

sag rag

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INSIDE - Cave Critters, Cleaning Pluto's, and Hat Creek Reports.

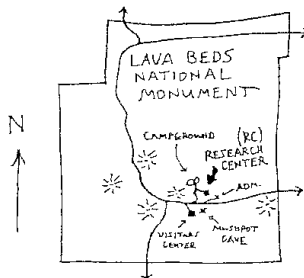
The SAG RAG is published by the Shasta Area Grotto of the National Speleological Society. Grotto meetings are held at different locations on the fourth Friday of each month at 7:30 p.m. Meeting locations are announced in the SAG RAG. Membership dues are \$6 dollars per year and include newsletter subscription. 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 CALENDAR 2016

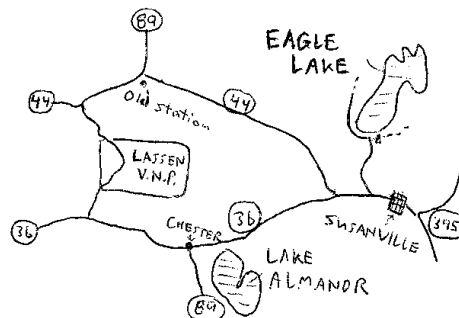
May 28	SAG meeting at Lava Beds Research Center. Caving projects!
June 24	SAG meeting at Eagle Lake, Caving Camp-out. New caves!
July 17-23	SAG meeting and NSS Convention, Ely NV!! Grotto caravan!

Maps to the Meetings

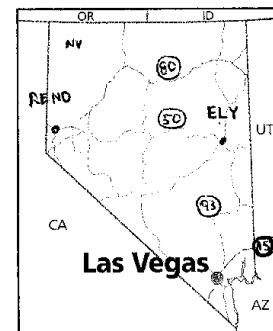
MAY



JUNE



JULY



SAG RAG SUMMARY

By Bighorn Broeckel

Contact Liz Wolff by May 25 for the May meeting and caving weekend. Liz has lots of info on sagrotto@googlegroups.com. She can be reached at ringbat1@gmail.com. This RAG is a good update on Hat Creek. We will miss Hat Creek this June, but have a good chance at the Eagle Lake area instead. Again, contact Liz for details such as the camping location. it is great to be in field season already. Finally, remember the 75th NSS anniversary Convention in Ely, Nevada coming up in July. The last time there was a Nevada NSS Convention, it ended up as a "no go" and switched to Frogtown, California at the last minute. This time it is really going to happen in Nevada, with lots of good folks working hard ahead of time to make it so. Thank-you. **BB**

April 1, 2016 Shasta Area Grotto Meeting

The meeting was called to order at 7:38 pm. at Viners' in Ashland.

Present were: Wayne Cedidla, Ernie Coffman, Melanie Jackson, Dave and Nicole Riggs, Dave Smith, Doug and Tabitha Viner, and Jim and Liz Wolff.

Minutes: The minutes of the February Meeting were read by Dave Smith and accepted as amended.

Treasurer's Report: no report.

SAG RAG Report: no report.

Website and E-RAG: All working well.

Correspondence:

The new Forestry Suppliers catalog is in, See Liz to look it over.

Liz has been contacted by Sam Cuenca (FS), Debra Freeling (FS), and Juan de la Fuente (KNF) about the western little brown bat found with WNS near Seattle (see New Business, below).

Calendar

April 19-28 Johanna Kovarik (FS National Cave and Karst Coordinator) will be here. Contact Joel Despain if you want to join any of the cave trips being arranged for her.

The April 22 meeting will be at Dallas Carlon's in Redding.

Late May: possible Marbles trip.

May 28-30 SAG meeting at Lava Beds (Memorial Day Weekend). Oregon High Desert Grotto will join us.

Saturday there will be a 100 mile bike ride at Lava Beds: **Do not try to drive in or out that day!**

June 24 SAG meeting will be at Eagle Lake. More caves!

July 1-4 CRF at Lava Beds.

July 1-4 Marbles trip.

July 17-23 Annual Meeting at Ely, SAG meeting will be held there.

Sept. 1-5: Marbles trip.

Sept 23 SAG meeting will go over plans for the SAG-SAR training in October. Place TBA.

Oct. 8 SAG – SAR training. Our plans will be similar to last year's, which was canceled because SAR was called away on a rescue.

Old Business:

In August or October there will be a Shasta Lake trip with Boy Scout Troop 111.

New Business:

WNS has been found in one bat in Washington State, a western subspecies of little brown bat. We have correspondence from Forest Service and other government personnel in the region. We need to:

- (1) Plan a workshop to learn the latest gear decontamination procedures to prevent any possible spread of the fungus.
- (2) Work with government personnel to help them recognize differences and similarities between conditions here and in the areas where the disease has been most destructive. Be aware of the expertise we can provide locally. Study to fill the gaps in our knowledge of the disease.
- (3) Work with government personnel to prevent wholesale closures of caves that would shut off critical information on the impact of WNS here and its stability or progression.
- (4) Develop a grotto statement on the disease for the SAG website, with the steps we need to take to help contain it, and with appropriate links to credible information sources.

Trip Reports:

9 SAG cavers took part in the grotto's annual cleanup of Pluto's Cave, finding the smallest amount of trash we have ever had to remove. We were provided trash bags by KNF, and were joined by Juan de la Fuente (KNF) for the cleanup.

Doug looked at 9 level mine (gold) but found it unsafe to enter and learned that parts are flooded.

Dave Riggs, Tabitha Viner and some volunteers did a bat survey of 113 mostly short surface tube caves at Lava Beds. They found few myotis and no Townsends bats.

The meeting was adjourned at 9:24 p.m.

Dave Smith, SAG Secretary

DS

Pluto's Cave Clean-up 2016 By B. Broeckel

Present were Juan de la Fuentes, Seth Hargett, Steve Hobson, Ginger Sanders, Dave Smith, Hans Stein, Mike & Barbara Stufflebeam, Logan Wheller, and Jim & Liz Wolff. Logan is three years old and a grandson to Jim & Liz. Start them out young. We all met at Pluto's Cave trailhead at 0930 -1000 a.m. on a warmish, cloudy winter's day. We spent a couple hours trash picking and detailing Pluto's Cave, and the trail system. We found a toy cart, and one highlight was Logan getting a ride at the parking area. After luncheon at the trailhead picnic table, some of us did a little more service at Barnum and Sand Caves. We were happy to see that the reinforced breach of the Barnum gate was holding up. Thanks to everyone for a good dozen turning out and for keeping the trash levels down at Pluto's. **BB**



L to R: Liz Wolff, Jim Wolff, Ginger Sanders, Logan Wheller, Seth Hargett, Barbara Stufflebeam, Mike Stufflebeam, and Steve Hobson. Top photo also shows Dave Smith and Hans Stein. Whaleback in the distance.

ALL ABOUT BATS Ray Miller

CALIFORNIA ENDANGERED SPECIES

Corynorhinus townsendii. AKA Townsend's big eared bat (common name), and Cory (local nickname).
 Adult bat in front of pups in maturity roost Photo BY Sam Cuenca, USFS

Although this is the most commonly encountered bat by cavers in the local area, elsewhere in the west it has seldom been recorded. The California Endangered Species Act is too involved to be discussed here, but basic knowledge of the habits of this animal will help insure its wellbeing.

This is a cave dwelling species that is very sensitive to disturbance. Corys roost in the open on the smooth surfaces of the walls and ceilings

Males and barren females day roost fully exposed. They go into torpor (a deep sleep) when at rest with their ears curled tightly at the side of their heads. There are no signs these bats are disturbed, but after a few minutes of rising body temperature they awaken.

Their strategy for winter survival is to hibernate under very stringent environmental conditions. Temperature must be low, but not freezing, and humidity must be high. They store fat which supplies energy until spring. Disturbed hibernating bats use their fat reserve to become alert, and they could starve. A Cory hibernaculum

can be recognized by the congregation of separated bats. Any bat found in winter may be hibernating. Pass them quietly with as much room as possible and do not shine a light on them.

Most important is the nursery roost. Generally the roosts are in the twilight zone having a smooth surface and some way to break the wind, or a domed structure. If you find a group of bats swirling in one location it is likely a nursery roost. Choose another cave, but if you must pass the roost stay low, use subdued light, remain quiet and stay as far away from the roost as possible. Do not pass under the roost. Nursery roost disturbance can be lethal for the pups and disrupt reproduction success for the rest of the year.

Corys show great loyalty to their nursery roost locations, but there may be nursery roost changes this spring due to reliable water resources lost because of the drought. Report roost locations to Liz Wolff.

Please remember the pups need all the help they can get.

RM

CAVE INVENTORY UPDATE

Tom Rickman Sept. 29, 2015

This report is an update of a cave inventory that was initiated this summer on the Lassen National Forest. And, it is also something of an explanation of how a terrestrial wildlife biologist with the Lassen National Forest, a person who has spent a long career surveying for large, normal, above-ground species like spotted owls, goshawks, and pronghorn antelope, found himself hundreds of feet inside the deep dark of a lava tube, having traded binoculars for a headlamp (and reading glasses), on hands and knees flipping over rocks looking for cave-adapted invertebrates, some of which he has a pretty good idea are too darned tiny for him to actually notice even if seen.

It all started in February, when I went out with a person involved in a state-wide effort to re-survey caves in which Townsend's big-eared bats had been documented in the past. She had a couple lava tubes on her list in the Old Station area within which Townsend's had been documented hibernating, so I went along to learn how to survey for them as well as to see these sites. We visited four lava tubes, including Subway Cave, and found a few hibernating bats in each, which made for a successful, interesting day. But I also came away with the realization that there was an underground resource out there that the Forest knew little about, one that provided habitat for species of concern like Townsend's big-eared bats.

So, the idea of a cave inventory was born. It started out more as a weekend adventure with my older son Ryan and others to a few lava tubes that we were aware of. Those few were quickly completed, and so we started a search for information and locations of other lava tubes in the area. That search quickly brought us to the Shasta Area Grotto, specifically Liz Wolff and Bill Broeckel. Working with Liz and Bill, it quickly became evident that there were far too many lava tubes in the area and across the Forest to visit during weekends if we wanted to get very far in one summer. So we began to find time during the work week. And by "we" I mean co-workers Jeff McFarland, Corrie McFarland, Chelsea Lewis, and myself.

On a March weekend trip to Old Station Jeff found a cave-adapted millipede and remembered having seen similar millipedes at Lava Beds and near Eagle Lake. That find, and the discussions that followed, sparked an interest in cave-adapted invertebrates. That spark of interest burst into a bright flame of intrigue when on another weekend trip to North Christmas Tree cave Jeff found not only millipedes but springtails and other species he couldn't identify at the time, including what we now know are Diplurans. But what really got the intrigue going was seeing a large harvestman spider with long, black pincers held folded up in front of its body, something the likes of which we had never seen before. It was seeing this assemblage of invertebrate species in North Christmas Tree, and that crazy-looking spider, that immediately transitioned what had been a survey focused on bats, into one focused primarily on cave-adapted invertebrates.

To date this bat-and-bug survey has taken us to over 60 sites across the Lassen NF, most of which have been in the Old Station area. We have emailed photos of the species we encounter to cave researchers here in California and elsewhere, all of whom have kindly taken time identifying them for us as best they can from

the photos provided. Given their assistance and guidance we have begun to develop a working knowledge of these invertebrates, most of which we had never seen before or even knew existed on the Forest. And there have been some interesting finds.

That crazy-looking harvestman spider with the long, black pincers is a species known as *Taracus malkini*. Prior to this summer, this species had been found only within Subway Cave. We have now found it in 10 other caves in the Old Station area. The Old Station area is one of only a handful of areas in California with a cave-adapted *Taracus* species.



Taracus malkini, a cave-adapted harvestman.

In two lava tubes we have found pseudoscorpions. Pseudoscorpions look similar to regular scorpions but do not have a tail or a stinger. Another difference is that they are distressingly tiny (thus the reading glasses). These are the first two cave-adapted pseudoscorpions to be found on the Lassen NF. And, like *Taracus*, so far we have found them only in the Old Station area.

Other invertebrate species found have been millipedes, springtails, Diplurans, spiders of several species, ice-crawlers, cave crickets and others. Oh, and bats. During the winter and early spring we found hibernating Townsend's big-eared bats in 10 caves, and during the summer we found a maternity colony in one. Numbers of Townsend's big-eared bats have declined in the state. This decline is

at least in part due to human disturbance, especially within maternity caves. As an indication of that decline, in the 1950s 200 Townsend's big-eared bats were found hibernating in Subway Cave and another nearby cave. In the winter of 2015, we found just 21 in these same two caves.



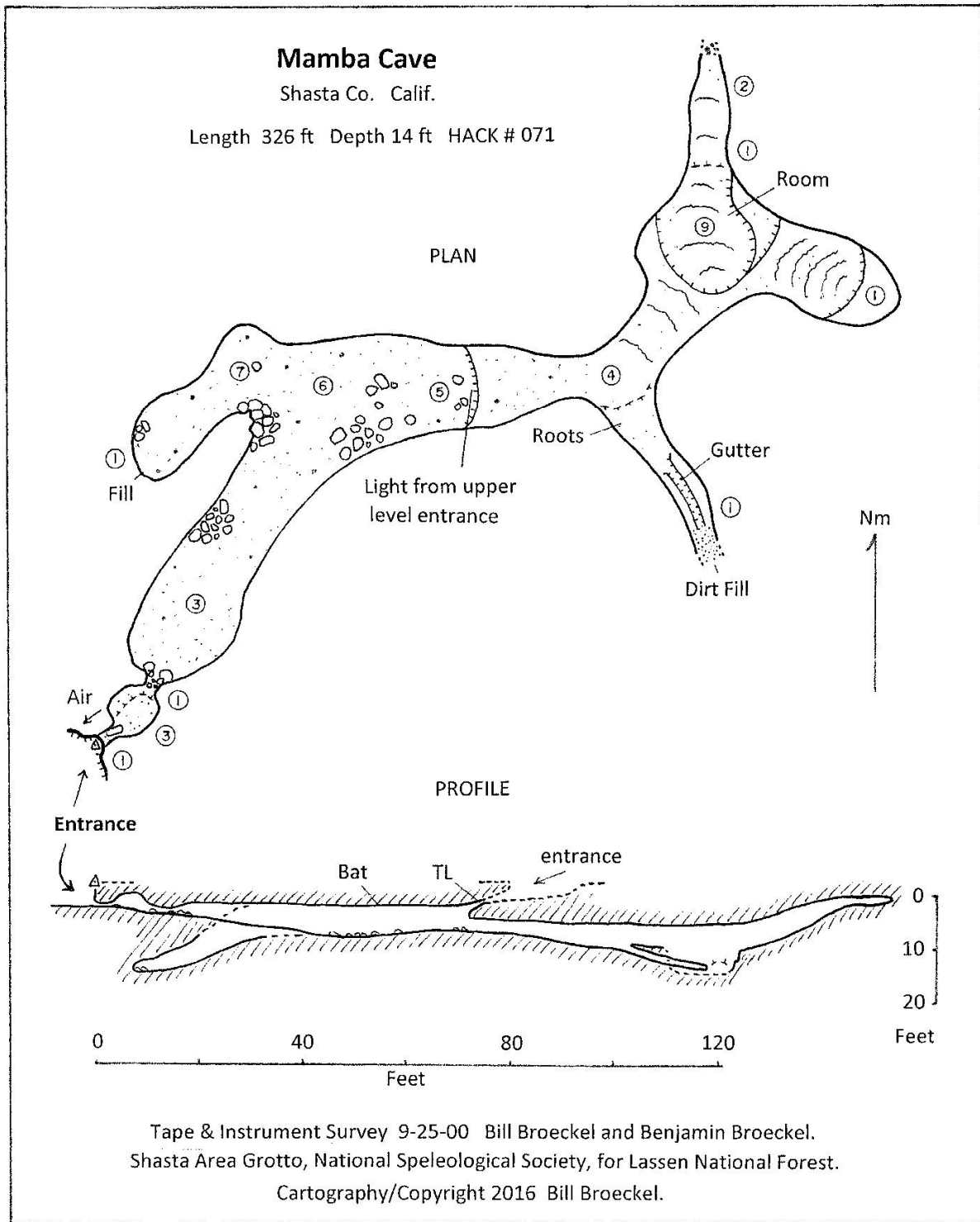
Pseudoscorpion from the Old Station area.

Given the unique species found, and the intrigue and interest that is always generated in discovering species and places new to us and the Forest, has made this an extremely interesting survey to pursue. And we know we have just scratched the surface of what is out there waiting to be found. Many thanks to Bill and Liz for helping get this survey off the ground, or more appropriately, into the ground.

TR

Tom Rickman is a wildlife biologist on the Lassen NF in Susanville. He came out for the cleanup in Garbage Pit, taking many fine pictures and helping move a lot of tires and refrigerators. He contacted SAG about the ice caves at Eagle Lake a few months ago, and decided to join us. trickman@fs.fed.us

LW



Map: Mamba Cave

Mamba Cave

By Bighorn Broeckel

Here goes another blast from the past, this one from 20 years ago out at Hat Creek. I first found the blowing hole during a previous millennium (1996) and wanted to save it for Russ Yoder. But then I lost it for awhile, then relocated it 6-17-00, and did the survey with my son Benj on a 9-25-00 homeschool field trip. He wanted to call it "Mama's Birthday Cave" for obvious reasons, but it ended up shortened to Mamba Cave, as in "The Black Mamba". Personally, I think Kobe Bryant should come out of retirement and play off the bench for Golden State and a chance to gain a 6th championship ring, like Jordan has.

Anyway, we noticed a way out to a potential second entrance while we were in there doing the survey. However, it was too low to get through. Later on, I was able to locate this potential entrance from the surface (3-28-04). Not very surprisingly, it was too low to get through. So all these years I've been mulling over what to do, so many options to choose from:

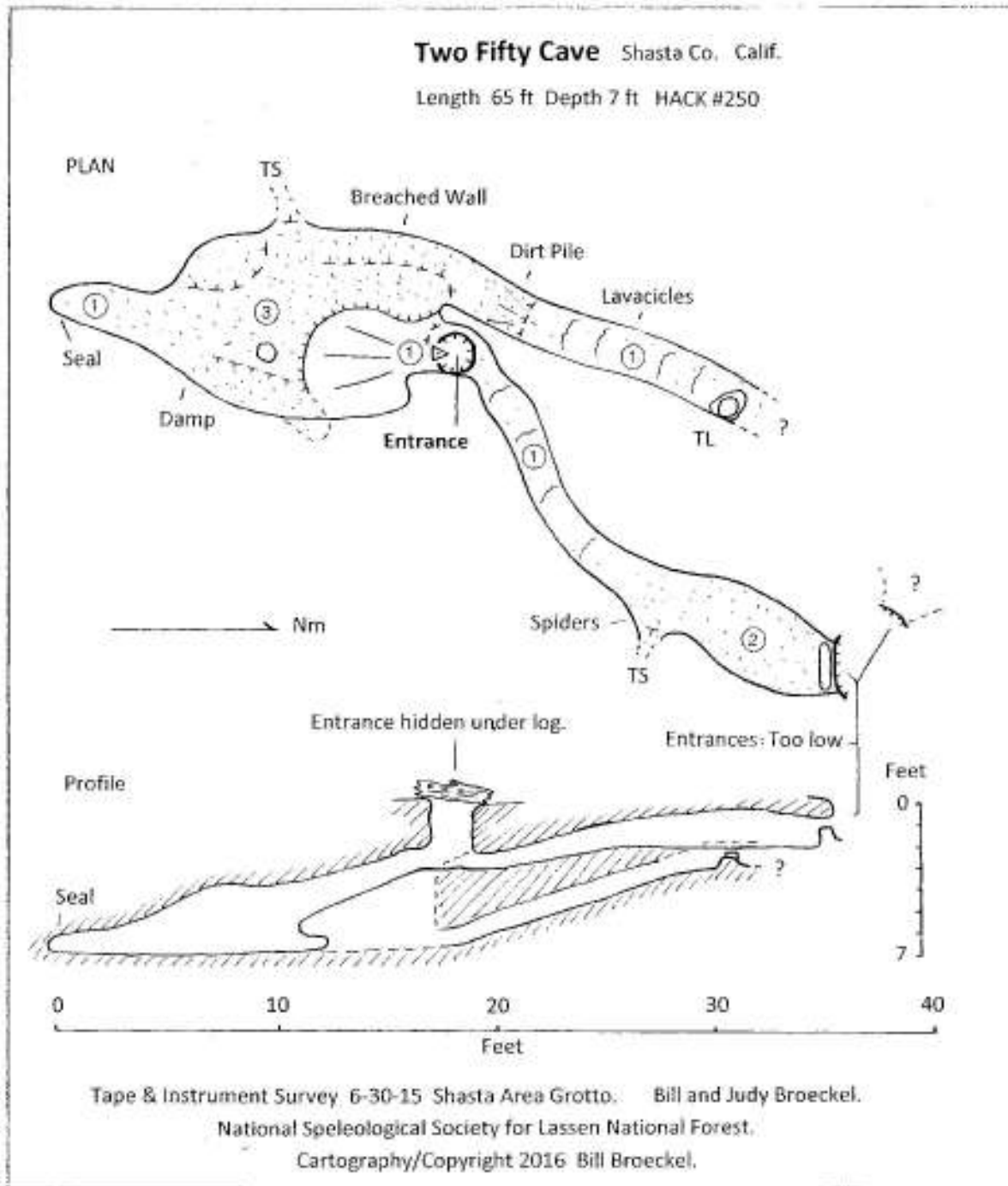
A. Call it two caves; B. Damage the cave with an unnecessary dig; C. Recruit a skinny caver to do the crawl; D. Survey through the low spot and call it one cave; E. Do nothing.

I was leaning toward option "C", but devolving into option "E", my preferred and natural tendency. Option "C" was doomed from the start on account of my anti-social personality, my inability to pop through, but especially Benj's inability to connect it (remember, Benj – the fearless eleven year old homeschooler). Well, a dozen years fly by and option "C" ain't happening, so I'm switching to option "A", and here it is, the map of Mamba Cave. This is one of the better and longer caves of Hat Creek, and I'm happy to present it to the caving community, finally, after all these years in limbo. There must be a lot more caves out there in Limbo Land. We should go there more often.

Hat Creek Cave Project Report: Last summer, a couple of statistical benchmarks were set: 1. Total cave passage length for the project reached 14 kilometers; 2. Surveyed cave #250 was mapped. Two Fifty Cave was done not long after the grotto trip last June. It was quite warm at the time. After work was done on Silvercone and Old metal Caves, we did maybe 30 minutes of casual cave hunting in the heat of the day. Several new caves somehow showed up. Two Fifty was the one with the small skylight entrance hiding under the dead wood. Inside was one small room, with body sized tubes attached, developed on two off-set levels. At 65 feet in length, this small cave was interesting and almost qualified for Cute Little Cave status. Since then, nine more small caves have been surveyed, and the most recent project statistics are as follows:

259 surveyed caves, total passage length 46,558 feet (8.8 miles) (14.2 km).

BB



Map: Two Fifty Cave



Entrance to Two Fifty Cave 6-30-15.

SAG RAG
2916 Deer Mdws Rd
Yreka CA 96097

STAMP

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