

Cascade Caver

The Newsletter of the Cascade Grotto of the National Speleological Society

Dear Santa,

I have been very good this year. I haven't broken any stalactites, woken any bats or made fun of the spelunkers I rescued. So, Santa, this year I want a new LED headlamp, a waterproof cave suit, a Petzl stop, lots of batteries, 100 feet of static rope, warm wool socks, a gift certificate to REI, the Alpine Caving book, a Lost Creek pack, a girlfriend who caves, leather gloves, several locking biners, a clinometer and compass, Sealskinz socks, half a dozen chocks, a Platypus, a GGG harness, a previously undiscovered cave, a carbide lamp, a real hiking backpack, snowshoes, all expenses paid to Convention, a sked, rope pads, the Texas Conservancy calendar, a new

Cascade Caver

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All material to be published, subscription requests, renewals, address changes, and exchange publications should be sent to the Grotto address.

Jan. 4

(253) 946-3431

(206) 937-5295

GROTTO MEMBERSHIP

Membership in the Cascade Grotto is \$15 per year. Subscription to the *Cascade Caver* is free to regular members. Membership for each additional family member is \$2 per year. Subscription to the *Cascade Caver* is \$15 per year. Subscription via email is \$11 per year.

GROTTO ADDRESS

Cascade Grotto; P.O. Box 66623, Seattle, WA 98166. This post office box should be used for both the grotto and for the *Cascade Caver*.

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UPCOMING EVENTS

Please notify Eve Proper of any upcoming trips. Contact Jennifer Dorman at idahocaver@gemstategrotto.com for any Gem State Grotto trips. Contact Claude Koch at claudekoch@uswest.net for any Willamette Valley Grotto trips.

Cave Ridge trip - Danny Miller. Will be snowshoeing or hiking dependent on

weather.

Jan.17. Grotto meeting

Jan. 18 Goldmyer hot springs - Lloyd Stevens or

Scott Davis

Jan. 25 Red Cross First Aid class - Eve Proper

Feb. 7-9 Trout Lake snowshow/ski trip - Van Bergen

Bergen

Feb. 15 Red Barn vertical practice - Wendel Pound

Feb. 22 Grotto meetings

MEETINGS

Regular grotto meetings are held monthly at 7 p.m. on the third Friday of each month at the Shoreline Community Center in the Hamlin Room. The Community Center is at 18560 1st Ave. NE in Shoreline. Please see the map on the back cover of this issue.

COVER

A caver's modest Christmas wish list.

Cascade Grotto Nov. 15 Meeting Minutes

Submitted by Aaron Stavens, Secretary-Treasurer

Attendance:

Aaron Stavens, Eve Proper, Robert Mitchell, Stuart Monson, Jim Harp, Doug Knapp, Bill Petty (new member), Jackie Ramsey, Van Bergen, Jon Crouch, Jeff Watts, Jonny Slumpf

Old Business:

Van continues to work on the grotto handbook. His
work is almost complete. The current handbook specifies the meeting location as the Mountlake Terrace
Library under the Operating Policies. A motion was
made, seconded, and passed to change the meeting
location from "Mountlake Terrace Library" to a "designated location."

New Business:

- Van announced that the grotto's holiday party will be held on Saturday, December 7th at the Lake Stickney Community Center. The party starts at 6:00 PM. Julie McGinnis is organizing the party and Jim Harp has volunteered to cook a ham. Contact Julie if you'd like to help out.
- Jim announced that seasonal bat closures go into effect today.
- Van is looking for trips/activities. The calendar looks pretty barren right now. Don't be surprised if our trip coordinator, Eve Proper, comes knocking on your door.
- 4. Nominations for this years officers were made and seconded:

Chairman:

NONE (Van Bergen was nominated, but declined the nomination.)

Vice-Chairman: Secretary-Treasurer: Robert Mitchell Aaron Stavens

Special Presentation:

We viewed *The Hollow Mountains of Mulu* from the grotto's A/V library.

NCRC cave rescue class

By Van Bergen

NCRC Orientation to Cave Rescue Class Trout Lake, Sept. 28-29, 2002

After Eileen's rescue from Dynamited Cave last summer, the level of interest in cave rescue training was up again. It has been up and down over the years, as grotto members realized that it would be a good idea to know how to rescue a fellow caver in distress, then forgot about it for a while because there weren't that many trips and there were never any rescues anyway.

John Punches lives in Oregon and is National Coordinator of the National Cave Rescue Commission (NCRC). The NCRC doesn't rescue; it trains rescuers. A couple of years ago, Jon McGinnis arranged for John Punches to come up to Trout Lake and teach a small-party vertical rescue class. Few of the participants had sufficient vertical skills, so the class didn't really come off. Fortunately, Punches personally trained Jon and Julie McGinnis and Aaron Stavens; that training came in really handy for Eileen's rescue.

With interest rising again, and with more trained vertical people in the grotto, we decided to try again. Aaron contacted Punches, and then Jon did a great job of organizing the class in a short time. He even recruited a couple of class participants from Seattle Mountain Rescue, with whom we'll work if we're ever called out for a rescue in King County.

About 15 people attended. Most were from Cascade Grotto, with three people from Oregon Grotto and one from Silver Sage (that's right, all the way from Idaho!). Punches brought an assistant, and several of us also helped out with instruction and logistics. Friday evening was an instructors' orientation. Bright and early Saturday, we gathered around the group camp area for registration and lectures on various rescue topics. Punches broke up the lectures with hands-on practice – things like tying a patient into a litter, and carrying the litter around.

Late Saturday afternoon, we drove over to Deadhorse Cave for some more realistic litter handling. Passing the litter through the breakdown-filled stoopways and crawlways was great fun. The idea is to pass the litter along instead of carrying it, and the real trick is getting people who have already passed it along to move back around to the front of the line in time to take their turn again. The tighter the passage, the more interesting that movement becomes. After the exercise, Wendel Pound took the Seattle Mountain

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Cave Ridge: A geological and explorational history

By Danny Miller

Why are the caves there?

The first publication I can find that mentions the geology of Snoqualmie Pass is a publication by Dr. William Ruffner in 1889 ("A Report on Washington Territory"), who, while discussing the Denny and Guye Iron Mines, notes that there are large amounts of limestone near Snoqualmie Pass. The first comprehensive and official study of the rocks was by the USGS in 1899 who noticed a large deposit of sedimentary rocks that covered most of the crest of the Cascades between Silver Peak and Chair Peak, which included some limestone in the saddle now known as Cave Ridge. This was one of many sedimentary deposits found all over the cascade range. It wasn't until the 1950's when a couple of PhD students at UW figured out that the rocks on Cave Ridge were really very different from all the rest of the sedimentary rocks - not only were they some of the only limestone around, but while much of the rock you'll find in the Cascades is less than 40 million years old (for the volcanic rock) or slightly older (other sedimentary rock), this limestone was by far the oldest rock around, being somewhere between 65 and 250 million years old! It was definitely something special. That kind of rock may once have been all over the place, but volcanic eruption (as is possibly the case of the summit of Denny Mountain) and lava intruding close to the surface but not actually erupting (in the case of almost everywhere else) has destroyed most of it, leaving only a couple of small patches of limestone (less than 2 square miles). The heat and pressure of the intruding magma has uplifted and folded the original limestone rocks, and turned much of the limestone to marble. This same process (lava intruding close to limestone) is also responsible for the magnetite deposits that were the object of the iron mining claims made near all the limestone deposits in the late 19th century (more on that later). Some of this magnetite is actually lodestone, so don't be surprised if your compass goes crazy.

Caves form in limestone because it is a very water soluble rock. Some of the caves are probably helped along by being along the boundaries between the limestone and other kinds of rock. The only other good patch of limestone left behind is across the valley on the neighbouring mountain, which had a few reported caves, probably now lost, including Donlan's cave from Halliday's "Caves of Washington".

Discovery

The first recorded notice of a cave in the area was in 1950, but I believe they were discovered long before then. Francis

M. Guye (after whom Guye Peak is named) discovered iron on the mountain in 1882, and he and his business partners made mining claims in what is now the Alpental valley, up the side of the mountain (where they built the trail) and all over the summit of Cave Ridge. There were 12 rectangular claims of about 20 acres each, called Gellivara, Marmot, Valley Queen, Orifend, 4 called Industry, and 4 called Mammoth, owned by 5 people: Francis M. Guye, Thomas Burke, John Leary, B.F. Briggs and John W. Guye. I don't think anybody remembers what the names signified. The interesting thing is that the claims on top of the ridge almost exactly surround the caves, including almost every known cave. That sounds like too much of a coincidence to me; given how much they must have walked around and surveyed their claims, I've got to believe that they knew the caves were there. Although a few horizontal adits were dug (not every hole is natural up there) the iron wasn't good enough, and the mines were too far away from civilization, so nothing became of them. Through the years the claims changed hands, passing to (probably among others) John W. Guye, James E. Hubbart and Victor Borden of Moclips WA (who owned them in 1966). The caves are indirectly responsible for the existence of the Alpental ski area, because when Bob Mickelson, James Sullivan, and James and Ted Griffin were looking to build a challenging ski area around 1960, they bought the mining claims and made a community in the valley to support their new ski area, Alpental. Their original plans, long since abandoned by all of the subsequent owners, included putting lifts up around Cave Ridge.

Re-Discovery

The first documented discovery of a cave up there was by Bob Clark, around 1950, the time the Grotto was founded. I'm not sure what he was doing in the area – probably just hiking. This small cave is at the lowest elevation of all the known caves and became known as Clark's cave. Water flows OUT of this cave, not into it, so between being buried by snow in the winter and flooded during the summer, September/October is usually the only time you can get into it.

When Tom Steinburn heard about it, he and his wife Ann hiked up to investigate on a Sunday in mid-July, 1952. They explored Clark's cave, which at one point had to be enlarged by breaking off some rock for him to fit. They then discovered a second cave, which came to be known as Second Cave (although one report suggests Bob had found it). Tom returned again in late September with George Adair. Clark's Cave was now dry enough to explore all the way. They also explored Second Cave. Finally, they discovered Prospector's

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Cave (sometimes known as Miner's Cave), but didn't go in, which explains why long ago that cave was also briefly known as Steinburn's Cave, or Adair's Cave.

Tom and Ann probably returned at least once over the next few years, discovering Red Cave, Hellhole (but not going in) and a tiny crack that only Ann could fit in (and then only backwards), but not then explored. They may have discovered Newton Cave, although the entrance was blocked when the 1956 party returned. None of these caves were named at the time.

Then on September 15, 1956, Tom Steinburn, Bob Clark, Bob Spring, Joan Webster and Dr. William Halliday made an expedition to explore the caves in more detail. They took some historic pictures of Bob Clark in his cave (the one that started it all) and explored Prospector's Cave for the first time, which, with its 200' of passages became the largest known limestone cavern in Western Washington at the time. At first it looked too small to wedge into, but Bill soon proved that it could be done, and most of the others followed him. Then they went up top and explored Red Cave, naming it after some red flowstone found in a chimney. A new cave was discovered at time, soon named Danger Cave (at one time known as Breakdown Cave), after how unstable the rocks and tie offs inside seemed. It wasn't fully explored until the next year when Tom came back and first descended the pit on rope after learning to trust one of the dangerous looking tie offs. Prospector's Cave's size record didn't last very long, because it seemed that Danger Cave might be even larger. The best was saved for last though, when Hellhole was named explored for the first time. This infamous cave is a 60 some odd foot freefall drop through a triangular crack only one foot long on each side. Tom rolled a log to the opening, they lowered a flimsy rope ladder down the cave, and Bill went down, followed by Tom. Others didn't fit! With the size of the huge main chamber of this cave, plus other side passages, this cave now seemed the largest.

Some other early trips are Tom's return to Danger Cave in 1957, Dr. Halliday returning to Clark (which had water emerging from it), Prospector and Danger in October 1958, and a trip in 1959 where Newton was definitively discovered and named. During this trip, Newton was explored and named by the leader of the party after a Mr. Newton, thought to have discovered it, although another member of the party is said to have noticed it earlier. But at any rate, by 1959 Newton was partially explored, up to the point where there was a 40 foot pit. Nobody would suspect for a long time just how big Newton was. Then on Aug. 27, 1960 Danger and Newton were explored again by a group including Dr. Halliday, when the first survey of Newton was probably done, which at the time, became too small to explore soon after the 40' drop. Perhaps the cave had to be dug out to

reach larger passages (which was often the case). This trip also discovered a small cave 100' west of Danger, never named. In December 1960, Danger Cave was surveyed (being one of the few caves that doesn't get blocked by snow during the winter, the others being Cascade and Ex-Hellation, mentioned later).

Sept. 1, 1961 saw the discovery of a major new cave, Lookout, named after the beautiful spot it is located in. This obvious sink had been noted earlier, but there was no entrance. Tom Hatchett, John St. John and Denny Fredrickson noticed that a large rock in the sinkhole "had moved or been moved" revealing the cave entrance while exploring the ridge with a surveying party that included Ron Stanford, Bob Maynard, Mark Pederson, Luurt Niewenhuis and Dr. Halliday, who had to enlarge the opening passage 20' inside of the cave to allow further exploration up to the first vertical drop. On this date a mention is made about not being able to fit into "Tom's Wife's Cave", the cave only Ann had managed to wriggle into (the same small crack discovered around 1953). On Sept. 2, 1962 the drops in Lookout were made and more of the cave explored and surveyed. It was suspected that it might connect with Hellhole, but smoke bombs were released in Hellhole on Sept. 7, and nothing was noticed in Lookout.

In 1963 Dr. William Halliday published his famous "Caves of Washington". It mentions a few more minor caves that had been noticed during this early period. One such cave is Cliff Cave or Huckleberry Cave (what is now known as Ice Cave for the ice that remains in this small shelter almost year round) discovered somewhere during the 1952-1956 trips. Also it is noted that Danger Cave has 2 entrances next to each other, and that there is another small cave 50' south east of Danger Cave, called Danger Cave Annex. It also mentions the highly unusual 20 foot pit 25' east of Newton (probably an underground chamber whose roof collapsed), and a small pit called "Ledge Pit" above Clark. Finally, it notes two minor caves, the one 100' west of Danger, and the 9" crack then only known as "Tom's Wife's Cave" which it locates between Hellhole and Clark.

Recent History

One interesting thing about Caves of Washington is that it fails to mention some large prominent cave openings. The most conspicuously absent is Cascade Cave, probably the most visited cave (because it is the largest easiest cave). This is because Cascade Cave is actually "Tom's Wife's Cave", Dr. Halliday's unnamed 9" crack. Finally, on October 4, 1964, Don Dilley squeezed into the entrance (almost?) naked. He was on a trip with Marcia Brown, Byron Kato, Ron and Dan Paris, Bill Simpson, and Luurt Nieuwenhuis. A little forcing got the opening wide enough for the others to

follow. They found a sequence of cascading drops (probably what they named the cave after) and some larger rooms that they also forced their way into. A second trip on Oct. 11 found more rooms (the same group minus Marcia but plus Don's wife Carol). A few years later another entrance was dug out, still small but much larger than the natural entrance, and now the cave isn't a problem anymore.

Similarly, Hellhole has a back door, which was dug out by the Lewis brothers in the late 1980's. They noticed a sink next to Hellhole, and just started digging. This back door is especially interesting because there is well decorated colourful rock just inside the cave, as well as an easier (read: bigger) opening you can drop into the chamber through.

Also discovered since then: Ex-Hellation Cave, dug out by Chuck Crandell (early 90's?), called so because it breathes (or some would say because you can't fit in it until you've fully exhaled). The Lewis brothers probably dug out an entrance to Norton Cave in the early 1990's (so named because of its resemblance to a certain Honeymooners character). This small cave has 3 ways in (2 real entrances). Larry McTigue reports that he and Rob Lewis dug out the couple of small caves near Clark Cave they called Flute Cave (for the limestone fluting) and Speleogen Cave (in red ironrich rock) sometime between 1985 and 1995.

The most interesting recent discovery is how deep Newton really is. Originally, it was surveyed at 150' deep. After some digging out of the narrow crack after the 40' pit, it was discovered that the cave went much further, much deeper, and over 3 more cliffs that required ropes. This placed the cave at about 450' deep. In the last 10 years, Larry McTigue and Rob Lewis have managed to penetrate even further, over a fifth rope drop, and the cave is now known to be at least 600' deep (almost a third of the way back down the mountain!) and is the deepest limestone cave known in Washington (Ape Cave, a lava tube, is deeper), and the 39th deepest limestone cave in the US! Chuck Crandell found that water entering Newton comes back to the surface almost 1000' below its entrance, so who knows how much further the cave can be pushed.

The ridge with the caves came to be known as Cave Ridge informally during the 50's as the caves were first being explored, but I think it wasn't until the 70's that the USGS recognized the name and started printing it on government maps.

There aren't a whole lot of formations inside these caves. Perhaps the water is too pure (not acidic enough) since fresh rainwater is the only water that reaches the top of this ridge. You'll mainly see beautiful walls of coloured marble, and colourful allophane (which is uncommon in caves) and other flowstone deposits, but not very many formations

(except a few very small versions of stalactites, boxwork, etc.)

In the 1960's, Hellhole, Cascade and Newton were gated by Rod Crawford and Bob Brown to protect the caves, and the owners from liability. But vandals had destroyed the gates within 10 years.

If you have any more information at all to add about the history of discovery of any cave up there, please contact the author at DannyMi@Alpental.com.

In conclusion, please cave safely. Nobody has needed to be rescued from a cave up there yet (at least nothing that the party themselves couldn't handle) although one caver was airlifted off the ridge with a broken ankle on Aug. 18, 1996. The caves are remote and difficult, making a rescue almost impossible. Cave with care!

Thanks to everyone who helped me out with this article, and a special thanks to Dr. William Halliday for much valuable information, to Mark Sherman for re-typing the old, faded articles from the early Cascade Cavers, and to Larry McTigue for many interesting details.

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Bob Gulden's cave register, June 2002

NCRC rescue training, continued

Rescue guys for a little tourist trip in Deadhorse, apparently hooking them on caving.

Back at the campground, after dinner, we had some vertical exercises and checkouts. Normal NCRC Orientation classes are strictly horizontal. But given the number of vertical caves in the Northwest, Punches planned vertical components for all the class members who were ready for them. A full mock rescue was planned for Dynamited on Sunday, and Punches figured that some of the class would wait at the top of the first drop to carry the litter, while the more vertically-inclined students would haul the litter up the drop.

As it turned out, everyone in the class was ready to get on rope. Erin Robert was our volunteer patient at the bottom of the second drop. An advance team entered the cave to rig the drops and locate the patient; another team followed closely behind to rig the haul system, and the rest of us carried in the litter. I was pleased to be in charge of the litter team; I already had a little experience in rescue rigging and hauling, but never directed a litter carry. Jon had demonstrated his expertise at directing a litter team during Eileen's rescue. I figured there should be more than one grotto member with that kind of experience, and I hope I learned from my mistakes.

When the litter team arrived at the second drop, it was already rigged. The patient was at the bottom, so we sent the litter and packaging material down. With several people at the bottom, and several working the haul system, it dawned on me that we weren't going to have a very big litter team on the way out. The rigging team would have to derig the haul system and take it back to the first drop, and it would take a while for the people at the bottom to climb out.

When the litter with its securely tied-in patient arrived at the top, we only had eight people available to carry it. That's a skeleton crew, and we had a long way to go over nasty breakdown. I told Punches I didn't think we had enough people, and that we should wait for some those at the bottom of the drop to climb up and help out. He said, "You have plenty of people – get moving!" Geez, what a slave driver! But he was right; the main idea is to get the patient moving toward the entrance as soon and as fast as possible.

So off we went over the breakdown, with eight people passing the litter – six on the litter while the last two peeled off as they let go moved to the head of the line to take their turn again. I scouted the route ahead and kept yelling back for them to follow my light. Normally, the litter team has a medic to monitor the patient, but we didn't. Because I was so wrapped up in keeping the team moving, I didn't pay any

attention to Erin's condition, – and she started getting sick to her stomach! We had to stop and let her out of the litter.

I hadn't paid attention to the team either, and they were beat. Passing a litter over breakdown is incredibly hard work, even for a big team, and we had a tiny team. Wendel suggested that we not put a new patient in the litter until it we got to the first drop, since the team already had plenty of practice and they were getting so tired that continuing the exercise would have been a safety hazard. My first thought was, hey, no mutiny allowed, get back to work (I must have been picking up vibes from Punches!) but then I realized Wendel was right. No sense risking real broken legs on a mock rescue. And we were almost at the first drop; we had covered an amazing amount of ground — of the breakdown variety — in a short time.

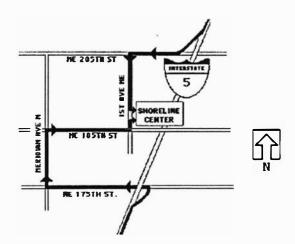
At the first drop, the rigging team was ready to haul again. Mark Sherman volunteered to be tied into the litter. This time we didn't have an aluminum ladder to slide the litter up (there was a ladder there, but it wasn't ours and we didn't use it). The litter got stuck at the lip, but Punches managed to kick it loose. I'm sure Mark found that part amusing.

Pretty soon we were out of the cave and back at the cars. Punches' debriefing was short and sweet. We did a good job. But a cold rain sent us all running for our cars before we got to pat each other's backs. Mark and I didn't need to go back to the campground, so we caravanned down the back roads to Carson. On the way past Big Lava Beds, we saw a car at a trailhead with a "Search and Rescue" sign on the side. I wonder where they were from. They should take the next class.

And I think there will be a next class, probably in the Spring of 2003. Everyone had a good time and learned a lot. This mock rescue was a lot more intensive than the one at the Orientation class I had in the Midwest, which was strictly horizontal. Two rigged drops made this more like the mock rescue at a week-long NCRC Level 1 class. This was a great refresher, and I learned a lot of new stuff too – different type of cave, different techniques. The Seattle Mountain Rescue guys are exceptionally competent and full of good ideas that might not otherwise occur to cavers.

Thanks again to Jon McGinnis for organizing the class, and to John Punches for being a brilliant and entertaining instructor. And thanks to Dave McElmurry for setting up regular practices so we can stay sharp, for keeping up contact with Seattle Mountain Rescue, and for working on the logistics involved in making us into a functioning rescue team. If you're interested in learning along with us, get in touch with Dave. You'll be glad you did. ❖

Meetings and Directions



The Cascade Grotto meets at 7 p.m. on the third Friday of each month at the Shoreline Community Center. The Community Center is located at 18560 1st Ave. NE in Shoreline. To get to the Community Center from Seattle, take Exit 176 on Interstate 5 (175th St. N) and turn left at the light at the bottom of the off ramp. At the next traffic light (Meridian Ave. N) turn right. Turn right at 18th St. N (the next light). Turn left of 1st NE, which again is the next light. Don't get confused with the Senior cCenter, which is on the end of the building. Enter the building on the southwest corner and find the Hamlin Room.

Please join us at our next meeting!

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