THE CASCADE CAVER

VOLUME II NUMBER 3
MARCH 1963
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CASCADE GROTTO N. S. S.
SEATTLE WASHINGTON

COMING EVENTS

Saturday	March 9, 1963	Field trip to Ape Cave, Mt. St. Helens for families: Little Red River Cave for cavers, if snow conditions permit.
Monday	March 11, 1963	Regular Meeting, 8 P.M., Dr. Halliday's, 1117 - 36th Avenue, East, Seattle.

CAVE LOCATED ON HENDERSON LAKE, VANCOUVER ISLAND, B.C., by Dave Dunnet

On February 23, 1963, Mr. W. H. Forrest, 4905 Cordova Bay Road, Victoria, (phone GR 9-3426) was interviewed.

Mr. Forrest, a land surveyor and prospector had been surveying in the vicinity of Henderson Lake, Vancouver Island in 1912 when he discovered the entrance to a cave. He visited the cave a second time in the early 1920's and as far as he knows, no one has since been in the cave. This cave is located about one quarter of a mile from the southeastern shore of Henderson Lake.

Mr. Forrest penetrated the cave as far as a second chamber and a fast flowing creek, where he was stopped because of inadequate fording equipment. He felt that the creek would be considerably lessened in force in the summer months.

As described by Mr. Forrest, the cave could extend as far as "a mile or more" into the mountain. The cave is apparently formed in limestone, judging from the speleothems several feet in length described by Forrest. I was shown a portion of stalactite taken by the discoverer. This broken portion was approximately one inch in diameter, tapering to about one half inchin approximately three inches of length. A small cylindrical hole, about one eighth of an inch in diameter ran through the length of the stalactite.

CAVES REPORTED ON GALIANO ISLAND, B.C.

Reports are still coming in as a result of the item in the Victoria (B.C.) Colonist. The pupils at the Galiano Elementary School, on that island, have written to report large caves "in the bay northwest of Montague Harbor. They are approximately 18' wide, 30 feet deep and 14' high, ending in a cone-shaped ceiling."

Caves Reported on Galiano Island, B.C. (con't.)

Other caves, they indicate, are "located at the north end of Galiano Island at the head of the bay. (They) are approximately 10' by 10' by 10'. These may be of interest to you because of skulls found in them."

One of the first group may be the one reported by Dr. Harry Emmel, as mentioned in the last issue of the Caver.

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AN UNUSUAL LAVA TUBE SYSTEM by Dr. William R. Halliday

BIG TRENCH CAVE SYSTEM. Sec. 34, T6N, R9E, Willard Quadrangle. Elevation about 3000 feet.

North of Mann Butte is the largely collapsed remnant of a complex lava tube system which originally had a slope length of at least 4000 feet of passages. Although the 6 small caves and two natural bridges still uncollapsed total less than 1000 feet, the system is one of unusual interest.

Except for a reentrant side passage originally about 400 feet long (the Cougar Den area), the Big Trench Cave System displays in its trench areas features of multilevel tube development elsewhere found only underground. With one exception, the cavernous remnants of the system which now can be entered all are very shallow, with overburdens of ten to twenty feet. In one cave near the center of the system, an underground sink extends downward to a short lower level, largely choked with breakdown. The small volume and small overburden of the remaining caves are conformable to certain sections of the trench which appear to be the remnant of collapse of tubes of those proportions. In other sections of the trench, relatively shallow segments descend rather abruptly to depths of 40 to 50 feet, and in a few areas, considerably greater depths. At the western end of the penultimate cavern, the uncollapsed tube is about 15 feet high and 25 feet wide, with an overburden of about ten feet. In contrast, the sink proximal to this entrance is more than 50 feet wide and probably more than 75 feet deep.

The Big Trench Cave System, therefore, appears to be a largely collapsed system of superimposed tubes with a single shallow re-entrant. Because of extensive breakdown, few tube features are visible except at the distal end. In the Cougar Den Cave, breakdown has revealed glaze on several wall layers. The penultimate and most distal caves have a granular wall, with local thin coatings of lava along the lower portions of the wall. The lower end of the distal cave is blocked by a billowy lava which prevents access into another small chamber visible through a small opening above the lava seal. In this area, thick slime is present. The remaining caves appear to harbor a rich biota, possibly including at least one cougar.

GARDNER CAVE, PEND OREILLE COUNTY WSS #26 P.O.-1

History of North Washington, Western Historical Publishing Co., Spokane, 1904:

"Added to the numerous industrial interests of this county (Stevens) is something in the way of the weirdly picturesque--a recent discovery dating from summer of 1903, called Gardner's Cave. The following description of the cave is from the Spokesman-Review of September 13, 1903, written by one of a Spokane exploring party who visited it."

Dingee, Ruby Lusher. Historical Sketches of Pend Oreille County, Wash. Miner Print, Newport Wash., 1930, pp. 6-8.

(quotes same 1903 article). Cave named for discoverer - Ed Gardner. Discovered about 1900. 1/4 section containing cave entrance later acquired by W.H. Crawford, a pioneer merchant of Metaline. In October 1921, he deeded the 40 acres surrounding the cave opening to be made into a state park.

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CORRESPONDENCE

"Dear Mr. Halliday:

The Library of the U.S. Geological Survey has just received a copy of THE CASCADE CAVER, vol. 2, no. 2, February, 1963.

We have nos. 1 to 6, 1951-1953, of THE CASCADE CAVER. Is this new one a continuation of the 1951-1953 CASCADE CAVER? And if it is, were there any issues between no. 6 (1953) and v. 2, no. 2 (1963)? If there were, we would like to get copies of them in order to keep the file complete and if you could send them to us, the favor would be appreciated.

Yours very truly,

William H. Heers
Librarian
Dept. of the Interior
Geological Survey
Washington 25, D.C."

"Dear Mr. Halliday:

We were most interested in your discovery of the inscription "Spokane Mountaineers - 1888" on the wall of Gardner Cave.

Your letter was read at our Annual Meeting, October 10th. No one there knew anything about such an inscription. Our club made a trip to Gardner Cave a year ago, in September. No inscription was seen at that time. Nowever, we could very well have missed it in the dark!

Correspondence (con't.)

Regarding your request for information on other caves in Washington:

(1) We have heard there is a cave north of Coulee Dam, near Republic. We have no definite description of the location.
(2) Deavitt Cave, north of here, in the Colbert-Dartford area.

Sincerely yours,

Judy Rowe, Secretary
The Spokane Mountaineers, Inc."

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CAVES UP-FLOW FROM LITTLE RED RIVER CAVE, SKAMANIA COUNTY

Jan Utterstrom has supplied some beautiful 3-color sketches of the lava sinks and small caves visited last fall, west of the Mt. St. Helens trail and up-flow from Little Red River Cave. None of the caves are large but one is rather complex and has alternating red and black flows. Since we have no way to reproduce in color, and the sketches are complex, they will be kept on file and not reproduced here.

BACK ISSUES NEEDED:

Has anyone a spare copy of Volume I, # 2 ?

We have requests for a copy from the Northwest Collection at the University of Washington Library, and from the Librarian, U.S. Geological Survey, Washington 25, D.C.

The loan of a copy would be sufficient to have copies made from.

TOM HATCHETT!!! HAVE YOU UNPACKED THAT STUFF YET ? WE NEED IT!

NORTHWEST SPELEOBIOLOGY

We now have requests for:

1. **cave beetles; from Dr. Hatch at the University of Washington.**
2. **Grylloblattids; from several biologists.**
3. **other bugs; from two eminent biologists.**
4. **sight records of vertebrates in caves (including entrances).**
5. **animal bones in caves.**

not to mention band numbers on banded bats.

It's time we became systematic in biologic studies now that we have people clamoring to do identifications for us. Send them in. We'll distribute them for you. Bugs should be pickled in 70% alcohol or 100% isopropyl alcohol.

MORE CAVES REPORTED ON VANCOUVER ISLAND by Bill Halliday

On February 2nd the Victoria Daily Colonist was kind enough to run an item telling of our interest in caves on the first page of their second section. To date we have had five letters:

(1) On January 27th, a highway foreman drove within 3/4 mile of the cave on the logging road south of Skutz Falls and also visited the enterance of two others " but did not enter them as I was by myself and would have had to climb down a well-like entrance about 25 or 30 feet deep. I am sure there are more in the area as I entered two caves thereabouts in the 1920's and another one during the war before the area was logged off."

(2) He also reported being told of caves in limestone near Cowichan Station.

(3) He also has been told of caves in a large limestone deposit near the head of Nitinat Lake, and of caves on the north side of that lake.

(4) In 1911, a surveyor found a large cave near Uchucklet Harbour near the mouth of Alberni Canal, and upon returning to explore it in 1929, was stopped by a creek after passing two chambers and a sizeable passage.

(5) Commercial fishermen know of "numerous interesting caves" between Esperanza Inlet and Cape Cook. At Nasparti, just south of Cape Cook, one followed bear tracks into a 20 foot opening just above high tide level. Inside, the cave is 30 feet high and 40-50 feet in diameter. Smoke from their torches curled upward. The cave is very dry. No bear was home, though the cave was not entirely explored.

(6) "a very wonderful, rather spooky cave" at the extreme end of Knight Inlet, reached via Barkley Sound.

A letter also arrived from The Vancouver Island Cave Men, of whose existence we had been unaware, hoping to join with us in future work. They are seeking other caves in the Horne Lake area, and some reported talus caves near Ladysmith.

SO! It looks like we've got our work cut out for us on Vancouver Island. Anyone else interested?

ANYONE GOING TO ALASKA?

We have a report from an eye-witness of rather extensive limestone deposits on Windy Creek in Mt McKinley National Park, close to the Alaska Railroad, with torrential mountain streams available for speleogenesis.

SEATTLE AREA CAVERS

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Edmonds, Washington

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543-1126

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W. Van York
3229 - 31st West
Seattle 99, Washington
AT4-4473

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EXILES

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Slidell, Louisianna

W. R. Danner
Department of Geology
University of B.C.
Vancouver, B.C., Canada

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Klamath Falls, Oregon

Doger Kauble
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Klamath Falls, Oregon

Bob Ashworth
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Eugene, Oregon

* * * * * * * * * * * *

WASHINGTON

David Brannon
704 Michigan Street
Pullman, Washington

Mark Pedersen
Skamania, Washington

Harry Reed
Ariel, Washington

FIELD TRIP REPORT: OREGON CAVE, February 22-24, 1963
by Dr. William Halliday

Purpose of trip: mapping, study and limited exploration in south end of cave.

conclusion: purpose achieved despite unforseen problems.

theoretical organization pattern:

1. mapping crew: W. Van York (Chairman Cascade Grotto, N.S.S.), Mary Allice York (Cascade Grotto, N.S.S.), Leonard Libbey (Cascade Grotto, N.S.S.) Dr. William Halliday (Cascade Grotto, N.S.S.; Director, Western Speleological Survey).

2. rigging crew: Steve Knutson (Oregon Speleological Survey), Luurt Niewenhuis (Field Trip Chairman, Cascade Grotto, N.S.S.),Skip King and Steve Cowley (Oregon Speleological Survey).

3. Biological crew: Rodolfo Mosco (Centro Speleologico Meridionale of Italy), Jerry Frahm (Cascade Grotto, N.S.S.)

The party was accompanied by Vernon Hennessay, Management Assistant at Oregon Caves National Monument.

time of trip: approximately 10A.M. to 6:30 P.M., February 23. Most of the party also visited the commercial section of the cave between 8:30 and 10 A.M., on February 24th.

total trip mileage: 1,035

narrative report:

As outlined in our request to the Park Service, the original plan of the 1963 Oregon Cave expedition was division into two largely independent parties, one for mapping, and one for rigging and exploring the new area discoverec in 1962. Rodolfo Mosco, a Fullbright student at Gonzaga University, of the Centro Speleologico Meridionale of Italy, also obtained permission for a simultaneous study of the "clayish-slimy vermicular formations" of the cave, and an additional individual was brought to support him. However, discussion with Mr. Hennessay indicated that although he hadsome misgivings about the size of the resulting party, he has instructions that the party had to be under his direct observation and hence unified.

The party entered by way of the exit tunnel, and rapidly traversed the route through the south end of the Ghost Room and the south crawlway, carrying ropes, ladders, packs and the new 10 sections of climbing poles. At the crawlway, Mary Alice York dropped out, as her lava tube experience had not prepared her for limestone crawlways. In this area, notes were made of vermiculars, vadose and phreatic features, and various types of cave fills.

Of the members of the party, only Steve Knutson had been in the section west of the South Room. Interesting, unanticipated vadose canyons in the floor of the Sand Room area caused minor delays, but the major delay in this area was the steep slick slope of the "Rat Hole". Some loose rock was occasionally dislodged, requiring lengthy spacing of the party. Party division here could have produced detailed mapping and study of the vadose canyon branchwork system, without much loss of time.

Field Trip Report: Oregon Cave, Feb 22-24, 1963 (continued)

Beyond the "Rat Hole" is a narrow passage leading across two openings into the top of the First Well, thence to a sizeable, steeply sloping chamber. At the top of this chamber is Witherspoon's Hole, discovered in 1962 and the key to the rest of this area. Continuing on at the base of the chamber is a small complex with marked vadose modifications, including a waterfall plunge chamber with a trickling stream on this date. This complex, previously explored in 1960 but merely sketched, was mapped durring the hour-long wait while equipment was passed up through Witherspoon's Hole and the very difficult crawlways beyond. Due to fatigue and less experience, Len Libbey and Jerry Frahm elected to remain at Witherspoon's Hole while the others continued. Their wait lasted 4 hours. The party was thus reduced to 6.

Distal to these crawlways is The Bone Room, so named for the remains of a large vertebrate. It is a steeply sloping cathedral like chamber containing unusual resolution patterns and at least one unexplored lead high on the east wall. At the upper (west) end is the opening of a sloping crawlway leading steeply upward to the bottom of the Ladder Room. Less time was lost here.

Among observations in this area were delicate plications in the bedrock, and an apparent dike, offset several inches on one side of the chamber as compared to the other. Vein petromorphs in this area have the appearance of thin veins of calcite.

At the Ladder Room, it was found that due to miscalculation of the height of the unscaled wall, the climbing poles could not be rigged double, as planned, and that singly, the pole would not take the weight of a climber on a ladder. This problem was sloved by a successful traverse by Steve Knutson, on belay, permitting him to climb into the room visible above. After a few minutes' checking, he returned to report additional cave beyond, and he and Vern Hennessay rigged the ladder in the upper room. Many pebbles rained down upon those in the Ladder Room below. Fortunately, sufficient irregularities are present to provide minimal shelter whenever the call "ROCK" presaged a larger fragment. Durring these operations, attempts were made to bypass the ladder pitch in two localities, but both failed. Because of the limited shelter, a peculiar ricochet of a large rock could have caused an accident here. On at least one occasion, a rock struck the edge of a projection which provided only about 2 inches margin of protection. When the danger became apparent, the Ladder Room was kept as empty as possible, and at the time of the only sizeable rockfall, no one was within it.

Exploration in the area above the Ladder Room included ascent for 48 feet of the vertical face by Steve Knutson after emplacement of two expansion bolts. No further penetration appeared possible. To the north, a small chamber containing a ribbon speleothem was found. Through slab breakdown in its floor is a hole lacking about one inch in sufficiency to permit bypass of the ladder pitch. A rodent (probably cony) nest was found in this area, as were diptera and a spider. A high fissure like chimney is present in both these upper level chambers, and the surface probably is not far distant, yet no penetrable route was found.

Mapping was begun at the rodents nest and carried as far proximally as the end of the 1930 survey. In addition, the west end of the South Room was resurveyed. Burton compass techniques were employed. At the time of writing, the data has not been plotted, but it is estimated to add more than 100 feet to the previous range of elevation mapped in the cave.

Field Trip Report: Oregon Cave, Feb 22-24, 1963 (continued)

The exodus from the cave similarly was slow, and marred by fatigue and the writer's slipping on a wet rock in the South Room and dropping the field notebook 8 feet down a crack one foot wide. Unfortunately, the lengthy delays caused Mr. Hennessay to be very late for an important appointment, which, especially in view of his very real assistance and helpfulness, was regretted by all.

Summary of problems:

1. unforseen physical and technical difficulties of new area.
2. necessity of combining parties into one large party.
3. unfamiliarity of some members with caves in limestone.
4. miscalculation of height of ladder pitch.
5. fatigue.
6. failure by one individual - perhaps through language problems - to follow certain of Mr Hennessay's instructions.

Mr Hennessay expressed concern over certain practices of the rigging group. Within limit of my observation, however, standard spelean and mountaineering techniques were used throughout. Judgment was good and execution skilfull.

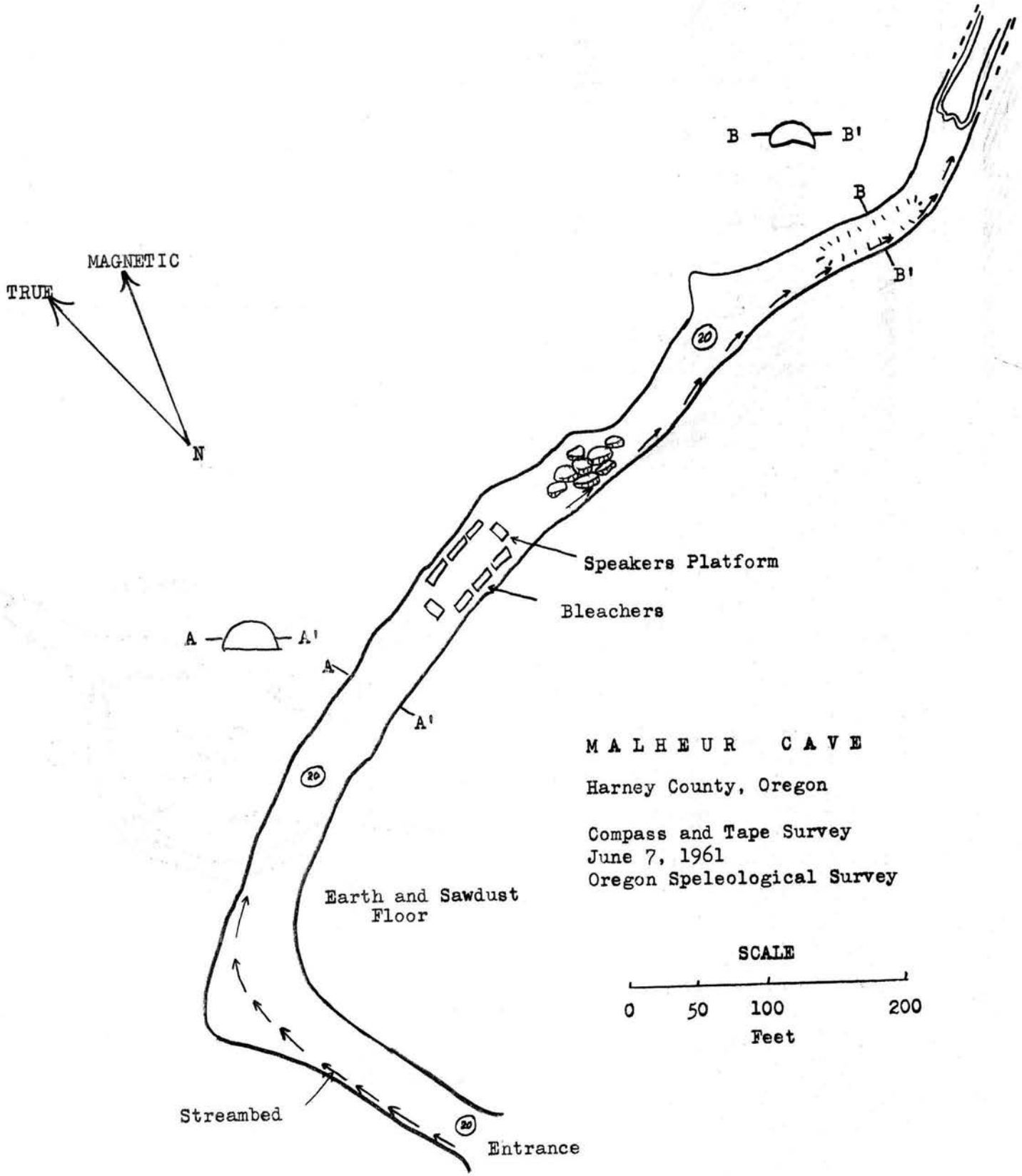
Uncompleated work in this area:

Study of vadose canyons in Sand Room - First Well area, with possible extention south of the First Well.

Planned followup:

1. Revision of Oregon Cave map.
2. Publication of speleologenetic report on Oregon Cave as a whole.

Acknowledgments:
The party wishes to express its gratitude to W. Ward Yeager, Superintendent of Crater Lake National Park for permission to make this study. We are deeply obligated Vernon Hennessay for assistance far beyond the call of duty. The staff of the Illinois Valley Ranger District of the Siskiou National Forest, especially Assistant Ranger Duane Kingsley, provided very important assistance, which was very greatly appreciated.


MAGNETIC
TRUE
N
B
B'
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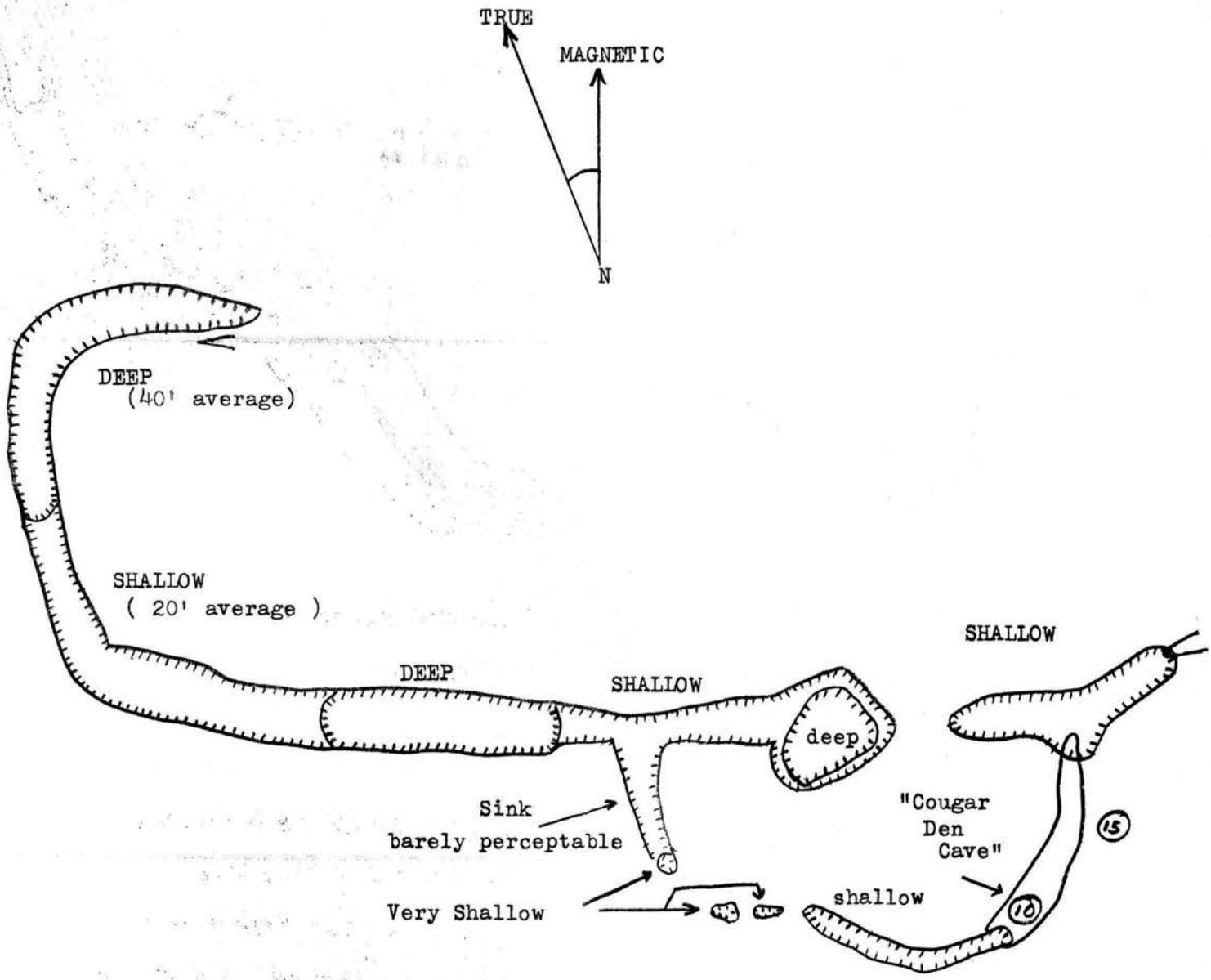
20
Speakers Platform
Bleachers
A
A'
A
A'
20
MALHEUR CAVE
Harney County, Oregon
Compass and Tape Survey
June 7, 1961
Oregon Speleological Survey
Earth and Sawdust Floor
SCALE
0
50
100
200
Feet
Streambed
20
Entrance

RSK

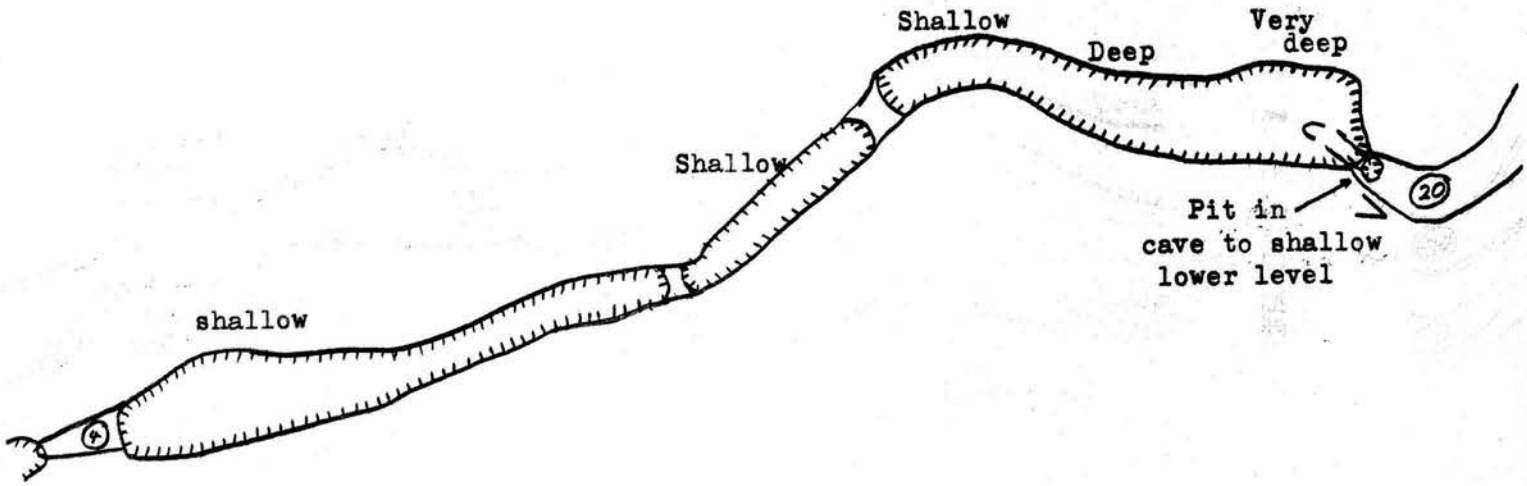


W E S T E R N H A L F

B I G T R E N C H C A V E S Y S T E M

Skamania County, Washington

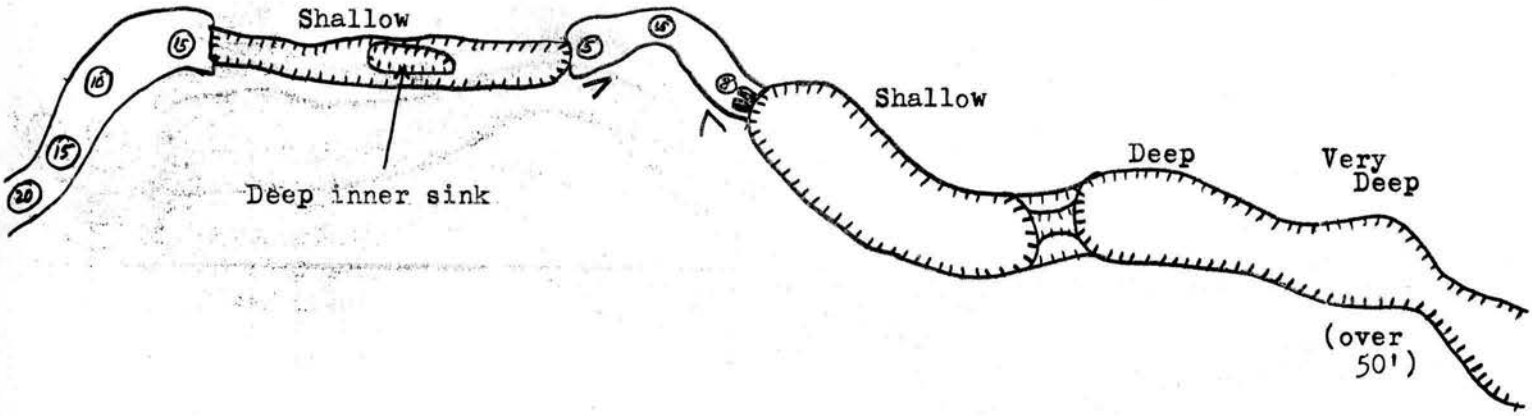
Compass and Tape Survey
August 22, 1961
Washington Speleological Survey
Trench depths and widths shown are estimated.



SCALE

1 Inch = 100 feet

0 100 200 300

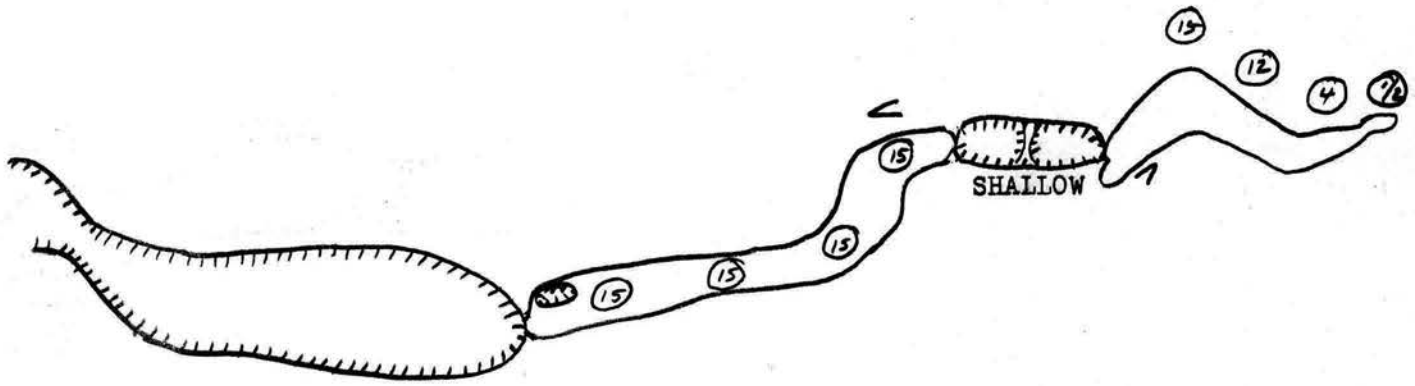


E A S T H A L F

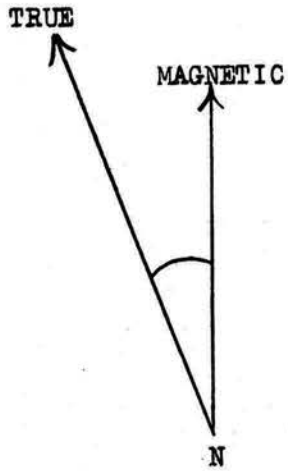
B I G T R E N C H C A V E S Y S T E M

Skamania County, Washington

Compass and Tape Survey
August 27, 1961
Washington Speleological Survey
Trench depths and widths shown are estimated



VERY DEEP
(over 50 feet)



SCALE
1 inch = 100 feet