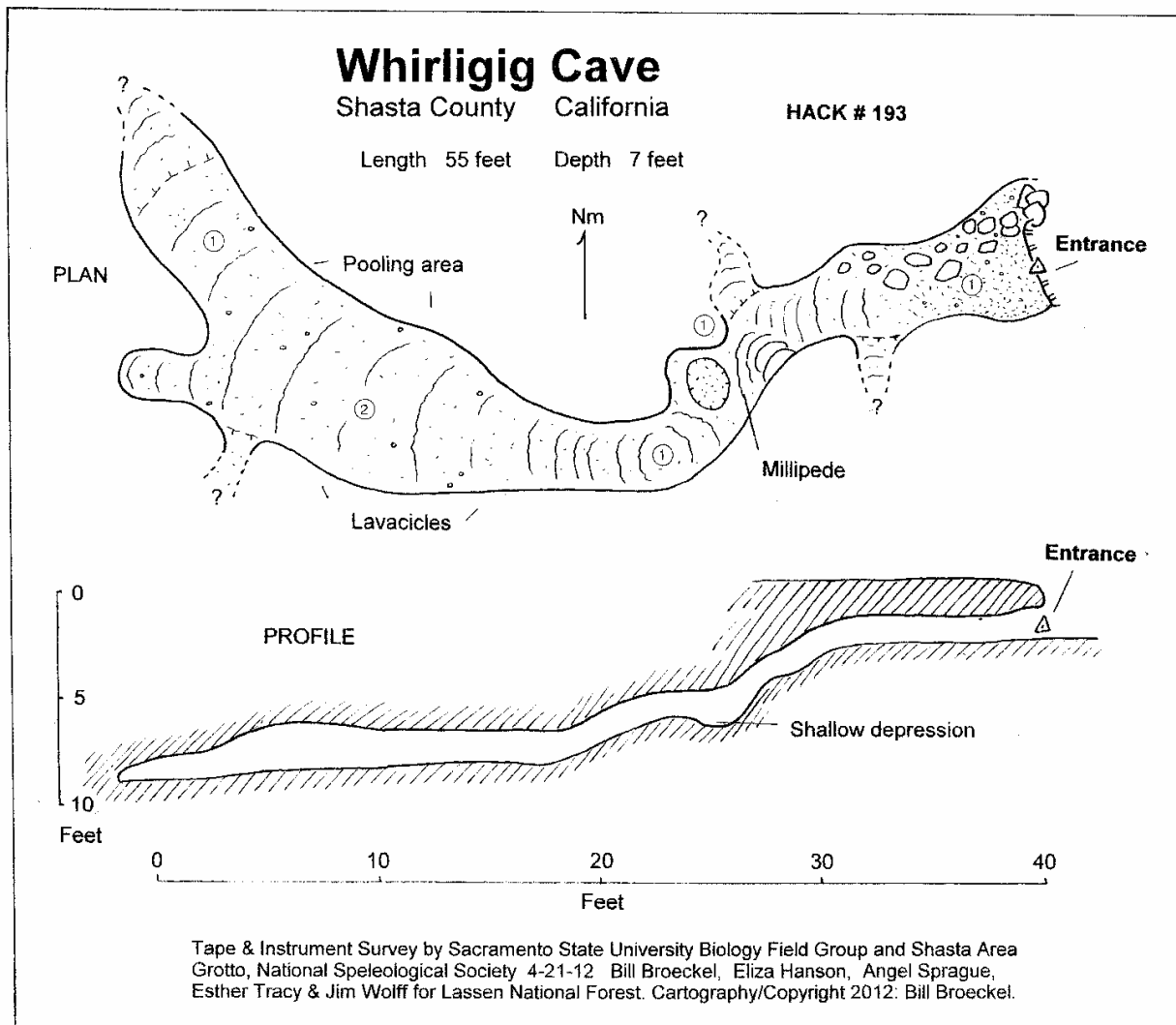
**4-24-12** Nice warm day for the Enchanted Chimney survey.

**5-15-12 and 5-16-12** YACS Science Field Trip Camp-out. We led Geology walks that included Subway and Christmas Tree Caves.

**5-22-12** Time to get serious about Ray's want list. It was a perfect day to hike around and 22 caves were tracked down for Ray Miller's Shasta Area Grotto computerized data base.

**6-5-12** 20 more caves for Ray. Afternoon hailstorm but no worries.

continued



Map: Whirligig Cave



Sac State students on survey near the end of Whirligig Cave 4-21-12.

**6-23-12 to 6-24-12** Formal SAG Camp-out. Household trash and appliances were cleaned out of the Fuzzy Bunny sinkhole. We met the Forest Service truck. They were having trouble finding the site. We had to move another down tree off the road. With a big crew we made quick work of the mess. Participants included the Wolffs, Steve Hobson, Chris Kennedy, Arley Kisling, the Rechal family (Kim, Dennis, Lane, and Luke), Jim Cork, Doreen Hill, Hans Stein, Dave Smith, and Larry & Tina Seidler driving the garbage truck. Later we toured Christmas Tree & finished Sweet Sinkers / Sand Fill Caves.

**8-18-12** The work area was closed due to forest fires. The town of Old Station was threatened by the Reading Fire, & many fires filled the air with smoke, such as the Ponderosa Fire. We did GPS on three entrances in a spot that wasn't closed, attended a community fire meeting, and headed home.

**9-27-12 to 9-28-12** Thomas Jefferson, TJ Annex, and Monster Pit were mapped. Thomas Jefferson was the 200th surveyed cave on the project. Not only was Jefferson the grandfather of American Speleology, but his face appears on the 2 dollar bill. (Note that the 100th Hat Creek cave was called Silver Dollar).

**10-2-12** Fire problems again. Did GPS on two entrances.

**11-2-12 to 11-4-12** SAC State Biology Field Group return for another weekend session. Faculty lead was again Geo, this time with help from cave biologist Rolf Aalbu (Mother Lode Grotto). Collecting was done in Rusty, Subway, Trail, Flashlight, and Pink Coat Caves. A fire ring found in Pink Coat was dismantled. SAG helpers included Jim & Liz Wolff. We snuck away to survey Kiva, Folded, and Something Borrowed Caves, and found some others. The students were very intent on their work, but took some time out for vertical practice at Subway Cave and Saturday night games (tribbles don't like caves, but they do like grottos).

continued



SAG begins the Fuzzy Bunny clean-up on 3-24-12.



Melanie Jackson and Dave Smith find that most of the trash is embedded in ice.



Chairman Liz Wolff presides as the Grotto details the sinkhole 6-23-12.



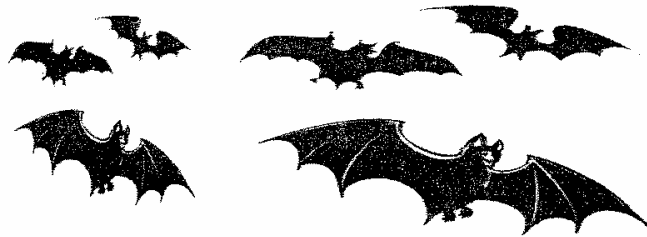
Bagged trash from Fuzzy Bunny awaiting removal by Forest Service truck 6-23-12.

**Epilogue:** In 1999 we complained about the small size of Hat Creek caves, and since then the caves have only gotten smaller and shorter, for the most part. The project is far from complete, but the caves are not expected to get much bigger. Two serious cave management challenges have been identified. We might want to take a stab at removing trash from the Garbage Pit dump site, and a clean-up in a highly impacted party cave site recently encountered might be a good idea.

**BB**

**SHASTA AREA GROTTO BALLOT**

- Chairman     Liz Wolff  
                   \_\_\_\_\_
- Vice-Chairman  Dave Smith  
                   \_\_\_\_\_
- Secretary     Melanie Jackson  
                   \_\_\_\_\_
- Treasurer     Steve Hobson  
                   \_\_\_\_\_



Instructions: Every member votes once for each office. Photocopy ballots for multiple voting members in a family. Mail to SAG RAG address, bring to January meeting, or vote on line via the E-rags. All candidates are running unopposed, but write-ins will be accepted.

**SAG RAG**  
**2916 Deer Mdws. Rd.**  
**Yreka CA 96097**

**STAMP**

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