



THE CASCADE CAVER

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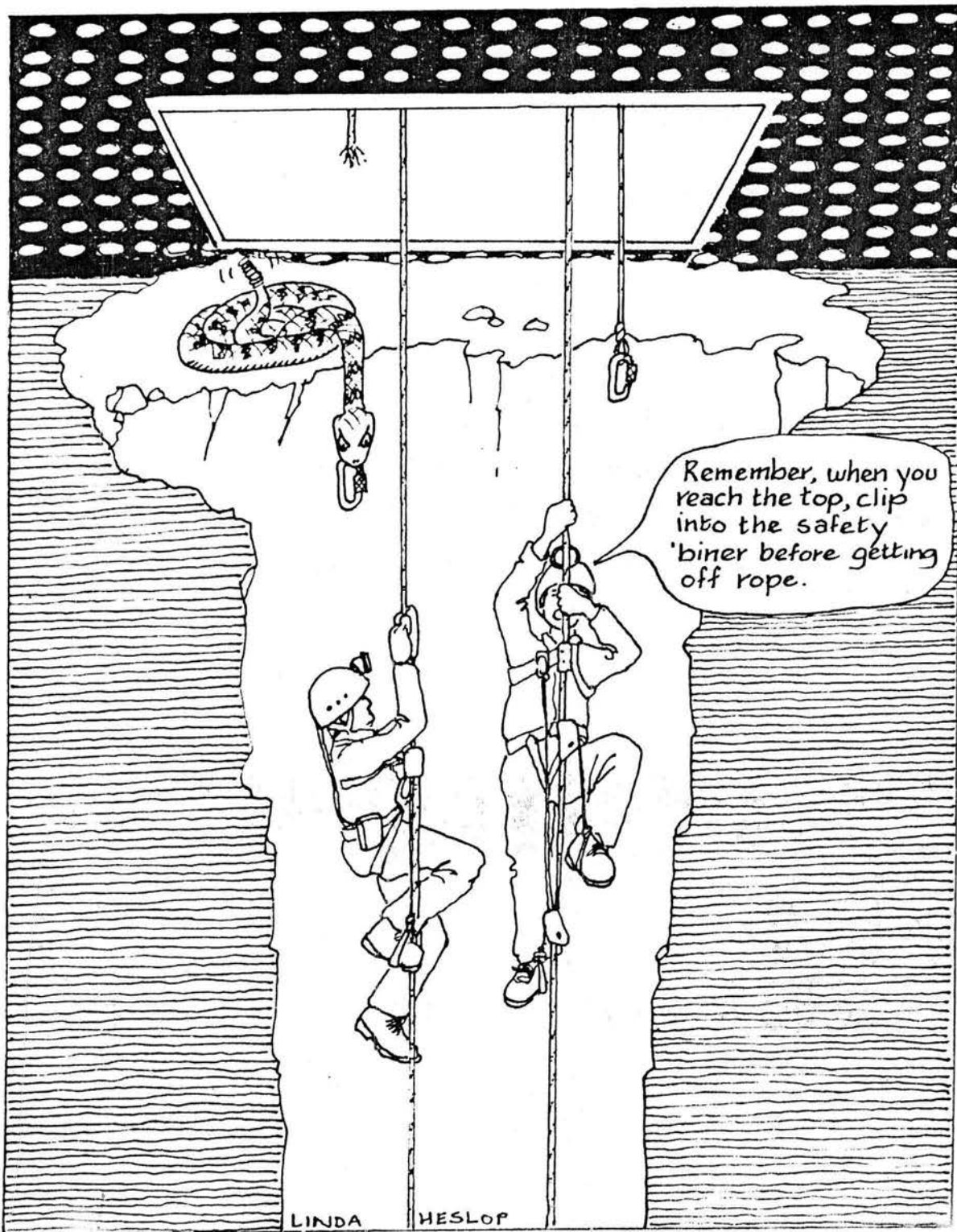
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CASCADE CAVER

The CASCADE CAVER is published 10 times a year by the Cascade Grotto, a member of the National Speleological Society.

Meetings: 7:00 pm on the third Tuesday of each month at the University of Washington, Room 6 in the basement of Johnson Hall,

Mail: The Cascade Grotto, P.O. Box 75663, Seattle, WA 98125-0663.

Dues: Membership in the Cascade Grotto plus subscription to the Cascade Caver are \$7.50 per year. Dues for family members is \$1.00. Subscription to the Cascade Caver only is \$7.50. Send to Grotto Treasurer, Al Lundberg, at: 19221 38th Place N.E., Seattle, WA 98155.

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Cover: This month's cover by Linda Heslop includes Bob Brown's buzz-tailed buddy lurking beneath the entrance grate at Bighorn Cave in Montana.

DUES

Please note your mailing label for the month your dues expire.

Dropped: 03/86 Dickey, Fred 03/86 Fichtel, John 03/86 Foord, Andrew
 03/86 Wilson, Mark

Overdue: 05/86 Rohrer, Jay 06/86 Gunsalus, Jerome 06/86 Rockwell, Julius
 07/86 Kiver, Dr. Eugene

Coming Up: 10/86 Gillard, Jeff 10/86 James, Richard

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UPCOMING EVENTS

- Aug 2-3 Windy Creek Cave. Contact Jeff Forbes
- Aug 9-10 Deadhorse and JaR Caves. Contact Bob Brown at 569-2724.
- Aug 19 Grotto meeting at the University of Washington, supposedly in room 6 of Johnson Hall. We got bumped last month and ended up in room 53. The program will be presented by Sheila Balsdon on caving experiences in Mexico.
- Aug 24-Sep 1 Vancouver Island SPELEOFEST at Thanksgiving Cave on Vancouver Island. See Ben Tompkins for information from the Speleofest folks.
- Aug 30-Sep 1 Northwest Regional Association annual regional meet will be held at Thanksgiving Cave on Vancouver Island in conjunction with the Vancouver Island SPELEOFEST.
- Sept 13-14 McLaughlin Canyon
- Oct ?-? Bighorn Cave in Wyoming. Contact Bob Brown.
- Oct 21 Grotto meeting at the University of Washington.
-

MINUTES OF THE JUNE MEETING

The following bits and pieces were taken from notes by Jeff Forbes. Thanks, Jeff, for filling in while the editors were mucking about in the bowels of Montana.

The meeting began at 7:20 pm, the first to

be held in Johnson Hall on the U. of W. campus. There were 10 people in attendance.

Larry McTigue thanked the people donating books and things to the new grotto library.

Jerry Gunsalus suggested that new members might be recruited from the Mountaineers via newsletter and slide shows.

JUNE MINUTES, continued

Rod Crawford requests that when visiting caves with registers that grotto members jot down any names with addresses or phone numbers for recruitment purposes.

Larry McTigue brought up the need to remove flagging and garbage from the Ole's Cave trail on Mt. St. Helens.

An article in the October, 1985 NSS Bulletin about speleothems in Newton Cave on Cave Ridge was pointed out by Jeff Forbes.

Dr. Halliday is having a book sale in July sometime with Mark Sherman apparently having the details.

There is a proposed timber sale on Mt. St. Helens along the lava flow containing all of the caves. See Rod Crawford for details.

Trips plans were announced for Cave Ridge and Mt. St. Helens.

The Windy Creek Cave road has been recently plowed of snow and is open. Jeff Forbes talked about a karst scouting trip to Dock Butte. Sinks in the lower karst need digging while the upper karst is still under many feet of snow.

Rod Crawford looked at Indian Rock Cave aka Manaresa Grotto in Pend Oreille County while on a spider collecting trip. It is a large, shallow shelter cave eroded in conglomerate and has quite a scenic entrance.

The program for the evening was a truly excellent talk and slide show on paleoecology studies in caves in Nevada and Texas. It was given by Dr. Geoff Spaulding, a University of Washington Botany professor.

He divided his talk into two parts. The first was about what caused the extinction of many species of "megamammals" such as the mammoth, sloth, and North American lion. The plant fossil record from sloth dung, mammoth dung, etc., indicates that there were no large variations in the plant food supply in the south western United States. Dr. Spaulding made a case that the extinctions were not due to climate change, but rather to predation (hunting) by early man. The timing of the extinctions coincides almost exactly with the appearance of man in the New World.

The second part of the talk concerned the paleoclimatic data that can be gleaned from excavation of ancient packrat middens found in caves in desert areas. The older middens are over 30,000 years old and are cemented together by crystalline rat urine. This material con-

tains a sampling of twigs, seeds, and other plant material growing near the cave at that time.

Grotto members had a lot of questions following the talk. After viewing Geoff's fossil specimens, we adjourned at 9:30 and headed out for pizza.

THE ISLAND UNDERGROUND

By Ben Tompkins

I received my first issue of a new Vancouver Island caving newsletter called the Island Underground.

I haven't seen the first three issues but this one contains five trip reports, three cave maps, a general interest article, and a list of coming events plus a cover drawing by Linda Heslop. All of the material pertains directly to Vancouver Island caves and caving.

These folks keep busy and I am looking forward to following their exploits in future issues. When I have collected a representative sample I will bring them to a grotto meeting for review and possibly subscribing for the grotto.

The editors are Steve Grundy of Victoria, B.C. and Patrick Shaw of Vancouver, B.C. and printing was done by Bill Bourdillon. It is published bi-monthly and the subscription price is \$7.00 (Can).

VANCOUVER ISLAND SPELEOFEST COMING

Ben Tompkins

From the north comes more news of the upcoming Speleofest amongst which we will hold our Northwest Regional Association meeting over the Labor Day weekend.

The Speleofest itself will be going on from August 23 to August 30 and will be working the Thanksgiving plateau and Thanksgiving Cave in particular. Thanksgiving Cave is expected to become the second deepest and second longest cave in Canada by the end of the week. There are also a number of other caves on the plateau and a lot of surface work yet to be done with plenty of potential for more caves.

The actual caving will be fairly demanding, cold, and not too friendly. There will be a lot of vertical work rigged using rebelays so us Gibbs folks should plan accordingly. Trip

SPELEOFEST, continued.

lengths range from 3 to 20 hours.

Two-wheel drive trucks, vans, and cars with good clearance should make it to the cabin without too much trouble but regular cars may have some difficulty.

I have directions and a few more details for those who are interested. I've been wanting to see the northern parts of the island for some time and am looking forward to the trip.

LITTLE RED RIVER CAVE

Jim Harp

My daughters Amanda and Katrina, myself, and Jerry Thompson began our weekend trip on June 24th with a self-guided tour of Lake Cave in the Lava Cast Picnic Area.

From there we headed up to the flanks of the mountain towards Little Red River Cave. By then it was late so the night was spent in Jerry's van and we found the cave in the morning.

Jerry and Amanda rappelled directly from the entrance to the floor of the main tube while Katrina and I took the roundabout free-climb route. We were all quite impressed with this cave and put it near the top of our list of favorite lava tubes.

While down in the cave we met two cavers from the Kansas City Grotto. One of the fellows, Randy Rose, told us that he was working in Seattle and had contacted grotto member Fred Dickey about caving activities. Fred told him that the Cascade Grotto was not very active and that he should contact the Oregon Grotto to do any caving. I wonder what he thought about suddenly meeting four inactive grotto members.

Randy's NSS card introduces him as director of the Resource Protection Division of the NSS and he is also the owner of Ennis Cave in Arkansas.

Both Little Red River and Lake Caves show signs of use. Lake Cave has been spray painted while Little Red River has finger writing in the wall slime. Hinges on the gate to Little Red River have also been broken so that the door now hangs by the chain.

We spent the night at Merrill Lake and returned home Monday morning.

MORE ON LITTLE RED RIVER

Ben Tompkins

The kids and I spent a week down home helping mom around the farm and by Thursday I was ready for a break. If it was determined to rain all week we might as well be underground as trying to put up gutters. So on July 17 the two boys, an uncle, and two cousins headed for Mt. St. Helens.

I had spent a restless night trying to guess how a one-armed uncle would do in Little Red River but we decided to give it a go rather than automatically head for Ape Cave.

I had just typed Jim's article (immediately above) and expected the gate to be in much worse shape than it was. Only the top hinge was broken. The gate itself is intact and can still be placed in position so that it looks good from the surface.

Some body had installed a new tree in the notch with nice big limbs to climb down on so all my fretting was wasted. The finger-writing on the walls is increasing with every trip and was a lot farther down the cave this time. Cigarette and cigar butts are increasing too.

There was a dead rabbit in the cave about half way to the first lava fall. It didn't look like a predator had munched on it nor were there any maggots but a bright white mold was taking over. I'm not sure what a self-respecting bunny would be doing down below all those drops and the mud slopes and bleak passage or how much help he had in getting there.

We turned around at the beginning of the breakdown so I don't know what has transpired below that point.

I really enjoy taking people to Little Red River to point out so many different features of lava tubes and it is a little more rigorous than Ape Cave. It is also interesting to watch the mud flow changing year after year. I'm sorry to see the cave getting abused.

CAVING ENROUTE TO THE GRAND CANYON

William R. Halliday, M.D.

For those using US 180 between Flagstaff, Arizona and the South Rim of the Grand Canyon, Government Cave is a quick, easy drive. It is shown on the official map of the Coconino National Forest as Lava River Cave. I always thought Lava River Cave was near Bend, Oregon,

CAVING ENROUTE, continued.

in the Deschutes National Forest -- I wonder why the U.S. Forest Service wants to have two Lava River Caves.

About 15 miles north west of the junction of US 180 and Interstate 40 the map shows Forest Service road 245. The cave is about 3 miles west on FS 245, 1 mile south on FS 171, and 1/4 mile east on FS 171-A.

It is a pleasant, largely unitary cave about 3/4 mile long with one re-entrant section. When I was there in May, in the process of celebrating my 60th birthday, there was a pretty frozen waterfall in the twilight zone.

The map also shows the location of another lava tube called Slate Lakes Cave 8 miles further north and closer to US 180 but the access road is not as good.

BADLANDS PSEUDOKARST IN THE PETRIFIED FOREST NATIONAL PARK

William R. Halliday, M.D.

On May 10, 1986 I had a quick look at the badlands type of pseudokarst in the Petrified Forest National Park in Arizona to compare it to the Spirit Lake Pseudokarst at Mount St. Helens.

This area was reported many years ago in a presentation to the Geological Society of America but only an abstract was published and this gave little information for comparison. Little has been published on this type of pseudokarst subsequently.

Darrel Tomer has told me that the Ansa Borrego State Park in California has published a booklet on similar pseudokarst there and he is attempting to get me a copy. I also have queried the National Park Service about publications on pseudokarst at the Petrified Forest National Monument but have not yet received a reply.

In the park I observed significant pseudokarst of the badlands type in a poorly consolidated clay. In nearly horizontal areas between Rainbow Forest Museum and the Flattops I photographed linear vertical pipes somewhat like those near Pyroclastic Cave at Spirit Lake Cave but much less developed. At the Tepees and at Blue Mesa a slightly different form was noted on steep-walled clay hillsides. Here shallow rivulet channels often disappear into im-

penetrable swallets formed by slumping of the rivulet walls.

Usually there was no resurgence orifice but there was one prominent orifice that gave the appearance of a tepee door to one of the conical hillocks generically called The Tepees.

Based on a report from a staff person encountered by chance in the park, I need to return and spend more time on foot in the Blue Mesa area and also study the area between Kachina Point and Onyx Bridge.

SCOUTING THE CLAYOQUOT PLATEAU

A Trip to the Holy Land

Jeff Forbes

The Holy Land. Or so it seemed on June 28, as our helicopter took us in for a sweeping pass over the Clayoquot Plateau - Steamboat Mountain karst west of Port Alberni on Vancouver Island. Picture a high alpine karst plateau, never before seen by cavers, battleship gray bare limestone surface riddled with caves and shafts, and a booming resurgence far below.

Cavers had made several previous attempts to reach the area but were thwarted by nearly vertical headwalls in the valley below. Not to worry, we thought. We have the technology. Namely, the "Hughes 500", shining bubble of metal and plastic, average airspeed: 120 knots, maximum altitude: 16,000 feet (10,000 fully loaded), capacity: 4 persons plus gear, cost: \$400,000 plus tax. Every caver should own one. Thus for a mere \$65, we would be whisked onto virgin karst for a few days of leisurely caving, then stroll down the valley to a waiting vehicle.

As the chopper descended to our chosen campsite, the small stunted fir trees appeared too close for comfort to the whirring rotor. But under such circumstances it must be assumed that the pilot knows more than I about these things. We quickly unload the gear, the chopper idling loudly. It occurs to me that there is no need to duck when approaching the machine, as the rotor is an honest 10 feet above ground. Mark had warned us before take-off about the most common type of helicopter accident. It seems the small vertical rear rotor is completely invisible while spinning. "Never walk behind an idling helicopter", he

SCOUTING, continued.

had said. Wouldn't dream of it.

After a flurry of half a dozen shuttle flights, the helicopter flew away and we were left in the silence of wilderness. Our party of ten consisted of Mike Evans, Steve Grundy, Brian Bischoff, Jim Jasek, Mark Grappelle, and Ron Kozan of Victoria, Pat Shaw, Peter Norris, and Tich Morris of Vancouver, and yours truly, a lone Yankee. The first day of scouting produced several caves. Jim and Brian found a small lake whose outlet stream flowed directly into a cave. Tich and Peter had found a low elevation resurgence cave. Meanwhile, Pat Steve, Mike and I had run across a good-looking sinking stream dumping down a 30 foot pit which was too wet to enter. Also found was a complicated vertical maze cave, a 94 foot pit, and many large snow-filled shafts and sinkholes. All in all the prospects seemed quite encouraging. Several comments were made that the area had more the appearance of a Rocky Mtn. karst area than of those more typical of Vancouver Island.

On the second day it rained. We spent the entire day eating, sleeping and generally bull-sitting around the campfire. Nothing of note was accomplished, except for the taking of an oath that tomorrow would be a scouting day, come rain or shine.

And so it was. Several of the previously found caves were surveyed (see upcoming *Island Underground*.) Rambling about on the jagged barren surface proved amusing. The characteristic "tear-pants weathering" of the Quatsino Limestone gave friction climbing new meaning. One could ascend near vertical limestone slabs with ease, realizing that if a slip occurred, one could just as easily kiss one's ass good-bye.

Toward the end of the third day it became apparent that a return trip would be needed. We had barely scratched the surface, leaving dozens of shafts unchecked. And many of the most promising sinks were still full of snow.

Next morning our departure was delayed by a typical west Vancouver Island downpour. Hard cavers that we were, we eventually struck camp, packed gear, and headed out at the crack of noon. The bushwhack to the road turned into an epic beyond our worst expectations. It was literally a forced march through the most densely packed devil's club and slide alder

imaginable. When sundown came and we were still nowhere near the road, a bivouac seemed in order. Since we had thrown out all food beforehand to save weight, it was to be a Spartan evening. Such times remind one of life's simple pleasures. The "Hughes 500" for example.

The following day about noon, the "Space Shuttle", official VICEG cavemobile, appeared like an apparition to weary cavers. We had seen The Holy Land, and it was good.

RAMSEY CAVE, SKAGIT COUNTY Jeff Forbes

Date: June 14, 1986

Personnel: Roger Cole, Larry McTigue, Jeff Forbes.

Our party of three arrived at Ramsey Cave northeast of Concrete on a stormy Saturday morning with high hopes of performing a dye trace from a small sinking stream located about 500 feet north of the cave entrance. A slow drizzle soon became a steady downpour as we thrashed about in the overgrown clearcut in search of the swallowhole. Newcomers to the area, Roger and I began to doubt the actual existence of the sink until Larry at last re-deemed himself by finding it in a copse amidst the devils club.

I had brought along dye traps constructed of nylon mesh window screen material folded in the form of a pouch and filled with activated charcoal. (see *NSS Bull v.46 no.2*) One of these packets was placed in the cave stream at the top of the waterfall entering the north end of the cave. The dye trap acts as a proxy detector should the dye appear when cavers are not present to see it visually. We used about one ounce of fluorescein dye contained in a 35mm plastic film can. Larry dissolved this in a gallon of water and proceeded to get the brilliant green stuff all over his person in spite of my warnings. Water discharge into the swallowhole was only about one liter per second on this day and the flow of the cave stream appeared to be even less leading me to speculate that perhaps the two weren't connected after all.

We returned to Ramsey Cave to wait for the dye to come through. Roger and I amused ourselves by resurveying the short cave. A few of our observations are as follows:

RAMSEY CAVE, continued.

1. The entire cave floods to the ceiling periodically as evidenced by sticks and leaves plastered throughout. Floodwater apparently enters via the entrance sinkhole. Woe is the caver who witnesseth such an event from below.
2. Much of the cave appears to be developed along a fault zone, and marble breccia (broken re-cemented rock) is visible in the floor and walls about 50 feet inside the entrance.
3. The configuration of the cave has changed significantly since it was surveyed in 1973 by Hank Ramsey and Rod Crawford. Much sediment has been washed into the cave through the entrance during wet weather, and this mud has been accumulating in the downstream (north) portion of the cave. The effect of this mud has been to reduce 30 foot tall Salamander Alley to a four foot high crawl within the span of 13 years. The large salamanders which still inhabit the cave are apparently undaunted by the influx of mud.
4. Visitation to Ramsey Cave has been quite light of late. No one had signed the register for a year prior to our trip.

When the dye failed to appear immediately, we drove to nearby Jackman Creek Cave, but decided not to enter. Roger and his Honda very nearly made an unscheduled trip to the bottom of precipitous Jackman Creek Canyon while turning around.

I returned to Ramsey Cave the following day to retrieve the dye trap 30 hours after the dye injection. The trap tested negative and we must conclude that the sinking stream is not the source of the cave stream as previously believed. Larry later recalled a spring downhill from the cave, and the dye may have emerged at this point.

ANOTHER WEEK AT BIGHORN CAVE
Ben Tompkins

A number of Cascade Grotto members were among the thirty-five or so cavers to survive the second week-long work session at Bighorn Cave in Montana. I would call this session an even bigger success than last year, an intense but enjoyable experience.

Thirty-two cavers came from 10 states including Georgia and New Jersey as well as Montana, Wyoming, Colorado, South Dakota, and the Pacific Northwest states. About half of them were returning for their second year of work on the project. There were also visitors from the Bureau of Indian Affairs this year as well as a reporter from the Denver Post.

There was not quite as much passage mapped this year because the large, easy stuff already done but between Bighorn and Horsethief Caves plus surface surveys we've done about 39,000 feet in the two one-week sessions. Of this distance, 42% was done with transits and custom software was used to handle the mixture of transit and compass data.

The program was expanded this year to draw full scale line plots of all survey data on a dot matrix printer at the site and this worked very well. It allowed the verified surveys to be plotted to scale and slid underneath the working mylar and traced. The notekeepers then drew their sections of the cave in detail around the lineplots and a good looking preliminary map was produced before breaking camp.

A lot more of the inventory was completed but I haven't compiled any statistics on it yet.

Thanks to a wet spring all the flowers were at their peak in mid June whereas they were already gone in mid-May last year. There was also a boat ride in mid week up the Bighorn Canyon to provide a change of pace and to see the region from a different perspective.