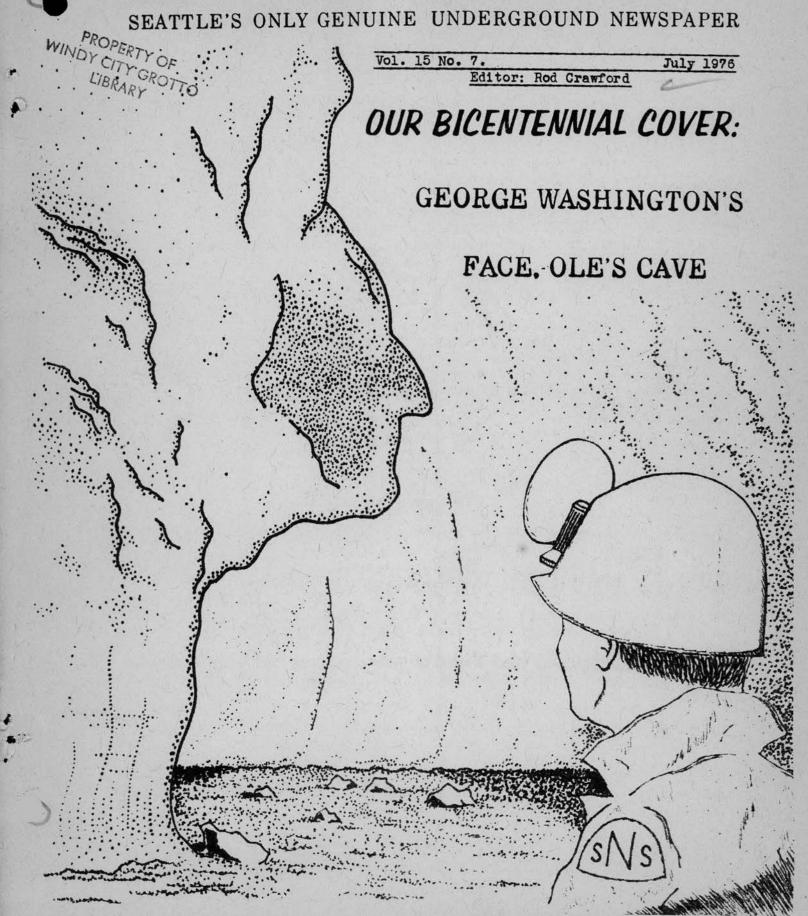


THE CASCADE CAVER!

CASCADE GROTTO N. S. S.





THE CASCADE CAVER is published ten times a year by the Cascade Grotto of the National Speleological Society. Subscription rate is \$4.00 per year. Full grotto dues of \$6.00 includes a subscription to the quarterly Northwest Caving. All payments should be made to the grotto treasurer, Chuck Coughlin, 6433 S. 127th Pl., Seattle Washington 98178.

COMING EVENTS

July 16, Friday. 7:00 PM. Oregon Grotto Meeting at the Trout Lake Campground-all others invited. The Nieuwenhuis' are probably going (631-4768). Caving all weekend of course.

July 19, Monday. REGULAR MEETING at the Hallidays'. 8:00 PM, 1117 36th Ave E. A report on the recent Windy Creek Cave trip will be featured.

July 20-21. Mt. St. Helens trip with Greg Cady (784-6608) and Rod Crawford (543-4486). Room for one more.

July 24-25. Tentative Trout Lake Trip (only if the Randle road is open). Call Bob Brown in Elbe, (206) 569-2724, or Rod Crawford.

Paradise Glacier Cave--Almost every weekend. Call Charlie Anderson at work, 622-3848.

August 1. DEADLINE for the August Cascade Caver.

Early August. Black Mountain Pits (karst), Whatcom Co. Call Jan Roberts, 778-8503.

Windy Creek Cave. Call almost anyone.

Late August. Mt. Rainier Steam Caves. Call Bill Halliday, EA4-7474.

August 16, Monday. Regular meeting, same time, same station. Featured will be a selection of Charlie Anderson's beautiful slides of Southwestern caves.

August 28-29. Official trip to Cave Ridge. Contact Chuck Coughlin, 778-1170.

NEW ADDRESSES

Greg Cady 1223 NW 95th, Seattle 98117 784-6608 Clarence Hronek 4245 Brant St, Vancouver BC

NEWS AND NOTES

The map of Gremlin Cave on p. 68 should have been credited to Speleograph, January 1976 issue. * * * * * * *

Thank to Hank Ramsey for invaluable aid in printing and transporting this issue. Maybe YOU can be the one next month---do you suppose?

If anyone wants some Gibbs ascenders, tell Bill Capron about it soon as he is about to order some for the store (see back cover).

Bill Halliday is looking for suckers to help remap Ape Cave, including side passages and upper levels, in hopes that it will surpass the Duck Creek Lava Tube after all.

The Independence Day trip to Windy Creek Cave was a failure, but a repeat the following weekend was successful. Details at the meeting.

April VICEG NEWS has as cover the newly-completed map of Coral Cave, Tahsis, Northern Vancouver Island. The cave is 1455 m long (4774') and 103.5 (340') deep. * * * * * * *

FEATURE:



Cuerta del Viento
Sera de les Viens (Euroripi)
Sera de les Viens (Euroripi)
Seram de Eparaciones Vialencones espeladoques de Los Seram de Eparaciones Subbaccones (125) co la 165 Lecula Serfica (125) co la 165 Lecula (

Cueva del Viento

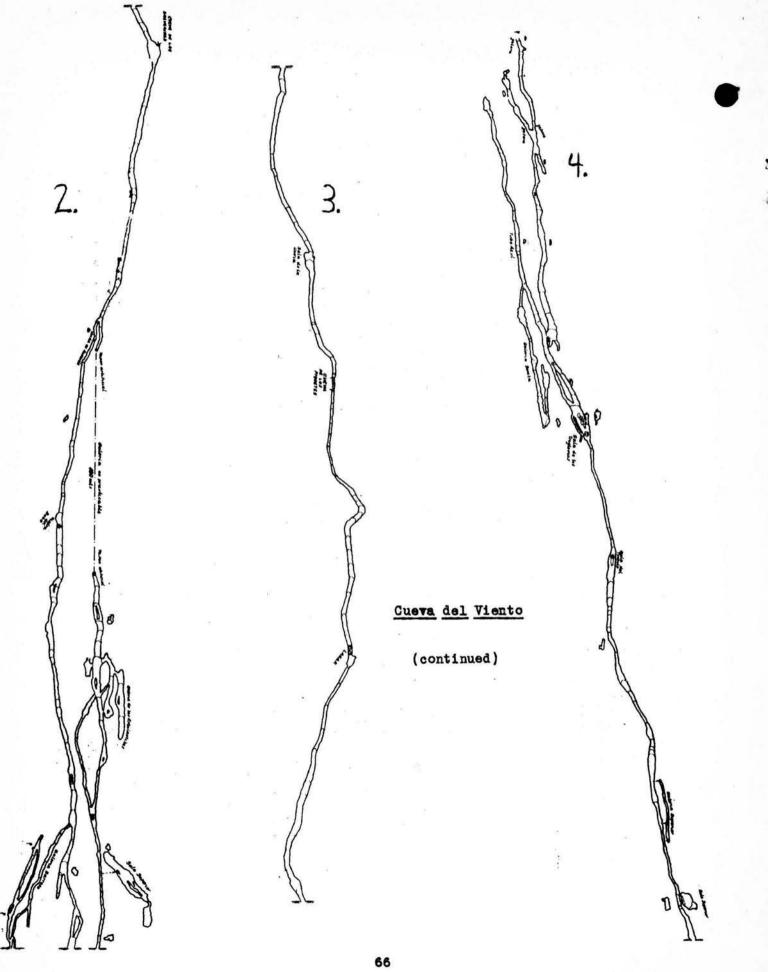
This cave, located in the Canary Islands on the island of Tenerife, certainly ranks with the world's longest lava tubes.

The map which appears on this and the following page was so large it had to be divided into four sections.

The map shows not only Cueva del Viento proper, but also Cueva de los Breveritas, a separate cave in the same tube system. The length given, 6,181 m or 20,280 feet, is the combined length of the two caves.

The scale of the map as reproduced here is about 1:2,860.

The cave, it will be noted, is so complex that there are several passages that are yet unexplored.



TRIP REPORT SECTION

Fumerole Eludes Grotto Searchers June 19, 1976

by Chuck Coughlin

The Lost Fumerole of Mt. St. Helens has again eluded search efforts of the Cascade Grotto. The fumerole which is allegedly located several hundred feet above Goat Rocks on the north side of the mountain was not visible from the summit crater. High winds may have dissipated any steam vapors, making location impossible.

Grotto members Russ Turner and Chuck Coughlin made the climb in 9 1/2 hours. Pakawon Duvall guarded equipment at base camp near the top of Dog's Head. An added attraction of the trip was a high speed 2000' glissade.

Recent Trips to West Tiger Mountain by Rod Crawford

On June 26th Wes Grandstaff and I made the short trip over to West Tiger Mountain, near Issaquah, with Chris Miller and his two friends Bob Kenner and Alex Vdoleck. Alex was to be our guide to Warth's Cave, a small fissure cave on the north ridge of the mountain.

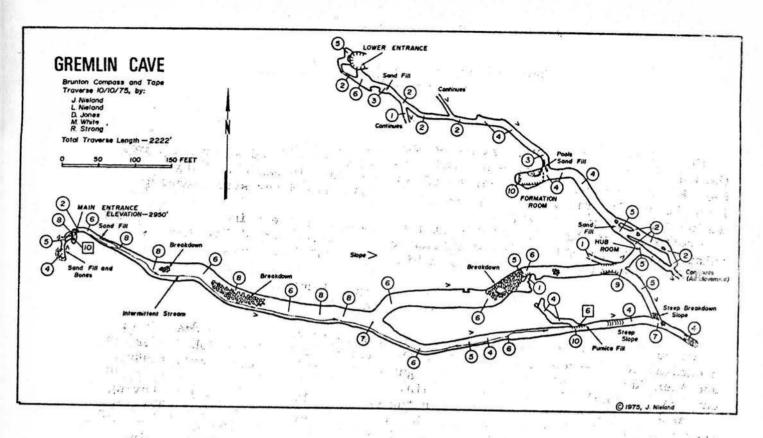
Warth's Cave was first reported in the Caver in 1973 [12(5):13] as having been recently discovered by John Warth. Chris had been shown it by Alex once before the present trip--probably, he thinks, about January 1974.

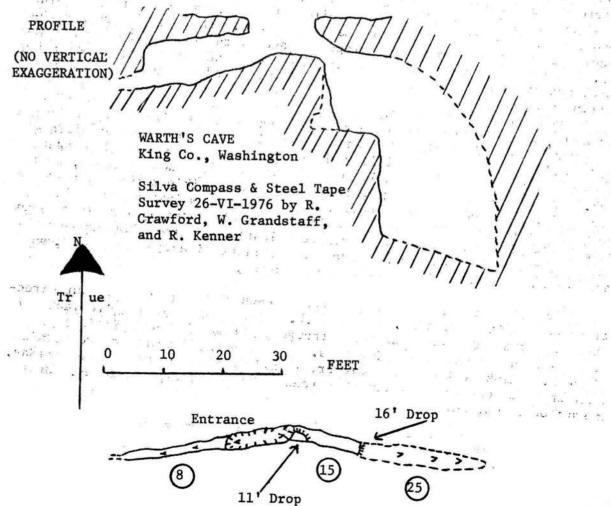
After torturing Chris's car with miles of steep, narrow, rutted logging roads, a half hour's hike brought us to the cave. It is a fissure perpendicular to the narrow ridge. Average passage width is about two feet. The west passage has a 10' and a 16' drop, the latter needing a rope. We had a rope, but no ascenders. Chris went down anyway, and had great difficulty getting back up.

The rest of the day was spent looking for a talus deposit on the same mountain containing three known caves. We had some old directions relating the area to an old logging road and proceeded to hike a couple of miles of such roads. We also had Chris's walkie-talkies so that we could separate without losing each other. Well, we not only didn't find the caves, we lost Bob. Hours were spent trying to raise him on the walkie-talkie over the din of local CB operators. Finally, we contacted him just after dark. It seemed that he had fallen down a ravine, broke his antenna, lost (but later found) his glasses, and gotten completely lost. He walked down another ridge of the mountain and was headed in the right direction when he found another antenna (!) and regained radio contact.

After this fiasco, I decided a little research was in order. Our directions were written in 1951, and the U.W. Library has aerial photographs of the area taken in 1942. Surely, I thought, a road that was old in 1951 would show up on the older airphotos. Sure enough, I found one we hadn't checked. Thinking I was very clever, I enlisted Hank Ramsey and on Friday, July 2nd, we went to check out this road. But no caves. No talus. Just mosquitoes. Oh, well.

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Gremlin Cave, July 4 by Rod Crawford

Participants: Wes Grandstaff, Stan, Nancy, Brad, and Scott Pugh, Luurt and Jeanette Nieuwenhuis, and yr ed.

This trip was a second-choice decision for those who preferred to wait until Washington Monument was a little less snowy. At first, it appeared that the Mt. St. Helens area would be rainy, but we were saved—the weather was actually very nice. And we got away from Tacoma almost on time (only an hour late).

I had some directions to Gremlin Cave but they proved to be somewhat out of date. Fortunately, Luurt had been to the entrance once and was able to find the right area with no difficulty. But he was forced to give up on finding the entrance, about three minutes before I found it. The women and children departed for Ape Cave while the rest of us descended into the depths.

The main entrance of Gremlin Cave is a curious-looking ten-foot pit that bells out into a small room. We had brought a ladder for this pit but didn't need it, for someone had built a wooden ladder there, so new that some branches had unwithered green twigs. Two little holes in the floor of this room lead downward into the main tube level. Gremlin is a moderately complex cave with many interesting features (see map). Some of these features were the subject of photography by Luurt and Stan. Wes and I checked out one unexplored crawlway (unexplored for good reason!), where Wes added about 150' of passage before the passage became mouse-sized. Luurt and Wes left via the crawlway lower entrance while Stan and I returned to the pit. We might have been first out if Stan hadn't had to stop to recarbide. This was Wes's first wild cave, not counting Warth's, and I think he properly enjoyed it.

Temperature of the cave was 40°F (4.4°C).

The next hour was spent looking for Utterstrom's Caves. Someone is going to have to give us better directions.

After picnicking at the Lava Cast area with the whole party, Luurt literally ran Stan and Wes through Upper Ape Cave-most of the way to the upper entrance and back in 90 minutes! Feeling lethargic, I spent the time collecting spiders and looking for Hopeless Cave, which I found.

tAnd we even got Stan back to Tacoma in time for the fireworks.

Satsop River Limestone by Rod Crawford

In a State publication, W. Rau* states that a limestone bed "some 100 feet thick" can be traced about a quarter of a mile along strike SSW from the East side of the West Fork of the Satsop River, just south of the mouth of the Little River. The outcrop is in T21N R7W S27. It is one of the few significant limestone bodies in the Olympic Peninsula.

Being in the area on a spider collecting trip on July 12, yr editor decided to take time cut to examine it. To reach the area, one must ford the knee-deep Canyon River, hike a mile on a jeep trail, and another mile across country. The area is old second growth, beautifully free of recent signs of human activity. The limestone crops out in a series of low cliffs along the east side of the river. I traversed the base of these cliffs completely and ridge-walked above them, but saw no sign of karst or solutional activity of any sort.

* Reference: Rau, Weldon W., 1966. Stratigraphy and foraminifera of the Satsop River area, southern Olympic Peninsula, Washington. Wash. Div. Mines and Geol. Bull. 53.

EDITORIAL

Recently, a very regrettable tendency has emerged in our grotto, one which might be termed "isolationism". Many members go caving primarily with their family and close friends. The either actively exclude others, or do so passively by neglecting to call people about trips or announce them in the Caver. Some members have secluded themselves completely from other cavers with the avo wed intention of "only caving with their friends". In one recent instance, a member who shall be nameless moved and actually refused to divulge his new address to his fellow cavers.

This tendency is very discouraging to the new caver who has no close friends or family in the grotto. It may explain, in major part, why in recent times a number of new people have dropped out after one year's membership, while others have attended a few meetings and then decided not to join. And the question arises: what's a grotto for, anyway? When the Cascade Grotto organized in 1951, the first members were able to list 28 caves in Washington-some of which are still only rumors. Now the total shows over 300 known, authenticated caves, with the number steadily rising. Teamwork is the only basis for this desirable state of affairs. I feel sure that in the absence of organized caving, any Washington cavers would even yet be floundering along with at most 50 or so caves. The current membership reaps the benefits of the knowledge of those 300 caves gained during the Grotto's quarter-century, but many of the members don't seem properly appreciative. If it weren't for the Grotto, these persons would be profoundly restricted in the scope of their caving activity--but what does the Grotto get from them (besides their dues)?

I suggest that the following two simple steps be taken by all cavers in or associated with the Cascade Grotto:

1) Make a positive effort to go caving with other Grotto members, expecially new ones.

2) Contribute something--anything--to the <u>Cascade Caver</u>. If I don't receive substantially more material for the next issue than for this one, it may turn out to be six pages long.

The Editor

NWRA CONVENTION PLANS

The April VICEG News has an announcement and program for the long-awaited NWRA Convention at Nakimu Cave, Glacier National Park, between Revelstoke and Golden, B.C.

September 4-6 are the planned dates.

Mileage from Seattle to Revelstoke is 409 miles via the shortest possible route. This route passes through Bellingham, Washington, and Hope, Princeton, Penticton, and Vernon, B.C. For comparison, the highway distance from Seattle to Riggins, Idaho (Papoose Cave) is 490 miles. Nakimu is supposed to be even bigger than Papoose—a real limestone cave—and in addition has in effect been closed to the public for some time. The cave is both vertically and horizontally complex. Papoose veterans, other hardened limeys, and all should certainly take this opportunity to visit another sizable limestone cave. The group will gather on Saturday the 4th at Mountin Creek Campground, some 20 miles east of the cave. Expected charges are 50c per person per night. Saturday night the cavers will meet with the Parks Canada people. Sunday will be devoted to caving and Sunday night will be a "bring your own steak" barbecue. Address all correspondence about the convention to: Phil Whitfield, 521 West Innes Street, Nelson BC VIL 3J2, Canada.

THE BIOLOGIST'S CHAMBER: Snails and Slugs by Rod Crawford

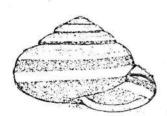
Snails and slugs are gastropod molluscs -- soft, unsegmented animals with a large "foot" adapted for crawling; two pairs of tentacles in front, the upper pair bearing the eyes; and normally the rest of the body enclosed in a coiled, limy shell. All the species to be found in Washington belong to the Pulmonata, a group whose members breathe air by means of a single lung, not derived from the gills of oceanic snails. The lung opens at one side of the mantle, an organ covering part of the dorsal surface and secreting the shell (see drawings).

Most snails feed on plants or microorganisms, breaking up their food with a long rasplike organ called the radula. The digestive tract is twisted so that the anus is at one side in front. They move by the creeping motion of the large muscular foot, which bears slime glands. The slime aids both in lubrication and

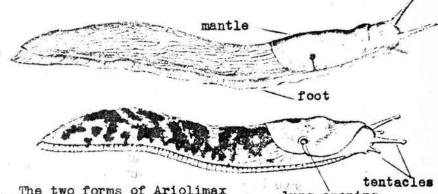
in preventing water loss.

Sexually, snails are hermaphroditic, each individual producing both eggs and sperms. Normally crossbreeding occurs in which two individuals fertilize each other's eggs. In some this is preceded by a curious ceremony in which each fires a sharp calcareous "dart" into the other's tissues. A batch of gelatinous eggs is deposited in a damp place.

Snails are mainly nocturnal. They prefer habitats with adequate moisture and an available source of lime. They tend to pass the winter in sheltered places. All these things favor their entry into caves, but relatively few species occur in caves in our area. Snails in limestone areas tend, naturally, to develop especially thick shells. An example at hand is a shell of the Giant African Snail, Achatina fulica, collected by Dr. Halliday in a Kenya limestone cave.



Monadenia fidelis shell, family Helicidae. in (shell of living snail is much darker brown).



The two forms of Ariolimax columbiana, family Limacidae.



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70 23 50

2 1 .sr.L 1376

> Haplotrema shell, family Haplotrematidae (yellow-green colored)



Pupillidae



Succineidae



Auriculidae

It is at least twice as heavy as a normal shall of this species,

A few species, both terrestrial and aquatic, are troglobites. Many European Zonitidae (very small, with flat spiral shells) fall into this category. There is one troglobitic Auriculid snail (see figure) in Kentucky. The two other snail troglobites known in the U.S.--one in Missouri, one in Texas--are both aquatic.

By far the most common cave snail in Washington is Monadenia fidelis (see drawing). This species is easily recognized by its bold spiral stripe pattern and its large size—at 3.5 cm or more in diameter, the largest land snail in Washington. It is recorded, with greater or lesser certainty, from English Camp Cave, Fowler Cave, VICEG Cave, Don's Cave, Senger's Talus Caves, and Two Boys Cave in Washington. All of these, it will be noted, are either limestone or talus caves. Snails are not known to occur in lava tubes, perhaps because there is insufficient available lime there.

Shells of the snail <u>Haplotrema</u> sportella have been found in Jensen Cave (a small limestone cave near Concrete, Washington), but may have been washed in by the cave stream. <u>Haplotrema</u> species are common, medium-sized snails

with a yellowish-green flat-spiral shell (see drawing).

Slugs are, of course, merely snails that lose the visible part of their shell during development. In the Northwest the slugs constitute two (Limacidae, Arionidae) of the dozen or so families of pulmonate snails. Slugs are reported from three Washington limestone caves: English Camp Cave, Sumas Mountain Cave, and Cricket Cave. The descriptions of these slugs indicate that they were probably Ariolimax columbiana, our common, large, pale green Arionid slug. Some specimens of this species have large black spots, others do not.

Snails and slugs can be preserved in either 70% alcohol or 5% formalin. In either case, it is desirable to replace the preservative after the first few days. The shells alone, of course, need no special preservative, but snails are far easier to identify when the body is available.

DOOK DEVICEN

BOOK REVIEW by William R. Halliday

Caves of Wyoming, by Chris Hill, Wayne Sutherland, and Lee Tierney. Geological Survey of Wyoming, Laramie. Bulletin 39, 1976. 230pp. \$3.00.

This latest of cave survey reports is well worth the price, expecially to cave history buffs, but the out-of-state NSS member should anticipate major problems if he plans to use it to go caving in Wyoming. Two very nice cave hoaxes of the 1890s by W. O. Owen are quoted in full, but are not stated to be such. There is no index, and the caves are arranged by region, rather than by county, then unalphabetically within each region. This is fine if you are a local caver-or, I suppose, a local rockhound!--but disconcerting to those unfamiliar with how Wyoming is laid out. Then there is the problem that the authors seem unfamiliar with some local names--what are locally called the Canyon Mouth Caves near Thermopolis are included as Hot Hole #1 and #2--and some names already in the literature and the files of the NSS and WSS. And just who is it that is responsible for such names as "Relatively Long Dark Ugly Tight Cave"? Yet despite the overall amateurish semblance, there is a lot of valuable information in Caves of Wyoming.

Cascade Caver July 1976

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THE JUNE MEETING was pleasant and well-attended. Bob Tower presided, our Chairman Stan being in San Antonio at the time. Hopefully, Stan will have a report on his Texan caving adventures in the next Caver. The meeting sign-up sheet includes three new people, at least one of whom has become positively enthusiastic. Most of the meeting was occupied in planning for forthcoming trips. Program was a slide show by Ed Crawford on Colorado Caves, finished off by two of Chuck Coughlin's cave movies taken by aircraft landing light.

A List of Some Long Lava Tubes

| Name | Length, km. | Length, mi. | Length, ft. | Depth, m. |
|--------------------------------|-------------|-------------|-------------|-----------|
| 1. Leviathan Cave*, Kenya. | 11 | 6.85 | 36,100 | 470 |
| 2. Kazumura Cave, Hawaii | 10 | 6.21 | 32,790 | 200 |
| 3. Cueva Del Viento, Canaries* | 6.2 | 3.84 | 20,280 | 265 |
| 4. Duck Creek Lava Tube, Utah | 3.7 | 2.28 | 12,054 | |
| 5. Ape Cave, Washington | 3.5 | 2.18 | 11,500 | 213 |
| 6. Offal Cave, Hawaii | 3.4 | 2.11 | 11,154 | |
| 7. Falls Cr. Cave, Washington | 2.8 | 1.74 | 9,176 | 126 |
| 8. Dynamited Cave, Washington | 2.4 | 1.48 | 7,833 | 107.5 |

This list is not intended to be complete, but simply summarizes some information known to the editor. Readers are invited to contribute to a more complete list. I am inclined to think that only caves with more than 2000 metres of passage should qualify. ----ed.

*Data on these caves includes more than one segment.

---William R. Halliday

Surveying Caves, by Bryan Ellis. Bridgwater, British Cave Research Association, 1976. 88 pp.

This fine British book tells the caver more than most of us really need to know about the subject. Ellis proposes to supercede the old CRG grades of mapping with what I presume will become known as the BCRA grades 1-6 plus grade X. 1 1/2 pages are devoted to surveying lava tube caves with magnetic anomalies, a subject which has not received sufficient attention in the Northwest because of the enormous lengths of cave to be mapped as rapidly as possible. Now in the present stage of remapping, Ellis's comments are worth special consideration. Maybe the Northwest Region can obtain permission to reprint them in Northwest Caving.

> ********* =========

CASCADE GROTTO STORE Bill Capron, Keeper, Phone 525-2260 Price List: April 1976

| Cave Packs | \$1.50 |
|----------------------------------|-------------|
| Carbide | * |
| Helmets | * |
| Chin Straps | .85 |
| Premier Carbide Lamps | 8.50 |
| Lamp Brackets | * |
| Lamp Felts | 2/15¢ |
| Lamp Tips | .20 |
| Lamp Flints | 3/25¢ |
| Lamp Gaskets | .10 |
| Miners' Nickel-Iron | |
| Headlamps | * |
| Gibbs Ascenders (Spring) | 8.50 |
| | 10.50 |
| Bonaiti D Carabiners | 2.75 |
| Bonaiti Locking D | 3.75 |
| Cascade Grotto Patches | 1.50 |
| Cascade Grotto Decals | .25 |
| NSS Decals | .20 |
| Plastic Bags | 3/10c |
| *Contact storekeeper | |
| and every contract of the second | 0.1100.2570 |

information. Quantities are limited in some cases. If you want any cavingrelated equipment not listed here,

please ask me for it. The store is here to serve you, so take advantage of it .--- B. C.

CASCADE GROTTO OFFICIAL AND TRADITIONAL TRIPS--1976

All cavers are invited to join these trips--especially those who don't go caving very often!

April 17-19, Easter Weekend. Papoose Cave, Idaho. Contact Curt
Black, (206) 832-6352.

April 24-25. Official trip to McLoughlin Canyon Caves, Eastern
Washington. Contact Chuck Coughlin, 772-1170 (Seattle).

May 29-31, Memorial Day Weekend. Deadhorse Cave area, Trout
Lake, Washington. Contact Rod Crawford, 543-4486 eves. (Seattle)
June 19-20. Official trip to Vancouver Island limestone caves,
B.C. Contact Bob Brown in Elbe, (206) 569-2724.

July 3-5, Independence Day Weekend. Windy Creek Cave, North
Cascades. Contact Chuck Coughlin, 772-1170.

August 28-29. Official trip to Cave Ridge (Snoqualmie Pass)
limestone caves. Contact Coughlin.

September 4-6, Labor Day Weekend. NNRA Convention at Nakimu
Caves, B.C., Canada. Contact Bob Brown.

October 23-25, Veterans Day Weekend. Official cave-hunting
trip to Colville area, E. Washington. Contact Dave Walker,
232-1698 in Seattle. those who don't go caving very often! 232-1698 in Seattle.

Speleobiological trip to Trout Lake lava tubes. Contact Clyde Senger in Bellingham, (206) 734-1360.

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