

PRELIMINARY REPORT ON PAPOOSE CAVE, Idaho County, Idaho
by Bill Halliday

For approximately one year, the Cascade Grotto of the N.S.S. intermittently has been probing Papoose Cave, located at an elevation of about 5,000 feet on Seven Devils Mountain between the Salmon and Snake Rivers. On June 11, 1966, a joint Convention-bound party from the Cascade Grotto, Salt Lake Grotto, and Shining Mountain Grotto reached two siphons which apparently represent the bottom of the cave. Although an exact figure cannot be given at this time, the methodology given below appears to promise a considerably more accurate estimate than is customary in preliminary reports of this type, for caves of this type.

Because of its pattern of proceeding down the dip of an impurity-containing limestone dipping about 40 degrees, Papoose Cave somewhat resembles Neff Canyon Cave. However, differences are major. On the route employed, the longest single pit is about 65 feet deep. The cave is much more complex than Neff Canyon Cave, and to a large degree consists of sinuous vadose canyons often about 100 feet in height. Many abandoned channels are present at higher levels, and side passages open at multiple levels. Speleothem development is more like Soldier's Cave, California, than Neff Canyon Cave. Also the present dendritic stream pattern is unlike Neff.

Papoose Cave has two entrances along Papoose Creek, with a differential elevation of about 50 feet in spillover points. Both are large cavernous grotto-sinks sloping back into the canyonside. The upper entrance has not been connected into the main system, but there is a large pit-containing passage continuing past the point of farthest penetration here, and also upstream from the main area at the point where fluorescein showed its stream to join the other. A connection between the two is presumed in the figures below. (Note: This connection has now been established. WRH) There is also a potential of an upstream extension of the upper entrance area to add height to the cave.

On the weekend of May 30, 1966, the Cascade Grotto employed two temperature corrected altimeters. One was observed periodically at base camp in a large nearby shelter cave. Since it did not shift perceptibly during the period of observations, it is believed that barometric changes do not have to be allowed for.

The lowest point of altimetry on that trip was a resting point just above the entrance of the Millrace Room (a point where green-dyed water - presumably the main cave stream last seen at a depth of -420 feet on the route employed enters from the opposite side from that which it was last seen.) A reading of -740 was obtained. The altimeter was then cached at a point about 50 feet deeper, judged by guesstimate, or minus 790 feet.

In the interim, altimetry figures were checked against a map in Forest Service files, said to have been made with a Brunton compass. Three common points could be compared; the lowest at minus 420 altimetrically. Divergence was 10 feet at one point, 5 feet at the others; two of these were minus, one plus.

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