



THE CASCADE CAVER

International Journal of
Vulcanospeleology



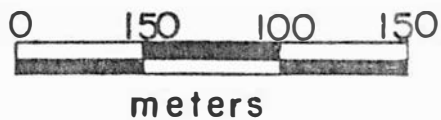
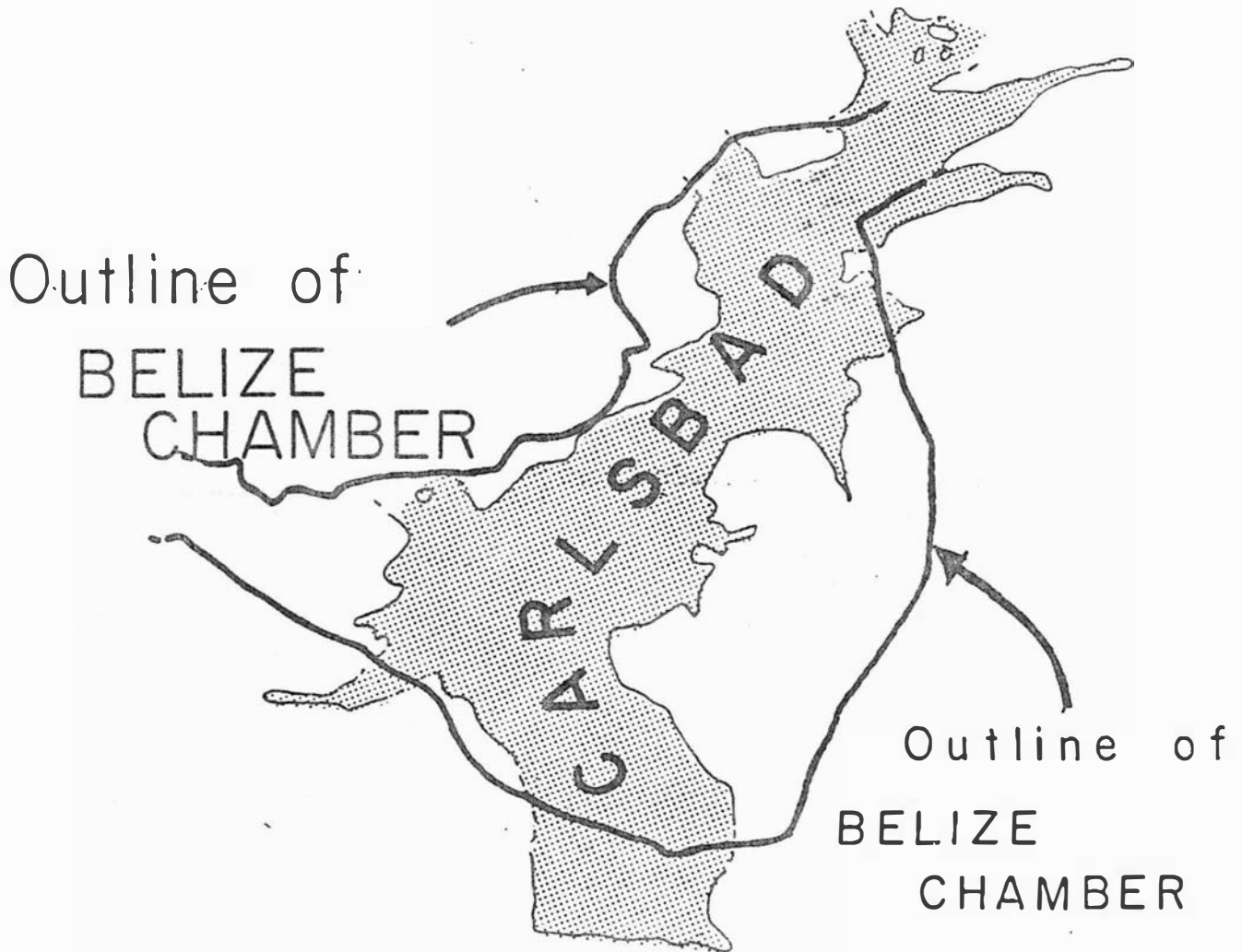
Published by the Cascade Grotto, N.S.S.

VOLUME 23 NO. 10

Editor: Mark Sherman

OCTOBER 1984

Assistant Editor: Ben Tompkins



T E Miller

THE CASCADE CAVER

The Cascade Caver is published 10 times a year by the Cascade Grotto which is a member of the National Speleological Society. Annual dues for the Cascade Grotto is \$7.50, which can be sent to the Grotto Treasurer:

Al Lundberg, 19221 38th Place NE, Seattle WA, 98155

GROTTO OFFICERS

Bighorn

Chairman: Fred Dickey 644-2623
Vice Chairman: Rod Crawford 543-9853
Sec/Treas: Al Lundberg 365-7255
Regional Rep: Bob Brown 569-2724
Grotto Store: Mark Sherman 524-8780
Editor: Mark Sherman 524-8780

The Cascade Grotto meets at 8:00 PM on the third Tuesday of each month at: 1117 36th Ave. East Seattle. This is at the corner of 36th Avenue East, and East Madison.

GROTTO EVENTS

NOV 20 Grotto Meeting 8:00
NOV 23-25 Papoose Cave
Call Bob Brown at 569-2724.
DEC 18 Grotto Meeting 8:00
Bring your election ballots.
JAN 15 Grotto Meeting 8:00
FEB 15-17 Symposium on Cave Management, Science and Technology, hosted by the Salt Lake Grotto, in Salt Lake. Call Kirsten Stork (801) 583-1143.
MAY 18-27 Bighorn Cave in Wyoming
Call Bob Brown at 569-2724

CONTENTS

Minutes From The Oct. Grotto Meeting 65
A Letter From Bob Brown 66
Caving In Honolulu 67
Yakinikak Creek Cave System, Montana 68
Federal Cave Resources Protection Act 71
Volcanospeleological Abstract 79
Spelunkers Probe Local Cavern 79

MINUTES FROM THE OCTOBER GROTTO MEETING

The meeting was well attended with about 20 people showing up.

Al Lundberg, the Grotto Treasurer, reported that the Grotto has \$438.

Bob Brown, the regional representative announced that the 1985 Regional will be held in Eastern Nevada next Labor Day and that the Western Region and possibly the Rocky Mountain Region will be joining us.

Bob Brown talked about the Bighorn Project (see page 66).

The Grotto postponed voting on giving \$50 to help pass the Federal Cave Conservation Act, until the next meeting. This was to give the Grotto members time to study the contents of the Law. The contents of this Law are printed in this issue.

The Grotto voted on the best trip report of the past year. The Chairman, Vice Chairman and the Editor picked their favorites and then the Grotto choose from those three. There was a tie for the winner between Jamaica Again by William Halliday, and The Six Entrance Hokeb Ha System by Tom Miller. They will split the \$50 first prize. The third article was Arch Cave also by Tom Miller.

Doctor Halliday announced that he was accepting a job in Tennessee and will be moving there. He will still be maintaining his house here in Seattle for a couple of years, but he will be in Tennessee most of the time.

Because of the troubles of keeping the post office box on the University of Washington campus, Mark Sherman was asked to see about getting one at the Northgate Post Office.

The nominations for next year's officers were made and are as follows:

Regional Rep	Ben Tompkins
Sec/Treas	Al Lundberg
Vice Chairman	Fred Dickey,
	Jim Harp
Chairman	Mark Sherman

The ballots are included in this issue of the Caver and must be turned in at the December Grotto meeting or mailed to Al Lundberg.

Slides were shown by Bob Brown from his trips to the NSS Convention, to Hellhole Cave on Cave Ridge, the NWCA Regional at Papoose Cave and to Bighorn. Also Mark Sherman and Ben Tompkins had slides from their trip to Bighorn.

This month's cover shows the size difference between Carlsbad's Big Room and the Belize Chamber, in Central America. This was drawn by Tom Miller who visited the cave in May, 1984 (he hasn't finished his report yet).

According to Tom, the floor area of the Belize Chamber is about 25% larger than that of the Big Room. The height of the room is at least 220 feet, so in volume it is the largest in the hemisphere.

We have had some problems with the Caver arriving in one piece, so starting this month we will be sending them out in envelopes.

A Letter From Bob Brown,
Chairman, Northwest Caving Association

Dear Clubs and Representatives,

As you know Phil Whitfield has stepped down as NWCA chairman after twelve years. In a moment of temporary insanity I allowed myself to be elected chairman. During Phil's twelve years the association has grown, It has supported many worthwhile projects, and has at times had to stand fast when pressured. We have yearly meets which are well attended and organized. Symposiums take place at regular intervals, and Northwest Caving may soon reappear. I think we are in good shape, and I hope I can help to keep things headed in the right direction.

Here is a quick summary of the meeting held at Papoose Cave:

The association's treasury has \$937.61.

We have donated \$50.00 to the Federal Cave Protection Law project, and it is hoped that each member club will donate money to support this project.

The Wasatch Grotto will be admitted to the association upon receipt of the required paper work.

The new Papoose access plan is now in effect.

The chairman reported that the member clubs have not been sending in their yearly membership list or notifying him of their designated reps.

Funds from the VICEG Rennie/Clark Memorial Fund are available for 1984-85.

The Bighorn project was discussed (see below).

Next year's meet will be in eastern Nevada on Labor Day and will be a joint meet with some of the other western regional organizations.

There will be a symposium on Cave Management, Science and Technology, to be held in Salt Lake City on February 15-17, 1985.

The new NWCA Officers for 1984-85 are Bob Brown (chairman), Phil Whitfield (Treasurer), Chuck Jopson (Secretary).

I would like to talk a little bit about the Bighorn Project. Bighorn Cave is located on Crow Indian Land in south-central Montana. For years it has been managed for the Crows by the National Park Service. Last year the Crow Indians closed the cave until the NPS develops a detailed management plan for the cave. Bighorn is a large (+5 miles) phreatic cave, mostly horizontal except for the 70 foot entrance drop, warm (approx. 47°F), and dry. There is good potential for five or more miles of additional passage. The existing map of the cave is of questionable accuracy, and little in the way of inventory or scientific work has been done in the cave.

On September 29, 1984 myself and three other northwest cavers met with the NPS, discussed their needs, and worked out a verbal agreement by which interested northwest cavers can help the Park Service develop a detailed management plan for this cave. As chairman of the NWCA, I have appointed a five member board, which will establish a non-profit corporation to coordinate this project. The NPS will provide most of the logistical support for the project and the non-profit corporation the rest. The project will consist of mapping the cave, conducting a complete inventory of the cave's features, and developing access and management recommendations for the cave. The project will start with a 9 to 10 day trip to the cave next May (1985), persons interested in the project should contact me as soon as possible. Food and tent space will be provided for those participating. Travel to and from the project is tax-deductable. Plan on 8 hour work days. More information will be forthcoming!

Caving In Honolulu

By William R. Halliday, M.D.

On July 15, 1984 I had a chance to go caving with Frank Howarth and Fred Stone of the Bishop Museum in Honolulu. Since I was last there, Frank had located Judd Street Cave, in the residential part of town (actually in a small city-owned lava bluff at 660 Judd Street). It turned out to be a small 3-dimensional maze of distributary tubes, mostly crawlways and stoopways, but with places where the visitor can stand erect. The rear is about 100 feet from the cliff face, but there may be as much as 300 feet of passages; it has not yet been mapped. Unfortunately the main passage is thoroughly trashed. Some nice flow features are present and some lava tube slime, but the main passage is grungy and smoky in appearance. Biologically the cave is not hopeless; the biologists found isopods eating a fungus eating candlewax, and Fred said he had had a scorpion run down his arm in a side passage on a previous trip. Visitors should be circumspect, as the cave entrance is practically in somebody's garden and if cavers upset the neighborhood, it could easily be closed.

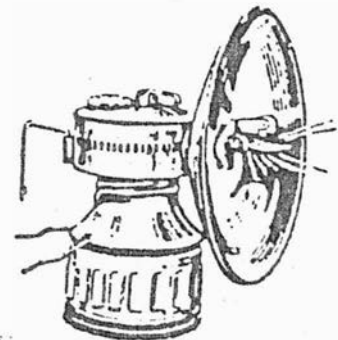
There is a rumor of a nearby Wyllie Street Cave which could be another segment of the same system.

If I have the location placed correctly on my geologic map of Oahu, the cave is in the Tertiary Koolau basalts, which make up the bulk of the island of Oahu, along which other Koolau volcanics. Pupukeya Cave (previously mentioned in the Caver) also is in this series. However there are some Quaternary lava flows in the area of the cave also.

Along the way to the next cave, Frank and Fred mentioned Kamehameha Cave in Manoa Valley supposedly used by the king in his conquest of Oahu, and also the Cave of the Shark King

just a couple of blocks from the museum. More to do on the next trip...

The Burial Cave at Niu, in the suburbs of Honolulu, also turned out to be a cliffside entrance but this one is about 200 feet up a steep erosional hillside from the nearest house. It slopes down into the hillside for maybe 200 feet, mostly crawlway. A few bone chips still can be seen, but the cave is much used by local kids who have dragged a mattress inside and placed pieces of carpet at especially rough points. It is a single unitary tube fragment although there is a plugged tube cross-section just outside the entrance in the cliff, as well as rock arch nearby. Flow features are minimal but a considerable biota is present (including a ricocheting black cat that we accidentally trapped at the rear of the cave). Considerable rock polish is present, probably of human origin. A little SiO_2 flowstone is present. Unlike Judd Street Cave and Pupukeya Cave, enough overburden is present that I wonder if we have been underestimating the possibility of such caves in the walls of the coulees of central Washington. It, too, is in the Koolau volcanics. Those wanting to do some cave mapping on Oahu can look for it almost directly above the west end of Kawaikui Street. But look out for the resident cat!



Yakinikak Creek Cave System, Montana

By Tom Miller

October 19-22, 1984

Personnel: Ben Miller
Tom Miller

Time Underground: 4 hours

I first visited this area in 1970 with Bob Ries of Eastern Wash. U. Newell Campbell of Yakima was then preparing his book "Caves of Montana" (1978), and sent me information on the caves in order to scout them for him. Maps of several of the caves and brief descriptions appear on pages 133-135 of his book (although there are local names for the caves, Campbell refers to them as No.s 1-4, a convention I shall follow for this report).

Cave #1 has 234 mapped meters of surprisingly large, mostly walking size passage. It is a fossil cave that once carried a stream. It lies slightly above and to the west of No. 2. This latter cave carries an active stream. When I visited it in June, 1970, the water levels were so high it was difficult to stand in the streamway and we were able to see very little downstream. Upstream, it sumped very quickly.

Above No. 2 is No. 3, a short crawl cave, mostly sediment filled, at about the same elevation as No. 1. All three of these caves lie at about 1305 meters (4280 feet) elevation according to the Mount Hefty U.S.G.S. Quad, 1962 [and not at 1433 (4700 feet) as reported by Campbell] and about one kilometer east of the intersection of Thoma and Yakinikak Creeks. This is only 100 meters east of the road that takes off from Trail Creek to climb up into Thoma Creek. The combined valleys are called Trail Creek.

In 1970, I did not locate Cave No. 4, which supposedly lay three to four kilometers upstream from the other caves. Campbell reported this as the

sinkpoint of Yakinikak Creek into a cave with a deep pool needing swimming to continue. The resurgence of this sinking stream was a sudden series of springs only a short distance upstream from the entrances to Caves No. 1-3.

Campbell and others had reported that Cave No. 2 led immediately upstream to a deep pool, and downstream to slip under a ledge in less than 100 meters. Ben's and my primary trip purpose was to locate and explore the ponor (or sinkpoint) cave of the main creek and find the up and downstream ends of Cave No. 2.

We left Cheney on Friday afternoon, Oct. 19, and drove north and east to Fortine, Montana (perhaps six hours driving time). From here an excellent road (paved for some miles) led up and over a 1585 meter pass for 26 kilometers and 10 kilometers down the other side to Yakinikak Creek campground. There was a considerable amount of snow in the area, and it was bitterly cold that night (the thermometer read about -8 Celsius in the van late in the morning), although the next day was beautifully sunny.

The next day we hiked the creek bed from just below the campground all the way down to the springs. We found the creek to sink much farther upstream than reported (about 1370m elevation) at a rock outcrop with an enterable cave of only a few meters. On down the dry bed we walked, with Ben finding and partially exploring a crawl cave until stopped by a pool (we were not wearing our caving clothes yet because of the cold); the cave continues.

Another kilometer farther, and Ben returned for the vehicle while I continued down the stream, finding at least part of the water to re-emerge in the main channel. Immediately nearby, however, was a parallel spring, quite large, with a sandy bottom, it sank again within 100 meters, both entrances impenetrable rubble slopes beneath limestone bluffs, and having no connection at all with the main channel.

When Ben caught up I had reached a small gorge filled with driftwood, and having several entrances beneath a cliff (1350m). The largest led in 50 meters to a maze of passages all eventually filled with cobbles, sand, and wood. We tied two other entrances into this cave for a total of perhaps 100m of passage, about half of it large enough to walk or stoop in. It was all dry; it was also most likely the sink cited by Campbell, altered by ten years of outside stream deposition, and probably used by the stream in wetter seasons. A small cave less than 20 meters long lay slightly uphill.

We continued further downstream, crossing the creek where necessary, and noting occasional swallet holes where bits of the water disappeared. Eventually, it all disappeared completely in small rubble caves we could only explore a few meters. From here the bed was dry again all the way to the big springs. Almost directly by the confluence with empty Thoma Creek, I located a dry cave from which water obviously exited sometimes. I climbed down 4-5 meters into passage large enough to walk in for 60 meters over a mud floor. At the upper end the passage came out of crawlable bedding plane passage, and I left it to look at the downward end which entered the same. The short day was moving along to its conclusion and I left the crawls for later, needing to continue on down the dry streambed.

An impressive little gorge a few hundred meters farther lay below some limestone cliffs with holes partway up. One or two would need ropes for entry. Then, finally the springs, bubbling up with such intensity that a very large creek had emerged in just a few meters. No enterable passage was present. They lay at 1305m elevation, about the same as Caves No. 1 and 2.

We had skipped breakfast, and had only a light lunch, so we now parked by the roadside near Cave No. 2 and ate dinner as darkness fell. After

our meal we prepared to enter Cave No. 2, our best remaining lead.

A trail now existed following alongside a dry streambed issuing from the mouth of the cave. It was much warmer inside (Campbell measured 3° Celsius), and we moved rapidly the 50m to the streamway.

We first headed downstream, in much less water than that June of 14 years before. I was angered to find spray-paint in numerous places: one poor fool named Rick Clark was sufficiently embarrassed by his name to hide it underground at least every 15 meters. We slipped through a small crawl into a low area which was the end of the mapped and explored section of the cave in 1978. The water continued under a ledge which I followed in a streamcrawl to a choke. Judging by the lack of spraypaint, Rick Clark had not reached that point; I would like to guide him there. We checked all other passages as well, finding that all led to sumps or passage filled glacial sediment.

Next, we turned our attentions upstream. I waded into the deep pool until I could no longer keep the water from pouring over the top of my GomeX suit even by clinging to the rapidly-lowering ceiling. I suspected the pool sumped, and we then tried a possible bypass. This smaller passage involved a crawl through a near duck in very low airspace. We managed as quickly as we could in the cold water. But beyond, walking passage!

The other passage had indeed sumped. Upstream, the passage split into a water-filled crouchway below, and large phreatic tube 3m above. We could hear the roar of the stream ahead. We climbed up and pressed rapidly forward in a tunnel refreshingly un-spraypainted and therefore probably virgin.

I was wrong; We spotted an aluminum medallion tied with parachute cord to a chert projection. The names J. Quinn and R. (Forsyth?), 1979, were scratched on it, the year after publication of Caves of Montana.

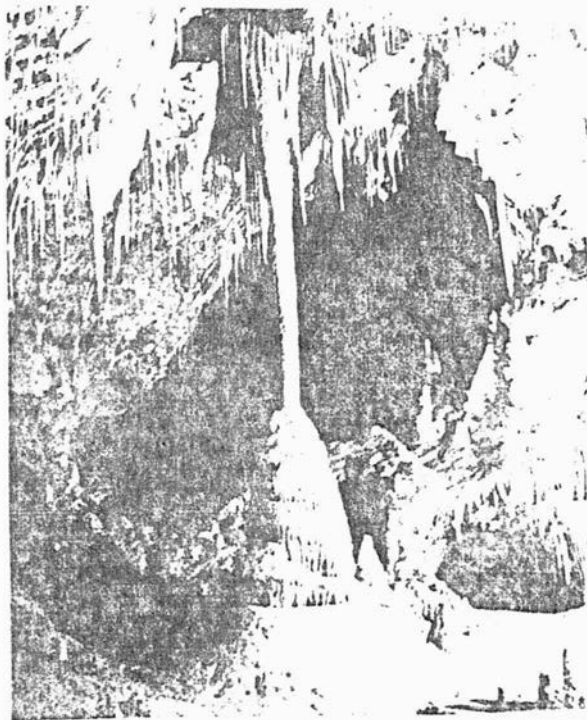
Ahead, the two passages crossed; we continued in the larger upper one, but in a few meters we were back at the main stream, and a sump. It was a beautiful clear sump (perhaps two meters deep by 3-4m wide), looking easily diveable; the next step, I suppose. To our left led a passage that curved around into the watery crouchway. There were no other leads. We scratched our names and date on the reverse side of the medallion, then exited.

There were no huge boulders in the upstream section of the cave, in contrast to downstream. Downstream also contained a plugged tube of large size whose scallops indicated flow had entered the cave through it. The entrance to the cave may have had a similar origin as a channel primarily for glacial meltwater flow of enormous volume. In this scenario, the waters using it now are merely spring floodwaters invading subsequent to its original formation. Because nearby Thoma Creek has no flow over the limestone, it may well be the source for the cave stream.

Since we were still all dressed up with no place to go, we walked the 100 or so meters over the Cave No. 1 entrance. Air was blowing into the cave. The walls were covered in "furry" blotches consisting of 1,000's or harvestmen spiders. We walked through the main passage to the end, where the breeze led up and away through impenetrable breakdown. Next, we took the main side passage which led to a curious feature: a symmetrically circular well lay in the center of the passage. It was 2 1/2 meters deep and from tiny cracks in the bottom issued a loud roar, probably the sound of the #2 cave stream underneath (rather than airflow).

It was still very cold the following day; our caving gear was frozen stiff. We drove up Thoma Creek looking for, and not finding a sinkpoint, then headed north into Canada over logging roads to the main

highway 70km away. Limestone was everywhere, hundreds, perhaps a thousand meters thick. Fires and logging have cleared most of the hill-sides; we noticed numerous holes; possibly caves, probably frost pockets. It is certainly an area with great potential. When we reached the highway, near dark, my final act was to climb up to a large hole visible just west of the first tunnel lying east along Highway 3 from its junction with 93. It was a frost-pocket, of course. So ended our caving; we drove home the next day.



NATIONAL SPELEOLOGICAL SOCIETY, INC.

affiliated with the American Association for the Advancement of Science

Dedicated to the exploration, study, and conservation of caves

Conservation Committee
Jer Thornton, Chairman

Post Office Box 732
Eagle, Idaho 83601

Background Information for NSS Presentations

What is

THE FEDERAL CAVES RESOURCE PROTECTION ACT?

The Federal Cave Resources Protection Act is a proposed bill intended to provide long needed statutory protection for Federally-owned wild caves, their contents and natural systems, by directing that Federal land managers consider cave resources in other land use decisions, by providing them with statutory tools necessary to both cost effective and sound management, and by providing prohibited acts and penalties for those who would destroy these resources. It is important that you keep in mind that this bill will affect only caves on Federal lands, and calls for gates and closures only in the case of very sensitive or fragile caves or ecosystems.

The reason for this is the Society's strong belief in the need to protect the sanctity of state and private land owner rights, and that the public domain should remain unfettered by unnecessary restrictions for those who use those lands responsibly.

Is there a Need for this Law?

Of course there is. It has been pointed out that there are several state and Federal laws which might be brought into play to protect caves. That's true. The Antiquities and Paleontology Acts will afford a certain amount of protection to caves which are bonafide paleo or cultural sites. But what about the rest? Well, the Rare, Endangered and Threatened Species laws will protect a cave if it is a critical habitat for listed life forms. But what about the creatures which are not listed or have yet to be discovered? There are laws which cover vandalism, littering, pollution and trespass. Our government can't even stop highway littering.

It's almost impossible to detect misuse of underground resources, and even tougher to prevent it. Unlike picnic tables and trees in a park which can be either repaired, replaced or replanted, damaged cave resources---the speleothems, spaleogens, the fragile ecosystems, once destroyed are lost forever. Cave management poses some extremely unusual and tough problems and must, of necessity, resort to some extremely unusual solutions. KEEP IN MIND---CAVE ARE A FRAGILE AND COMPLETELY NONRENEWABLE RESOURCE!

Specifically, what are some of those Problems?

The Freedom of Information Act

Often isolated, caves on the Federal domain are extremely difficult to protect once locations become well known. Once an agency becomes aware of a cave's existence, it cannot legally refuse

to provide that information, including the location, to the public. For the Federal land manager who wants to provide sound management for those resources, the Freedom of Information Act stands as a brick wall, blocking his option to employ one of the most effective cave management tools. Even gates, which are costly to install and maintain, are usually ineffective once a location becomes public knowledge.

For a Federal land manager this is a multi-faceted problem. In order to effectively consider all resources in land-use planning, requires knowledge of all of those resources. The caving community, having compiled extensive wild cave records over several decades, usually refuses to provide Uncle Sam with this information except in a crisis situation. Although due to years of experience and hundred of cases where volunteering location information has led to the destruction of caves, this reluctance by cavers to share information creates a serious Catch-22 situation.

It means that agencies usually become involved in protective cave management only after a conflict or threat emerges. Rather than being aware of the resource and able to anticipate and plan for problems, they are almost always faced with crises management. It also means that in order to obtain a complete cave resource inventory, they must hire someone to "hunt" the same caves which the caving community has spent years locating. This is an extremely costly undertaking and one which cannot possibly be done properly in a reasonable amount of time.

The Mining Acts

Speleothems, the stalactites, stalagmites and other unique mineral forms found in caves, are currently classified as "curiosities" by the Bureau of Land Management and not subject to mineral claims. This is based on a 19th Century court case and an Interior Department decision. This classification has remained unchallenged for nearly 100 years. However, geodes were also considered "curiosities" until last year when the Interior Secretary reversed this position. Even common rock, such as basalt or "lava" has recently been reclassified and is now subject to mining claim as a leasable commodity. This was another recent interpretation reversal.

These decisions were based primarily on the ability of the operator filing the claim to show a possibility of making a profit. Based on these reversals, speleothems are presently in danger of becoming a commodity---like gravel.

Guano has been mined from caves for centuries for use in the manufacture of gunpowder and as a fertilizer. Under the present laws, guano mining is an activity which is tightly regulated when the cave is also a known cultural or paleontological site. This regulation does not, however, apply to other caves. While there is no reason to halt the commercial extraction of guano, all caves should be inventoried and mining activities in sensitive caves closely monitored to ensure that the other values of caves are protected.

Other mining activities include the quarrying of limestone for the manufacture of concrete and oil leasing and exploration. These activities are not, if adequate resources are taken to protect the caves resources, incompatible with protective cave management. However, there is no specific statutory requirement to consider caves and in relationship to mining.

State and other Laws

In those states which have cave protection laws, in units of the National Park System, in specially designated management areas, or when covered by Federal Acts pertaining to antiquities, paleontological or rare, threatened or endangered species, caves can be protected fairly well. However, most state laws are not totally effective. For instance, although Idaho, New Mexico and several other states have laws which make killing or disturbing cave life illegal without the

permission of the land owner, the Federal government usually has no legal recourse except to grant permission.

Funding

As you know, there is little or no extra money for new programs in currently tight Federal budgets. Lacking the expertise, the manpower and the funding to properly manage caves, our government cannot properly address the problem of cave management. Even the fees which are now collected for special management use permits and money collected as civil penalties for damage to wildlands resources are not available to the agency which collects them. These are sent to the General Fund and lost. Many critical restoration projects, made necessary by misuse, cannot be funded---even though civil penalties, equivalent to the cost of damage may have been assessed and paid by the violator.

What will the Federal Cave Resources Protection Act Do and how will it help?

Most importantly, the legislation will clear up several grey areas, providing caves with a legal status, eliminating inconsistent and arbitrary interpretations regarding where this unique natural resource fits into existing laws. Allowing for the flexibility needed to cope with specific local problems, it will also compliment national-level cave management policies like those recently implemented by the BLM and soon to be developed by the Forest Service.

Prohibited Acts and Penalties

The bill prohibits acts which would damage, threaten or endanger cave resources and imposes both criminal and civil penalties for violations. A few people have expressed concern that these might be considered unusually severe. Again, please remember that this valuable resource is extremely fragile and totally nonrenewable. It's extremely difficult to detect and catch those in the act of destroying it, more so in fact, than catching the burglar who operates at night. Even litter removal can be a major undertaking in a cave. While using sinkholes and entrances as a dumping ground for garbage, animal carcasses, insecticides and other chemicals might also be considered "just littering", the affect of this type of pollution on a karst aquifer can create some extreme dangerous health hazards. In light of these factors, perhaps even stiffer penalties might be justified.

Exempting Sensitive Cave Locations From the Freedom of Information Act

The most important element of this legislation will be to allow Federal agencies to withhold sensitive cave location information from the public. There are a number of people who feel that allowing the Federal government to withhold this information is a threat to scientific knowledge or research and the publication of that information. However, this is exactly the same way in which protection for sensitive archeological and paleontological sites is enhanced.

The exclusion of these site locations from the Freedom of Information Act has neither inhibited research nor encumbered the publication of scientific papers. It has, however, helped prevent unregulated use and destruction so that the sites are left both intact and undisturbed for meaningful investigation.

Without this exemption, the Federal Cave Resources Protection Act would be just a waste of time. Not only would the effectiveness of the rest of this legislation be defeated, but the support of the caving community would be lost, negating the effectiveness of the following feature.

Cooperative and Volunteer Management

This bill calls specifically for the land manager to open communications and to work closely with the caving community, both in establishing local management directions and policies and in the actual administration of programs through the use of cooperative management agreements and volunteer contracts. This will allow the Federal government to place a major share of the burden of responsibility for the management of cave resources squarely upon the shoulders of the caving community, greatly reducing the need for additional budget appropriations or the diversion of limited manpower from other duties.

Funding

In order to further reduce the need for additional budget appropriations, this act includes a clause directing that recreational fees collected in conjunction with all special land use permits, and any civil penalties moneys collected for violations of the act, be returned to that agency to be used in the administration of those programs and for restoration of damaged resources.

Liability

The legislation also contains an exemption for the Federal Government from liability for incidents arising out of recreational use of all public wild lands except when the agency is an invitee. This should also lead to a reduction in taxpayer money being wasted on legal fees and for settlements paid by the government for suits arising from Acts of God and natural hazards.

Management Planning

Requiring that cave resources be considered in all land use planning decisions, the Act also allows for all parties involved, including the caving community, to be involved in the planning process.

Mining

This act will have little affect on existing mineral and energy activities. It would require that cave resources be considered in relationship to the impact of those activities. It would also allow for the removal of nuisance claims and the withdrawal of extremely sensitive caves and immediately adjacent areas, from mineral development. Finally, it statutorily exempts speleothems from mining.

Cave Fauna and Habitat

Calling for the protection of all life forms found in a cave, this bill would also ensure the protection of caves which provide the habitat for those

2 To protect caves resources on public lands and Indian lands, and for
3 other purposes.

4 SHORT TITLE

5 Section 1. This Act shall be known as the "Cave Resources Protection
6 Act of 1985".

7 Section 2. (a) The Congress finds that---

8 (1) caverns or cave resources on public lands and Indian
9 lands are an invaluable and irreplaceable part of the
10 Nation's natural heritage;

11 (2) these resources are increasingly becoming endangered
12 because of urban spread, increases in mobility and leisure
13 time of recreationist, improper use, a lack of specific
14 statutory protection, little or no supervision of use,
15 and the lack of resources for administering agencies to
16 properly manage cave resources;

17 (3) existing Federal laws do not provide adequate or
18 comprehensive protection to prevent the loss or de-
19 structuring of caves and their associated resources from
20 acts of theft, vandalism or destruction; and

21 (b) the purpose of this Act is to secure, protect and
22 preserve cave resources on public lands and Indian lands
23 for the future benefit and enjoyment of the American
24 people, and to foster increased cooperation and exchange
25 of information between governmental authorities and
26 those who utilize cave resources for scientific,
27 educational or recreational purposes.

28 DEFINITIONS

29 Section 3. As used in this Act---

30 (a) the term "cave resource" means a cave as herein de-
31 fined together with associated topographic and hydro-
32 logical features.

33 (b) the term "cave" or "cavern" means any naturally
34 occurring void, cavity, recess or system of inter-
35 connected passages which occurs beneath the surface
36 of the earth or within a cliff or ledge, including
37 natural subsurface water and drainage systems, but not
38 including any mine, tunnel, aqueduct, or other man-made
39 excavation, and which is large enough to permit a person
40 to enter, whether or not the entrance is naturally formed
41 or man-made. The words "cave" or "caverns" shall include
42 any natural pit, sinkhole or other feature which is an
43 extension of the entrance.

44 (c) The term "natural resource" means any material
45 occurring naturally in caves such as plant or
46 animal life, whether vertebrate or invertebrate;
47 paleontological deposits; sediments; minerals; speleogen;
48 speleothems and other natural materials.

49 (d) the term "cultural resource" means any historic or
50 prehistoric human remains, artifacts, constructions or
51 evidence thereof.

52 (e) The term "speleothem" means any natural mineral
53 formation or deposit occurring in a cave. This includes,
54 but is not limited to: stalactites, stalagmites, heloc-
55 tites, gypsum flowers, soda straws, lavacicles, antho-
56 dites, flowstone, tufa dams, clay or mud formations,
57 concretions, draperies, rimstone dams, etc. Speleothems
58 can be composed of calcite, gypsum, aragonite, celestite,
59 silica, mud, basalt, or other similar materials or minerals.

60 (f) the term "speleogen" means the surrounding natural
61 material or bedrock in which the cave is formed, including
62 the walls, floors and ceiling and similar related structural
63 and geological components.

64 (g) the term "Federal Land Manager" means, with respect to
65 any public lands, the Secretary of the department, or the
66 head of any other agency or instrumentality of the
67 United States, having primary management authority
68 over such lands.

69 (h) the term "public lands" means lands which are owned
70 and administered by the United States, other than lands
71 on the outer continental shelf and lands which are under
72 the jurisdiction of the Smithsonian Institute.

73 (i) the term "Indian lands" means lands of Indian tribes
74 or Indian individuals which are either held in trust by
75 the United States or subject to a restriction against
76 alienation imposed by the United States.

77 (j) the term "individual" means an individual, corporation,
78 partnership, trust, institution, association, or any
79 officer, employee, agent, department, or instrumentality
80 of the United States, or any Indian tribe, or of any
81 State or political subdivision, thereof.

82 COLLECTION AND REMOVAL

83 Section 4. (a) Except for caves within any unit of the National Park
84 System, any person may apply to the Federal land manager
85 for a permit to collect or removal any natural or cultural
86 material from caves located on public lands or Indian lands
87 and to carry out activities associated with such collection
88 or removal. The application shall be required, under

66 uniform regulations under this Act, to contain such
67 information as the Federal land manager deems necessary,
68 including information concerning the time, scope, location
69 and specific purpose of the proposed work.
70 (b) A permit may be issued pursuant to an application under
71 subsection (a) if the Federal land manager determines,
72 pursuant to uniform regulations under this Act, that---
73 (1) the collection or removal of specified resources is
74 essential for conducting bonafide research projects, sub-
75 stantiated by an approved research proposal;
76 (2) the study will contribute to better understanding of
77 caves or other natural resources and environments and their
78 use by people and will not interfere with other public uses
79 nor having a lasting or significant physical impact on the
80 cave resources;
81 (3) the applicant is qualified to carry out the permitted
82 activity;
83 (4) the natural or cultural resources which are excavated
84 or removed from public lands will remain the property of the
85 United States, and are not intended to be used primarily for
86 the development of general study collections.
87 (5) the activity pursuant to such permit is not inconsistent
88 with any management plan applicable to the cave or public
89 lands concerned.
90 (c) Any permit issued under this section shall contain
91 such terms and conditions, pursuant to uniform regulations
92 promulgated under this Act, as the
93 Federal land manager concerned deems necessary to
94 carry out the purposes of this Act.
95 (d) Each permit under this section shall identify the
96 individual who shall be responsible for carrying out
97 the terms and conditions of the permit and for other-
98 wise complying with this Act and other laws applicable
99 to the permitted activity.
100 (e) Any permit issued under this section may be re-
101 voked by the Federal land manager upon their deter-
102 mination that the permittee has violated any provision
103 of subsection (a) or (b) of Section 5. Any such
104 permit may be revoked by such Federal land manager
105 upon assessment of a civil penalty under Section 5
106 against the permittee or upon the permittee's con-
107 viction under Section 5. Permits issued under this
108 Act are not transferable.

134 PROHIBITED ACTS AND CRIMINAL PENALTIES

135 Section 5 (a) No person shall break, break-off, carve

136 upon, write, burn, mark upon, crack, remove, displace,
137 or in any manner destroy, disturb, deface, mar, alter
138 or harm any cave or cavern or any natural or
139 cultural resources therein, located on public
140 or Indian lands unless such activity is pursuant to a
141 permit issued under Section 4 or is exempted under
142 Section 9.
143 (b) No person shall kill, injure, disturb, or otherwise
144 interfere with any cave life, including any cave roosting
145 bat, nor interfere or obstruct the free movement into or out
146 of any cave or cavern, nor enter any cave with the intention
147 of killing, injuring, disturbing or interfering with life
148 forms therein, unless such activity is pursuant to a
149 permit issued under Section 4.
150 (c) No person may collect or remove any natural or cultural
151 resources found within any cave subject to the provisions
152 of this Act except pursuant to a valid permit issued under
153 Section 4 or as exempted under Section 9.
154 (d) No person shall possess, consume, sell, barter or
155 exchange, or offer for sale, barter or exchange, any
156 natural material removed from any cave subject to the
157 provisions of this Act except pursuant to a valid
158 permit issued under Section 4 or exempted under
159 Section 9.
160 (c) It shall be unlawful for any person to dispose of
161 any waste, garbage, refuse, food, fuel or other material
162 whether solid, liquid, or gas within any cave subject
163 to the provisions of this Act or within any surface
164 features related to the cave resource, including,
165 but not limited to sinkholes, or streams.
166 (d) Anyone who should break, force, tamper with,
167 remove or otherwise disturb a lock, gate, door
168 or other structure or obstruction designed to pre-
169 vent entrance to a cave or cavern, without permission
170 of the Federal land manager thereof, shall be in
171 violation of this Act, whether or not entrance is
172 gained.
173 (e) Any person who knowingly violates, or counsels,
174 procures, solicits or employs any other person to
175 violate, any prohibition contained in subsection
176 (a), (b), (c) or (d) of this section shall, upon
177 conviction, be fined not more than \$10,000 or
178 imprisoned not more than one year or both. In the
179 case of a second or subsequent such violation, upon
180 conviction such person shall be fined not more than

101 \$20,000 or imprisoned not more than three years, or
102 both.
103 (f) The prohibitions contained in this section shall
104 take effect upon the effective date of this Act.
105
106 CIVIL PENALTIES
107 Section 6 (a) (1) Any person who violates any prohibition
108 contained in this Act or in any regulation promulgated
109 pursuant to this Act, or in any permit issued under this
110 Act may be assessed a civil penalty by the Federal land
111 manager concerned. No penalty may be assessed under this
112 subsection unless such person is given notice and oppor-
113 tunity for a hearing with respect to such violation.
114 Each violation shall be a separate offense, even if
115 such violations occurred at the same time. Any such
116 civil penalty may be remitted or mitigated by the
117 Federal land manager concerned.
118 (2) The amount of such penalty shall be determined
119 under regulations promulgated pursuant to this Act,
120 taking into account, in addition to other factors---
121 (i) the relative scientific, scenic or commercial
122 value of the cave resource involved, and
123 (ii) the cost of restoration, repair, and mitigation
124 of the resource or caves involved.
125 Such regulations shall provide that, in the case of
126 a second or subsequent violation by any person, the
127 amount of such penalty may be triple the first amount
128 which would have been assessed if such violation were
129 the first violation by such person. The amount of any
130 penalty assessed under this subsection for any violation
131 shall not exceed an amount equal to triple the cost of
132 restoration and repair of natural and cultural resources
133 damaged and triple the fair market value of re-
134 sources destroyed, damaged or not recovered.
135 (a) (1) Any person aggrieved by an order assessing
136 a civil penalty under subsection (a) may file a petition
137 for judicial review of such order with the United States
138 District Court for the District of Columbia or for the
139 district in which the violation took place. Such a
140 petition may only be filed within the 30-day period
141 beginning on the date the order making such assessment
142 was issued. The court shall hear such action on the
143 record made before the Federal land manager and shall
144 sustain his action if it is supported by substantial
145 evidence on the record considered as a whole.
146 (2) If any person fails to pay an assessment of a
147 civil penalty--

227 (i) after the order making the assessment has
228 become a final order and such person has not
229 filed a petition for judicial review of the order
230 in accordance with paragraph (1), or
231 (ii) after a court in an action brought under
232 paragraph (1) has entered a final judgement up-
233 holding the assessment of a civil penalty, the
234 Federal land managers may request the Attorney
235 General to institute a civil action in a district
236 court of the United States for any district in
237 which such person is found, resides, or transacts
238 business to collect the penalty and such court
239 shall have jurisdiction to hear and decide any
240 such action. In such action, the validity and
241 amount of such penalty shall not be subject to
242 review.
243 (c) Hearings held during proceedings for the assessment
244 of civil penalties authorized by subsection (a) shall be
245 conducted in accordance with section 554 of title 5 of
246 the United States Code. The Federal land manager may
247 issue subpoenas for the attendance and testimony of
248 witnesses and the production of relevant papers, books,
249 and documents, and administer oaths. Witnesses summoned
250 be paid the same fees and mileage that are paid to
251 witness in the courts of the United States. In
252 case of contumacy or refusal to obey a subpoena
253 served upon any person pursuant to this paragraph,
254 the district court of the United States for any
255 district in which such person is found or resides
256 or transacts business, upon application by the
257 United States and after notice to such person, shall
258 have jurisdiction to issue an order requiring such
259 person to appear and give testimony before the Federal
260 land manager or to appear and produce documents before
261 the Federal land manager, or both, and any failure
262 to obey such order of the court may be punished by
263 such court as a contempt thereof.
264
265 CONFIDENTIALITY
266 Section 7 (a) Information concerning the nature and
267 location of any cave or cavern resource may not be
268 made available to the public under Subchapter II
269 or chapter 5 of title 5 of the United States Code or
270 unless the Federal land manager concerned determines
271 that such disclosure would---

272 (1) further the purposes of this Act; and
273 (2) not create a risk of harm to such cave resources
274 and their contents or to the lands above such resources;
275 and
276 (3) not endanger the general public.

277 SPECIAL MANAGEMENT ACTIONS

278 Section 6. Federal land managers may take special actions
279 as necessary, consistent with the purposes of this Act, including but
280 not limited to---

281 Employment of cave resources management personnel;
282 Appointment of volunteer cave management and administrative
283 personnel;
284 Regulation and restriction of use of caves and related sur-
285 face lands;
286 Entering into volunteer management agreements with indi-
287 vidual persons, members and associations of the caving
288 community;
289 Removal of nuisance mineral claims;
290 Withdrawal of caves and surface lands from mineral claims,
291 exploration and development.

292 (b) The Federal land manager may also appoint an advisory
293 commission of professional cave managers, individual persons, and members
294 of caving associations and the scientific community for the purpose of
295 developing regulations pursuant to this Act, reviewing management plans
296 for cave resources located on public lands or Indian lands, or to other-
297 wise provide advice and assistance as deemed necessary in furthering
298 the purposes of this Act.

299 (c) Federal land managers shall take such actions
300 as may be necessary, consistent with the purposes of this Act, to

301 (1) ensure that cave resources are considered in
302 land use policy decisions;
303 (1) foster and improve the communication, cooperation
304 and exchange of information between Federal authorities
305 responsible for the protection of cave resources on the
306 public lands and lands and professional cave
307 managers; and members and associations of the scientific
308 and recreational caving community;
309 (2) encourage, support and assist volunteer groups
310 and persons interested in providing assistance and
311 expertise in managing cave resources on public lands.

311 LIABILITY

312 Section 9. Neither the Federal land manager nor his
313 authorized agents acting within the scope of their authority shall
314 be liable for injuries or harm sustained by any person using caves

315 or other Federally owned wild lands for recreational, educational
316 or scientific purposes, and does not by granting permission of use
317 or entry thereby

318 (a) extend any assurance that the Premises are safe for
319 such purposes, or

320 (b) constitute to the permittee the legal status of an
321 invitee or licensee to whom a duty of care is owed, or
322 (c) assume responsibility for or incur liability for any
323 injury to person or property caused by any act of a
324 permittee except as provided in this section.

325 This Act shall not limit the liability which otherwise
326 exists for (1) willful or malicious failure to guard or
327 warn against a dangerous condition, use, structure or
328 activity; or (2) for injury suffered in any case where
329 permission to enter for the above purposes was granted
330 for a consideration; or (3) to any persons who are
331 expressly invited to come upon the premises.

332 Nothing in this section creates a duty of care or ground of
333 liability for injury to person or property.

334 FUNDING

334a Section 10. (This section is still being developed)

335 SAVING PROVISIONS

336 Section 11. (a) Nothing in this Act shall be construed to
337 repeal, modify, or impose additional restrictions on the activities
338 permitted under existing laws and authorities relating to mining,
339 mineral leasing, reclamation, and other multiple uses of the public
340 lands.

341 (b) Nothing in this Act shall be construed to
342 affect any land other than public land or Indian land or to affect the
343 lawful recovery, collection, or sale of natural resources from
344 land other than public land or Indian land.

345 (c) The provisions of this Act shall be con-
346 sidered severable and any determination of invalidity of any provision
347 of this Act shall not impair the operation or effect of the remaining
348 provisions.

VOLCANOSPELEOLOGICAL ABSTRACT

Wudalianchi Volcanoes in China
Feng Mao-seng, Guo Ke-yi & Wang Fu-quan
(Geological Museum State Bureau of
Geology of the People's Republic of
China) 1979. Shanghai, Scientific and
Technical Publishers.

These volcanics are in Helungkiang
Province (Manchuria). Historical
accounts indicate activity in 1719-21,
with the development of two cones,
Laoheishan and Huoshaoshan. This work
is a photographic album including
pahoehoe flows and lava tube caves
with lava stalactites and stalagmites
and other features of pahoehoe and aa
flows. No indication of cavern size
is included, but the stalactites are
of several types. Looks like an
interesting location for comparative
vulcanospeleology but I have not seen
any package tours to this part of
China yet.

William R. Halliday, M.D.

Ed. Note: Now for a look at the
lighter side of caving. This article
was borrowed from the Western Front,
from Western Washington University.
It was printed as received.

SPELUNKERS PROBE LOCAL CAVERN

Holy Bat Cave, Boy Wonder!!

By Don Huddleston

Hitching up my sweaty army pants
and taking a deep breath, I lowered
myself into the dark cave. My feet
fumbled for solid support as my eyes
grew accustomed to the dim light. To
my right, a plastic jug hung suspended
from the rock wall. Bolted above the
jug was a sign that made the arrival
official, "Senger's Taurus Caves". I
glanced at my hiking partner, Brad

Killion, 25, a fellow Western student,
and grinned. We had made it to the
"bat caves".

The floor of the main entrance
consisted of jagged, mildewed rock.
We were in an opening easily 30-feet
high, 15-feet wide and only time would
tell how many feet deep. My back
tingled as the sweat from our hike to
the cave dried in the cold air.

"You're steaming," Killon said.

And indeed I was. The temperature
of the cave gave no indication of the
hot summer day outside the stone
fortress. We sat down on a clammy
outcropping and ate a Snickers bar.
Ahead of us, dark and somehow evil, an
inner entrance waited for our next
move.

Brad and I had heard strange
stories about the "bat caves" some
months before curiosity and a rare
free weekend got the better of us.
Suspecting a coming physical
challenge, I immediately went onto my
normal training routine: A strict
diet of lasagne, burgers and an
occasional one-half mile hike down to
Albertson's for a pack of cigarettes.

Our plan slowly took shape as we
mullied over the dangers of the
expedition while subjecting ourselves
to strenuous workouts on the dreaded
pool table and uncompromising lawn
chairs. Finally, in a moment of true
inspiration, Brad looked foggily up
from his empty glass and in his finest
"Rocky" voice slurred the immortal
words, "Go for it."

The journey to the "bat caves" on
Chuckanut Mountain is not that
difficult. The two of us, both novice
hikers, made the trek with no major
problems.

To get to the caves from Belling-
ham, drive south on Chuckanut Drive,
the journey begins across the road
from the Oyster Bar restaurant. The
beginning of the hike is a private
driveway so respect the property.
Beyond the driveway a road continues
into the woods. About one-half mile
up the road is an old abandoned truck,

across from the truck is the trail-head.

The trail winds its way up the hillside, through huge stands of ferns and back and forth over a small creek. The climb is steep in parts and we had to catch our breath more than once. We continued up the trail, keeping an eye out for a blue ribbon that marks the cave turn-off. There was no blue ribbon in sight, but playing a hunch we found the trail off to our left and in five minutes the rock slide that contains the caves was in sight. The turn-off now is marked with a blue ribbon, which we found plenty of farther up the main trail. The hike to the caves was completed in less than two hours.

The actual cave entrance is to the right as you enter the slide area. It takes a little hunting and pecking, but when your flashlight hits the huge opening, you'll know it.

The sign in the cave recommends at least three people to a spelunking (cave exploring) party and three kinds of light: flashlight, matches and candles. Caves are very wet and very cold, so warm, heavy clothing helps no matter how hot it seems outside.

Looming over the caves is little Mount Blanchard, more of a cliff than a mountain but impressive nevertheless. To the right of this barren bluff is a steep but climbable trail.

Once on top, Mount Blanchard offers a panoramic view of the San Juan Islands and part of Skagit Valley. Here you'll find a good place to pitch a tent out of the wind and plenty of dry fire wood. It's a sunset watcher's paradise.

Decked out in coats and lightweight work gloves, Brad and I lowered ourselves into the murky depths and signed into the logbook. According to the log, bats had not been seen for a few months. Many entries told of routes taken and gave the names to rooms in the caves; the "Gollum" room and skunk room.

We found three distinct entrances to the caves from the main grotto. One was in the floor and went straight down. Brad went right for it and disappeared. Following Brad with the strongest of the flashlights, I was soon entranced by the maze of cold, mysterious rock.

Once you resign yourself to getting muddy and wet, the caves offer endless challenge and excitement. As soon as you round the first corner you are in another world. Nothing looks the same coming out as going in. String is a good way to mark your trail.

Spenger's Talus Caves are full of nooks and crevices that open up into huge caverns. Plenty of squeezing and squirming is required, but in the end it is an unforgettable experience.

#####

#####

Grotto Meeting: DECEMBER 18 at 8:00

Remember to bring your ballots!!