

April 1994

## Alaskan Caver, Volume 14, No. 2, April 1994

Dalene T. Perrigo

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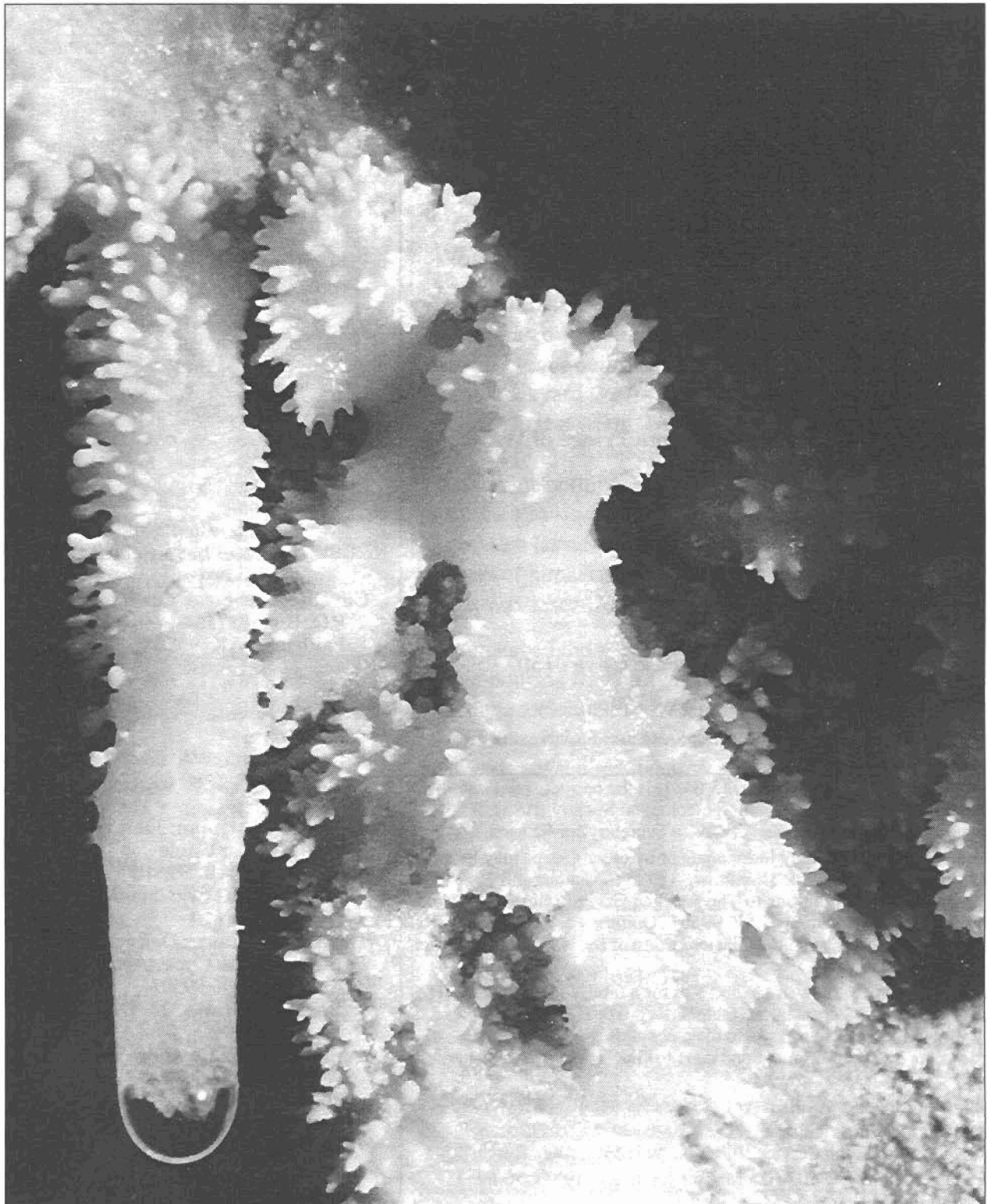
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# The **Alaskan Caver**

Volume 14 Number 2

April 1994



# The Alaskan Caver

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Dalene T. Perrigo - Editor

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Cover Photo: The formations of El Capitan Cave draw tvisitors from around the world.

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- Anchorage Meetings: Call Harvey Bowers for details. (907)376-2294.
- Ketchikan Meetings: 7 p.m. the first Monday of the month at the Alaska Public Health Service Building, 3054 Fifth Ave., Ketchikan.
- Fairbanks Meetings: Call Mike Mauser for details. (907)456-6953

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April 1994



David Love, who did his first serious caving at POWIE VII, leaves Marblous Cave. Photo credit: Pete Smith

## CALENDAR

**May 28-30, 1994** Northwest Caving Association's annual meeting,, Marble Mountain SnoPark, WA (206)693-3600.

**June 10-12, 1994** NSS Cave Diving Section Spring Workshop, Branford, FL. Van Flowers, (813)683-1073

**June 11-18, 1994** Rigging for Rescue. Kirk or Katie, Invermere, BC, Canada (604) 342-6042

**June 20-24, 1994** 1994 NSS Convention, Brackettville, TX. (512)441-0050.

**July 1-31, 1994** POWIE VIII, Prince of Wales Island, AK (907)846-5223

**Nov. 4-11, 1994** 7th International Symposium of Vulcanospeleology, LaPalma, Canary Islands, Spain FAX (34-22) 430392

## Caver questions his decision

by David Love

As I worked with the other caver's at POWIE VII, I began asking myself some questions. The first was elementary.

"What was I doing here?"

Barely a month ago I had been tied into an oversize seat harness and lent a set of ascenders. A backyard 20-foot cliff was my first descent. Now, I was dropping into black emptiness with nothing between me and gravity but an untested seat harness and newly tied set of jumars. My mental focus was laser-like.

Fortunately, I didn't notice the sweat pouring down my face nor my accelerated heartbeat until I stood shaking slightly at the edge of the second drop. Whew, what an adrenaline rush!

"Welcome to Pendulum Pit," said Kevin Allred with a big grin.

I had volunteered for POWIE VII for the adventure, but also for other reasons. There was a clause in the Forest Service agreement that said the organization would protect significant caves and drainage sys-

tems that volunteers of POWIE VII identified and surveyed. This meant protecting old growth; leaving behind something more than a fractured ecosystem for our children. This behavior was not new. Being somewhat of a conservationist and sometimes rabid preservationist, I had submitted myself to harsh chemicals and harsh environments throughout my life as a biologist. But dropping 70 feet into darkness on a 12 mm rope - was I nuts?

In June, I trained with Mike Van Note and Kevin Allred in Haines, and I had read "On Rope" and climbed blindfolded on ropes in the Sitka spruce near my Mom's house on Spruce Island. But now, I was stuck! My Simmon's chest harness was pinned by my own weight

*Continued on page 2*

## PRESIDENT'S CORNER

by Marcel LaPerriere

As we enter the season when most of us do our caving and other outside activities, possibly it's time to stop and reflect on the thought that we are the guardians of the future. It is our actions that will help protect and pre-

*Continued on page 3*

### Continued from page 1

against the marble at the edge of the drop I was ascending in Blue Marble Cave.

"Push off with your legs, you Nimrod," I laughed to myself. The only problem was I couldn't reach the wall with my feet due to the overhang. I began to sweat.

"What next?" I wondered.

About that time, my headlamp went out. Fortunately, the previous night, I had drilled my beloved helmet (a favorite piece of my gear) with holes to hold my new mini mag.

Ah! Light again, and adrenaline! I still don't know how I got over that overhang.

I was lucky. I had researched ascending and descending techniques, practiced and been

trained by experienced fellows.

During POWIE VII I worked with knowledgeable cavers who always double-checked their knots and tie-off points and knew what they were doing. I never once felt unsafe.

I was uncertain as to what I was getting into prior to arriving on Prince of Wales Island, but the training put my mind into sharp focus on the activities ahead.

Yet, I was still confronting myself during the last week of the expedition. While on my second trip to the subalpine tent camp on Calder Mountain, and some fantastic caving in marble with Kevin, I began to have nightmares about getting stuck in a tight passage. It rained more the second trip and I could not get the distinctive smell of cave mud

out of my nostrils. The dreams continued to wake me nightly, even after our return to the base camp on El Capitan Passage.

The previous day I had slithered on my right side through a squeeze in a cave named Celestine's Skylight, that was so tight it took my seat harness off in the process. Needless to say, after the previous week of recurring dreams, I was unsure about returning the way I came. But I did.

Ironically, I had to return again the next day with a longer rope which was needed to drop past "Seat Harness Squeeze". The nightmares stopped.

"What was I doing here? Was I nuts?"

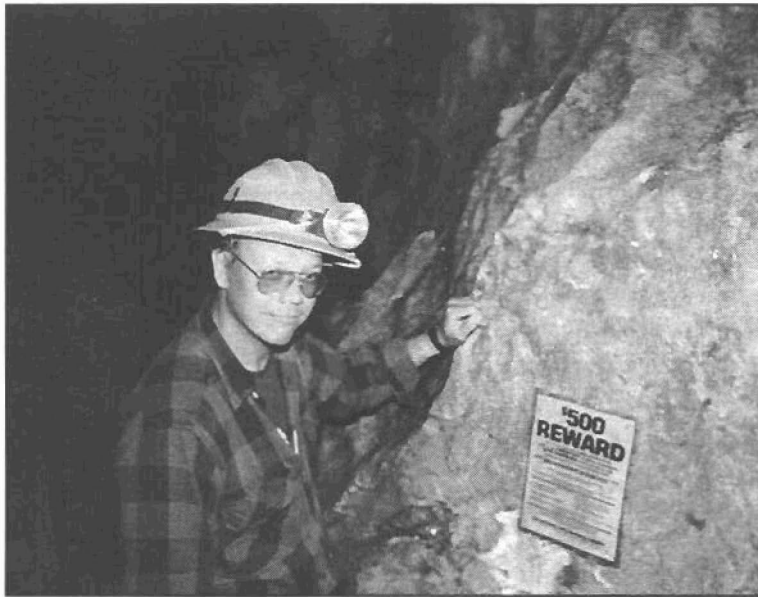
Maybe so, I grinned to myself, but it's worth it!

## Additions to MEMBERSHIP LIST (more next edition)

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Ward, Bryce	6987 E Emigration Cyn, Salt Lake City UT 84108-1757	94	36568FA	(801)581-7534	
Weiss, Edward W.	25115 Homestead Rd, Chugiak AK 99567	94	38895SN	(907)688-6029	(907)267-2284

### Address or Telephone Number Changes \*\*\*\*\*

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Allred, Ella	PO Box 376, Haines AK 99827	94			
Allred, Flint	PO Box 376, Haines AK 99827	94			
Allred, Forest	PO Box 376, Haines AK 99827	94			
Allred, Kevin	PO Box 376, Haines AK 99827	94	16730FE		
Allred, Soren	PO Box 376, Haines AK 99827	94			
Bowers, Wm. Harvey	305 S Bartlett Cir, Wasilla AK 99654	94	12088RE	(907)376-2294	(907)376-2294
Branson, Peter	PO Box 2073, Wrangell AK 99929	94	36514RE	Message = (907)874-3291	
Fritzke, Mark	565 Upper Creek Rd, Bayside CA 95524	94N	16064RE	(707)822-8566	(707)822-8566
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Kowalczyk, Mary	PO Box 9367, Ketchikan AK 99901	94	37166RE	(907)225-0131	(907)247-8574



*The \$500 award for information leading to the arrest of those defacing the cave has not prevented vandalism in El Capitan Cave. Bruce Campbell, August 1990. Photo credit: Dalene Perrigo*

serve caves and forests as well as the wilderness experience for future generations.

The last weekend in March, six Glacier Grotto members traveled to El Capitan Cave to help the US Forest Service start a photo documentation of the cave. Even though most of us that were part of this trip had spent many hours in El Cap Cave and we had seen the mass vandalism, we were still shocked at all the destruction that has taken place. When we slowed down to a snail's pace and started taking photographs, we found it extremely difficult to find any place in the cave that had **not** been vandalized.

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*... we were still shocked by all the destruction that has taken place.*

---

A couple of us almost felt like crying when we realized how much more fantastic El Cap was at one time. It is a shame that so very few people ever got to see the cave in it's splendor.

As we find more caves in Alaska, I feel we are duty bound to protect them.

I see one of the missions of this Grotto being the leaders that spearhead the protection of our Alaskan caves, for our children and generations beyond. This includes working with the Federal Government to insure that the Federal Cave Resources Protection Act is followed and encouraging the State to protect all our natural resources, most especially any caves that might fall on State lands. I would like to see State legislation to protect our caves similar to the Federal Government's. Don't get me wrong, I'm not antidevelopment, I just think we need to act responsibly when we do develop our resources.

By now you have noticed that I have used the word **OUR** several times. This is because public lands, be they State or Federal Government, belong to all of us and it is our responsibility, all of us, to make sure they are managed wisely.

During the Executive Board conference call, we talked about the role the Grotto should play in cave conservation and preservation. We all agreed that the Grotto needs to be more active in cave conservation. Several good ideas were discussed, but we could still use more. If you have any ideas on what the Grotto's role in conservation should be, we would like to hear from you. Contact your local vice president or contact me by phone (225-4094) or letter (PO Box 9062, Ketchikan AK 99901-4062).

On another note, it is not too late to contact Pete Smith about participating in this year's Prince of Wales Island Expedition (POWIE). It's lots of fun and the work that is done is valuable to all concerned. There is something very satisfying about looking at a cave map that you helped create.

Let's all get out and enjoy the wonderful state we live in! HAVE A GREAT SPRING AND SUMMER!

## Gearing Up For Caving in the Tongass

by Steve Lewis

Even though July is one of the warmer months in Alaska, the underground temperatures remain in the range from 32 to 40 degrees Fahrenheit. Many of the caves are muddy and some have streams of water. Above ground, the elements can change within minutes. Cavers can expect rainy, windy, cold (sometimes bone-chilling if the breeze comes off the glaciers) and very warm weather. Combinations are not unusual.

Gear for outside is designed to keep the caver warm and dry. Since travel through the forest is a requisite to caving in the Tongass, cavers need good off-trail wilderness-gear for the coastal rainforest.

1. This means heavy duty raingear (most Alaskan cavers use the heavy PVC coated coats and bibs such as Helly Hansen, worn by fisherman).
2. High quality knee high rubber boots with good treads are also a must. The "extra-tuffs" available in outdoor and fishing supply outlets in Southeast Alaska are preferred. These boots are excellent for use both inside and outside the caves and extra felt liners allow for switching when one set gets wet. Heavy hiking or climbing boots are acceptable but they suffer greatly with the wetness, especially when combined with the sharp karstified limestone.

3. Many people like to wear rubber gloves to avoid the insidious spines of devil's club. The gloves are useful in the caves too, especially when sketching in a muddy passage, but they need to be loose so they come on and off easily.
4. A rain hat might be useful. I prefer to use a baseball cap to keep the rain out of my eyes. That would be even more important for cavers who wear glasses.
5. Cotton clothing is nice in camp and on the occasional warm dry approach, but polypro or other wicking underclothing is a virtual necessity on wet, cold days and in the caves. A layer of polypro and nothing else under the raingear can work very well during strenuous approaches. Wool is also satisfactory, but it is hard to dry, heavy, and (especially important in tight caves) bulky.
6. To get all this gear to the entrance, cavers will need a heavy-duty daypack and/or a good quality internal frame pack..

Clothing necessary in the cave can vary, depending on the type of cave, presence of water, and goal of the trip. For planning purposes, I'll assume that I'm preparing for a survey trip which usually requires slow travel and frequent stops and thus, the most clothing. Although easy caves will not require all the clothing and equipment I describe, cavers who want to contribute to all aspects of the expedition will probably use all of it at some point. Cavers experi-

enced in the Tongass can help first-timers determine what might be unnecessary for this expedition. For instance, chances are the caver new to the Tongass won't need a drysuit or wetsuit, but with one, the caver's options expand considerably.

1. A complete set of wicking underwear with another layer of pile or expedition weight polypro is a must.
2. I like to have a set of pile bibs with a ratty old pile jacket on top.
3. A balaclava or pile cap is essential, especially during stops. Ideally it fits smoothly under the caver's helmet.
4. Several sets of heavy wool socks to stuff into your extra tuffs are also necessary.
5. A set of caving coveralls (waterproof nylon coveralls) is pulled over all this. While cotton or polyester coveralls are OK, they get wet and heavy and are impossible to dry out by the next day. They also shred, sometimes in less than a week if you get into tight passages.
6. A sewing kit and patching material are useful items to have even if you have heavy nylon coveralls.
7. For any caving, a good quality helmet and three good light sources are required.
8. It's a good idea to put a space blanket, a few garbage bags, and a minimal first aid kit into a waterproof bag and store in the top of your helmet.
9. Cavers need to bring slings, harnesses, a caving pack and other standard caving



gear as well as a set of high quality vertical gear and knowledge of how to use it.

10. For those who want to work in the alpine area or on the outer islands, a good tent, synthetic sleeping bag, sleeping pad, and redundancy of underwear and socks are necessary. Drying out can be difficult and a shower may be from a week to a month away.

Cavers who participate in a Tongass Cave Project (TCP) expedition, will receive AAA and D cell batteries, coarse carbide and caving rope from the Forest Service or TCP. A number of us have added lightweight "river running" dry suits to our caving gear. Worn under coveralls in wet caves, the dry suits allow cavers to swim passages and work in waterfalls or wet crawls without getting our body core wet. They are a bit cumbersome and thus go along only when such conditions are known or expected to exist.

These suits are also great for early season whitewater boating and winter sea kayaking (special prices are available for cavers if you give Steve Lewis enough lead time for arrangements). Other cavers have used wet suits for damp passage. I don't recommend them for swimming, but they can reduce bulkiness a lot in tight passages.

Above all, bring a fit body, an active mind, a flexible personality, and as much experience as possible with you to the Tongass caves. For more information on TCP expeditions, contact Pete Smith, Box WWP, Ketchikan, AK 99950 (907) 846-5223

Nearly \$34,000 has been allocated for an educational project about the caves of Prince of Wales Island according to an article published on March 9, 1994, in the Ketchikan Daily News. Two professors at the University of Alaska Ketchikan campus will be working with Forest Service professionals and a multi-media producer to create a 25-40 minute slide show/soundtrack with money from the University of Alaska Natural Resources Fund. Hopefully, the project will encourage a sense of stewardship within the people of Southeast. The show should be ready for showing this fall, the article reports.

Several photo credits were missing from the February 1994 edition of The Alaskan Caver. Page 1 has a picture of Kevin Allred taken by Steve Lewis. The picture of Marcel LaPerriere on page 3 comes from the archives of Allan Murray and Page 6 has a photo of the karst in Southeast Alaska taken by Kevin Allred. Thank you for sharing them with the readers.

NSS NEWS(March 94, p.106) announced the discovery and exploration of an unnamed pit on Hualalai Volcano, Hawaii, which sets the new record as the deepest pit in the United States. Kevin Allred tells about his 810-foot drop in next month's The Alaskan Caver.

Northwest Regional Caving Association member clubs and interested individuals can help locate and inventory caves in the Mt. Adams Ranger District during the Northwest Cave Research Institute project July 30-August 14, 1994 at Trout Lake, Wash. Project fees range from \$65/week to \$200/entire project for individuals to \$350/entire project for a family of four. The project fees pay for project expenses and all food. For information write NCRI, 9417 Eighth Ave. NE, Seattle, WA 98115 or phone 206-569-2724 after 7 p.m.

Cleve-O-Grotto News (Vol. 40, No.1) lists liability laws under consideration by legislatures across the USA. According to the publication, "Alaska is looking at two measures: HB 41 specifically targets skiing; the other, HB 300, specifies everything from caving to glacier walking, to white water rafting, plus more prosaic stuff like picnicing and bird watching. HB 41 covers civil liability for commercial recreational activities. There is a SB 44 also under consideration. It is similar to HB 41."

Quote: "The era of "freecaving" is rapidly closing. This may be the last decade in which we can appreciably influence the fate of caves and caving in North America....." A. Krause, NSS Conservation Chairman

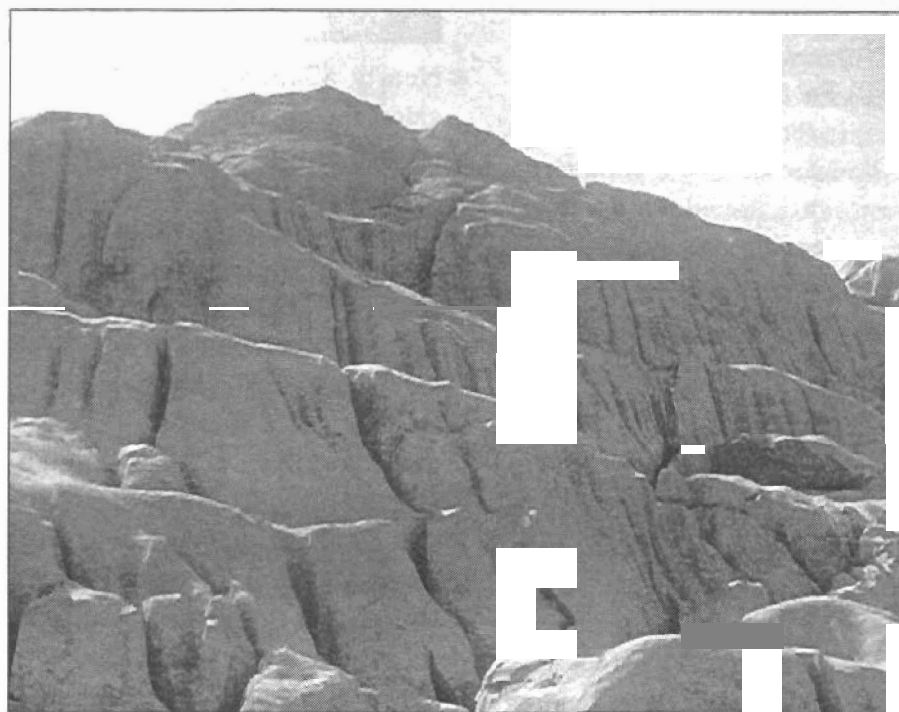


# Alaskan Caving Offers Challenges

by Steve Lewis

What makes caving special in the southeastern Alaskan environment? It certainly isn't just one aspect of the experience: rather, it is a unique combination of temperate zone rainforest; alpine karst; isolation; brilliant blue skies; gray, foggy drizzle; steep rugged terrain; and holes that lead into a dark mysterious world which may reveal anything; fossil imprints of ancient nautiloids, shell middens of earlier civilizations, unique habitats for myriad creatures about which we know little or nothing, deep pits, never-before-described speleothems, bottomless pools and stunning waterfalls, dangling chandeliers of ice, or just tight, cold, muddy walls of limestone pinching too tight.

Although much of the cave country in Alaska has been heavily logged, there are still places that have the feel of true wilderness. Getting to many of the caves on Prince of Wales Island requires



*The bleak, rough, karst outline of Perue Peak serves as a beacon to cavers in the area. Photo credit: Pete Smith*

long hikes through enveloping old growth stands, where it is necessary to make one's own path through the wet brush, scramble onto logs to gain a path above the devil's club, and learn to read the local topography to figure out where a cave might be.

If one walks quietly it is not uncommon to see deer or bear as well as signs and songs of many other forest creatures. What a pleasure after driving through seemingly endless swathes of **clearcut to reach the start of the hike**. Preliminary expeditions to Chichagof Island have revealed many of the same pleasures and sorrows. The bears are bigger

(Prince of Wales Island has only black bears now, and Chichagof has brown or grizzly bears), the terrain is different enough that one must learn a new language to locate caves. Without the constraints of large expeditions, there is a greater sense of freedom with a concomitant loss of the logistical support of Prince of Wales Island.

On Dall Island and some of the other outside islands the threat of logging is less imminent and the isolation even more encompassing. No roads have yet scarred Federal lands although roads and clearcuts are found on many of the native holdings. Learning to

read the land becomes even more important with only the natural features as locating beacons. There are no warm showers or companions other than the cavers on the expedition. The fine details of keeping safe and comfortable must become even more ingrained as part of everyday activities because help can be a very long way off, even when above the ground. With a relatively small group, it is crucial that all members be comfortable with isolation and each other. Flexibility and a willingness to push oneself hard are just as important here as up north on Prince of Wales, and the ability to work independently is perhaps even more crucial here. As we discover more caves, the need for woods skills may become secondary, but, if you can't find your way back to the cave, well.....

Alpine caving is something else altogether. Woodsmanship is a requisite for getting up and down from the peaks when the helicopter is not available, but the prime requirements here are comfort with tight, cold, and extremely vertical caves, and the ability to cave hard for long hours, day after day. It seems to be a given that it rains continuously during alpine trips so if you can't stand being damp and dirty for days on

end, don't come. The surface features are spectacular with everything from pinnacle karst to wide pavements etched with karren and pocked with deep pits. The best explored areas on El Capitan Peak contain pits up to 598 feet deep and the caves have trended to the very deep with long tight drops. We still haven't found the bottom of any of the three big caves and it is likely that we won't until we start camping in the caves. With temperatures near freezing, and with the tight passages that must be negotiated, this is a daunting but exhilarating prospect.

Although the caves of Southeast Alaska can be spectacular in and of themselves, it is the unique temperate zone rainforest system in which they are found that makes them special. There are caves on Vancouver Island that are far longer than any thus mapped in Alaska, but the forest ecosystem has suffered far greater damage than even that on Prince of Wales Island. As the Karst Resources Panel noted in its "Karst and Cave Resource Significance Assessment for the Ketchikan Area," the karstlands of Southeast Alaska contain numerous attributes of both international and national significance. Thus, it is

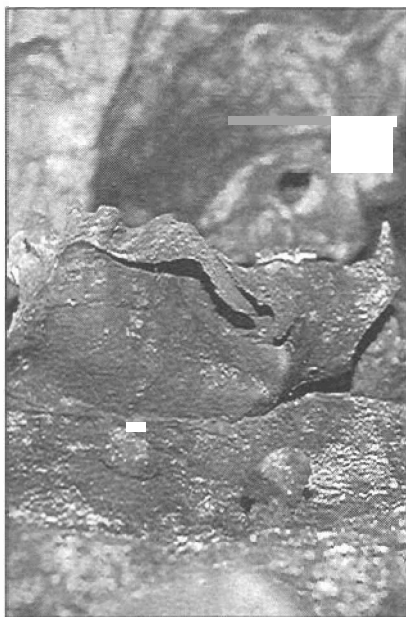
the integrity of the karst ecosystem that makes the caves of southeastern Alaska so special. Without the forest, the caves would not be nearly as important. There are still some highly significant portions of the karst system that have been minimally impacted on Prince of Wales, Chichagof and Kosciusko Islands. A few portions of Heceta Island are still relatively intact. And, on the outside islands we still have the opportunity to preserve some sections of the temperate rainforest karst ecosystem intact, from alpine karst right down to sea level, an opportunity that is unique in the world.

## **You Are Invited to Join POWIE VIII & DIE IV**

1994 Prince of Wales &  
Dall Island expeditions.

WHEN.....July 1-31, 1994  
WHERE.....Southeast Alaska  
COST.....40 hours of  
caving each week of attendance  
HOUSING.....Tents furnished  
FOOD.....Furnished  
RSVP to:

Pete Smith  
PO Box WWP  
Ketchikan, AK 99950  
907-846-5223



*Bear bones from thousands of years ago litter the floor in one of the many caves in Southeast Alaska.*

*Photo credit: Pete Smith*

This article has been submitted for publication to Current Research in the Pleistocene.

## **Fossil Grizzly Bears from Prince of Wales Island, Alaska, Offer New Insights into Animal Dispersal, Interspecific Competition, and Age of Deglaciation**

by Timothy H. Heaton and Frederick Grady

The Alexander Archipelago poses a complex island biogeographic puzzle, with each island being home to a unique subset of mainland species. Prince of Wales Island, for example, contains just over half the species of terrestrial mammals that inhabit Southeast Alaska. Since glaciers once filled the straits that now separate the islands, colonization may have been easier in the past for some species, and therefore the current distribution may be relictual rather than an equilibrium between dispersal and extinction. Islands of the Alexander Archipelago are closely spaced, however, usually about 5 km, and large mammals such as deer and bears are known to swim such distances. Why some large-bodied species are absent from some islands is therefore a mystery.

Grizzly bears (*Ursus arctor*) and black bears (*Ursus americanus*) both inhabit southeast Alaska, but the two species rarely coexist on off-shore islands. Prince of Wales Island, in spite of its large size and proximity to the mainland, has only black bears, and these bears parallel the habits of grizzlies by including fish in their diets. Since grizzlies tend to dominate black bears wherever the two coexist, it was once

thought that grizzlies must never have colonized the island.

Last year we reported on a fossil bear den being excavated from El Capitan Cave on the northern part of Prince of Wales Island (Heaton and Grady 1992a, 1992b). During July, 1992, we opened the sealed den entrance and conducted a full excavation of the site, recovering parts of at least four black bears and three grizzly bears. This site is located in a glacial valley near the bay below El Capitan Peak. Skulls of two additional grizzlies (both juveniles) were recovered by cavers from deep shafts in Blowing in the Wind Cave in the alpine karst on El Capitan Peak. These fossils demonstrate that grizzlies did in fact colonize Prince of Wales Island and occupied diverse habitats there before disappearing.

The large bear previously reported from El Capitan Cave (Heaton and Grady 1992a, 1992b) has now been positively identified as an enormous, aged grizzly. It was radiocarbon dated at  $9,760 \pm 75$  yr. B.P. (AA-7794). Its remains, including cranium and upper dentition, were scattered in the rubble near the entrance of the bear den. A second individual, somewhat smaller, was later identified from the same site, but too much glue was used during preparation of the single femur shaft to use for dating. A third grizzly, smaller still,

is represented by many heavily chewed but beautifully preserved elements found farther inside the den passage. This animal was radiocarbon dated at  $12,295 \pm 120$  yr. B.P. (AA10445), the oldest from the site. Of the two juvenile grizzlies from Blowing in the Wind Cave, the smaller one contains almost no collagen and is therefore undatable. The larger one has excellent preservation and was radiocarbon dated at  $9,995 \pm 95$  yr. B.P. (AA-10451), an age bracketed by the El Capitan Cave grizzlies. The oldest black bear from El Capitan Cave was radiocarbon dated at  $11,565 \pm 115$  yr. B.P. (AA-10448), so black and grizzly bears coexisted on the island for at least 1,800 years.

These data raise as many questions as they answer about bears and island populations. First, it is unusual to find both black and grizzly bear remains spanning a long time interval from the same den. Remains of both species have been found together in caves but are not likely synchronous (Emslie and Czaplewski 1985, Grady 1988, Heaton 1988). Grizzlies rarely den in caves, and that helps explain their generally poor fossil record compared with black bears (Kurten and Anderson 1980). The second enigma is the extinction of grizzlies on Prince of Wales Island. The fact that grizzlies outnumber black bears from the two caves and that their record is older offers the hint that grizzlies reached the island first and outnumbered black bears for a time. Given that black bears, a native American

species, have generally not fared well in areas invaded by grizzlies, especially in coastal Alaska, their lone survival on Prince of Wales Island is strange indeed.

Grizzly remains in upper Alaska date to the early Wisconsinan, but the earliest dates south of the ice are around 13,000 yr. B.P. (Kurten and Anderson 1980). It is highly unlikely that grizzlies could have reached the Alexander Archipelago prior to—or survived there during—the last glacial. Local ice-free conditions during the height of glaciation have been documented on the Queen Charlotte Islands farther south (Warner et al. 1982), but the Alexander Archipelago is thought to have been fully covered by the Cordilleran Ice Sheet until at least 14,000 yr. B.P. (Clague 1991). The Quaternary history of southeast Alaska has not received the attention that coastal British Columbia has, but this is changing. Since El Capitan Cave is located in a glacial valley, our date of  $12,295 \pm 120$  yr. B.P. (AA-10445) on a grizzly bear provides a new minimum age for substantial deglaciation on northern Prince of Wales Island, which is near the center of the Alexander Archipelago.

We thank Kevin Allred, Steve Lewis, Paul Matheus, Dan Monteith, and other members of the Tongass Caves Project for help in finding and collecting the fossils. Jim Baichtal has been instrumental in attracting scientists to the karst for southeast Alaska, and we appreciate his support. Funding for radiocarbon dates, travel, and supplies was provided by Tongass National Forest and the National Geographic Society.

**Timothy H. Heaton**, Department of Earth Sciences and Physics, University of South Dakota, Vermillion, SD 57069

**Frederick Grady**, Department of Paleobiology, Smithsonian Institution, Washington, D.C. 20560

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# EL CAPITAN CAVE

Prince of Wales Island, AK • Preliminary Report #131 • Addendum to Reports #6, #23, #75 & #90  
Tongass Cave Project • National Speleological Society

by Kevin Allred  
Oct. 1, 1993

## FURTHER EXPLORATION

Several trips were taken this year to push new areas of the cave.

Significant progress was made to climb further above the Alaska Room after Pete Smith had used bolts to get up another pitch near "Broken Pole Squeeze". A couple of other higher pitches were climbed and surveyed by Steve Lewis, Don Aldridge, Dave Smith, Suzanne West, Pete Smith, Kevin Allred and Bob Christensen. The way finally became plugged with rocks and boulders from an ascending fissure. Further progress is only possible by carefully digging to avoid being injured by the falling rock from above. A warm breeze flows down the fissure and flying insects were seen but not daylight. This last portion of the climbs has had frost wedging acting sometime in the past, and an upper entrance can not be far. Just below this choke in a side alcove is a mouse skeleton partly covered by flowstone. The series of climbs has other unclimbed leads and some nice speleothems.

From the main passage, a side lead was pushed which opened into a small room containing crystals, deep varves and hoodoos. Further progress was halted because of the fragile hoodoos.

Down in the maze area 115 feet of new passage bypassing the intermittent sump was discovered by Pete Smith and later surveyed by David Klinger, Kevin Allred and Greg Bowles.

The Alaska Room sump was down 17 feet below the overflow level with the summer's drought conditions. An underwater horizontal passage could be seen continuing past some boulders. Dives were taken by certified cave divers Craig Sempert, Marcel LaPerriere and Alan Murray. After 60 feet, on the other side of the sump is a large room 45 feet in diameter and 70 feet high called "Diver's

Den". A couple of climbing leads head up; some other horizontal passage have not yet been surveyed. More upstream divable sumps are reportedly in this room. Later Marcel and Pete dove the Alaska Room sump and Pete climbed one of the high leads in an attempt to reach the Alaska Room and bypass the sump. The lead ended.

## HYDROLOGY

A dye trace from Slate Cave (see Report #151) was detected within about three weeks at the Lower El Capital Cave resurgence. More hydrologic studies should be undertaken in Lower Rockwell River, Divers Den, Roaring Road Cave and seeps below the El Capitan entrance.

This fall the Forest Service cave gate was completed. It is located approximately 100 feet inside the entrances and just beyond the Moon Milk Passage. The gate is of heavy steel and placed to allow bat flights through it, and not constrict any air flow. The trail to the entrance is due to be built next. A management plan for the gate is yet to be formulated.

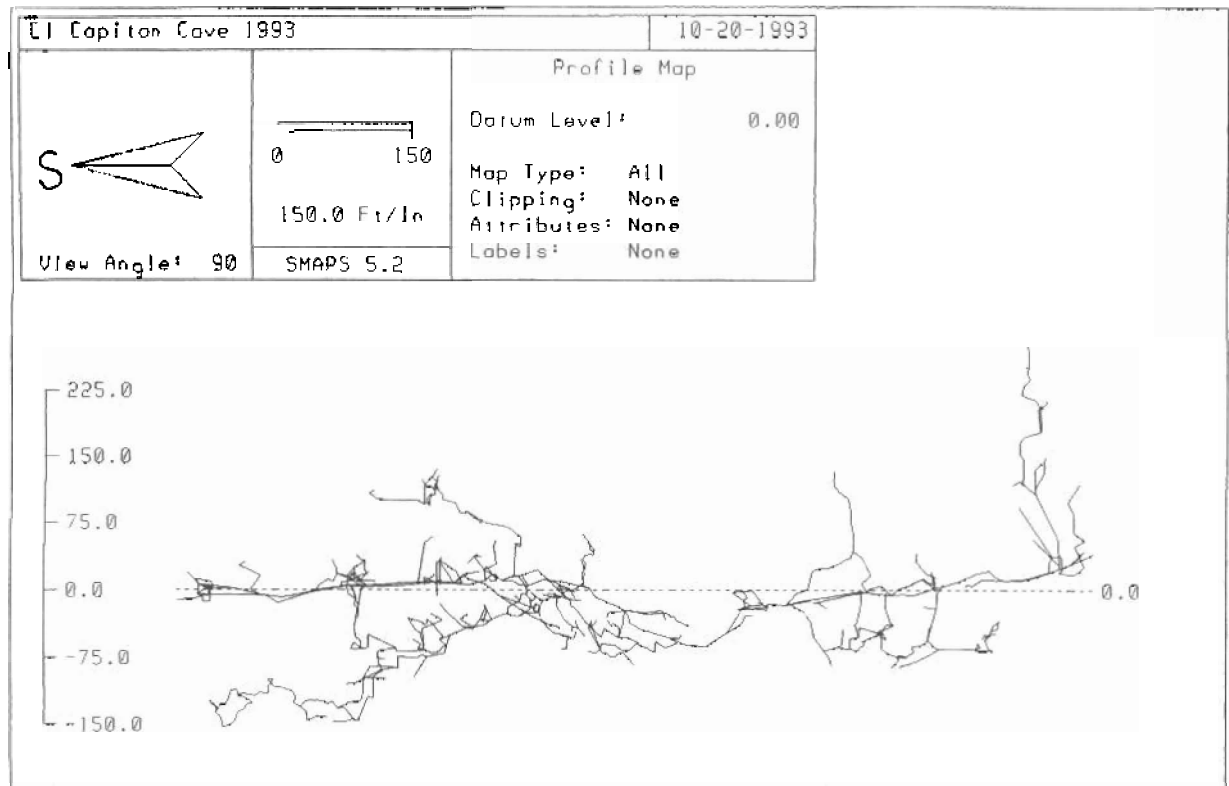
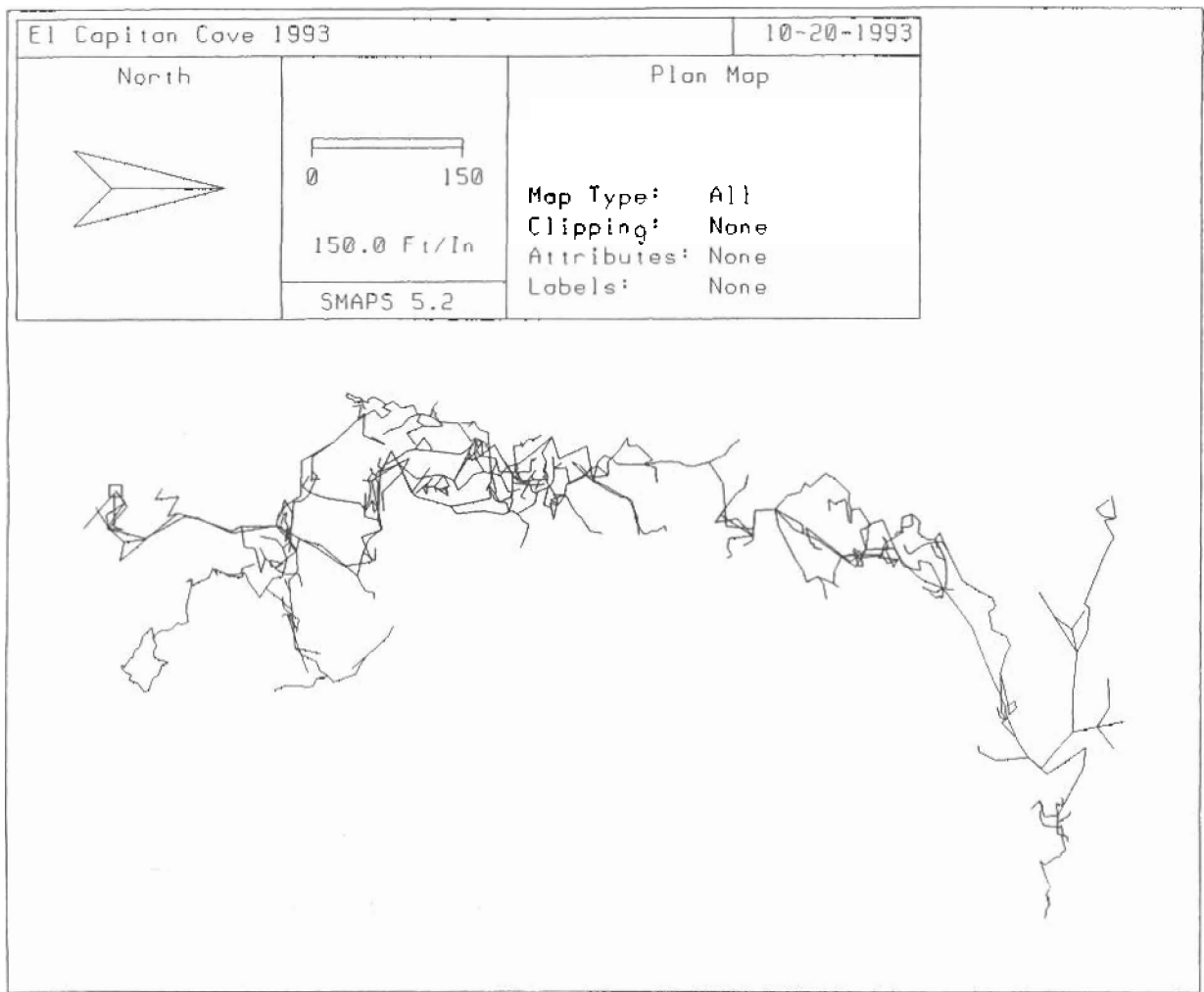
## PALEONTOLOGY

Dr. T.H.Heaton's and Fred Grady's complete report on the El Capitan Hibernaculum 1992 dig is still to be published, however, their article from Current Research in the Pleistocene is on pages 8-9.

## MAP

A corrected map with profiles has been completed from all original survey notes taken over the past seven years. Total surveyed passage of the cave is now 11,885.8 feet with a total depth of 428.6 feet (275.2 above the entrance and 153.3 below the entrance).

Production of the map took Carlene Allred several hundred hours.



# BRIDAL VEIL CAVE

Prince of Wales island, Alaska • Preliminary Report #126 • Addendum to Report #40  
Tongass Cave Project • National Speleological Society

by Kevin Allred  
Sept. 29, 1993

**FURTHER EXPLORATION:** In July, two leads remaining from 1991 explorations were surveyed in Bridal Veil Cave. "Repel Freezes Over", an 85-foot pit was pushed to a near sump having a 2-inch high air space sucking a draft. The sump level is the same as the one below the Heart Passage.

A second lead is a steep fault or joint-controlled fissure heading some 250 feet from Honeymoon Hall and finally becoming too tight from rocks and boulders. At this point, incoming air is felt, and daylight seen. A surface survey confirms a nearby insurgence sinkhole as the point above the too tight passage.

An unexplored pit near the Bridal Veil shaft entrance was surveyed and connected to a passage near the walk-in entrance. The surveyors this year were Darcie Ziel, Marcel LaPerriere, Connie LaPerriere, Pete Smith and Kevin Allred. Total surveyed passage for the cave is now 3,313.9 feet. It is 362.9 feet deep.

**BIOLOGY:** Flatworms were noted in the newly discovered fissure above Honeymoon Hall.

**MANAGEMENT CHALLENGES:** On June 7, 1991, the author recommended that the planned northern border of nearby logging be pulled back and run down the crest of a ridge which follows the steep gully containing Bridal Veil and its sister caves. The border was flagged down into the gully, posing a serious threat to the stability of the gully and hydrology of the caves. After the unit was released, at our request the border was pulled away from most of the ravine drainage. The intent was to enlarge for the protection of both Divorce and Bridal Veil and the other caves in the gully. Work was halted on the logging of the gully but not before a portion of it was clear-cut. The new clear-cut is much too close to the gully drainage to allow for windthrow already in process at this time.

We were led to understand that the boundary was to be 300 feet from the Divorce Cave entrance, and it is only 230 feet. In addition, the access road to this unit cuts directly over No See-Um Cave rather than avoiding it (see Report #99). Sinkholes were used as dumps for road fill and root wads. It appears that protection of this significant area cave resource was only partially successful, but better than it could have been without any mitigation.

## NOTE:

At the May meeting of the Executive Council (EC), the Secretary was requested to clarify Article X of the Constitution. "Article X. Glacier Grotto Property" reads as follows:

**"Any NSS or Glacier Grotto property shall revert to the NSS in the event of dissolution, or, in the event that the NSS is no longer in existence, to another organization(s) that fulfills the requirements of Section 501(b) of the United States Internal Revenue Code."**

"501(b)" was a mistaken copy of "5018" of the 1990 draft (AK Caver 10(6):6). Both are wrong and the Section should be "501(c)(3)". Correction is necessary now as the Glacier Grotto is seeking State non-profit status, requested by EC on April 5.

The EC proposes to change the "5018" and the "501(b)" to (501(c)(3)). Being a correction of typographic errors, it will become effective unless a major portion of the membership objects in writing by June 15, 1994 to Secretary Julius Rockwell, 2944 Emory Street, Anchorage, AK 99508-4466. Phone (907)277-7150

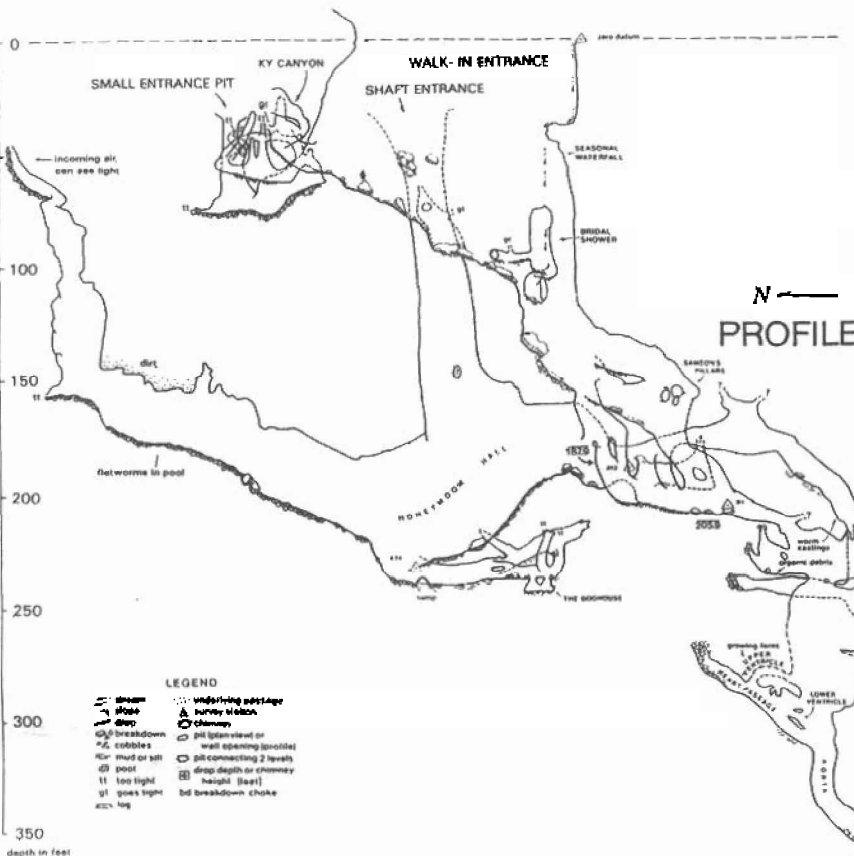
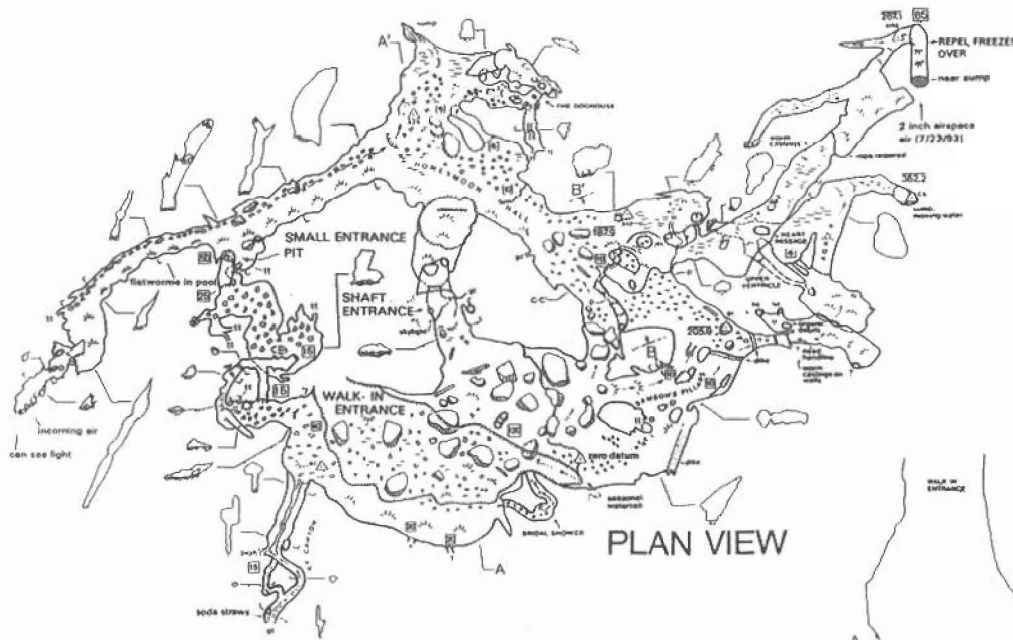


# BRIDALVEIL CAVE

TONGASS NATIONAL FOREST  
PRINCE OF WALES ISLAND, ALASKA

Surveyed length: 3,313.9 feet  
Total depth: 382.9 feet

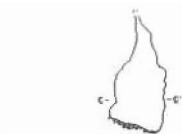
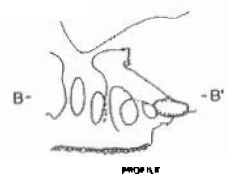
Compass, planimeter and tape survey, Aug. 1991, and July 1993, by B. Chelmsworth, P. Smith, S. Lewis, K. Alfred, D. Strait, G. Caville, B. Dolan, C. Menden, J. Hooton, S. Macle, J. Rhee, D. Zim, C. LePardoux, M. LaPere and S. West. Tongass Cave Project, National Speleological Society. Map by C. Alfred



## LEGEND

- stream
- shale
- drop
- breakdown
- cobbles
- mud or silt
- pool
- too light
- too tight
- leg
- underlying passage
- survey station
- chamber
- pit (plan view) or wall opening (profile)
- pit connecting 2 levels
- drop depth or chimney height (feet)
- bd breakdown choke

## CROSS SECTIONS



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# KING KONG CAVE HOLE IN THE GROUND GREAT WHITE CAVE

Prince of Wales Island • Preliminary Report #129  
Tongass Cave Project • National Speleological Society

by Kevin Allred  
Sept. 30, 1993

## DESCRIPTION:

King Kong Cave, Hole in the Ground, and Great White Cave are located at a major resurgence, draining muskegs to the northwest and north. All three caves either still are or were associated with the resurgence hydrology. The host rock is Heceta Limestone and suspected resurgence point is Headwater Cave over one half a mile to the south. The caves were first investigated by Mark Fritzke and Kevin Allred in August of 1992. They were surveyed and explored on July 14, 1993 by Greg Bowles and Suzanne West.

King Kong Cave is 110.1 feet long and 11.9 feet deep and has two entrances. The easier access is via "King Kong's Eyes", the lower entrance. No rope is needed for this cave.

Hole in the Ground begins as a 15 foot deep pit which then divides and ends in mud plugs. Total Passage is 55.7 feet, and the depth is 34.8 feet. Rope is not needed.

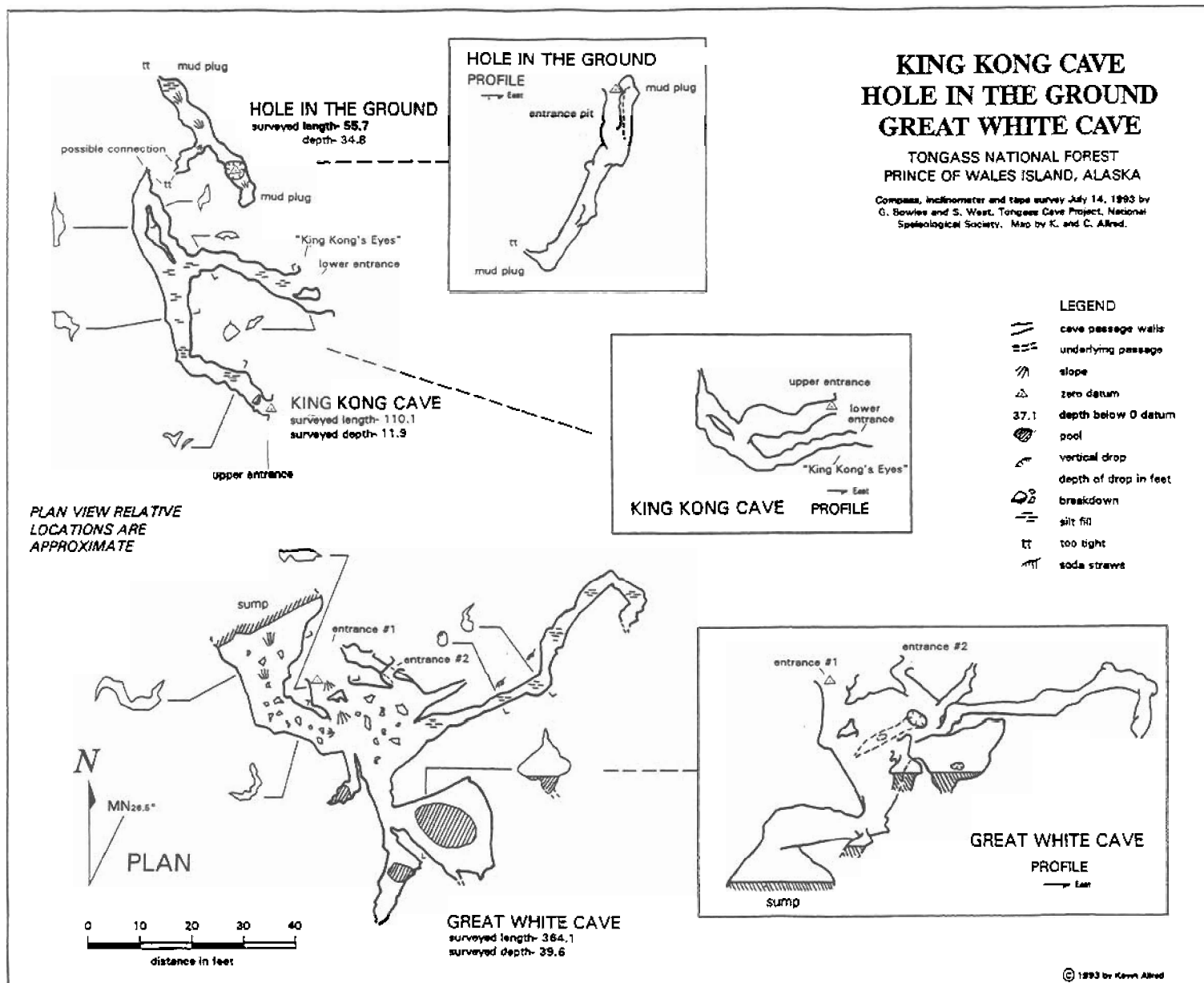
The entrance of Great White Cave was apparently underwater in 1992 and the drought conditions of 1993 lowered water enough to expose 364.1 feet of cave passages to a total depth of 39.6 feet. The name of this cave comes from the resemblance of one entrance to a shark's mouth. It is reasonable to assume that at least part of the distance from Great

White to Headwater Cave contains underwater and/or inaccessible caverns such as this. Great White has a large room that leads off into: 1) two pools that might be connected underwater, 2) a sump that blocks two passageways, and 3) a narrow muddy passage filled with soda straws and white curtains, indicating that this part of the cave does not now flood. This decorated passage is very fragile, but also quite beautiful. No rigging is required for this cave. There were no other leads except a possible dive in the lowest sump.

## MANAGEMENT RECOMMENDATIONS:

The speleothems of Great White warrants restriction of the cave location from the general public. Any logging such as has been planned in both the upstream and inferred downstream drainage would introduce much sedimentation into the hydrologic system, negatively impacting the three caves and the suspected system and karst between Great White Cave and Headwater resurgence. A dye trace and hydrologic study is needed to confirm this relationship.

This karsted, still forested area should not be logged, or roaded. The area needs to be looked over by a cave biologist for invertebrates. Several significant resurgence features are located in the karst area.



# BROKEN BUS CAVE

Prince of Wales Island, Alaska • Preliminary Report #127

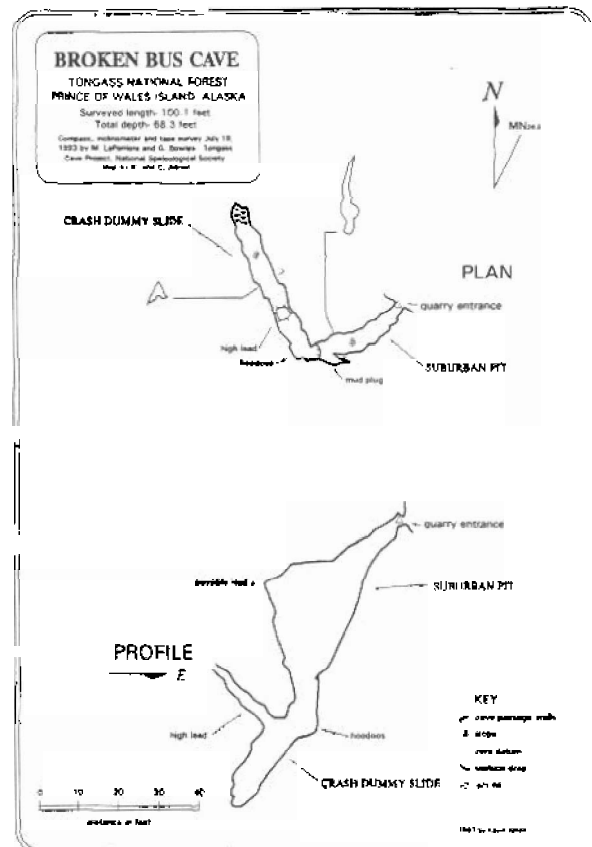
Tongass Cave Project • National Speleological Society

by Kevin Allred Sept. 28, 1993

**DESCRIPTION:** Broken Bus Cave was discovered by Mark Fritzke and Pete Smith in August 1992 at a Heceta limestone quarry. An old bus in the quarry gave name to the cave. A rope is required for the initial drop and care should be taken in the blast-shattered entrance, because of loose rock. The cave probably was not accessible before the blasting and drained at least one sinkhole, now gone. The cave is tight and muddy, ending in a very mucky pit called "Crash Dummy Slide". There is no running water. Of the two upper leads, one might connect to a sink on the cliff above the cave. Total passage surveyed is 100.1 feet and it is 68.3 feet deep.

**SPELEOTHEMS:** Flowstone was noted along with many hoo-dooos, water sculpted from silt on clay.

**MANAGEMENT RECOMMENDATIONS:** Broken Bus Cave has been severely impacted. We recommend that the quarry not be extended. The cave might be studied as a hard-to-find example of a previously sealed one. The general public should not be directed to Broken Bus because of its vertical nature.



# BUMPER CAVE

Prince of Wales Island, Alaska • Preliminary Report #128

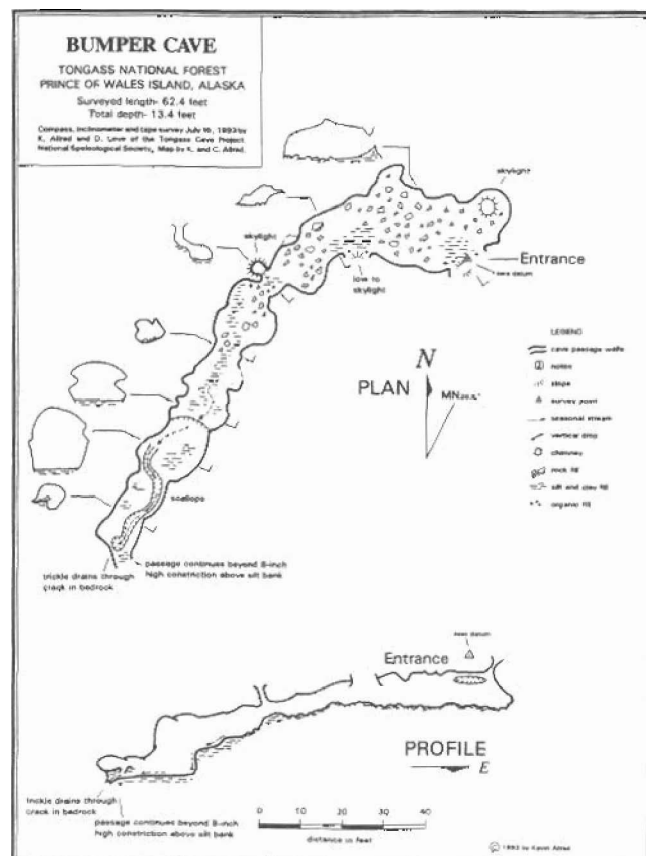
Tongass Cave Project • National Speleological Society

by Kevin Allred Oct. 2, 1993

**DESCRIPTION:** Bumper Cave was discovered Aug. 20, 1992 by Kevin Allred and Mark Fritzke. Located in heavily karsted Hecceta marble, its low, broad gallery has three skylights. One at the west end of the gallery has deposited ceiling rock and organic debris that creates a partial blockage. A little digging permitted entry into a phreatic, scalloped stoop-way. After a 5-foot drop the ceiling lowers to a broad crawlway ending in an 8-inch high constriction caused by the deep silt bank. The cave appears to have a very thin ceiling as far as the limit of present explorations. The total surveyed length is 62.5 feet and the depth is 13.4 feet.

**SPELEOTHEMS:** Some of the stalactites have insects embedded in them. There are soda straws also.

**MANAGEMENT RECOMMENDATIONS:** This critically significant cave needs protection from any logging or road building activities and is recommended for intense scientific review before being made public. The area contains other caves and well developed karst and recreational opportunities.



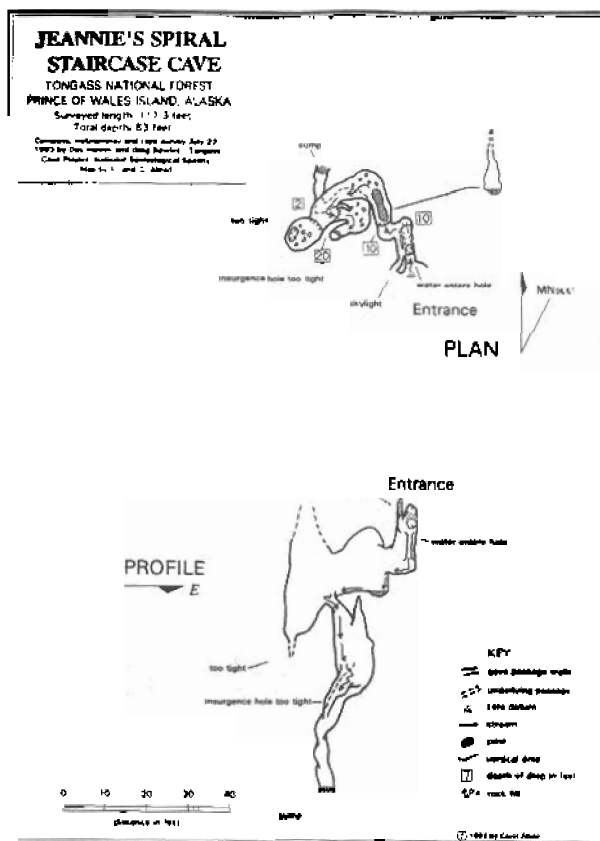
# JEANNIE'S SPIRAL STAIRCASE CAVE

Prince of Wales Island, Alaska • Preliminary Report #130  
Tongass Cave Project • National Speleological Society  
by Kevin Allred Oct. 2, 1993

**DESCRIPTION:** This cave was discovered by employees of Harza Northwest Consulting Co. The cave contains 117.3 feet of passage and is 63 feet deep. The entrance, an insurgence sinkhole, swallows a small creek flowing off non-carbonates to the south. Drysuits or wetsuits and a 50-foot long rope with vertical gear are needed to reach the bottom of this cave. The rope pitch is in a waterfall. At the bottom of the cave, the passage becomes too tight where the water flows. An abandoned water passage goes to a sump. It is a beautiful, wet, clean cave.

**SPELEOTHEMS:** Butterscotch colored flowstone was found. Broken 3-inch soda straws were on a ledge. Cause of the breakage is not known.

**MANAGEMENT RECOMMENDATIONS:** To avoid siltation, no upstream roads or logging should occur in this area. Dye tracing could determine general direction and limits of the inaccessible portion of the water system before roads or logging are allowed further down the hill. Restrict cave to those able to cope with cold, wet and vertical conditions.



# MONTIETH'S MAZE CAVE

Prince of Wales Island, Alaska • Preliminary Report #140  
Tongass Cave Project • National Speleological Society  
by Kevin Allred Oct. 2, 1993

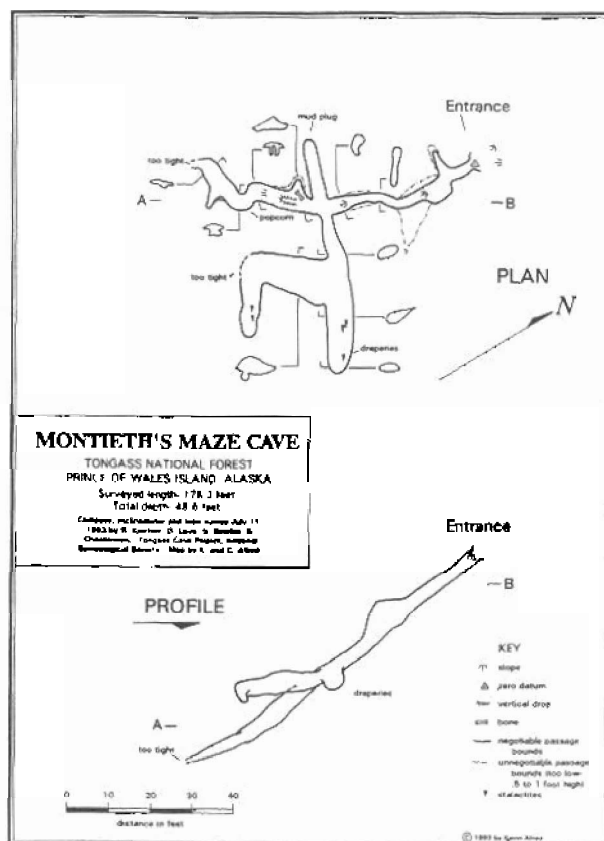
**DESCRIPTION:** Forest Service Archaeologist Dan Montieth discovered the cave in 1992. In a sink in massive grey Hecata limestone, an exposed outcropping lies above an entrance measuring approximately 6 feet by 2.5 feet. The cave inclines at 30-40 degrees following a crack. Two side passages go short distances. All are mapped.

**PALEONTOLOGY:** A deer bone was collected near the end of the fin-like feature shown on the map.

**HYDROLOGY:** A small trickle was flowing through the cave in the drought of 1993. Signs of much heavier flows were evident in vadose passages.

**BIOLOGY:** Surface invertebrates were reported.

**MANAGEMENT RECOMMENDATIONS:** Reportedly, the area is flagged for logging, as are a road, landing and unit boundary in cave entrance. Many other karst features including upper part of River's End upper drainage need to be investigated. This area should not be logged.





## Glacier Grotto Patch

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## Glacier Grotto-Southeast

April Meeting. The upcoming trip with the Boy Scouts will follow new management plans laid out by the USFS.

The Glacier Grotto needs a Conservation Chair that will help push for state legislation to protect the caves.

Logging in the Central Prince of Wales area was discussed. Grotto members plan to meet with USFS to discuss caves to be impacted.

The lack of interest in caves and caving by locals was discussed. Glacier Grotto will try to put a program together with the Yacht Club, diving community, Kayak Club and the like, to spread the word about the caves.

A video on caving in Virginia was shown.

## GG Executive Council

May 3, 1994, Conference Telephone Call.

NCRC Cave Training is set for June 18-21 in Southeast. There is space for 10 people.

Connie LaPerriere continues to work on the paperwork of the application for nonprofit status.

Steve Lewis reported that 16 people have sent in applications for POWIE/DIE expeditions. All applications are to be sent to Pete Smith.

The next Executive Council conference call will be in September.

Dave Klinger asks NSS members to send in their ballots by May 19th.

Schedules for television specials on the POW caves include Good Morning America and also ESPN.

## NORTHWEST CAVING ASSOCIATION

March 31 Meeting. The 1994 N.C.A. Regional Meet will be May 28-30 at Marble Mountain SnoPark in southeastern Washington.

Send N.C.A. Executive Board Meeting agenda items to D.W. Kesner, 12567 W. DeMeyer St., Boise, ID 83704. Phone: (208) 939-0979.

Vertical Instructors are needed to assist as instructors and assistant instructors at the NSS Convention. Contact Kesner (above).

Mark Madson recently became chairman of the Lake Missoula Grotto. N.C.A. chairman David Klinger asks that other leadership changes be reported to him ASAP.

Bob Brown has volunteered to publish a Regional Newsletter if someone will be editor. Contact Bob at PO Box 2, Elbe, WA 98330.

## The Alaskan Caver

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