The Alaskan Caver
published by the
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1921 Congress Circle, Apt. B, Anchorage AK 99507

Dalene T. Perrigo - Editor
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Table of Contents
3......Cave Act Provides Protection
3......President's Corner
5......POWIE VII Roundup
6......Meeting Notes
7......Ballot Results
7......Annual Report Summary
8......Alaskan Cave Divers Test Florida Waters
10......Letters to the Editor
12......Roaring Canyon Cave #103
14......Nautilus Cave #121
14......Karst in Ketchikan Area
16......Spike Cave #109
16......Starlight Cave #110
18......Beaver Falls Cave #78
21......Holiday Party
22......Editor's notes:
22......Glacier Grotto 1993 Treasurer's Report

Cover Photo: Carlene Allred inside cave on Prince of Wales Island
Photo credit: Norman Thompson

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December 1993 Vol 13 No 6
CAVE ACT PROVIDES PROTECTION
by Jim Nieland *

The Federal Cave Resources Protection Act was signed into law in December of 1988 but to become fully operational required the departments of Interior and Agriculture to develop implementation regulations; rules to be followed when applying the law. Not only were regulations to be developed, but the secretaries were required to make them essentially the same. The development of regulations usually takes a long time but in this case was more challenging than usual. Not only were there two departments involved (Interior and Agriculture) but also five agencies (Bureau of Land Management, National Park Service, US Fish and Wildlife Service, Bureau of Reclamation and the US Forest Service).

I have enjoyed the opportunity to work with many dedicated people from these agencies in developing not only the regulations but new friendships as well. The process was much longer and more time consuming than anyone guessed. It was expected that the regulations would be developed within nine months. The process has taken five years. Delays were created when multiple levels of review and approval were required within agencies and between departments. Federal Register notices had to be developed, edited approved and published at various stages. Individual agency work priorities often created delays of months. Periodically John Scheltens and Janet Thorne, from the NSS, would find ways to apply political pressure to get things moving again.

Everyone working on the project has a deep gratitude for their ever present support and ability to push the right buttons when internal avenues of advance were blocked.

The good news is that the Department of Interior final cave management rules were published Oct. 1, 1993, and the Department of Agriculture rules are expected in December. Once the Department of Agriculture rules are published there will be a joint notice published in the Federal Register notices.

Continued on page 4

PRESIDENT'S CORNER

The Glacier Grotto ballots are being sent under separate cover. Please reply promptly.

DUES ARE DUE.

This is the last Caver you will receive until your dues are received by the treasurer. She will be happy to accept your check.

The Alaskan Caver 3
Register calling for significant cave nominations. The call for nominations is expected early in 1994 and will be well publicized in the NSS News. The NSS is planning a major thrust to encourage members to make nominations. It is hoped that the bulk of the better known or more important caves will be included in the initial listing.

To understand the importance of listing “significant caves”, one needs to look at the history of the Federal Cave Resources Protection Act. Late in the legislative process “significant cave” provisions were added to provide a screen so Federal agencies would not be required to “manage every little hole in the ground” or to screen out cave-like features containing “...no resources of any interest to anyone or any recognizable natural resource value.” The regulations allow “governmental agencies and the public, including those who utilize caves for scientific, educational and recreational purposes the opportunity to nominate potential significant caves.”

Each nomination will be assigned an identifier which will be used to follow its advance through the process. Using the identifier, a log will be kept for each nomination showing its transmittal and actions taken. This information will be submitted to and reviewed by the national overview team in Washington D.C. The national overview team assures conformity to the regulations, and makes sure nominations are moving smoothly through the designation process. Persons making nominations will be periodically appraised of the status of the caves they have nominated.

The designation process acts as a filter to sort out some small holes, but will not stand in the way of any true caves being designated. It is clearly the intent of the Act that significant caves will be included that meet any one of the criteria in the Regulations. Caves need not be special or different to be listed as significant. In fact it is hard to imagine a cave that wouldn’t meet at least one criteria.

This law came from cavers; individuals with a concern for the caves they love; people of action who understand that just wishing things were different wasn’t enough.

The regulations state under “Criteria for significant caves” that “a significant cave on federal lands shall possess one or more of the following features, characteristics, or values.

(1) Biota. The caves provide seasonal or yearlong habitat for organisms or animals, or contains species or subspecies of flora or fauna that are native to caves, or are sensitive to disturbance, or are found on State of Federal sensitive, threatened, or endangered species.

(2) Cultural. The cave contains historic properties or archaeological resources (as described in 36 CFR 60.4 and 34 CFR 7.3) or other features that are included in or eligible for inclusion in the National Register of Historic Places because of their importance for history or prehistory historical associations or other historical or traditional significance.

(3) Geologic/Mineralogic/Paleontologic. The cave possesses one or more of the following features:

(i) Geologic or mineralogic features that are fragile, or that exhibit interesting formation processes, or that are otherwise useful for study.

(ii) Deposits of sediments or features useful for evaluating past events.

(iii) Paleontologic resources with potential to contribute useful educational and scientific information.

(4) Hydrologic. The cave is a part of a hydrologic system or contains water that is important to humans, biota, or development of cave resources.

(5) Recreational. The cave provides or could provide recreational opportunities or scenic values.

(6) Educational or Scientific. The cave offers opportunities for educational or scientific use; or, the cave is virtually in a pristine state, lacking evidence of contemporary human disturbance or impact; or, the length, volume, total depth, pit depth, height, or similar measurements are notable.

(d) National Park Service Policy. The policy of the National Park Service pursuant to its Organic Act of 1916 (16 U.S.C. 1, et Seq.) and Management Policies (Chapter 4.40, Dec. 1988), is that all caves are afforded protection and will be managed in compliance with approved resource management plans. Accordingly, all caves on National Park Service administered lands are deemed to fall within the definition of “significant cave.”

(e) Special management areas. Within special management areas that are designated wholly or in part due to cave
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resources found therein, all caves within the do-designated special management area shall be determined to be significant.

Following the first year of initial listings, there will be periodic subsequent listing of significant caves. This will be done by the designated officials (forest supervisors, area managers, park superintendents, project managers, or refuge managers) responsible for the land where the caves are located. The same nomination forms will be used for subsequent listings but will be sent directly to the appropriate local designated official. The regional review teams will only be used during the initial listing period. When the call for nominations is made, special nomination work sheets and instructions will be available. These will be made available at certain agency offices and through other sources which will be announced later. Expect to see much more about this in the NSS News and other caving publications when the time comes.

The most important thing to remember is that only caves which are nominated, or listed, will fall under provisions of the Federal Cave Resources Protection Act. For this reason it is important that every cave on public lands be designated and this requires the help of cavers.

(The Federal Cave Resources Protection Act applies only to caves under Federal jurisdiction by the departments of Interior and Agriculture. They do not apply to privately owned lands, state lands, or Indian reservations. Several states have laws protecting caves within their boundaries.)

* Due to space limitations, this article from the Oregon Grotto newsletter, The Speleograph, Vol 29, No.11 was shortened.

POWIE VII ROUNDUP by Kevin Allred

POWIE VII was slightly different than all the others. This year there was more of an interest by local Alaskans to help with the expedition in any way possible. Since all the directors feel strongly that the locals should be involved in their own back yard, they tried to accommodate as many of these people as possible. In addition to some Southeast Alaska returnees, the new participants were from: Point Baker (1), Ketchikan (4), Juneau (3), Tenakee Springs (3), and Craig (1).

There also were several participants from the Lower 48 as well as two from New Zealand.

Our initial 54 cave priorities at the first of the expedition was expanded by 15 or so because of new discoveries or decisions to work in other caves. We were able to work about 40 of the priorities, several of which are still not completely explored and surveyed. There is an increasing concern about the alarming rate at which forests atop karst are being cut, so emphasis was given to surveying caves in old growth areas, especially those planned for harvest.

Approximately 15,000 feet were surveyed this POWIE. The largest new cave this year was Blue Marble at over 3000 feet; a spectacular marble cave, which is still going. During the time we were there, a team of four speleologists from the American Cave Conservation Association, were contracted by the Forest Service to access the significance of the caves and karst of the Ketchikan Area and determine if the Forest Service standards and guidelines for cave resources was adequate. Several of us were able to visit with them when their travels took them to El Capitan Work Camp.

There was a realistic cave rescue practice from the “Honeycomb” off El Camino Real in El Capitan Cave. It took around five hours from contact with the “patient” to get her (Molly Kemp) out of the cave. We learned a lot.

Steve Lewis plans a detailed report for The Caver.

Continued on page 6

Vol 13 No 6 December 1993

The Alaskan Caver 5
Continued from page 5  

The most serious injury this year was a sprained ankle in the woods.

Connie and Marcel LaPerriere, Craig Sempert, and Alan Murray all spent time on the expedition to dive sumps. They trained in Florida last year to get certified for cave diving. With the drought this summer, most of the sumps were down significantly. The divers got past the Alaska Room sump to a large room and more sumps. Pete Smith later dove to the room. The diving party also dived down over 70 feet deep in the Roaring Road Sump which continues down.

On related subjects, the successful Dall Island Expedition (or what I have been calling DIE III) ran most of July and was led by Steve Lewis. I understand they surveyed roughly 3000 feet in about 10 caves. The six of them (Rick, Don, Dave, Steve, Bob, and Kent) got along well and made a strong team. Before POWIE VII and DIE III, several of us did a Chichagof Island cave trip for a week. After July, five of us surveyed the first cave done in the Stikine Area of the Forest Service (Etolin Island).

Thanks to all those who made these activities a success.

Participants in POWIE VII were: Rob Knotts (Craig), Pete Smith (Whale Pass), Julia Riber (Thorne Bay), Kevin Allred (Haines), Suzanne West (Point Baker), Dave Smith (New Zealand), Don Aldridge (New Zealand), Steve Lewis (Fairbanks), Kent Carlson (Virginia), Mark Sowa (Utah) Rick Koehler (California), Bob Christensen (Washington), Deborah Herron (Utah), Molly Kemp (Tenakee Springs), Dee Casey (South Carolina), David Love (Juneau), Greg Bowles (Bethel), David Herron (Utah), David Klinger (Washington), Marcel LaPerriere (Ketchikan), Connie LaPerriere (Ketchikan), Craig Sempert (Ketchikan), Paul Drzownikowski (Juneau), Darcie Ziel (Tenakee), Alan Murray (Ketchikan), and Nick Olmsted (Tenakee Springs).

MEETING NOTES

Northwest Caving Association

The annual meeting of the Northwest Caving Association was Aug. 5, 1993 during the Pendleton (OR) NSS Convention.

A donation of $100 was approved for joint use of the NSS Vandalism Deterrence Reward Commission and the NSS Contemporary Cave Use Study. The proposed donation of $100 to the NCRI Big Horn Caverns and Pryor Mountains Project was not required for 1993.

Bob Brown, Rob Stitt and Tom Strong are sponsoring a proposal for the October 1997 Cave Management Symposium to meet in Port Angeles, WA. The theme is "Caves and Karst in a Forest Environment". Rob Stitt asked NCA grottos to consider sponsoring a bid for the 1999 NSS Convention in Montana. Vernal, UT is also under consideration.

David Klinger was elected to another term as Chairman. He will be assisted by Vice Chairman Ben Tompkins, Secretary Dave Kesner and Treasurer Phil Whitfield.

Southeast

The Ketchikan Group met Dec. 6 to prepare for a meeting with a USFS representative Dec. 10. Pros, cons and general discussion ensued concerning management of El Capitan Cave and Prince of Wales Island caves in general. No specific recommendations evolved but the discussion brought out many concerns.

The Group, which spent four hours working on rope rescue techniques Dec. 5 with a member of the Ketchikan Fire Department, discussed cave rescue in detail. The goal is to be able to provide a "first response" capability by July 1994 and POWIE VIII. This would entail organization, equipment, and ability to rapidly locate and/or stabilize a misadventurer until better equipped and skilled rescuers arrive.

The Dec. 10 meeting with a USFS representative resulted in three recommendations for management of El Capitan Cave; 1) there should be controlled access, 2) any management plan that is adopted should be subject to periodic review and appropriate modification, and 3) the Grotto should maintain full access.

Executive Council (Oct.6)

President Harvey Bowers conducted the meeting. The Caver will be published every two months with the schedule to be in effect by February. The Council approved the inclusion of letters to the Editor, Grotto business, and Grotto news and issues; improved printing quality; and progress toward becoming a periodical.

Secretary Julius Rockwell was requested to call Voytek Wito for a report on the status of the patches.

The Council decided to meet at noon the first Tuesday of each month in Anchorage with teleconference phone connections to the Vice-presidents of the North and Southeast.
The proposed changes in the Glacier Grotto Constitution and By-laws passed. A two-thirds vote of the full members in good standing was necessary to adopt any changes to the Constitution or By-laws. To secure a sufficient number of ballots to validate the vote, a successful telephone campaign was implemented by the Executive Council. The responses of voters and efforts of David Klinger and Bob Bastasz, who canvassed members in the Lower 48, are appreciated.

A positive vote of 40.7 was required (2/3 of 61 Full Members). This number was obtained for all items, with a very slight margin in some cases. The complete, revised Constitution and By-laws have been submitted as part of the Annual Report to the NSS. Anyone wishing a copy, please contact the Grotto Secretary soon. If enough want a copy it will appear in the Alaskan Caver; otherwise individual copies will be mailed out.

All changes were primarily to enable Grotto members to vote by mail rather than at a too-far-away meeting, and secondarily to require The Alaskan Caver to become a dependable vehicle of communication.

There was one "write in" By-law change. The Council thanks and encourages the originator to follow the procedures set forth in Article XI in the Constitution or Article VII in the By-laws if interested in putting the suggestion to a vote of the membership. (For Details Caver 13(2):15-16)

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Annual Report Summary

Glacier Grotto members participated in the 1993 Tongass Cave Project, POWIE VII and DIE III. Exploration of approximately 50 caves and nearly 80 pages of cave reports and surveys in The Alaskan Caver were a result of the summer events.

The three Glacier Grotto groups, divided by geography, planned activities individually, but GG officers met by conference telephone call about once a month, starting in November.

In addition to 10 regularly scheduled meetings, Southeast Group organized three or four vertical rope training sessions monthly for members and conducted one special session for USDFS employees and had one rescue session.

Southcentral and Southeast groups spoke to Boy Scout groups about caving. The Boy Scouts in Southeast have indicated an interest in establishing a training (cave) program. In Southcentral, the boys are introduced to ice caving.

No accidents were reported in 1992.

The Glacier Grotto, Southeast, acts as a contact to the caving community should cave rescue become a necessity. Training is underway for qualification as First Response participant in caving accidents.

In the 1993 Cartographic Salon at the NSS Convention, Kevin and Carlene Allred received Honorable Mention for the map on Snow Hole, Alaska, and a Merit Award for the map of Blowing in the Wind Cave, Alaska.

Issues of The Alaskan Caver were exchanged with 34 grottos. In addition to those in the United States, the Caver went to Spain, Canada, Italy, Germany, Great Britain, Israel, Czecho-Slovakia and Sweden.
Alaskan Cave Divers Test Florida Waters
by Alan Murray

October 15, the day we had been waiting for, finally came. We were on our way to Florida.

Ketchikan cave divers, Mary Kowalczyk, Marcel LaPerriere and I boarded the airplane and 30 hours later we stood above the entrance to Ginnie Springs. Although it was late, we needed to unwind and cool off so Marcel and I did a free dive to the entrance of the cavern. On the way back to the surface, in about 10 feet of water, Marcel came face to face with a 4 foot snake! After a rapid and involuntary backpedal, we surfaced and learned that this particular snake was harmless. All three of us returned to the spring to continue our late night swim. So much for unwinding!

The day Sunday was spent practicing in the caves. The result of this extra work was that the next two days of training for Mary and Marcel went smoothly and they were certified Full Cave. Since I had been certified last year, I simply followed Steve Berman, the instructor, during all four dives. We aren’t sure who learned more, Mary and Marcel by taking the class, or myself by watching Steve teach and move through the caves.

The third day was the start of the Deep Air Class for Marcel and me. We drove toward Crystal River to a place named Ward Sink, a vertical shaft that varies in depth from 160 to 190 feet. After clipping off our decompression tanks, we made a tour of the entire sink. At one point we came across a green MG that someone dumped into the sink long ago. Marcel swears he saw Jimmy Hoffa behind the wheel! If you ask me, it was Elvis! Seriously, there is no doubt that at these depths we were impaired to some degree. Marcel had noticed a “wave” of narcosis at approximately 170 feet that lasted about 15 seconds. However, I had yet to notice anything different. No two people react the same way to narcosis. It can strike the same diver at different depths on different days. Steve informed me that if I didn’t feel narcosis tomorrow, I wasn’t human! (Narco means numbness, sluggishness or stupor according to the American Heritage Dictionary)

Mary, Marcel, and I decided to stay overnight at Crystal River and go on a snorkel tour among the manatees. WOW! What an experience! At sunset we found the “mother lode”. As we stood in shoulder deep warm water under a blazing red-orange sky, each of us had two manatees to pet, one for each hand, while other manatees tried to squeeze in for attention. Several

Marcel LaPerriere (l) and Alan Murray (r) prepare for cave diving in the sumps of Alaskan caves with vigorous training in Florida.
times I had a manatee press its face against my mask. The next morning we returned to the area to video tape them.

This was also the day for a special dive in a very special cave...Diepolder 3. There are only 10 guides who are permitted to enter this cave and a guide can take no more than two people at a time. The equipment requirements really fascinated us. Details we hadn't thought about were shown to be critical for this dive. It is impossible to overstress the importance of training, especially in technical diving.

The surface of the sink gives no cue to what lies below. We swam to the descent line, avoiding the resident "attack turtle", and made a plunge to a depth of 180 feet. At that point the vertical wall we followed turned 90 degrees and became the sloping ceiling of a gigantic chamber. A strobe mounted on the wall was turned on, and we continued down the main line. I checked both of my computers - depth was 200 feet. We resembled ants when compared to the huge slabs that had fallen from the ceiling and now littered the floor! I was mentally going over emergency procedures when I felt the "hammer" fall - narcosis was present and there was no doubt about it! I instantly checked the computers - depth was 220 feet. I now had to concentrate on everything I did to control the narcosis. Steve turned and signaled "OK?" I answered the signal and then repeated the procedure with Marcel. I double checked all equipment positions, tank pressure, and computer data. I decided that if a problem arose I would go to Steve for help. I later found out that Marcel had been doing exactly the same thing, at the same time, and had come to the same conclusion. It's very reassuring to know that your dive buddy and you are thinking alike, especially under extreme conditions. Depth was now approaching 240 feet. The floor of the cave was getting very close and I checked my position in relation to the main line. I still had 300 psi in my tanks before I would have to call the dive. Narcosis was very strong, and although I was still very aware of everything, I knew that motor skills would be a real challenge. Then Steve gave the turn around signal - we had reached the end of the main line. Depth was 244 feet and bottom time was 12 minutes. Narcosis made movements seem like they were in slow motion. I actually ascended about 10 feet above Marcel before I realized it. At 220 feet the narcosis left me, right where it began. Marcel noticed that his didn't leave until he reached 170 feet. Although the trip into the cave was quick, the exit required almost one hour. From 20 feet upward we decompressed on pure oxygen for a big safety margin.

Our last two days were just as exciting as the previous five and the real reason for this trip. Side Mount, the final class for Marcel and me, aimed directly at the type of diving we would be doing in the sumps in Alaska. We had to completely reconfigure all our equipment, but as soon as we got into the water we knew we liked this type of diving. We were amazed how easily we could pass through very tight, twisting passages, and how reduced our resistance to forward movement became. With the top of a tank just under each arm, it was very easy to turn different tanks on and off at the required moments. Removing a tank and clipping it back on was a simple task and perhaps best of all, the large number of reels, lights, and other equipment had hidden but easily accessible attachments points. Although our tanks were small, we achieved good penetration in the high flow caves.

Side Mount - the type of diving we would be doing in the sumps in Alaska. ......As soon as we hit the water we knew we liked this type of diving.

We thought about all the sumps waiting for us on Prince of Wales Island, and the one we recently found in a cave on Revillagigedo Island. They would definitely be easier to explore using side mount diving techniques. The more we thought about it, and the more we practiced, the more we liked side mount diving. In fact, on the final day of class we made four dives instead of the required two.

Mary and Marcel would also like me to tell about the three alligators, making mountains out of mole hills and Lamaze breathing. But Hey! That's another story.
Dear Dalene,

I was just reading the November issue of The Alaskan Caver when something caught my attention. While reading the management recommendations of a cave it stated that "Because of cultural remains, the cave location should be strictly confidential and available only to professional archaeologists...." Just out of curiosity I pulled a copy of the United States Coast Pilot (8) off the shelf, looked up the location of the cave in the index, found a description of the bay, and its location, then went to a Tongass National Forest Map and found the bay on the map. From the cave map, I was able to tell that the cave faces to the southwest, and is probably a littoral cave, on the north side of the bay. I was able to do this in my living room in less than five minutes!

I am writing, not to be critical, but to let you know that cave locations can easily be given away by naming a cave for a nearby feature. If this is a sensitive cave, with archaeological resources worth protecting, the whole world now knows exactly where to find it! The Alaska Caver is an excellent publication which I enjoy reading every month, along with a lot of other people.

In our area we have seen the destruction of a number of fragile caves over the past 25 years that were discovered by cavers, but the general public found out about. At Deadhorse Cave (next to Deadhorse Creek), we talked to some non-cavers who had what appeared to be fifth generation Xerox copies of caving newsletter articles, and old NSS convention guidebooks. Through word of mouth and illicit duplication of copywritten material, these individuals had found their way to our secret cave! There once was a time when we thought only "cavers" would ever see what was written in caving newsletters. Today we know better. About 85 percent of the people now visiting Deadhorse Cave are non-cavers, such as church groups, scouts, local high school students out for a lark, etc.

The moral to this story is twofold: (1) Never name a cave after a feature found on a map if you want to keep its location confidential, (2) Edit cave map information that could disclose the location, or provide clues that could help locate it. If you are really serious about cave conservation it is imperative you think carefully about what you are publishing. I certainly would have no trouble finding these caves--luckily I'm not a pot-hunter.

Sincerely, Jim Nieland NSS 7455

Dear Caving Friends:

The Oregon Grotto will be hosting the Northwest Caving Association's 1994 annual meeting to be held over the Memorial Day Holiday, May 28,29 and 30, 1994. The location for the annual event will be at the Marble Mountain SnoPark on the south side of Mt. St. Helen just a couple of miles from the best caves in the area.

The Marble Mountain SnoPark has been reserved for our exclusive use. It is a very scenic sight with a huge parked parking lot, a 30 foot x 30 foot log cabin style warming hut (suitable for evening meetings), and two state of the art pit toilets (you have to see them to believe them - they have no odor, honest!) Trailers, motorhomes and campers are encouraged as the parking lot can accommodate all lengths of RVs, with dozens of pull through parking spaces. There will be limited tent camping sites around the edge of the parking lot. Unfortunately, this is a dry camp and there is no electricity, so plan to bring your own water.

Registration Forms will be mailed in February.

Happy Caving, Patty Silver, Secretary Oregon Grotto, (206)693-3600.

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Dear Fellow Caver,

Because we all want to see the caves on Prince of Wales Island and throughout the rest of the Tongass National Forest protected, I thought I would write you all a form letter to let you know what is going on. It is my understanding that the US Forest Service has been frequently getting letters that are anti caves and caving. It looks like many of these letters are coming from a joint effort by the timber industry. It is my understand-
The USFS is under tremendous pressure to meet it's contractual demands to Ketchikan Pulp. As you know the Forest Service is having a harder and harder time finding timber to meet these demands. Now that the FCRPA is in place, it is making it even harder to come up with this timber.

This is what scares me so much about the CFRs. This could be one of the scapegoats that the USFS will use to fulfill the contracts. Due to the fact that the decisions are final, the USFS could rule what most cavers would call a significant cave to be non-significant, and we wouldn't be able to appeal the decision, or even find out what criteria was used.

This is why it is very important that we all keep positive letters flowing into the USFS. We need to fight every negative letter with at least one positive letter. Please encourage other cavers to respond with positive letter, to the USFS. In the Ketchikan Area, send your comments to one of the following:

David Rittenhouse,
Forest Supervisor,
Tongass National Forest,
Federal Building,
Ketchikan, AK 99901

Anne Archie,
United States Forest Serv.
Box 19001
Thorne Bay, AK 99919

Michael Barton,
Regional Forester
United States Forest Serv.
Federal Building
Juneau, AK 99801

Thank you all in advance for considering this, and doing your part to help protect our caves. Wishing you all the happiest New Year!!

Happy Caving, Marcel LaPerriere, Ketchikan

Dear Harvey,

I am sending copies of the Northwest Caving Association Memorandum to the Glacier Grotto President, Vice President and the Vice President (Southeast). I hope that this will help get the word out, especially concerning the Tongass Cave Project (July 1-31, 1994).

Good luck to you all.

As ever, Dave

(Dave also sent the pre-registration form for the 1994 NSS Convention, June 20-24, in Brackettville, Texas. Copies are available from the NSS office. Post mark the application before 30 November for a $15 discount, before 31 March for a $10 discount and before 1 May for a $5 discount.) See October Alaskan Caver 13(5):10.
ROARING CANYON CAVE
Prince of Wales Island, Alaska • Preliminary Report #103
Tongass Cave Project • National Speleological Society

by Kevin Allred and Mark Fritzke
November 23, 1992

DESCRIPTION

Roaring Canyon Cave was discovered by USFS engineers Rich Reeves and Tim Dabney. On Aug. 8, 1991, Mark Fritzke accompanied them to the impressive 10-foot high by 15-foot wide walk-in entrance and noted two other, and still unsurveyed cave entrances in a nearby limestone gorge. The main entrance passage is a remnant phreatic tube above the active vadose canyon passage. Most of the remainder of the passages comprise vadose characteristics. The canyon stream (plus or minus one cubic foot per second) probably originates from a sink point 900 feet southeast. Here a surface stream on conglomerate flows west behind a knob and sinks during low flows.

At the entrance, thundering can easily be heard emanating from the underlying stream passage. This downstream canyon contains numerous plunge pools and two skylights. After approximately 200 feet, the way finally becomes very tight and mostly filled with predominately non-carbonate cobbles. One single small rib bone was noted in an alcove at the furthest point that was pushed.

The upstream portion of the cave extends southerly for about 400 feet through vadose canyon. After carefully negotiating the delicate "Porn Pom Passage" and a large room, an adjoining dome is most easily entered via a belly crawl through the stream. Once in the dome, the way onward is through a hole six feet up the opposite wall. Negotiating some rather muddy and wet crawlways puts one, once again, at the active stream which pours from a sump.

BIOLOGY

In the upstream passage are scattered deposits of bat guano. Near the downstream end are numerous old fungus gnat pupas... probably already hatched out.

MANAGEMENT RECOMMENDATIONS

The formations have been photographed, and the cave mapped so there should be no pressing need to ever disturb this cave further. Therefore, we recommend that Roaring Canyon Cave be classified a restricted cave, with its location kept from the public and recreational cavers.

To protect the hydrologic balance in this cave and others known nearby (including a large insurgence sinkhole across the limestone gorge), the general area should not be logged and no road construction should occur in the suspected drainage recharge area or around the significant caves and karst features. The no-harvest timber buffer should have a generous margin extending beyond any significant karst features close to the boundaries and their suspected drainages (to account for windthrow). Depending on the nature of the forest and topography, 200-300 feet of margin would probably be adequate to protect the drainage areas and significant karst features.
NAUTILUS CAVE
Heceta Island, Alaska • Preliminary Report #121
Tongass Cave Project • National Speleological Society

by Kevin Allred
Nov. 23, 1992

DESCRIPTION

Nautilus Cave is formed in Heceta limestone. The sinkhole entrance is located in a clear-cut on Heceta Island. This large sinkhole, containing an adjoining natural bridge, leads to walking passage past pools. A fossil nautilus was midway through the pool on the northern wall. The entire cave is like walking beneath an ocean floor covered with stromatolites. These bread loaf-algae are preserved in the walls and ceilings showing the concentric growth rings. The annuli between the stromatolites are infilled with gastropods and other invertebrates. Continuing in the northeast trend of the cave through the Gastropod Room, another 50 feet of passage opens into the Ribbon Room.

A low, wet continuation can be bypassed by climbing a ledge to the north and then continuing on the northeast trend to the sumped end of the cave. About 30 feet of muddy upper passage appears to approach the surface and is accessible 25 feet from the sump. No rope is needed in the cave.

Total surveyed length is 207.5 feet, and total depth is 26.9 feet.

GEOLOGY

Fossils reported are the nautilus, gastropods and stromatolites.

BIOLOGY

Millipedes, mosquitoes and white ugly worms were reported. A deer bone and one other bone were also noted.

MANAGEMENT RECOMMENDATIONS

Nautilus Cave contains significant geologic, mineralogic, hydrologic, biologic and possibly paleontologic factors. The location should not be shared with the general public, and the cave should be studied for logging impacts to speleothems and hydrology. The speleothems are tannin stained a dark brown. Woody debris is caught within the helictites. Hemlock needles and foam adheres to all speleothems. The added organics on the speleothems is generating fungal growth on the speleothems, and some of the large curtains are showing a slightly etched outer surface. What appears to have happened is the narrow vadose canyon at the caves’s end has been infilled with logging debris and sediment.

Karst in Ketchikan Area

Karst is a three dimensional terrane developed on, and within, a soluble bedrock. At least 700 square miles of the Ketchikan Area of the Tongass National Forest (the study area for "Karst and Cave Resource Significance Assessment Ketchikan Area, Tongass National Forest, Alaska.") is karst, and it is likely that the extent of karst will prove to be larger when more detailed geologic mapping is conducted. Karstlands extend from salt water to some of the peaks. Springs, caves, sinkholes, losing streams, and a host of other karst features are abundant and often spectacular.

by Ozark Underground Laboratory
NAUTILUS CAVE
TONGASS NATIONAL FOREST
HECETA ISLAND, ALASKA

Surveyed length- 207.5 feet
Total depth- 26.9 feet

PLAN

LEGEND
slope
rim of sink
survey point
vertical drop
chimney
pool
cobbles
silt
stalactites
flowstone
entrance overhang
unsurveyed
underlying

© 1992 by Carlene Allred
**SPIKE CAVE**

Prince of Wales Island, Alaska • Preliminary Report #109
Tongass Cave Project • National Speleological Society

by Kevin Allred
Nov. 23, 1992

DESCRIPTION: Spike Cave was discovered by Pete Smith and Jim Baichtal. The entrance is located in a blind canyon/insurgence sinkhole. The cave has been formed by vadose waters corroding/erosing a canyon now containing deposits of non-carbonate cobbles. A conglomerate boulder was noted just inside the entrance. The deepest drop in the cave (25) is about 80 feet into the cave. A 10-foot climb from the floor of this drop finally becomes too tight in a fissure. It eventually connects with the too tight fissure which the stream follows from the bottom of the 25 foot drop. Midway into the cave, a fossil side canyon heads in from the south which ascends up several drops before becoming too tight just beyond a wall projection called "The Wave". Voice contact was made through this too tight, small muddy hole to the entrance sinkhole. A side passage takes off from this fossil canyon, but was not entered because of the pristine calcite crust inside. It is doubtful that it is very extensive, but does issue a draft. Total passage surveyed is 293 feet and the total depth is 81 feet. Rope is needed for a total of three drops.

MANAGEMENT RECOMMENDATIONS: The speleothems are difficult to access in this cave so visitation should not have significant impacts. The side passage off the fossil passage should not be entered. However, since there are some pits in the cave, the location should be withheld from the general public. In order to preserve the stable hydrologic balance of Spike, no logging or road building should occur around the entrance for a radius of at least 300 feet and anywhere in the incoming drainage.

**STARLIGHT CAVE**

Prince of Wales Island, Alaska • Preliminary Report #110 • Addendum to Report #5
Tongass Cave Project • National Speleological Society

by Kevin Allred
Nov. 23, 1992

1992 DISCOVERIES: On July 10, 1992, Carlene Allred, Julie Heaton, Karen Marks and Kent Carlson visited Starlight Cave to investigate possible invertebrates and check some leads. By rappelling down the overhang to the main entrance, they were able to see two horizontal leads on opposite walls of the drop. These need to be checked at some time. Also, there was a continuation of the western portion of the cave. By digging in the organic fill at the end of a room, a short passage extended several feet before becoming choked again. In 1991, Jim Baichtal noted a side passage midway off the western portion of the cave. This also needs to be surveyed and put on a revised map.

BIOLOGY: In 1991, several beaver skeletons were discovered near the western end of Starlight by Jim Baichtal, Joe Cook and Paul Matheus. On July 10, 1992, Kent Carlson collected various surface terrestrial arthropods, small copepods or snails, aquatic white worms, unidentified aquatic arthropods, and possible bat guano in various parts of the cave. These specimens are now being keyed out.

MANAGEMENT RECOMMENDATIONS: There is a possibility of making Starlight Cave a directed access cave by building a trail and stairway down into the main entrance. However, there are a few places in the cave and entrance drops that could present potential safety hazards to the general public. There is the possibility of careless individuals getting into trouble on the steep portions of the main entrance or vertical skylight entrances to the west. The USFS needs to take some more time and evaluate the various cave resources, safety factors, cost and recreational/educational value before making a final decision.
SPIKE CAVE
TONGASS NATIONAL FOREST
PRINCE OF WALES ISLAND, ALASKA

Compass, inclinometer and tape survey July 29, 1992 by Pat T. Smith, Kevin Alfred, Leo Zak and Pavel Jiresek; Tongass Cave Project, National Speleological Society. Map by K. and C. Alfred.
Surveyed length- 293 feet
Total depth- 811 feet

LEGEND
\(\triangle\) slope
\(\triangledown\) edge of sink
\(\Delta\) survey point
\(\rightarrow\) stream
\(\downarrow\) vertical drop
\(\uparrow\) depth of drop in feet
\(\rightarrow\) breakdown
\(\circ\) cobbles
\(\rightarrow\) silt
\(\rightarrow\) underlying
\(\cdots\) entrance overhang
\(\rightarrow\) air movement

Vol 13 No 6 December 1993
BEAVER FALLS CAVE
Prince of Wales Island, Alaska • Preliminary Report #78
Tongass Cave Project • National Speleological Society

by Kevin Allred
Nov. 23, 1992

DESCRIPTION: Beaver Falls Cave was discovered from the air by Jim Baichtal of the USFS. In July of 1992, he and Pete Smith field checked the area and discovered that the first part of the cave (formed in Heceta Limestone) was breached in two spots by ceiling collapse. The segments which are still intact are 141 feet and 55 feet long and the main cave is 2465 feet, with a total surveyed length of 2658 feet. The total depth below the high water mark at the entrance is 170 feet and total height is 5 feet. Beaver Falls has a couple areas of side passages forming mazes, notably in Beavers’ Ecstasy, Czech This Passage and Twisty Tube Maze.

HYDROLOGY: The first, and most prominent entrance sinkhole swallows a nice size stream which drains muskshgs and shallow karst to the east. Beavers have built some dams upstream of the swallet. On the eastern slope of the sinkhole, the cascading stream bed follows some parallel vertical dikes into the silt-filled entrance sinkhole. Soon after hitting the bottom of the sink, the stream disappears amid organic debris. Just inside the first cave segment, running water is heard from a very tight fissure, and this water almost certainly reappears far into the last, main segment of the cave. Most of the Beaver Falls Cave system floods completely during high runoff episodes, and only a few spots in the cave are above this flood point. One of these is Beavers Ecstasy. A prominent, now dry and perched solution channel heads northwest from the main entrance sinkhole, but the cave system takes to the southwest. The resurgence for this system is unknown at this time. In the cave, two sumps of the main stream can be bypassed, but no way has yet been found around the third at 170 feet below the high water mark datum.

AIR MOVEMENT: Some interesting air movement has been noted in Beaver Falls and nearby associated caves. This dynamic process is due largely to a chimney effect; Washroom Cave and A-Maze-Ing Cave were issuing drafts, and they are both slightly lower than the overflow of the entrances to the sucking Beaver Falls System, allowing the cool, heavier air to flow out these lower caves through un-entered or un-enterable passages. Even though Walk-In Cave is hydrologically connected, no air movement was noted, so that connection is probably sealed by at least one sump. There is good potential for a connection beyond a dig in Washroom Cave, for it lies along the trend of Beaver Falls.

BIOLOGY: Kent Carlson studied Beaver Falls Cave for fauna. His results are not published, but there were numerous flat worms swimming in the cave stream. He also found some collembolans and a spider. Steve Lewis and Pete Smith found some white roundworms in the silt of Beavers Ecstasy.

BRECCIA: Within Beaver Falls Cave brecciated limestone is present. Not far within the main segment of the cave, the walls, ceilings and floors become breccia having a good percentage of clay and silt cement with mostly angular clasts. Some of the clasts are slightly rounded. Near the entrance in the transition zone is a pothole in the bedrock floor which is partly filled with this brecciated limestone material. Further into the cave the breccia seems to have less cement and fits together tightly. Near the back of the cave are a few areas that are non-brecciated. The breccia appears to be very old, but not to have undergone extreme metamorphic alterations of pressures since being shattered. Along cave passages, corrosion seems to have eaten into massive boulder clasts just as much as small ones. Few non-carbonate clasts were noted in the breccia. There were numerous speculations by expedition members as to the source of the extensive breccia in most of the cave. We first thought the cave may have been sheared off by glaciers and then filled by them, but in most of the cave the clasts fit together too well, and with too little cement for this to be possible. We feel that it is a fault zone of unknown age, but it should be studied further, especially the entrance portion, which may be partially re-sorted.

MANAGEMENT RECOMMENDATIONS: The Beaver Falls Cave, A-Maze-Ing Cave, Walk-In Cave, Washroom Cave and all drainage into this system should be withheld from the timber harvest base and preserved as a study area for its unique breccia, interesting hydrology, and biological life. As the air exchange probably reverses during the colder winter months, the entrance portions of the main cave should be checked for hibernating bats attracted to the issuing warm air. The system should be dye traced and studied further geologically.
# GLACIER GROTTO MEMBERSHIP LIST

Please notify Secretary of any errors in address or telephone numbers and changes when they occur.

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Vol 13 No 6    December 1993
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**KEY:** Pd = Year through which membership has been paid.
NSS # = member owes primary allegiance to another Grotto.
NSS # = NSS membership number; status with NSS is indicated by letters;
i.e., no letters means NSS membership has lapsed

**SUMMARY:** Total membership = 114; Total NSS members = 73; NSS members with primary affiliation to Glacier Grotto = 61 as of December 31, 1993.

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**HOLIDAY PARTY FEATURES BARBECUED STEAKS**

by Dalene Perrigo

Neither snow, cold nor slick roads detered Glacier Grotto cavers from gathering for the end of the year party Dec. 6 at the home of GG President Harvey Bowers and his wife Sandy.

As revelers arrived, boots and shoes were quickly discarded inside the front door of the cozy two-level home tucked away in a cul-de-sac between Wasilla and Palmer. A warm, comfortable feeling enveloped the party as those attending swapped stories, debated the state of the world and watched Mike Hall practice his magic tricks. Most openly wished there had been more opportunity to cave during the past summer.

The pot luck dinner featured Harvey's barbecued turkey steaks, which he tended in shirt sleeves (T-shirt). Never a shudder or word about the cold from this hardy caver, as he calmly and deftly turned and basted each piece. There was also freshly baked pizza, Austrian casserole, salads, chips, cookies and a variety of other foods guaranteed to promote over-indulgence.

Harvey's caving slides were so popular, that each time he attempted to stop, someone in the audience would ask, "Is that all?" He swears, he ended up showing all he had.

Others in attendance included: Jay and Liz Rockwell; Dr. Brian Donaldson; Rich and Lis Hall and children Matt, Mike and Jim; and Sam and Sharon Dunaway.
Editor's notes:

Recently, one of the Glacier Grotto members roundly chastized me for not creating controversy through editorials.

After due consideration, I conclude that more may be too much. Alaskan cavers are involved in seeing that a Cave Protection Act is implemented, caves in Tongass National Forest are not thrown open to the general public, and Alaska cavers are ready when cave rescues become a necessity.

Can the plate hold more?

One prominent caver has become so "stressed" over current events in Tongass National Forest, that he threatens to quit. If the person does give up the fight for reasonable management of the Alaskan caves, will others desert the cause?

What happens then?

Keeping a broad prospective may not be easy. Let me hear your views.

---

Glacier Grotto Income & Expense Statement
Twelve Months Ending Dec. 31, 1993

1993 In Review

Income:
- Dues- (Paid once per annum $15 Indiv., $20 Family) 962.50
- Publication Sales - Alaskan Caver 352.50
- Misc. sale of patches @$5.00 95.00
Total Income $1409.50

Expenses:
- Alaska Caver (Note: 2 issues outstanding ~$496.00) 709.41
- Patches
- Program
- Bank Charges 5.70
Total Expenses 715.11
Net Income 694.39

Balance Sheet

Assets:
- Cash 930.88
- Patches - 36 inventory @$2.90 each 104.40
Total Assets $1035.28

Liabilities:
Total Liabilities ----

Net Worth
- Balance: 12-21-92 (cash only) 236.49
- Add: 12-31-93 (income) 694.39
- Assets: 104.40
Total Net Worth $1035.28

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The Alaskan Caver
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