



THE CASCADE CAVER

Official Publication of the
CASCADE GROTTO N. S. S.

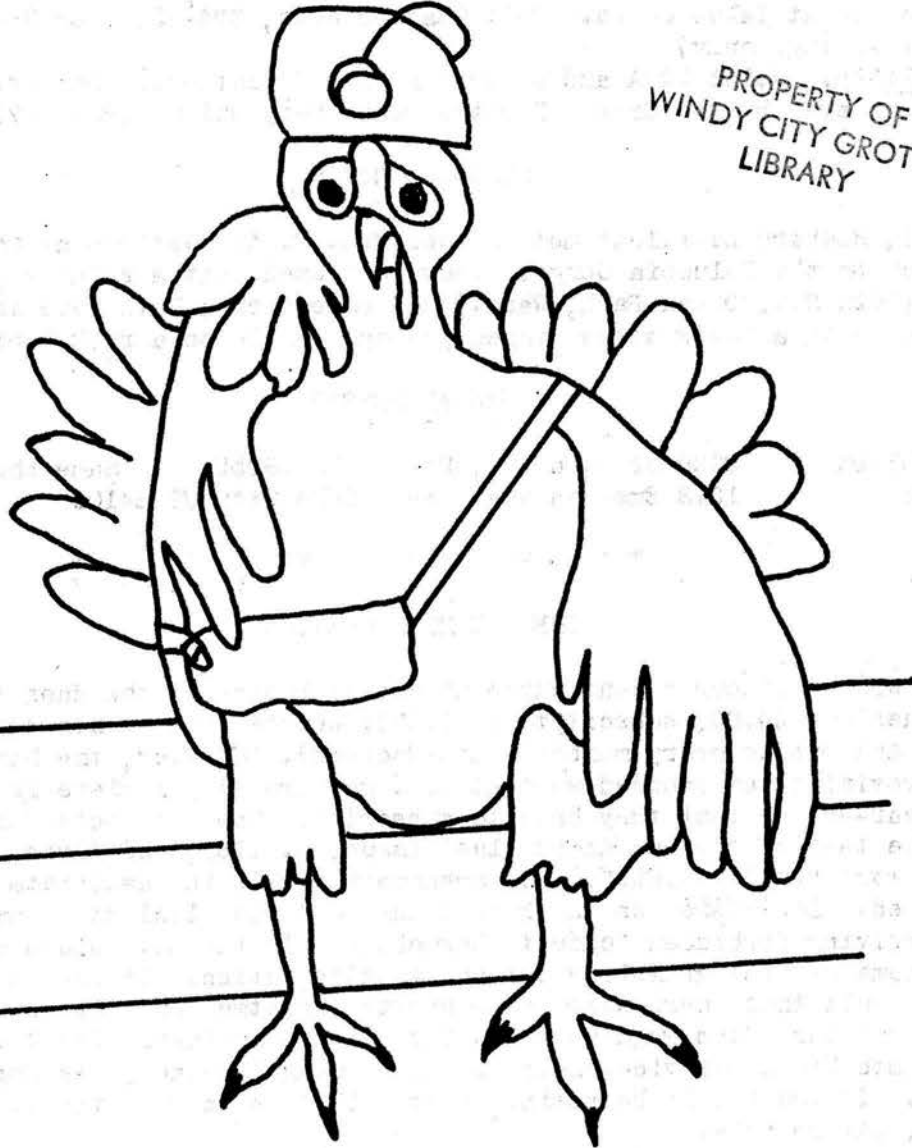


Vol. 14 No. 11-12

Editor: Rod Crawford

November and December, 1975

PROPERTY OF
WINDY CITY GROTTO
LIBRARY



J. O.

"HERE I AM, LEFT BEHIND--
TO CONTACT THE LEADER SLIPPED MY MIND."

21-11# 41.10U

COMING EVENTS

THERE WILL BE NO GROTTA CHRISTMAS PARTY. However, it is expected that there will be one or more private parties.

December 15. Regular meeting, 8:00, 1117 36th Ave. E. Grotto elections at this meeting; please come!

December 31-January 1. Larsons' New Years Party in Vancouver, Wash. Take the 134th St. Exit, turn right, and drive 1/4 mile straight into their driveway. Everyone in the NW Region is invited!

January sometime. Snowshoe trip to Windy Creek Cave. Call Walker, 232-1698. North Chuckamit Talus Caves. Call Charles Ross, 324-9349, or Rod Crawford, 543-4486 (evenings only).

February 14-16. Joint NWRA and Western Region Educational Seminar. Hosted in the Portland area by the Oregon Grotto. Call Mary White, (206) 573-3783.

NEWS AND NOTES

On June 28, Richard Laviolett met Mr. and Mrs. M. A. Hastings at the base of Beacon Rock on the Columbia Gorge. They mentioned that a relative, Marvin Hastings (10th St., Ocean Park, Wash.) had come upon a lava tube in the St. Helens flow with a "Cork screw shaped passage" while on a rock-hunting trip.

NEW ADDRESSES

John Torkelson 2008 SE 16th Ct., Renton WA 98055 Same phone (see within)
June Olsen 1218 Emerson Ave., Salt Lake City UT 84105

* * * * *

THE NOVEMBER MEETING

In the wrapup of our recent surge of grotto business: the dues increase was passed (dues now \$6.00, subscription \$4.00); we now have an honorary membership category, and one honorary member (Barb MacLeod). However, the honorary membership provision was amended so that hon. members only receive free publications for one year--after that they have to subscribe. They can vote for life, however. In the text of the amendment (last issue, p. 116), add "free for one year" after the word "publications". The amendment abolishing associate membership was defeated. Discussion on the Forest Service's new lenient snowmobile policy--off-road driving forbidden "except snowmobiles" in the St. Helens cave area--produced some general grumbling but no definite action. It was resolved more or less by default that there will be no grotto Christmas party this year.

In nominations: Stan Pugh and Russ Turner were nominated for Chairman; Bob Tower and Bob Brown for vice-chairman; Chuck Coughlin unopposed for secretary-treasurer. If you should be voting, your ballot is in this issue. If it is, therefore, please vote.

The meeting concluded with Dr. Halliday's slide show of his European trip, including some slides of Italian, Yugoslavian, and Austrian caves.

* * * * *

Special
Turkey
Issue

(See cover--see also editorial, back cover).

This month's cover is redrawn from the Inner Mountain News, vol. 7 no. 11.

F E A T U R E S

FLASH**** NEW CAVER'S EQUIPMENT ANNOUNCED

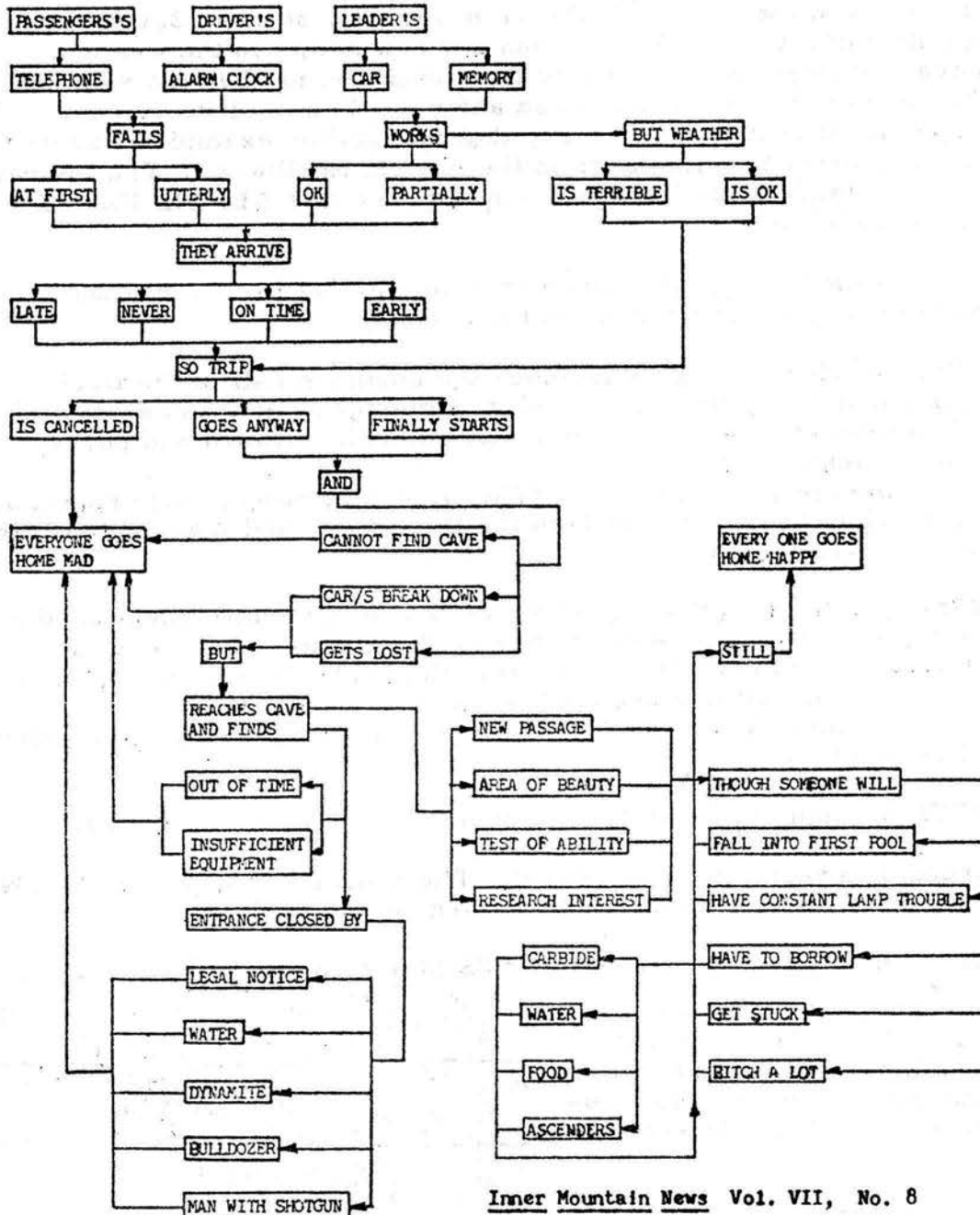
On cave trips lately, have you been watching someone wolf down a can of vienna sausages, or climb into their rappel harness, or perhaps crawl from a muddy lead, when suddenly a great wave of deja vu washes over you? Do you have the sensation of having previously experienced this very occurrence? Of course you have...it has happened to all of us.

But why did you bother to stick around and experience the same boring trip a second time? I'll tell you why...you wanted to make sure you knew how it was going to come out. After all, the ending might just be a teensy bit different

this time, mightn't it? Well, it might, but then it might not.

After careful computations and endless computer readouts, I have verified that there are a limited number of permutations and combinations for any cave trip. I have combined these into a chart I modestly call BULLINGTON'S UNDERGROUND RETROSPECTIVE PREDICTOR. By using the BURP you can instantly ascertain the outcome of any given trip and leave before it becomes too obnoxious. Better yet, use the PREDICTOR in advance and don't bother to go on the trip!

Neal R. Bullington
Scientist and World Benefactor



Inner Mountain News Vol. VII, No. 8

PROPOSAL FOR AN
ALPINE KARST GEOLOGICAL AREA

Located in and immediately adjacent to the Mount Baker National Forest is an outstanding example of well-developed karst topography occurring in the alpine and subalpine zone. "Karst" is a geological term referring to a well-defined type of land wasting through the development of subterranean drainage through soluble rocks. Its features differ markedly depending on the climatic zone and stratigraphy and regional geomorphology.

In the case of the proposed ALPINE KARST GEOLOGICAL AREA, the limestone in which the karst is developed is a beautiful light-gray crystalline rock exposed in karstic pinnacles, ledges and cliffs as well as in sinks, pits and small caves. It crops out in heather and grassy meadows interspersed with subalpine forest, and forms cliffs on the west side of Blue Lake. The area in question is mostly above 4,000 feet, rising to 6,210 feet at Dock Butte. The base levels are Wanlick Creek (N), at about 2,500 feet, the Baker River (E), at about 1,000 feet, and the south fork of the Nooksack River (W), at about 2,000 feet. The possibility of pit caves deeper than any now known in the western hemisphere therefore exists. Heavy snow pack during the past summer season has hindered study of this area and many known sinks remain uninvestigated. It is clear, however, that no similar example is known elsewhere on Forest Service lands in the Pacific Northwest. The following Forest Service lands should be incorporated into this ALPINE KARST GEOLOGICAL AREA:

T36N, R8E: section 5. (This includes the summit of Dock Butte and the southern half of the Dock Butte karst area)

T37N, R8E: section 32. (This includes the northern half of the Dock Butte karst area, Blue Lake and its limestone cliffs and scattered, little known additional karstic areas extending toward and perhaps beyond Tuckway Lake)

Section 31 south half. (This is a very steep, little known area of potential resurgences of both the Dock Butte and Washington Monument karstic areas)

T36N, R7E: section 1. (This includes the Washington Monument saddle karst area, the northwestern spur of Washington Monument, a little-known ridge leading west from the karst area in the saddle and a potential resurgence area below the saddle)

Section 2, eastern 3/4. (this is a very steep slope with potential resurgences)

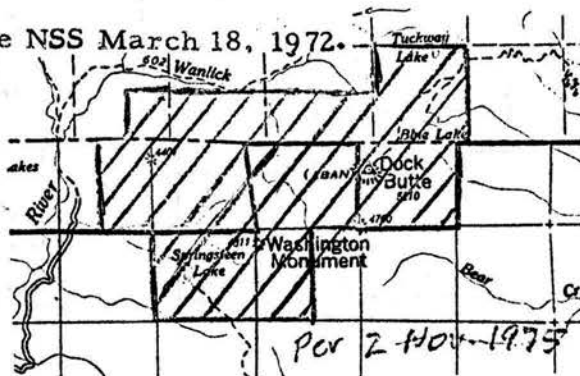
T37N, R7E: section 36, south half, and section 35, SE 1/4. (Similar)

Total acreage: 5 sections (3200 acres). The addition of section 6, T36N, R8E, now private land, would also be desirable.

*

Endorsed by the Cascade Grotto of the NSS March 18, 1972.

The above draft statement from the typewriter of Dr. Halliday is soon to be distributed to relevant authorities. The boundaries are those resolved at the Nov. 2 meeting--ed.



TRIP REPORT SECTION

North Chuckanut Caves

1 November 1975

by Rod Crawford

Saturday morning, Charles Ross and I drove up to the WWSC campus in Bellingham to meet Clyde Senger and three of his students. We drove south from Bellingham and up a rather confusing back road to the parking place, where I set two pit-fall traps for collecting spiders. (Three weeks later, these traps proved to contain, in addition to the usual insects and spiders, two salamanders and a shrew.) We followed a reasonably good trail along the crest of Chuckanut Mountain and descended at the appropriate point into the cave area--so far a very easy hike. However, the cave area itself is another matter entirely. It consists of a maze of dense brush, slippery logs all at the wrong angle, and steep, mossy rocks. In the first part of the area our average velocity from cave to cave was about five feet per minute. However, it gets easier as you go along.

We first visited Two Boys Cave, an interesting multi-level complex which definitely needs further exploration. Among interesting biota noted, one moderate-sized rock had a fragmented pack rat skeleton under it, appearing as if the rat had been crushed by the rock. These caves contain thin deposits of a material similar to lava tube slime. Several moths with fungus infections were noted, and many healthy moths were collected here and elsewhere for future studies of this problem.

One of the objects of the trip was to do a surface survey between the cave entrances. There are about 15 known caves in this relatively small area, and there is a high potential for confusing them in the absence of such a survey. I had checked out a staff compass and 100' steel tape for the purpose. Accordingly, we surveyed from Two Boys Cave to Wise Cave, our next stop. This small cave is appropriately named for a tight squeeze midway between the two entrances. It is connected via a crawlway to the larger Laboratory Cave, which we did not visit.

We continued via Cave #5, Pack Rat Cave, a small, new unnamed cave, The Chute (Cave #3), and Cave #2, where one female hibernating bat was noted. By this time, the light was beginning to get rather dim. This fact is reflected in my survey data, where it appears that I read the wrong end of the compass needle a couple of times (!). Thus, we quickly (perhaps as much as ten feet per minute in the difficult parts) made our way back to the trail, lighting the short hike to the car with our cave lights.

This area appears to have much potential for new discovery. The larger caves also need to be mapped. It might be appropriate to have a ouigee trip here in the summer, when everything wouldn't be so blasted slippery. In fact, perhaps this could be made one of our "official grotto trips".

THE PRE-THANKSGIVING CAKE WALK
(Alias Senger Talus Caves Trip)

by Stan Pugh

It was late Friday, November 21, when Rod called and asked if I would like to visit the Senger Talus Caves near Bellingham. It had been several months since I had been caving, so I agreed to pick Rod up at the museum Sunday morning. I had heard a lot about the caves, but never had found time to visit them. Rod painted an easy two mile hike to the caves.....sounded like fun!

Upon leaving Tacoma the radio weatherman said "20% chance of rain today"...and the skies did seem to be clearing. As I pulled up to the museum, there was Rod... insect bottle in one hand, cave pack in the other.

We had fine weather until we passed through Everett; then good ol' Mother Nature let it "all hang out" and the liquid sunshine came down in buckets.

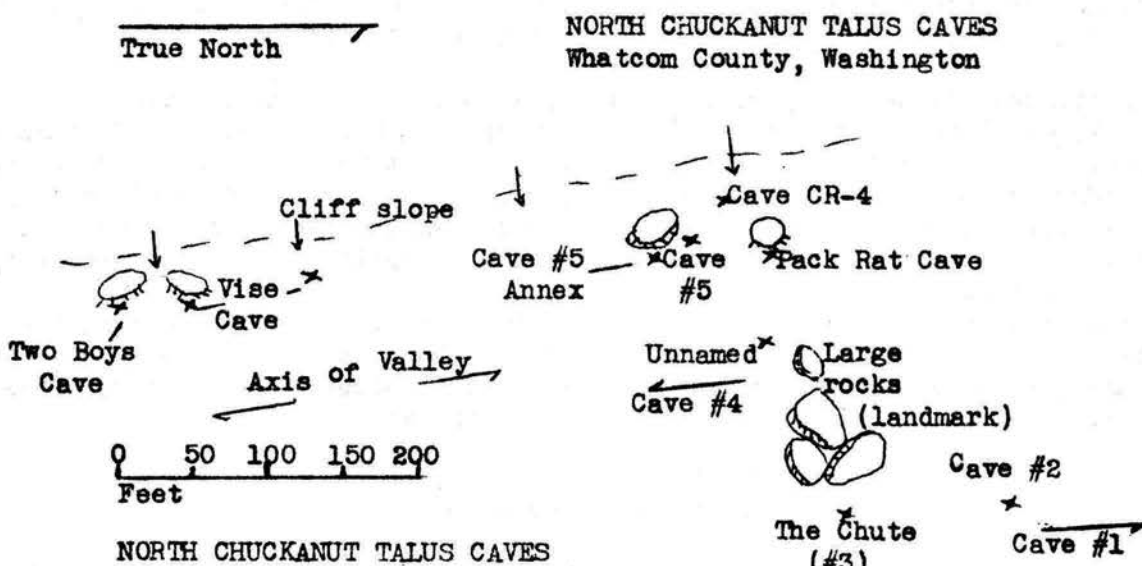
First, Rod inspected [and retrieved--ed.] some of his "pit falls" which were intended to catch spiders and small insects....would you believe shrews and salamanders??

As we started on the path upward, the rain showed no sign of stopping. Within fifteen minutes the toes of my boots had soaked through and by 30 minutes my H₂O repellent parka soaked through. The path had turned into a stream bed and by the time I had forded three rivers to my armpits, I was soaked through. It had now been an hour since we had left the car when Rod spoke, "Look, there's Lookout Rock. We're now over half way!" We continued to slish along for another half hour, when Rod said "This looks like the side trail to the talus area." "Good grief," I said, "that sounds like a big stream ahead." As we broke over the crest, I saw what looked like Snoqualmie Falls during the spring run-off. Rod quipped "maybe it will look smaller when we get down to it!"..."Then again, maybe I took the wrong trail." After crossing the snow line, we did find the trail and we did cross the stream with the help of a nearby log.

It was almost two hours from the car when we burst upon the talus area. There, before us, were these huge boulders...say 10 to 20 megatons each...piled on each other. Beneath them, some of the soil had washed away leaving some space suitable for hibernating moths, bats, and skunks. We spent an hour and a half crawling about in the main cave before deciding to head down the darkening fog-drenched slopes.

I don't know about you Alex, but I'll take the Cave Ridge trip on a sunny day any time.

* * * * *



NORTH CHUCKANUT TALUS CAVES
Partial Surface Traverse
(Reduced Scale)
1 November 1975
By R. Crawford, C. Senger, and C. Ross
Positions of rocks, etc. approximate.

Hells Canyon
26-30 November 1975

by Bill Capron
(as dictated to the editor)*

Ruthie and I, Curt Black, and Annie Ruggles left Seattle late Wednesday night and drove all night to Hells Canyon. We hit snow and put on the chains in the Blue Mountains. When we arrived, Thursday, no one was there.

As we waited, a car appeared carrying Dave Walker and Russ Turner. The four of us went on a little walk around the Flatiron, scaling measureless cliffs and what not. We set up camp and went to Hells Canyon Dam and looked--but it was getting cold and dark. When we returned to the campsite, four Idaho people had shown up: Jerry and Barb Thornton and two others. Then we all sort of crashed.

Ruthie and I got up the next day and wandered around until 1:00 in the afternoon when the other two in our party got up. Everyone but the four of us left to do some caves: Redfish, etc. Under Curt's excellent guidance, we later left for Redfish. We walked along the base of the Flatiron and the Idaho party called from the top for us to come up. We climbed up and wandered for over an hour without finding the cave. Finally, Thornton called to us again--we had walked right past the cave a couple of times. The entrance is inconspicuous. We saw an incredible amount of stuff inside--it's a perfectly horizontal, easy cave. When we got out it was dark outside. We scrambled down from the cave in the darkness, had dinner, and socialized around the campfire with the other turkeys.

In Redfish Cave we saw crickets, pack rats (and amberat), moths, and dead and live spiders.

All got up bright and early Saturday morning and began our assault on another cave. The trip up was breathtaking, with splendid views of the river and scrambles up ice-covered slabs of rock with various kinds of belays. We finally got to the cave and found it another incredibly pretty one--we spent lots of time taking pictures. We saw one bat. We also emerged from this cave in the dark, which was a little more serious since we were at the top of a cliff. We got down in spite of the darkness, but it was very amusing.

We had an invigorating meal and another campfire session.

Getting up Sunday morning, we found the beginning of a blizzard starting to cover our campsite. We quickly broke camp and slipped and skidded along the Hells Canyon road to the highway. When we reached 80N we heard reports of the highway being shut down behind us due to snow. Going by some interesting accidents and lines of people putting on chains, we passed through snow, rain, and wind, and finally arrived home.

No one from Oregon ever did show up at Hells Canyon.

Tenth Annual St. Helens Bat Expedition
28-29 November 1975
Clyde and Stuart Senger and Rod Crawford

by Rod Crawford

Clyde Senger began his study of hibernating bats in the Mt. St. Helens lava tubes during Christmas vacation, 1965, when about 300 bats were banded in Spider Cave. His first visit to Bat Cave was on Thanksgiving weekend, 1966, banding about 200 bats. With one exception, the caves have been visited every Thanks-

*Yr editor definitely does not recommend this method of writing trip reports.

giving since then, although no banding was done after about 1969 due to the possible deleterious effect of bands on bats. This year's visit was moderately successful, and enlivened with several adventures.

The trip from Bellingham through Seattle to the caves was uneventful. Upon arrival, we noted that snowfall was much heavier than last year. There was nearly a foot of snow at the Ape Cave parking area and more at higher elevations. So, we parked at Ape Cave and snowshoed 2 1/2 or so miles across country to Little Red River Cave, by which time the sun was setting. This was my first time on snowshoes, but after a few mishaps I finally acquired enough knack to move fairly rapidly. We warmed up on entering the cave. Proceeding down the main passage, the cave seemed almost barren of life; only one bat was noted, the stream searched for amphipods without success. On the way back, however, a small biota, including fungi, a campodeid, and small wingless gnats, were found under a single stick. Not far below the second ladder we were amazed to see a deer mouse running up the passage ahead of us! Not only that, but a second deer mouse was noted near the base of the first ladder. How and why these mice enter the cave, and what, if anything, they eat there, are mysteries. In the past, Dr. Senger has noted them in Ape Cave also, near both the upper and lower entrances.

Outside, the temperature was a chilly -6.5°C , or about 20°F . Plunging my hand into snow for a few seconds was enough to make it entirely numb until warmed. We had hoped to visit Spider Cave, where many more bats were expected, but decided that breaking a new trail in the dark would be unwise; so, we started back to the car by headlamp light. At one point Dr. Senger thought we should be near the Ape Cave upper entrance. He walked fifty feet to the east of our trail and there it was. It contained two (I think) bats and perhaps even more graffiti than last year.

We camped just outside Beaver Bay Campground, which was unexpectedly already closed. I made a good collection of harvestmen and spiders at the darkened camp restroom. The rest of the night was very cold, for I felt it a little even through my down bag.

In the morning, after drying my frozen-solid gloves and so forth, we cheerfully set out for the Bat Cave area. Driving in, we noted a strange anomaly-- a polite snowmobiler, the only one I saw on this or any other trip. None were observed off the roads, however. The dirt road had less snow on it than expected, so we proceeded to get stuck in the third or fourth mudhole. We were stuck from 10:00 to 2:00, which is very stuck, but impassioned spinning, jacking, chaining, prying, and log-stuffing finally extricated the van. Invigorated by our efforts, we hiked in to the cave area. In shady areas, forests of two inch long helictite-like ice crystals emerged from the ground.

Powerline Cave was 40.5°F ., contained two millipeds and no bats. We continued hiking through one to three inches of snow all the way to Dollar and a Dime Cave, which also had no bats, though harvestmen and both species of cave moths were collected. Nearby Column Cave was very icy and contained no visible biota. By this time, we were hiking with headlamps again. Following our footsteps back to Bat Cave, the snow surface was enlivened by tiny wingless crane flies, an unusual sight.

Bat Cave temperatures were: entrance -0.5°C (31°F); main fork, 0.0°C (32°F); halfway down lower passage, 1.6°C (35°F); end of lower passage, 2.5°C (36.5°F). 75 bats were noted, a great improvement over last year's 60. The population seems to be coming back. All are encouraged to keep up the good work by not visiting Bat or Spider Caves from October through April or disturbing any bats found hibernating in other caves. Twelve bats had bands, two from the original banding in 1966 (these Plecotus are more than ten years old!).

Snow was falling when we emerged and increased on our way out, but Stuart "Hawkeye" Senger found our old tracks with unerring accuracy. We hurriedly struck

camp in the still increasing snowfall. The chains were removed at the Beaver Bay Cafe in the expectation that the snow would become rain lower down. It didn't---it got worse. On the way down to Cougar, we spun out of control, fortunately going into the ditch rather than over the cliff. Luck was with us, for five minutes later two snowplows came along and pulled us out. We finally reached Seattle on a snowy I-5 after a continuous vista of stalled, skewed, ditched, and abandoned cars.

* * * * *

UNIVERSITY OF WASHINGTON DAILY

THURSDAY, OCTOBER 30, 1975

Sulfur warns of mudslide at Baker

By Mike Prager

A sulfur smell "strong enough to make you sick" was emanating from Mt. Baker's Boulder Creek during recent flooding, it was reported.

The flooding occurred a week ago Friday following heavy rainfall. The sulfur smell was detected by Forest Service road manager George Newell, who happened across Boulder Creek during an inspection of the area's roads and bridges.

Boulder Creek drains the side of the mountain that is directly under the steaming, active Sherman Crater, which is the site being studied by University and other scientists.

David Frank, UW geologist, speculates the smell may be related to this summer's increase in gas emissions from the mountain. Flooding apparently caused the sulfur outwash because the strong odor had all but disappeared the next day, Frank said.

The sulfur may have entered the stream in one of two ways, Frank said. First, the lake that formed in Sherman Crater this summer upon filling with rainwater may have broken the ice dam and flooded over the surface of Boulder Glacier and into the creek, he said. The lake contains dissolved hydrogen sulfide (H₂S), the rotten-egg-smelling gas.

But scientists who flew over the mountain last Thursday said there were no indications of a break in the crater lake's ice dam or evidence of water draining down the glacier.

Consequently, Frank said an increase in stream flow underneath the glacier following the heavy rains probably washed the sulfur gas from small steam vents (fumeroles) under the ice. Boulder Creek proper is fed by a stream that flows beneath the length of the glacier down from Sherman Crater and the lake in the crater.

As to the larger question of an eruption or a mudslide on Mt. Baker, Frank

said an eruption is unlikely but that a mudslide is increasingly possible.

"If anything, as the thermal activity within the mountain continues and the rock becomes progressively altered (consequently), the danger (of a mud slide) continues," Frank said.

"It seems likely if a slide were to occur something would have to trigger it," he added. An earthquake, or a clogged steam vent could trigger a slide of large proportions.

Since Mt. Baker is composed of various rock layers, the slide could start on a site deep within the mountain, probably where heat and gas have weakened the structure, Frank said.

A surface-type slide could be triggered by a break in the ice dam which holds back the water in Sherman Crater. A slide combined with large volumes of water could be extremely destructive, Frank said.

The seismographs, gas analyzers, thermometers and other equipment on the mountain, which are being monitored here, have shown no significant changes, Frank said.

* * * * *
PLAN NOW FOR 1977 MEETING IN BRITAIN

---William R. Halliday, M. D.

The 7th International Speleological Congress will* be held in England in September, 1977. An executive committee has issued an enticing first circular: "...Sheffield will be the main centre...we shall.. show you South Wales and the Mendips, Devon, and the Republic of Ireland... Above all we hope you will enjoy yourselves."

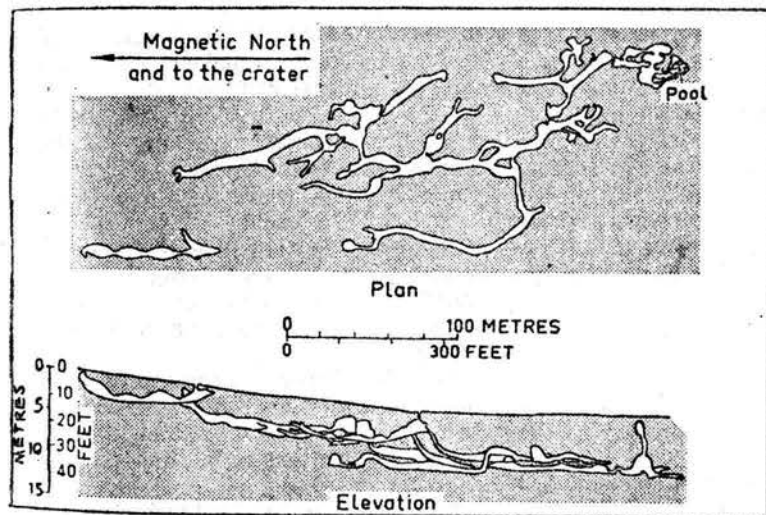
Formal papers will be at the Sheffield University Conference Centre September 11-16. Evening entertainments and a film competition are scheduled. Before and after the formal session will be a variety of excursions, symposia, and caving camps "to provide visiting cavers with the opportunity to see and enjoy some of Britain's finest cave systems in company with experienced local cavers." Four guidebooks and two volumes of proceedings are planned.

This will be a tremendous opportunity for American and Canadian cavers and everyone interested should request a copy of this first circular as soon as possible from:

The Secretary, 7th International Speleological Congress
B. E. C. Travel Ltd.
63 Dunkeld Road, Ecclesall
Sheffield S11 9HN, England.

Ollier, Cliff, 1969. *Volcanoes*. Cambridge, MIT Press, 177 pp. Paperback currently on sale at U. W. Bookstore for \$3.45.

Pp. 61-63. "Lava caves, also known as tubes, tunnels, and caverns, are caves inside lava flows, formed not by erosion but as primary features of the flow (fig. 21). They are elongated in the direction of lava flow, and may be up to several miles long. The longest continuous network of completely underground tunnel in Australia is that of Mt Hamilton, Victoria, with a total surveyed length of 950 m (Fig. 21). Some lava caves in Iceland, Hawaii, and Washington, U.S.A., are said to be many kilometres long, and some collapsed lava caves in Queensland can be traced on air photographs for several kilometres.



21 Mt Hamilton lava cave, Victoria: plan and elevation

Actually the mechanism is very much more complicated.

...The lava lining of a cave may be liquefied, usually by hot gases filling the cave when the original contents are drained out. This liquid drips, and may solidify to form lava stalactites. These may be up to a metre long and may be smooth and shiny, or vesicular and rough. Lava that drips to the floor may form lava stalagmites. These are rarer than stalactites, and no good examples have been found in any of the Victorian lava caves, though some very good specimens occur in New Zealand lava caves. The lava usually appears to solidify somewhat during its fall, and many lava stalagmites are made of agglutinated driplets, and do not become smooth. In many caves dripping lava probably falls onto a still liquid floor, and is simply incorporated in it.

..."Some lavas flow and solidify in a complicated manner, giving rise to various features such as layered lava, lava caves, and stony rises. In this kind of flow the partly congealed lava appears to undergo laminar flow, with individual layers separated by partings and vesicles, and by still liquid lava...The liquid lava becomes further segregated and comes to occupy cylindrical tubes running through the layered lava. The tubes are completely full of liquid which exerts a hydrostatic pressure, so the tunnels can change levels at times and flow upwards for short stretches...Solidification and remelting, flow and pressure effects, are all working together. The result is a cylinder of liquid lava flowing through tubes cut in virtually solid layered lava. In confined valley flows there is likely to be just one main tube; in extensive spreading flows there may be a branching and anastomosing network...Cross-sections of totally filled tubes are occasionally seen. Alternatively the lava may be finally drained away...If the roof is sufficiently strong a cave will be preserved."

An active lava tunnel, 2 m high, was observed during the 1963-5 eruption of Lopevi, New Hebrides (Warden, 1967). Concentric "skins" tended to break off the roof and walls, and the lava tunnel was seen to continue as a laval channel where the roof had collapsed. In many lava caves there is further collapse of the roof when the lava is cold, producing closed depressions, channels, and natural arches.

To express the matter simply, lava caves are formed by the withdrawal of still liquid lava from beneath a solid lava crust.

THE BIOLOGIST'S CHAMBER

This month, the Chamber features the following clipping from the Modesto (CA) Bee, Sept. 7 1975, C-1.

by Thorne Gray

Scientists undertake unique mission: transplant "spider" colony from cave

"Watch out! Rattler."

But the snake slithered into a crevice at the approach of amateur scientist Thomas Briggs of San Francisco and his associates.

After thinking it over for a moment, Briggs lowered his equipment into a small opening in the steep southern mountainside of the South Fork of the Stanislaus River, near Columbia.

Then he slipped through the hole himself, feet first, trusting the snake had gone elsewhere, and fumbling for a foothold below.

He was followed by Bob Lem, a San Francisco entomologist and Briggs' assistant, and Robert Martin of the US Army Corps of Engineers.

The rattlesnake was nowhere to be found. "He'll get away from us," said Lem, Reassuringly.

Flashlight beams vanished into the darkness down the long, horizontal mine shaft as Briggs, Lem and Martin shouldered their loads and headed in, following the twin rails of a mine cart track. The low ceiling forced them to duck here and there, and water dripped from the ceiling onto their miner's hats.

They were on a strange, perhaps unique, mission, at least in the annals of the Army engineers — transplanting a whole colony of endangered daddy longlegs and their brethren from a natural Stanislaus River cave.

McLean's Cave, downstream on the South Fork, is destined to be inundated some of the time when New Melones Dam is completed and the reservoir is full. The \$264 million dam is expected to be completed in 1979.

An associate of the California Academy of Sciences, Briggs discovered a previously unknown

species of daddy longlegs, also known as harvestman, in McLean's Cave in 1972, and drew from the corps a promise to transplant the arachnids before the lake drained them.

The harvestmen also were found in McNamee's Cave, near McLean's Cave, and subsequent studies have proven McNamee's Cave will not be inundated by the reservoir.

But, at a cost of \$2,450 to the corps, Briggs has proceeded to transplant the harvestmen from McLean's Cave to the abandoned mine, on property owned by the US Bureau of Land Management.

Along with the harvestmen, he is toting rocks, dirt, pieces of wood, some fungi, and a host of other insects including blind spiders, pseudoscorpions, millipedes and isopods.

The creatures have lived, perhaps since the oceans receded from the Sierra Nevada slopes, in total darkness and isolation, feeding on moisture and the tips of roots which penetrated the cave, moving entirely by touch.

In the glare of flashlights and miner's lanterns, they move slowly except when the suddenly curl into tight, defensive balls. They are living relics of the ancient past, Briggs explained as he emptied them out of little traps he and Lem had set on a previous visit.

Most likely, the creatures moved into the cave to escape some alteration in the outside environment. There, they adapted to darkness and silence, but otherwise have not changed. They have not been able to breed with surface species, or even with the species in other caves.

Briggs specializes in harvestmen, and frankly has no idea whether the other creatures he is transplanting might be rare species. If they are, he hopes they will survive for someone's later study.

McLean's Cave is entered through a newly installed gate, locked by the corps with permission from the private property owner. The opening is tiny, and there follows a steep descent into pitch blackness.

The harvestmen and other creatures live just beyond the twilight zone, where the limestone walls sweat water. Farther down, the cave branches into damp levels, passageways, twists and turns, decorated with stalactites and stalagmites, spagehitti-like helictites and formations which speleologists call draperies, because that is what they look like.

The mine is vastly different, hewn from solid rock by a man who carved his initials, R.K., in the wall in 1925 and again, deeper into the mountain, in 1926.

Martin said the corps has been unable to learn how successful the mission was or why it failed, but years of disuse have almost turned it into a cave. Water drips through the rocks, and tiny limestone deposits are growing there. The mine floor is covered with white "cave coral," a powderlike surface which is hard, like wet sugar. Cave pearls nestle here and there — round, mysterious limestone marbles in groups, like nested eggs.

Prior to introduction of the harvestmen and their transported habitat this summer, nothing lived in the cave, save perhaps the rattlesnake near the entrance.

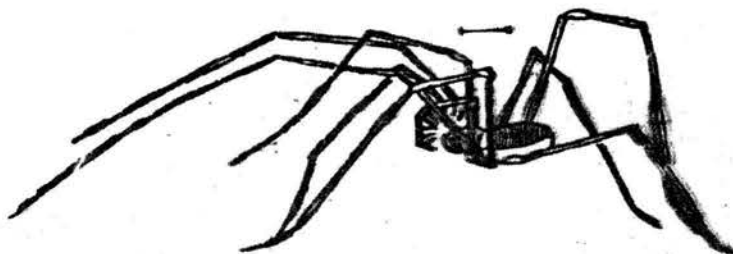
But conditions seem nearly identical to the original harvestman habitat, Briggs said. The temperature is constant, 60 degrees, water drips down but hopefully will not flood the little colony. The air is fresh, there is no light, no noise, almost no visitors.

In all, Briggs, Lem and Martin have moved about 20 harvestmen, carefully shielded in Styrofoam containers during the short, rough ride.

Without turning the new habitat over, they cannot be certain all the creatures are alive. But they believe they are, and some certainly have lived a few months in their new home.

Briggs set more traps in McLean's Cave, and undoubtedly will move more creatures if he can catch them, but officially the transplant process is over. Evaluation is next, a process expected to take at least a year, through all the surface seasons.

If the transplant works, Briggs said they will have a double chance of surviving, in their natural habitat at McNamee's Cave and in the mine.



* * * * *

HUGE NEW LAVA TUBE CAVE IN KENYA

by J. W. Simons
(in a letter to W. R. H.)

You may perhaps read in the CEG Newsletter of our most recent lava tube discovery in the Chyulhu Hills - what I am calling LEVIATHAN. This tube is Kenya's longest cave to date and already ranks with the world's longest. A revised estimate after a 3-day visit on October 18-19 gives us just under 4 miles, but still continuing (?). The vertical range (by altimeter) in the central two miles is 770', not far short of the record at Tenerife's Cueva de los Breveritas (870'), which we shall easily surpass, and may perhaps reach 1000'. This is a very exciting discovery.

I should add that so far there are six collapse holes over the length of the cave. These, however, all occur over the upper level of the cave, the lower level being continuous underneath, so that it is not necessary to link each section by passing through a daylight zone. All but the sixth collapse is so far linked in this way; but we have hopes that a dig through a boulder talus will provide a similar link there. I say that the tube is continuing--the sixth collapse provided entry into a continuation of the cave beyond the talus choke from the surface, and this part was explored on our last morning for circa one mile before time ran out. The tube was still thirty feet in diameter.

Aerial photos suggest, assuming my interpretation is correct, for the area is deeply forested, that there may be a further five collapse holes over another 3 3/4 miles, in a straight line! Assuming that these are collapses and that we could link them, then we could conceivably have a tube in the region of eight miles in length! What is more, a collapse leading into a parallel cave was also located nearby, but time did not allow exploration; and there appears to be a similar line of collapses, two miles in length, a few miles to the north and apparently in the same lava flow. All these have yet to be examined.

LEVIATHAN is now proving to be a difficult cave to explore owing to supply logistics, as all water, etc., has to be packed over three miles, and the lower down the flow we get, the forest gets more difficult to penetrate. The cave contains some fine lava falls, the highest a vertical climb of twenty feet, and quite a few secondary stalactites. At long last Kenya has a real cave. I am now thinking of approaching local newspapers and companies to see if we cannot get sponsorship for a full scale assault on the area.

CASCADE GROTTO MEMBERSHIP
December 1, 1975
Compiled by Chuck Coughlin

		Expires
Anderson, Chas. P. O. Box 12659, Seattle WA 98111	(days) 622-3848	1-76
Broadus, Jerry 10019 Issaquah-Hobart Rd, Issaquah WA 98027	392-7944	9-76 (S)
Brown, Bob P. O. Box 2, Elbe, WA 98330	(206) 569-2724	7-77
Brucker, Ellen 1432 36th Ave. E, Seattle WA 98122		8-76
Cady, Dr. Greg 5241 16th Ave. SW, Seattle WA 98106	763-0858	6-76
Campbell, Newell 6605 N Apple View, Yakima WA 98902	(509) 966-1516	3-76
Capron, Bill 5117 Ravenna Ave NE, Seattle WA 98105	525-2260	11-75
Byrd, Ken c/o Dept. of Antropology, Univ. of Wash. Seattle 98195	634-1088	10-75 (A)
Cabell, Wayne Rt. 7, Box 686, Olympia WA 98506	(206) 491-6219	6-76
Coughlin, Chas. and Mary 6433 S. 127th Place, Seattle WA 98178	772-1170	6-76
Crawford, Ed 5221 36th Ave. NE, Seattle WA 98105	522-1203	5-76
Crawford, Rod Burke Museum (DB-10), Univ. of Wash., Seattle 98195	543-4486 eves.	6-76
Jones, Dave 3202 Grand Ave., Apt. 2, Vancouver WA 98663	695-2671	10-75 (A)
Halliday, Dr. Wm. and family 1117 36th Ave. E, Seattle WA 98112	EA4-7474	3-76
Harter, Russ 2801 Sanborn Ave., Venice CA 98291		6-76 (S)
Kiver, Dr. Eugene c/o Geology Dept., E. W. S. C., Cheney WA 99004	(509) 235-6448	6-76
Larson, Chas. 13402 NE Clark Rd., Vancouver WA 98665	(206) 573-1782	9-76 (S)
Library of Congress Washington, D. C.		6-76 (S)
McKinney, Kay 1442 Rainier Drive, Tacoma WA 98466	565-1627	8-76
McTigue, Larry 2719 Meadow Ave. N, Renton WA 98055	255-3406	8-76
Miller, Chris P. O. Box 80143, Georgetown Station, Seattle WA 98108	R02-7585	9-76
Mundt, Ruth 12412 42nd Ave. NE, Seattle WA 98155		11-75
Nelson, Les 9425 27th Ave. NE, Seattle WA 98115	LA3-6654	5-76
Ohio State Univ. Library Serials Div. 1858 Neil Ave, Columbus OH 43210		3-76 (S)
Olsen, June 1218 Emerson Ave., Salt Lake City UT 84105		6-76 (S)
Pugh, Stan 2521 N. Proctor, Tacoma WA 98406	SK9-6211	3-76

Ramsey, Hank 23235 10th Ave. S, Des Moines, WA 98118	TA4-1807	7-76
Roberts, Jan 5706 236th SW, Mountlake Terrace WA 98043	PR8-8503	12-75
Rockwell, Julius, & family 2944 Emory St., Anchorage, AK 99504	(907) 277-7150	3-76
Seattle Public Library Serials Division, 1000 4th Ave, Seattle WA 98104		7-76 (S)
Senger, Dr. Clyde 1103 Yew St., Bellingham WA 98225	734-1360	11-76 (S)
Sproul, Alex 699 Towne Center Dr., Joppa, MD 21085	679-6619	7-76 (S)
Staley, Dr. James Dept. of Microbiology (SC-15), U. of Wash., Seattle	98195 543-6646	10-76
Tada, Colleen 9827 NE 14th, Bellevue WA 98004		12-75 (S)
Taylor, Edmund 139 Main Entrance Dr., Pittsburgh PA 15228		9-76 (S)
Torkelson, John 2008 SE 16th Ct., Renton WA 98055	852-0195	8-76 (S)
Tower, Robert P. O. Box 20, Mercer Island WA 98040	232-0377	9-76
Tubbs, Don 4034 12th Ave. NE, Seattle WA 98105	ME2-7048	6-76 (A)
Turner, Russ 10214 Lakeview Ave, #40, Tacoma WA 98498	588-9671	9-76
Unger, Bruce Computer Sci. (FC-10), U. of Wash., Seattle 98195	523-8988	12-75 (S)
Univ. of Wash. Library Serials Division, U. of Wash., Seattle 98195		6-76 (S)
Walker, Dave 3860 W. Mercer Way, Mercer Island WA 98040	232-1698	4-76
Walsh, Wallace 1075 Terrace Drive, Snohomish WA 98290	(206) 568-5936	4-76 (S)
Washington State Library Olympia WA 98604		6-76 (S)

Key: S - Subscribing; A - Associate

REFERENCE LIST OF RECENTLY LAPSED MEMBERS

		Date Lapsed
Benedict, Earl and Ellen 8106 SE Carlton, Portland OR 97206		Sept.
Black, Curt 5117 Ravenna Ave. NE., Seattle WA 98105	525-2260	Sept.
Cunningham, Tom 119 N 193re St., Seattle WA 98135	546-3410	?
Walters, Doug 10402 Montrose Ave. SW, Tacoma WA 98499	JU4-4699	April
White, Mary 1310 NE 134th St., Vancouver WA 98665	573-3783	Sept.

1975 GROTO OFFICERS

Chairman: Curt Black
Vice-Chairman: Robert Tower
Secretary-Treasurer: Chuck and Mary Coughlin

№ 64-645/1886-6 29/XI- 1974

Dear Sirs,

The Institute of Scientific Information of the USSR Academy of Sciences publishes... series of the Abstracts Journal dealing with the major fields of science and technology. We receive more than 22 000 journals published in 113 countries of the world. We are trying to supply our readers with maximum information about the latest achievements in science and technology. Therefore we kindly ask you to send us free of charge a specimen copy of your publication

Cascade Caver

direct to: The Institute of Scientific Information, Baltiyskaya ul., 14, Moscow A-219, USSR.

Your journal will be studied carefully with the view of reviewing it in our Abstracts Journal. This will give your publication widespread publicity.

Thank you in advance.

The Institute of Scientific Information
The USSR Academy of Sciences

Doc. 3162

The postcard reprinted on the left was received a few months ago. We reprint it here to demonstrate to our readers the vast notoriety that has befallen the Cascade Caver.

We have not yet responded to the request, however.

---ed.

* * * * *



* * * * *

GLACIOSPELEOLOGICAL ABSTRACT
by W. R. Halliday

From Balch, Edwin Swift, 1900. *Glacieres, or Freezing Caverns*. Philadelphia, Allen, Lane, and Scott. Reprinted 1970, with a new introduction by William R. Halliday. New York, Johnson Reprint Company.

Glacier Ice Cave in the Fee Glacier:

"During a rather protracted stay at Saas-Fee in Switzerland, I visited the glacier ice cave of the Fee Glacier on the 15th and 16th of August, 1897, both cool and rainy days...about a half-hour's walk from the hotel to the ice cave, which is in the snout of the Fee glacier, below the Eggfluh. A considerable stream issued from the cave...a strong cold air current poured out above the stream. At the front edge of the ice, the height of the ice roof in the centre was perhaps 12 metres and the width 15 metres...the roof formed an almost perfect curve. The ice walls contracted in a regular manner within, and the cave became narrower and lower, and suggested an enormous funnel cut into half, into which you looked from the larger end...darkness prevented seeing further than a (over)

depth of some 15 metres. In the ice walls, just inside the entrance, were several crevasses...they followed nearly the same curve as the roof, but did not go through to the outside...while I stood in front of the cave, a large lump broke off from the roof and fell with a clatter among a lot of other ice fragments already on the moraine floor."

"This is perhaps the glacier cave in Switzerland which is easiest to visit."

* * * * *

EDITORIAL

Yr editor expresses great displeasure with the way business is conducted by this grotto, as exemplified by the last meeting (see p. 122 for other details.).

I feel sure a number of people among our readers don't much like the new dues. Keep in mind, however, that only three more dissenting votes would have defeated the raise. What were you doing the night of the meeting? Whatever it was, is it worth \$1.50 more a year to you? Do you really think it's a good idea to have such things (as well as nominations) decided by fifteen people?

Trip reports had to be left out of the meeting because it was running too late. The reason for this was that the business took such a long time, over an hour in fact. The reason a half hour's business took twice as long as it should was that half the people there, regrettably including officers, were carrying on private conversations almost the whole time; interrupting members who had the floor; and generally demonstrating a high nuisance value. Admittedly, we don't want our grotto to become as topheavy with formality and non-caving business as some others. But those who dislike such matters should realize that it will be over with much sooner if they help it along, rather than hindering it at every turn. One potential new member who planned to join at this meeting decided that he'd better wait a while before deciding because of the poor organization; and truly, a chaotic business meeting is an unnecessary misery. We could have used that six dollars! Can't we try to do a little better?

The editor.

THE CASCADE CAVER
300 Hub (FK-10) Box 98
University of Washington
Seattle, WA. 98195

