

### FIRST LIMESTONE CAVE OF WESTERN WASHINGTON LOCATED

Spurred on by a report forwarded by the Stanford Grotto of a cave on Jackman Creek in the lower Skagit Valley, a 5 man party from the Seattle branch of the Cascade Grotto (W. Gibson, P. Gilhousen, W. Halliday, and 2 prospects, R. Boyer and C. Harrison) spent Saturday afternoon and evening combing the woods and bistros of the Concrete, Wash. area for loggers and other old timers. The cave on Jackman Creek was unknown, and location data proved faulty, but we found a Mr. Mac McQuinn who had used a cave as a winter camp. The next morning he led us over logging roads to the imposing entrance to the cave, adjoining a small lime quarry. Unfortunately its operations some 15 years ago had caused a rockfall preventing access to the unexplored rear of the cave so that all that was left was a short entrance passage to a room 25' in diameter from which several 25' crawlways lead off, one to the base of a small sinkhole. The cave, despite its small size, demonstrates classical vadose and phreatic features, and appears to be located in a roof pendant despite its position at the edge of a bench. Only about 5' of overburden exists, so only tiny formations are present.

Making up for the size of the cave is the view from its entrance, located 2500' almost straight up from Lake Shannon. 10,000' of Mt. Baker's awe-inspiring cone and most of Mt. Shuksan's more rugged height may be seen from its fern-draped mouth. Though discovered many years ago by a Mr. Weaver, the cave is known locally as 3 Mile Creek Cave. To our knowledge it is the first true limestone cave found west of the Cascades.

Return was via the equally scenic Mountain Loop Highway. Caves near Darrington turned out to be prospect shafts, but near Monte Cristo Junction, several holes in a high cliff were noted for future investigation. Their bedrock was not evident.

### CHANGE OF GROTTO OFFICIALS

With the resignation of Bill Halliday as chairman, new appointments have been made by the Executive Committee for the summer. Del Neely, formerly secretary, was elevated to the chairmanship, and Peter McLellan appointed secretary even though he will be in Yosemite.

Changes of address: Del Neely - 3402 E. Marion, Seattle.  
Bill Halliday - 1031 E. 19th, Denver, Colo. (after July 1)  
Tony Sargent - Naval Ordinance Test Station, Inyokern, Calif. (July 15)

Summer addresses: Phil Gilhousen Route 3, Box 3, Astoria, Ore.  
Peter McLellan, Yosemite Field School, Yosemite Nat. Park, Calif.

### NEXT SCHEDULED FIELD TRIP

July 15, to Boulder Cave, Yakima Co., Wash. Leader - Warren Gibson. Mapping and instruction of beginners are planned.

Mid-August is the best time to visit San Juan Island, where there are 3 caves reported that may be in limestone.

## CURRENT STATUS OF CAVING IN THE STATE OF WASHINGTON

The caves of Washington are few and inaccessible, especially in winter. Nevertheless, by patient investigation of leads, information is gradually accumulating and portends a significant future for the state's speleology.

The ~~more~~ limestones of the state are limited to narrow bands outcropping along the western slopes of the northern Cascades, in the Olympic Mountains, on some of the San Juan Islands, and somewhat more commonly in the Okanogan-Colville area. Here, true lapiez, practically unknown in the far West, may be found. Probably the state's largest limestone cave is CRAWFORD (GARDINER) CAVE, near Metaline Falls, said to be 800' long and to contain a stalagmite 12' high. Next largest is ALLBRIGHT CAVE, mapped by the Cascade Grotto. MT. OLIVE CAVE, in the same area, is insignificant. 3 MILE CAVE is reported in this issue. Caves in the limestone areas near Ross Dam and on Jackman Creek near Van Horn, have not yet been reached. Repeated attempts to open a reported entrance between Grotto and Baring have been unsuccessful.

Moderately common in the Columbia Basalt and the flow from the volcanic fields of the southern Cascades are lava tubes. Best known is probably Mt. Adams (GULER) ICE CAVE, the source of ice for Hood River as early as 1885. Its 650' length, mapped by the Cascade Grotto is of interest in several respects, and its ice deposits are worthy of study. The campground at its entrance would well serve as base for trips to the other caves of the area, shown on the Forest Service map of the Gifford Pinchot National Forest.

The MT. ST. HELENS LAVA CAVE to the northwest is reputed to be a mile in length, but is accessible only in midsummer. The ICE CAVE near Spokane is probably of similar origin. Relics of the Hudson Bay Company were found here. CRAB CREEK CAVE probably belongs in this group as does BOULDER CAVE, which has a stream coursing through its 500'.

Many sea caves exist along the rocky shores of the state, but only a few have yet been reported. One at LAPUSH and 2 at AGATE BEACH on the Olympic Peninsula, one near Camp ORKILA on Orcas Island, several of varying types on SUCIA ISLAND, FERN CAVE and perhaps 3 near ENGLISH CAMP on San Juan Is., though the latter may be in limestone, make up the list to date.

Of miscellaneous types, shelters have been reported south of VANTAGE and near ROCK LAKE, and on the upper HOH RIVER. Glacier caves on Mt. Rainier and Big 4 Peak have received some publicity. CHELAN ICE ELVERLY, MT. ISSAQUAH and perhaps LESTER, HAMMA HAMMA AND LAKE LENA ICE CAVE are talus piles of different types, though the last 3 must be checked. ICY WIND CAVE may be talus or limestone, but as the entrance has been buried in the construction of a logging road, it will be hard to check.

This list is short. The original, however, was only a fraction this long. Let us work for the day that this list will seem as small a fraction.

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NOTE: CASCADE REPORT #1 was issued without heading, but dated May 21, 1951.

LAVA CAVES OF THE BEND AREA  
compiled by Bill Halliday

The Deschutes lava plateau of **E**entral Oregon, just to the east of the high peaks of the Cascade Mts., presents to the vulcanospeleologist one of the finest and largest groups of lava tubes in the continental U.S. Repeated flows of pahoehoe lava under optimum conditions have produced at least 20 noteworthy caves, and in view of the **profusion** of confusing sinks in the individual flows, it seems likely that many remain unreported and undiscovered. As will be seen, a great variety is to be encountered, horizontal and vertical, rough and easy, wet and dry, long and short, straight and branched. Significant paleontological and archeological finds have been made in soem of these caves. Ice crystals and formation frequently add beauty to the impressive vistas. All characteristics of lava flows are here revealed, even though multilevel formation is perhaps less prominent here than in Lava Beds National Monument. In short, here is an area encompassing all speleology, and a refreshing change to the spelunker skilled only in limestone.

Phil Brogan, chairman of the Oregon Geographic Board, of Bend, has probably more knowledge of these caves than any other man. H.R. Tonseth, Fort Rock District Ranger, also has extensive field knowledge particularly of the southern group, and has proved himself a good friend of the Cascade Grotto. Much of the information herein contained was obtained from these gentlemen and from the staff of the Deschutes National Forest.

Best known and most accessible of the lava tubes is Lava River Cave, right beside U.S. Highway 97 about 12 miles south of Bend. Designated as a state park, a caretaker is at hadn with gasoline lanterns for the convenience of the public. Wooden stairways have been installed leading down into the sink which is the entrance. The tourist portion of the cave leads northwest for over 5000' in gentle curves over a sand floor into which it eventually sinks. The opposite end is extremely rough and is said never to have been completely explored. Apparently first described by Ira Williams in Nature Magazine about 30 years ago, it is mentioned in NSS Bulletin 3.

Quite different but almost as well known locally is Arnold Ice Cave, to the southeast of Bend (for exact locations of these caves see CCR #1 & 2). This cave served as the source of ice for Bend in pioneer days, and even then, despite its mining, the total extent of cave beyond and beneath the ice was unknown.

Entered through a small hole in the north end of a lava sink, a dangerous 60' ice slope at a 60 degree angle is immediately encountered. Safety ropes are essential. At the floor, the ice slope levels off while the cave descends, thus blocking progress after some 100'. A duck-under, then a crawl on the ice lead to two tiny rooms with frost crystals on their roofs.

Somewhat similar to Lava River Cave is Skeleton Cave, located between Bend and Arnold Ice Cave. Much of its 2000' length is sand-floored, providing comfortable camping in wet weather. Entered via a wooden ladder in a sink, a blind 250' passage leads toward the right, the main portion to the left. About 1200' back, a side passage on the left leads to a short section where a fossil bear (Arctotherium?) was found many years ago, thus giving the cave its name. Of interest is the evidence that this passage leads into, not out from the original

floor. In the main cave, one cupola, deposits of aa lava, pulled stalactites and contraction fissures are of note. The cave has been mapped by the Cascade Grotto.

Close to Arnold Ice Cave and confused with it in Bulletin 4 is Wind Cave, which measures about 5000' in length and is extremely rough. At about 500' from the entrance is a hole in the roof 50' overhead, below which were seen ice stalagmites April 29, 1951. Beyond this point, the floor which previously consisted of huge boulders piled indiscriminately, presents about every 100' a 30' wall of aa lava which must be laboriously scaled and descended. Many of the rooms thus formed are 60' high and very impressive.

Located in the same general area is Charcoal Cave, where charred wood, cut with stone axes, has been dated to the 13th Century. A full report on this cave is available in the March 1938 Oregon Historical Society quarterly.

Some 20 miles to the south, on the southern flanks of the Paulina Mts., is Surveyor's Ice Cave, accessible only in midsummer due to its higher elevation. The description given by Tonseth similar to that of South Ice Cave (see below).

To the east, three ice caves are shown on the USGS quadrangle, two on the Forest Service map. "These were discovered by Fred Matz and crew while cruising timber", and have not been found since. They will therefore be referred to as Matz's Ice Caves. East Ice Caves, mentioned by Brogan, may be the same.

Only about 3 miles east of Bend, Horse Cave is said to resemble Skeleton Cave on a smaller scale, but aside from its accessibility has no other attraction. Barlow Cave, 4 miles east of Bend on the Butler road, however, has yielded artifacts of the Fort Rock type (see below). No other information is currently known of these or the Redmond Caves, near that city.

Northwesternmost of the entire group is Skylight Cave. Entered through a vertical opening 15 x 30', after a 20' descent a 65' tunnel leads to a room with a 2x2' opening in the ceiling responsible for the name of the cave.

3 miles west of Wanaga Butte just within the Bachelor Butte-Sheridan Mtn. lava field is Edison Ice Cave. Not known to have been visited in recent years, its entrance is a small vertical shaft usually filled with ice and snow. Bischoff in NSS Bulletin 4 mentions artifacts buried in the ice here.

Seen only from the air, on the summit of the ridge between Sheridan Mtn. and Kwoh Butte in the large entrance of a cave referred to as Kwoh Butte Cave. In the same general area, on the southwest point of Round Mtn. is a 20 x 30' cave, partially filled with rock debris, with 1-2" projections of unidentified mineral deposits on its ceiling. It is known as the Round Mtn. Cave.

South Ice Cave, in the Cabin Lake area, is well marked by the Forest Service. Its main (southeast) section has been mapped by the Cascade Grotto. 350' long, two deposits of stratified ice are present while early in the season temporary formations abound throughout its three rooms. A considerable inward draft was noted between the first and second rooms. The shorter western passage is entered through a narrow 20' crawl and is said to be much more difficult.

Further south, a shelter near Fort Rock, known locally as Cow or Menkenmeier Cave, has received national archeological attention recently because artifacts found there were dated back some 9000 years, earlier than any others in America. The geiger counter radioactive carbon calen dar was employed in these studies.

About 15 miles east of the Cabin Lake R.S. is Derrick Cave, a pleasant 1800' trip over a sand floor from the large entrance. This area is not included in any USGS quadrangle, but is shown on the Fort Rock Ranger District map of the Deschutes N.F.

Some two miles to the northeast of Derrick Cave on a sagebush flat is the obscure entrance of Button Springs Cave, discovered in 1941 by Tonseth and party, which, entering via a 20' ladder, explored about  $\frac{1}{2}$  mile of large roomy passages despite large piles of rough rock

Other caves in this rough area undoubtedly exist. In view of the significant finds to date, it is obvious that the region and its caves are deserving of further study. It is to be hoped that it will not be long delayed.

#### REFERENCES ON CAVES OF BRITISH COLUMBIA

Makimu Caves. Canada Dept. of Interior. Report of Surveyor-General for 1906. pp 103-117, (1907). (with maps)

Deutschman's Caves. ibid, pp 117-126. (same caves)

Deutschman's Cave, Near Glacier, B.C. Trans. Amer. Inst. Mining Eng. ~~XXVIII~~, pp 857-876, 1907. & Bull. 13, pp 93-111, 1907.

#### ADDITIONS TO CAVES OF WESTERN WASHINGTON

17.	Hoh River	Jeff.(?)	Mt. Tom	bet. Olympus R.S. & <u>Elk L.</u>	Sh. or Talus
18.	Hamma Hamma	Mason	Brothers	SW $\frac{1}{4}$ sec 3 T24N, R4W	Talus (?)
19.	Agate Bay (2)	Clallam	P. Cresc. Ctr.	sec 20 T31N, R8W	sea
20.	3 Mile Creek	Skagit	Mt. Baker	NE $\frac{1}{4}$ sec 30, T36N, R9E	limestone
21.	Donlan's	King	Snoqualmie	Denny Pk.	?

Elk Lake  
↑  
She Her cave →

#### CORRECTIONS TO C.C.R. #1

Cave lists: Eastern Wash. 1 Location should read Z Canyon  
Western Washington 13. San Juan Co., no quad. Location: north edge  
of Oceanographic lab grounds. Type - sea.

Oregon: D-10. Location should read ...on Butler Road.  
A-4c. Type - shelter.

The description of East Ice Cave was actually of South Ice Cave.

Please send in your contributions and field trip reports for CCR #3.  
ACTING SUMMER PUBLISHER - Bob Middleton.