Southwesternmost Peak of the White Mountains
CALENDAR OF EVENTS

September 18  Glacier Grotto Meeting. The program will be slides of our July White Mountains trip. Meetings are held in room 312 Grant Hall, Alaska Pacific University at 7:30 pm.

October 16  Glacier Grotto Meeting. The program will be an NSS slide show on Ellison's Cave in Georgia. Meetings are held in room 312 Grant Hall, Alaska Pacific University at 7:30 pm.

November 20  Glacier Grotto Meeting. Meetings are held in room 312 Grant Hall, Alaska Pacific University at 7:30 pm.

November or December - some weekend. Glacier Caving at Byron Glacier or elsewhere. Contact Jay Rockwell at 277-7150 if you are interested.

December 18  Glacier Grotto Meeting. The program will be an NSS slide show on "Fundamentals of Caving". Meetings are held in room 312 Grant Hall, Alaska Pacific University at 7:30 pm.

January 15  Glacier Grotto Meeting. Meetings are held in room 312 Grant Hall, Alaska Pacific University at 7:30 pm.

February 19  Glacier Grotto Meeting. The program will be an NSS slide show.

March 19  Glacier Grotto Meeting.

April 16  Glacier Grotto Meeting. The program will be an NSS slide show.

July 18-24  Eighth International Congress of Speleology in Bowling Green Kentucky. This is the first time that the International Congress has been held in the United States. There will be a week of sessions, meetings, and trips as well as pre-congress, post-congress and daily excursions to caves and karst features. For further info request the second circular from: Eighth International Congress of Speleology, The Secretariat, Department of Geography and Geology, Western Kentucky University, Bowling Green, Kentucky 42101. Fees range from $5 for a single day's sessions to $130 for full membership.

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WELCOME to Dr. Keith D. Vynel, #18457 Box 160, Fairbanks, AK 99701, a caver who has just moved up to Alaska.
The White Mountain Summer Trail offers access to Beaver Creek and the White Mountains. The area's attractions are many; alpine ridge-tops offer views of the White Mountains and the Alaska Range, there are also birds, berries and caves. Beaver Creek offers excellent Grayling fishing. US Fish and Wildlife has a cabin at the junction of the trail and Beaver Creek. Reservations (free) must be made with them in Fairbanks.

Richard Hall, John Foster, Sara Forbes, Emile & I left the trailhead at milepost 28, Elliot Hwy on Sunday morning, July 20. The trail is well marked and proceeds across Wickershams Dome (320?) and follows the ridgeline through moderate ups and down across Pt. Sham (321?) and on for an additional 2-3 miles and then generally down the ridgeline to the junction with the White Mountain Winter Trail, approximately 19 miles from the trailhead.

As most everyone knows, the designation of Winter-trail means wet feet, tussocks and mosquitoes in Summer. The last two miles of this trail offers those ingredients in abundant measure. The chance to wade Wickershams and Beaver Creeks is most welcome after traversing the sloping swamp. In years past BLM & YCC crews have constructed board walks over many low areas on the trail. I just wish they could have included the last two miles.

On our way in we met two people coming out who advised Beaver Creek was too high to cross. When we arrived at the edge of the creek, we met two German hikers (from Berlin) who had spent two days unsuccessfully trying to rig a tyrolean bridge across the water. They also thought it was too deep to cross. Within 15 minutes Rich and John had scouted the area and found a place to cross where the water was only mid-thigh. Beaver Creek has a good rock bottom and is not too swift, so there really was no problem.

The cabin is in good shape, except for a few extra doors made by the resident red squirrel, and the lack of a few window screens. Good tent sites are scarce in the vicinity of the cabin, but there are abundant sandbar sites in the general area.

We spent the next 2 and one half days using the cabin as a base of operations for fishing, berrypicking, and two sorties into the westernmost White Mountain Range exploring for caves. One cave worthy of the name was examined, sketched and photographed by Richard. Other caves were visible, but not reachable without technical rock climbing on the rather friable limestone faces.

The trip out retraces the same route, and the swampy area is no easier on the way out, going uphill, even with a lighter pack. We chose to do this portion late in the evening and dry camp about 5 miles from the cabin. It seemed to be a wise move to avoid daytime heat in the swamp.
This trail offers something for just about everyone, from berrypickers and scenery buffs to fishermen, birders, climbers, and cavers. We saw the usual wildlife, including squirrels, marmots, beavers, and moose (a little closer than I prefer) and numerous birds, including several varieties of hawks, owls, and possibly a peregrine falcon. We were blessed with gorgeous Interior Summer weather except for the last night of rain and wind, which we spent in a sheltered campsite.

The only word of caution to be offered to anyone contemplating this trip concerns the availability of potable water on the trail. There are no streams until Wickersham and Beaver Creeks so for 20 miles water must be taken from springs. The availability and color is not always convenient or conductive to enthusiastic use. It's possible that no water would be available during a very dry year. The first spring is approximately 7 miles from the trailhead and the second one is about 13 miles in. Carrying plenty of water from the trailhead is definitely recommended.

The White Mountains and White Mt Trail (X marks springs)
Are there caves in the White Mountains? Yes there are. Our trip there from July 20 to 27 confirmed that there are solution caves in the Tolovana Limestone in the White Mountains although no major caves have been found to date.

Pierce and Emily McIntosh, John Foster, Sarah Forbes and I drove to Fairbanks on Saturday July 19 leaving behind one of the few beautiful days Anchorage had seen so far this summer. Of course, there were thundersnowers in Fairbanks when we arrived but they quickly dissipated. Dave and Ginny Moll had invited us to stay with them so our first item of business was to figure out where they lived which took a bit longer than I expected but we did it. I also stopped in to see Herman Bucholtz, a retired trapper and guide in the White Mountains. He had some good advice for us on where to go and how to get about in the mountains but said he was not aware of any caves there. It was a beautiful sunny Sunday as we hit the old BLM White Mountain Trail (see Pierce McIntosh's article on the hike on page 3) headed for the Borealis LeFevre cabin. The map on page 4 shows the route of the trail.

From the cabin, a three hour hike down Beaver Creek will get you to the most southerly peak of the White Mts. Actually our first attempt followed the southernmost meander of Beaver Creek and took four hours with lots of grueling crawling through brush and slogging through bogs; but we found that by taking the northernmost branch and by crossing and recrossing the stream in the right places you can make the trip in less than three hours and much more enjoyable. The map on this page shows the various routes taken. John, Pierce and I hiked to the mountain on Tuesday and Sarah and Emily joined us on Wednesday. This is where we began our cave search.
The Tolovana Limestone has been described in a paper entitled 'Preliminary Results of a Survey for Thick High-calcium Limestone Deposits in the United States' as "99 percent calcite with no dolomite or deleterious rock types, 1500 to 3000 feet thick" and was discussed in the Alaskan Caver Vol 5 No 2. The best book for a general geologic introduction to the area is USGS Bulletin 872, "The Yukon-Tanana Region, Alaska" by J.B. Mertie, Jr., 1937. More specific to the White Mts is a 1960 master's thesis by Richard Church and M. Charles Derfee entitled "Geology of the Fossil Creek Area". It describes all the rock units in the middle section of the White Mts and postulates that extensive faulting has caused the limestone to weather in two main ridges and several irregular outcrops. The double ridges referred to by Church are not evident in the area where we were. There was only a single ridge and all of the rock was slanted at an angle of about 80 degrees with the strike running about north-northeast, the same direction as the mountain range in general. The slope of the mountainside on the east side (our direction of approach) is about 60 degrees but is not quite as steep as the west side. The east side is covered with dead trees from a forest fire which makes it difficult at times to climb the slope. Thickness of the beds according to Church range from two to twenty feet near Fossil Creek; examination of the rocks in this area show the bedding variable from one inch to over ten feet.

Church and Durfee measured the thickness of the limestone near Fossil Creek at 3215 and 4225 feet in two different places although the base is not exposed due to faulting and the upper contacts have been removed by erosion. The Tolovana Limestone only crops out as a band up to a few miles wide and 90 miles long however, it is suggested that it is part of a much broader limestone deposit ranging from the Kuskokwim valley to the Porcupine River.

All told we found three caves (defined as larger than body size) and a number of smaller solution and karren features. We saw our first cave, Drip Grind Cave (map page 7), through our binoculars from a half mile away which is why we decided to explore that part of the mountain. It consists of three rooms, one on the right that stretches the entire 20 foot height of the cave and two on the left, one above the other with the entrance to the upper from the cave face and the entrance to the lower via the righthand room. There are many small solution tubes up to six feet long around the walls of all the rooms and in the ceiling of the upper rooms. These may or may not be related to the vadose seepage patterns but water does, or has, run down the 80 degree bedding plane, into the upper part of the cave, then through the ground between the floors, into the lower room and out through the dirt and breakdown in the bottom of the cave, still following the bedding plane; much as water drips through a drip grind coffee pot hence the name of the cave. The breakdown in the bottom of the righthand room consists of a pile of boulders with space underneath them but no effort was made to move the rocks and there was not enough room to fit between them.

There are also several other places on the mountain where solution (too small for humans) follows the bedding plane. There are two cases near Drip Grind Cave where these tubes form tunnels through peaks of some spires.
A small (18" by 24") cave was discovered by John on Wednesday to the left and uphill from Drip Grind Cave. It went in for at least 12 feet before turning down and out of sight. He did not explore it due to the volume of marmot droppings on the floor.

I found another cave on Wednesday about 200 feet to the right of Drip Grind Cave and almost to the summit of the mountain. It consists of one big hole, 15' high and wide by 10' deep; more typical of a large frost pocket cave than a solution cave although there was a small solution tube in the back of it. It also was a favorite animal shelter as it contained a large amount of animal feces.

The potential for caves in the White Mountains is huge and it will take years to cover even a small part of them. To save time it would be better to do several things differently. Fly in rather than take four days hiking in and out. Camp nearer the mountains rather than take a minimum of six hours a day hiking to and from the rocks. Investigate the mountains further north where the limestone is thicker and there is less vegetation. Take a fishing pole. Note that travel earlier in the season could be hampered by higher water on Beaver Creek and more mosquitoes.

Rich Hall
CHITISTONE

We made it into Chitistone Valley in late August, found a few new caves, surveyed part of one, stared in awe at the inaccessible holes in the rock faces, and had a great time. Full report in the next issue.

CHANDALAR

During a flight down North Fork Chandalar River from Chandalar Camp on the Oil Pipeline, the Skajit Limestone was found to have cave-like openings. This limestone surfaces in a band extending from Sukakpak and Weil Mountains on Middle Fork Koyukuk and Dietrick Rivers, extends northeast up Mathews Creek and crosses North Fork Chandalar River in Township 35N., Band Ranges 5 and 6 of the Fairbanks Meridian (see USGS Chandalar D 4). It is near Reds Lake and a promising opening, among others, was seen in T. 35N., R. 5W sec 10(of FM). The extent of the exposed limestone belt seemed to broaden as one went north.

Jay Rockwell