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Alaskan Caver, Volume 16, No. 3, June 1996

Dalene T. Perrigo

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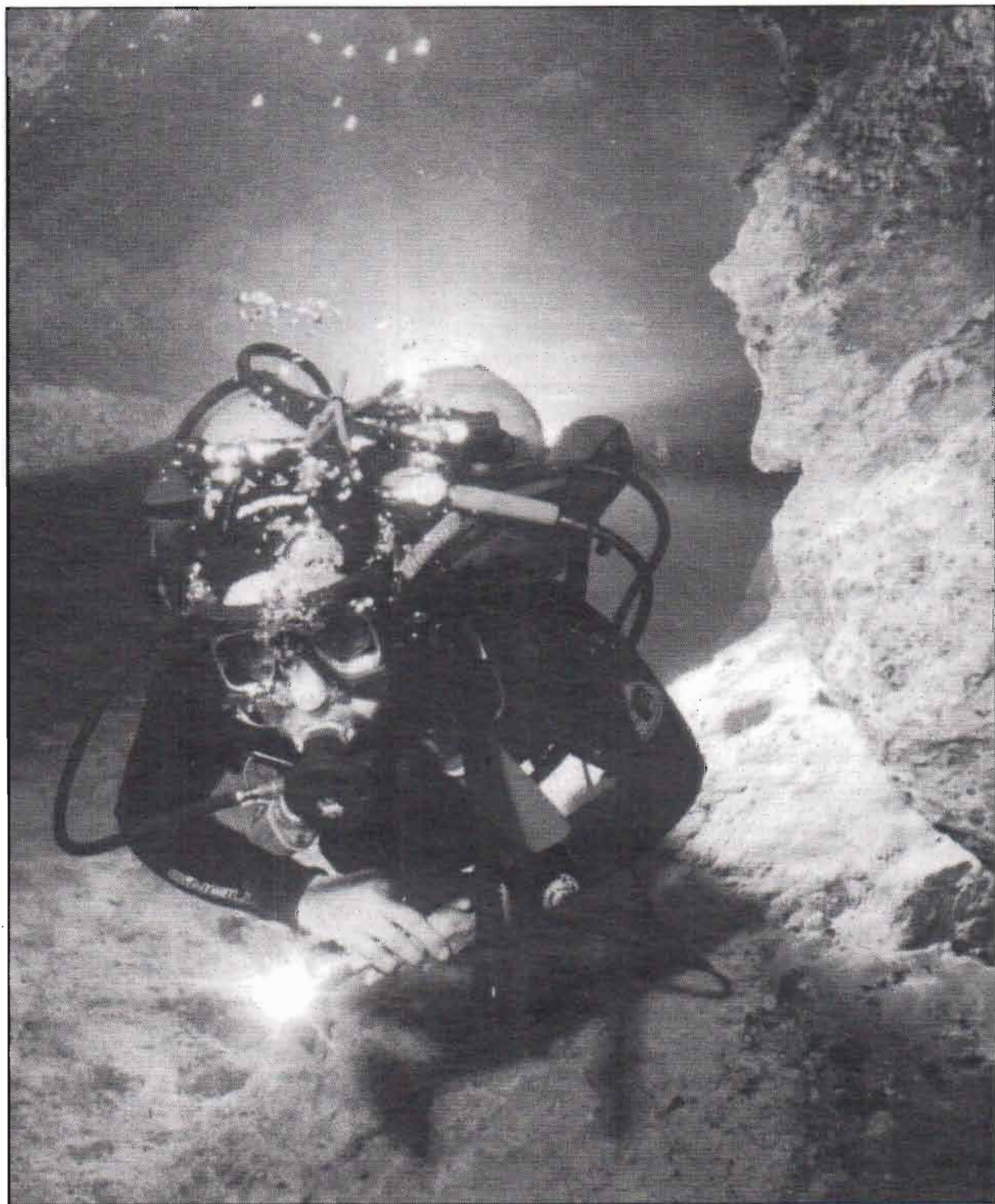
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The **Alaskan Caver**

Volume 16 Number 3

June 1996



The Alaskan Caver

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Dalene T. Perrigo - Editor

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Cover Drawing: R. E. Hicks explores in clear water while Cave Diving in warm areas. Photo: Chip Arnold

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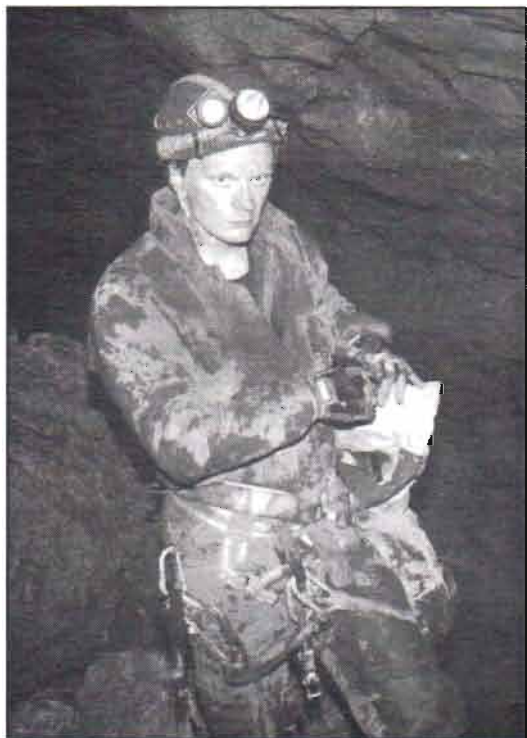
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Dan Montieth joined Tongass Cave Project for exploration in Arabica Cave during the 1995 season. Photo: Marcel LaPerriere

CALENDAR

May 23-25, 1997.....1997 Annual Workshop; of the NSS Cave Diving Section, at Branford School, Suwanee County, FL. Info: NSS-CDC Workshop, PO Box 950, Branford, FL 32008-0950.

June 23-27, 1997....NSS Convention, Sullivan, MO. Contact: Pam Saberton, 3820 Juiata St., St. Louis, MO 63116 (314)772-6956, e-mail: PamS107326@aol.com.

July 18-Aug. 15, 1997....Ketchicave Expedition. Info: Steve Lewis (907)479-7257. e-mail: ftswl@aurora.alaska.edu

Ketchikan Area Grotto meetings are the first Monday, at 7 pm at Ketchikan Public Health Center 3050 Fifth Ave. 247-1559

Alaska Cave Rescue meets each Tuesday at 7 pm, at 819 Forest Ave., Ketchikan. Frequent rope practice sessions. Marcel 225-4094

THE CRAFT AND TECHNIQUES OF CAVE DIVING

by R. Eldridge Hicks*

To a diver certified by the NSS Cave Diving Section, a "cave" is a sump deep inside a dank air passage, a resurgence in a gin-clear spring pool, a slimy little mudhole in the middle of a jungle, an alluring inconstant "blue hole" on the ocean floor, or a submerged littoral entry into the bowels of the uplands.

Contrary to conventional wisdom, experienced cave divers in America are not "thrill seekers." A recent personality test shows that they generally are very cautious, rational, reserved, self-possessed and decisive men and women who strive to avoid unnecessary and unacceptable levels of risk. Cave divers enjoy the challenge of painstakingly detailed planning and preparation, and precisely executed underwater exercises. Like flying a helicopter, there are certain inherent and unavoidable risks in cave diving, but the gear and training are designed to minimize those risks to acceptable levels.

"Redundance" is the mantra of the cave diver. The goal of this sacred incantation is to make every piece of vital equipment immediately dispensable and quickly replaceable with a backup item if a failure occurs deep in the submerged cave. Every diver is usually equipped with at least two cylinders of air. Every diver carries at least two separate and distinct sets of regu-

lators for breathing. Back-mounted "doubles" are frequently connected with a dual-valve manifold system that enables the diver to divert air to a functioning regulator in the event of a failure. Many cave dives are performed in buddy teams — three divers frequently being ideal.

The main light of a cave diver is a powerful 50-100 watt halogen fixture with a large, neutrally buoyant battery pack. Under normal conditions, it will burn brightly for 90-120 minutes. Every cave diver carries at least two (and usually 3 to 5) smaller lights as "back-ups" for the main light.

Maintaining a continuous line from the entrance of the submerged cave is a cardinal rule of survival. Plastic arrows or "Dorf markers" are placed at every "T" intersection along the main line, to direct the exiting diver correctly on the return. In addition to the main

Continued on page 2

PRESIDENT'S CORNER

by Marcel LaPerriere

Many of you readers might know that my family and I have recently opened up a climbing gym in Ketchikan. This President's Corner is about the use of gyms for vertical rope practice. For those of you that are reading this

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Continued from page 1

line reel used for entering the cave, a cave diver will carry at least one emergency reel and one or more "gap" reels used for connecting the main guideline to guidelines leading down side passages.

Sometimes a cave diver will carry as many as six or seven tanks: double backmounts, sidemounts under each arm, and two or three chest-mounted staging bottles. When you add three or more line reels clipped to harnesses and belts, three or more lights secured at convenient locations across the chest, and an array of redundant regulators, the cave diver in face mask and fins quickly takes on the appearance of a nerdy gadget freak from another planet.

All of this gear must be carefully secured, nestled tightly in low profile close to the body of the diver, in a manner making every item readily accessible but never allowing hoses, lines straps or snaps to dangle where they might get snagged in the guideline or the ragged edges of the submerged passage. Duct tape and tie wraps secure the otherwise dangling ends of fin straps. Loops of surgical tubing and bungee cording hold lights close to their mounting on chest straps.

Cave divers are trained and tested for special diving skills. Precision "buoyancy control" is probably the most important skill for safe cave penetration. A novice diver will destroy fragile cave decorations, silt the water to life-threatening blackout conditions, and damage valves, hoses and other vital equipment. Cave divers learn special propulsion techniques to avoid silting and destruction of the cave.

In recreational open-water scuba divers are trained to exit the water when their air supply is reduced to 300-500 psi. Cave divers "turn the dive" after using only one-third of the air supply. The second one-third ensures their exit, and the reserved

one-third is life insurance for their diving buddy in the event of a catastrophic failure of that diver's entire air supply.

Stress management is still another special skill required for cave diving. Panic is a primary cause of death in cave diving. Students in a cave diving course are placed in highly compromising, troublesome circumstances of multiple failures and compounding problems, to test their ability to remain calm and decisive in their management of the emergency.

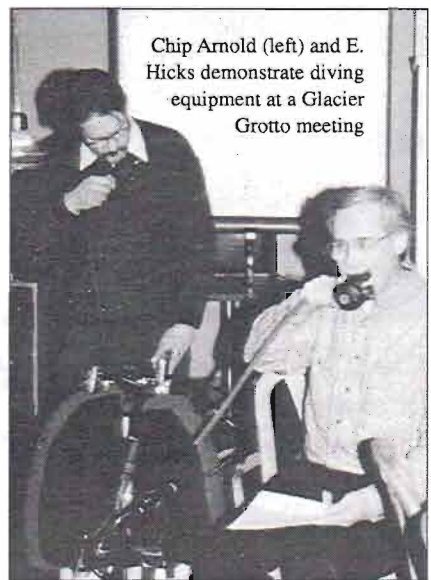
Learning how to handle a line reel is another special diving skill. A slack line quickly becomes snarled and tangled in gear and protrusions. The cave diver must keep the unreeling line taut while fighting fast currents, while ascending or descending through tight restrictions, or while distracted using free fingers to repair or adjust other equipment problems. Line placement is more than a careless wrap or two. The diver must ensure that it does not drop into a "line trap" — a crack or crevice too narrow to admit the diver if it was necessary to exit the cave in blackout conditions by feeling along that line.

"Staging" is another special cave diving skill. Divers sometimes spend many days ferrying and caching cylinders of air increasingly deeper into the cave for "the big push". The "bottles" are strategically placed along the route of the final push, according to the air consumption rates of those divers who will spend many hours swimming deep into the cave, and more hours decompressing at the cave entrance.

As the fully outfitted cave diver waddles clumsily to the water's edge hampered by 120-130 pounds of gear, every human instinct warns, "Do not jump into that water!" But training and experience respond and prevail. That seemingly cumbersome array of heavy gear will float

positive and functional for the journey ahead, silently carrying the diver in a weightless cruise through innerspace chambers of the earth.

Magnificent stals, flowstone, columns and breakdown appear in shapes and forms that dwarf the most creative imagination of the most talented human sculptors. Albino, blind cave fauna report the differences of "life" in deep darkness. Prehistoric bone fragments and artifacts speak of other epochs in the earth's history. Giant turtle skeletons and crocodile skulls serve as important reminders that disorientation and death befall bold and careless denizens lost in the beckoning darkness.



* The author is an NSS/CDS and NACD certified cave diver with specialty ratings, chairman of the Alaska Underwater Science Foundation, dive instructor at UAA, hyperbaric chamber operator at USC Wrigley Marine Center on Catalina Island, and frequent Lake Superior wreck diver. His cave diving experiences include Mexican cenotes, Bahamian blue holes, Floridian springs and Alaskan sumps. He is also general legal counsel to the American Academy of Underwater Sciences, and the Undersea & Hyperbaric Medical Society, Pacific Chapter, and member of Glacier Grotto and NSS.

RUSSIANS JOIN EXPLORATION OF THE ALASKAN UNDERGROUND

by Dalene Perrigo

Caving was the common language when five Russian cavers made a brief stop in Anchorage before continuing to the caves of Prince of Wales Island.

"It is very interesting for me to travel to the USA," said Sergei Levashev, spokesman for the Russian group. "Caving in Alaska is different. This is a fantastic place - new places with new caves".

For Lavashev this trip gave him a chance to renew acquaintances from the 1995 Tongass Cave Project, but for his fellow scientists, coming to Alaska translated into new adventures. Alexander Osintzev, vice president of the Russian Speleological Society has a degree in geology or engineering as do Alexander Egorov, and Goiry Fetisov. They are all graduates of the Polytechnical Institute of Irkutsk. Sonya Shadranga and Lavasher recently received degrees in aeronautical engineering and geography/geomorphology, respectively, at Irkutsk University. Lavashev's work included studies in the evolution of karst and the mountains in that section of Russia.

"In our country [there are] not a lot of caves" says Levashev, haltingly as he struggles to remember the vocabulary learned on his earlier visit. "Not a lot of water in Siberian caves, unlike Alaskan caves. Another difference, Russia has karst in one region and it is different from that in Alaska. It is very old karst, about 4 1/2 million years old, not very deep but quite long. Several caves might be deep but we have no research yet".

Within the small caving community, enthusiasm runs high and some changes are already anticipated.

In our region of Russia "the re-

search is not very good", Levashev explains while using his hand to help emphasize the point. In a quiet manner yet forceful tone of voice, this young (30ish) caver looks to the future.

"The Russian Speleological Association has been organized for only one month so we probably cannot exchange information with Alaska yet," he says. However, as interest in caving continues to grow in Russia, firms have establish and sponsor clubs.

One of the older, larger groups is Arabica. When explaining the organization of the Russian caving club Lavashev reads from a paragraph he prepared before leaving Russia.



Concentration shows on Sergei's face as he tries to remove one more building block.

"The club, 'Arabica' originated in Irkutsk, the capital of East Siberia, which is near Lake Baikal, the deepest lake in the world. Although university students are the main part of

this club, there are some experienced cavers also. The club has a membership of 48 people. Every summer we organize children's speleological camps. At any one time 20 children are engaged in club activities.

"(The place) Arabica is a high mountain plateau on the Caucasus where six years ago the first team of the **future** club conducted an investigation. Every year we organize expeditions to study the big caves around Lake Baikal. Two expeditions (one in the summer and one in the winter) are sent to Botovskaya Cave (23 kilometers in length), the longest limestone cave in Russia where we study the region's karst. Smaller groups go to the East Sayan Mountains and other places near Irkutsk."

Russian cavers also join caving expeditions abroad. Last spring interest in the underground took some Russian cavers to France and in October, to Germany. In August 1996, they were scheduled to cave in Mongolia.

The caving expedition to Alaska resulted from an invitation by Glacier Grotto member Steve Lewis, organizer of the Tongass Cave Project and a participant in a 1994 Russian speleological event near Lake Baikal.

Language was not a barrier in the food line or at the board-game tables. The Russians easily won the chess games while the Americans lead the field in Jenga, a building block competition.

After the pot luck dinner, the Russians showed slides of Russian caving events. The panoramic views inspired many questions about the countryside and caving in the Lake Baikal Region of Russia.

The next morning the Russian cavers left for Ketchikan and an American caving adventure.

KARSTLANDS OF SOUTHEASTERN ALASKA: RECOGNITION, EXPLORATION, AND APPRECIATION

by James F. Baichtal

Editor's Note: This article was written in 1994, but the information remains pertinent.

For the past three and a half years I have had the privilege of being at the forefront of the recognition of, and research dealing with the karst lands of southeastern Alaska, within the boundaries of the Tongass National Forest. Looking for a change in career, in 1990 I moved to Ketchikan to be the liaison between the USFS and the workings of the Quartz Hill molybdenum mine in Misty Fjords National Monument. Shortly after my arrival, the EPA reversed a decision to allow the mining company to dispose of tailings within one of the deep fjords. With this decision, mine development was put on hold. Someone within the USFS had mentioned that there were a few caves on the northern half of Prince of Wales Island and that I may want to investigate when time permitted. With the EPA's reversal of their decision, time became available. Before going afield, I pulled the air photographs for a portion of northern Prince of Wales Island. The photos that I selected were centered within what has become known as "Karst Central". The photos revealed hundreds of deep sinkholes, some cave entrances, insurgences, resurgences, and few streams. I recognized the area to be a well developed karst landscape. Working that winter with Kevin Allred and the Glacier Grotto, the extent of the resource was realized. What had been thought by some to be a few caves, was part of a vast unexplored karst region.

RECOGNITION

At about the time of the passing of the Federal Cave Resources Protection Act, the Ketchikan Area of the Tongass National Forest began to recognize the presence of the significant cave resources within its boundaries. In the five years following the recognition of the cave resources, the Area was involved in an active program of cooperative inventory, exploration, mapping, and evaluation of the caves and their associated resource values. Preliminary Standards and Guidelines were developed to insure protection of these unique and fragile resources, mitigating the impacts of timber harvest on the associated karst. Some applied mitigation provided adequate protection, but mitigation was often insufficient, resulting in degradation of the cave resources. Mitiga-

tion strategies were developed with the intent of protecting the caves from the effects of timber harvest. This mitigation was based on field observations from within previously harvested karst areas, and was focused on karst feature preservation.

With the Area's ever-growing recognition of the significance of the karst and cave resources came an awareness of resource vulnerability. It became apparent that an understanding of the functions of karst systems and the characteristics of the local karst landscape was needed. It was recognized that caves and associated features and resources are an integral part of the karst landscape and that karst must be managed as an ecological unit to ensure protection of the cave resources. In February, 1993 the Ketchikan Area sponsored a Karst Management Seminar with the help of the American Cave Conservation Association. This was the first seminar of its kind. Similar seminars had been sponsored by other Federal agencies in the past, but had focused on cave resource management and not karst management. This seminar focused on the function and characteristics of the karst landscape. From this seminar, an idea arose to contract with a team of specialists to: (1) assess the significance of the karst in an international and national context, (2) determine the effectiveness of present strategies for protecting karst resources and recommend appropriate changes, and (3) recommend focused resource evaluation goals and research for karst areas. Such a contract was let and the field work by the contractors completed during July and August of 1993. The Ozark Underground Laboratory from Protem, Missouri was awarded the contract. Tom Aley, director of the Laboratory was team leader. The team consisted of Tom and Cathy Aley, Dr. William Elliott, and Dr. Peter Huntoon. The report entitled "Karst and Cave Resource Significance Assessment, Ketchikan Area, Tongass National Forest, Alaska" is available from the Ketchikan Area of the Tongass National Forest. The "Karst Panel" as the team became known, used one word to summarize the karst resources on the Area, "incredible".

EXPLORATION

These karst and cave resources of the Tongass National Forest are a newly discovered and recognized portion of the lands within southeastern Alaska. Until the

first caves were mapped in 1987, only a few local residents knew of the caves and karst features hidden within the thick vegetation of the temperate rain forest. It is now known that over 700 square miles of karst exists on the Ketchikan Area, about 11 percent of the lands administered by the Area (Baichtal, 1993a and b). In 1988 the Thorne Bay Ranger District of the Ketchikan Area began cooperative work with the local caving organization to begin mapping and identifying caves threatened by proposed timber harvest. In 1990, the Ketchikan Area became aware of the extent of karst development. In the spring of 1991 the inventory process was greatly expanded, locating nearly 100 new caves and significant karst features within or adjacent to proposed timber harvest units. Inventory efforts were focused on the northern end of Prince of Wales Island where the majority of timber harvest was proposed. Cave resource mapping and inventory efforts during 1991-1992 resulted in cursory descriptions of over 100 caves and greater than 33,000 feet of passage. In 1992 the Tongass Cave Project, as the cooperative inventory had become known, became a sanctioned project with the National Speleological Society and the U.S. Forest Service. This inventory effort began to yield important paleontological and archaeological finds and the first look at a wide variety of other resource values. Exploration yielded the longest cave in Alaska, El Capitan Cave at over 11,000 feet of passage, and the deepest vertical shaft in the United States El Capitan Pit with an initial drop of 598.3 feet and a total depth of 624 feet. 1993's cave inventory effort mapped over 30 caves and resulted in significant paleontological discoveries. To date nearly 300 caves have been inventoried, with approximately 50 caves being discovered annually.

Concurrently with the cave exploration and inventory, research into different facets of the karst landscape continues. Studies to describe the invertebrate fauna within and bat usage of the caves continue. Research into the importance of the karst waters to the extremely productive aquatic communities are ongoing. Studies of the Pleistocene and Holocene fauna found within the caves are in their second year. A major archaeological and paleontological research effort aimed at describing the prehistory and paleoecology of southeastern Alaska is beginning. The study will focus on deposits within the caves. Studies into the relationship of the peatlands and their acidic waters to karst and cave development are planned. Exploration on Chichagof Island has also discovered extensive karst resources.

APPRECIATION

As inventories and exploration continued, it became apparent that caves and their associated resources were

an integral part of the karst landscape and that wise management of the cave resources meant that an understanding of how karst systems function was required. It became further apparent that karst must be managed as an ecological unit to ensure protection of the cave resources. In southern southeast Alaska the karst landscape can be characterized as an ecological unit found atop carbonate bedrock on which karst has developed and the recharge areas on adjacent non-carbonate substrate. A few of the characteristics of this ecological unit include: older, well-developed spruce and hemlock forests, increased productivity for plant and animal communities, extremely productive aquatic communities, well-developed subsurface drainage, and the underlying unique cave resources. Karst is a three-dimensional landscape.

These karst and cave resources have been found to be of international and national significance for a wide variety of reasons (Aley et al., 1993). These are newly discovered and recognized resources. The Area is moving rapidly to insure wise management of the karst landscape, given the focus of proposed timber harvest on these lands and the cumulative effects of past harvest. The challenge is to integrate management of the karst landscape into current land management strategies. The Area recognizes that the karst landscape cannot be managed the same as other, non-karst lands. The Federal Cave Resources Protection Act requires protection of caves on Federal lands. The intent of this act is to protect cave resources not karst resources. However, it is important to recognize that caves and associated features and resources are an integral part of the karst landscape. Karst must be managed as an ecological unit to ensure protection of the cave resources. Sound karst management means recognition of all the resource values of the karst including timber and recreation values. The Karst Panel has proposed a method by which karst lands can be managed by continued inventory, recharge delineation, and vulnerability mapping. This management strategy weights the various resource values and functions of the karst landscape outlining the level of management appropriate for each vulnerability class. The Panel further points out that land management and land use decisions must recognize the archipelago setting and be island specific. The highly fractured blocks of carbonate biologically become islands within islands. In the Panel's final conclusions, the members point out that "The Area's goal must be ecologically sound and scientifically credible resource management of the karst lands of the study area." The Ketchikan Area is rapidly moving to apply these management strategies to the karst landscapes of southeast Alaska. I am excited to see the Area's recognition of the resource for what it is and how quickly they

Continued on page 16

NEWSBRIEFS

The Hollow Earth News 3(4) May 1996, p 5 (Grottos). By now, it must be painfully obvious to at least some that the days of the hand drawn in-cave map sketch may largely be coming to an end in the not so distant future. Digital cameras and portable laptop computers, digital compasses and electronic positioning methods are available right now that could be applied to cave mapping. Though it would be no small effort to develop this technology to the point where it was practical for use in caves, it would make cave mapping, particularly the documenting of cave details, far more accurate and much less time consuming.

The question is: If you can photograph it, then why draw it? Your main objective is to collect and record data, not make art. With digital camera technology, thousands of compressed images can be stored on one laptop hard drive. Take an image of the same thing from two different positions, and you have it down in three dimensions. It would not be particularly difficult to have the necessary compass and clinometer readings recorded at the same time the camera was activated (a digital compass and digital clinometer would be mounted to the camera - better yet, a digital gyrocompass, if you could make it small and cheap enough).

Camera position relative to stations is an intriguing problem with several possible solutions of various degrees of accuracy and convenience.

Some may wonder how any of this could be accomplished when we are still having trouble with things as simple as electric cave lights. The equipment used for digital cave sketching would have to be waterproof and quite rugged, surely an engineering challenge, but hardly an impossibility. With such technology, detailed three dimensional maps would become practical, unlike the necessarily often over simplified 3-D versions made thus far. The software to display these maps from any angle or magnification or point of view (even from inside the passages) has been around for a while and should become readily available soon.

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The Speleograph 32(5) May 1996 p55. Larry King of the Oregon Grotto reports: "Our continued resurvey of Deadhorse Cave has placed the current figure at 12,941 feet, about 100 feet longer than Ape Cave. There is a lot left to do, at least several hundred, and perhaps 1,000 more feet".

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The Cleve-O-Grotto News 42(5) May 1996 p 35. Yes,

after a lot of talk, a lot of tries, and a lot of work, the Bear Cave map has finally been put on a T-shirt. It's in full detail ... The front has a graphic of a bear head, and lists some historic events of significance for the cave. The map is on the back. Frank and Anita Vlcek of the Cleveland Grotto did the work and it is superb. There is no other cave map T-shirt like it. Due to the size of the map, shirts are available in L, XL, and XXL sizes only. Cost is \$15 each, postage paid. A large version of the Bear Cave map is available for an additional \$3 with the purchase of a shirt. Kim Metzgar, RD2 Box 153A, Export, PA 15631.

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The Speleograph 32(4) April 1996 pp 40-42. The caves of the Arnold Lava Tube System, Deschutes County, Oregon, have comprised a cultural center for, possibly, many thousands of years. Hidden Forest Cave, about 1,400 feet west of Arnold Ice Cave, and the west end of Pictograph Cave about two miles northeast, are warm caves and known to have been used as shelters. Dilapidated Indian lodges in the huge Hidden Forest collapse trench were described in a 1889 Oregonian article about the "Crook County Ice Caves", and a mat woven of grass found on a lava bench inside Pictograph Cave was reported in the 1950s. The area is littered with the waste of obsidian projectile point manufacture, and the walls of caves, sinks and trenches retain faded pictographs.

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NSS Administrative Memo 18(2) December 1995, p.4. Among current materials being sent out to newly chartered grottos or other I/Os are several items about novices and novice trips, suggestions on avoiding or dealing with conflicts in grottos, instructions on how to start and maintain a small grotto, and reasons to join the NSS. There are longer memos on finances and liability, and on newsletters and copyright issues. One entire section includes copies of various NSS policies of potential interest to I/Os. Inquiries about what's available may be directed to Evelyn Bradshaw, I/O Chair, 10826 Leavells Road, Fredericksburg, VA 22407-2362. Evelyn can be reached by phone at (540)898-9288, or on e-mail at ebradshw@interserv.net.

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Cleve-O-Grotto News 42(3) March 1996, p.22 "Any belief that is not tested frequently becomes a prejudice. Test your caving beliefs often - don't let them become deadly prejudices".

BIG FATTY CAVE

Heceta Island, AK • Preliminary Report #232 Tongass Cave Project • National Speleological Society

by Eron Gissberg
July 22, 1996

DESCRIPTION

Big Fatty Cave was discovered by Dave Love on July 12, 1995. While walking the forested area near Arabica Cave. It is located next to Superstitious Cave.

The entrance is in a relatively shallow sink and takes a small stream from a muskeg to the north. The cave consists of a series of three vertical drops. The entrance pitch requires a 60-meter rope. It can be rigged from a large hemlock tree on the east side of the sink. This rope can be used for the first two drops. Twenty meters down a redirection is useful to stay out of the waterfall. This can be rigged with a small camming device or a medium chockstone. There are plenty of good placements in the rock. The first landing contained many loose rocks on the floor and much time was spent clearing the rock for a safe descent down the second pitch.

The second drop is 25 meters. Use a rebelay at the top to drop this one. Three meters above the floor a small side passage leads to a narrow canyon which has a small stream. Both ends of the canyon are too tight to enter. During the survey of the first 60 meters of this cave, the voice of Marcel LaPerriere could be heard surveying in Superstitious Cave. The connection to Superstitious was not found however. The bottom of the second drop becomes somewhat narrow with much loose rock. Many hours were spent clearing the area for the obvious big drop ahead.

Use a 40-meter rope for the third drop. The rock here is somewhat flaky, using passive protection a totally free drop of 34 meters was rigged, without bolts however, it is impossible to stay out of the waterfall. Along the walls of this abyss is a small patch of flowstone, the only decoration known in the cave. The passage follows the stream down a narrow vadose canyon to a small room where the stream disappears under a shelf which is much too small to enter. A muddy climb to the south is a big lead and may connect with Arabica Cave.

MANAGEMENT RECOMMENDATIONS

This cave is an extremely important part of a highly developed subsurface hydrological system. It is without a doubt crucial to the development of the cave's resources and may be important to humans using downstream freshwater resurgences for drinking water. It is almost certainly connected to the major Arabica hydrological system. The cave offers excellent recreational opportunities for proficient vertical cavers. Although the area surrounding Big Fatty Cave has been severely impacted by past logging practices it still retains some of its pristine nature. The remaining forest and all caves hydrologically connected to it should be set aside and spared from these activities.

SKETCH AND RUN CAVE

Kuiu Island, AK • Preliminary Report #S5 Tongass Cave Project • National Speleological Society

by Pete Smith
January 18, 1996

DESCRIPTION:

Sketch and Run Cave is located in the thinly bedded limestone/slate in Port Malmsbury, right in the tide zone. It was surveyed by David Love, Pete Smith and Rob Knotts on August 9, 1995. "We had to rush in and out of this cave because of the rising tide".

It is an active littoral cave. There is otter scat and beds in the northern-most cave. There were sea otter

seen in the kelp beds off the beach, however, the author is not familiar with any sea otter using beach dens. Perhaps this site could be useful for further otter research.

MANAGEMENT RECOMMENDATIONS:

Due to the remote location and stable nature of this cave there is no danger of damaging it through too much human traffic. However, due to the usage of the cave by otters, we classify it as limited access. [The finished map is not included in this report]

SCALE

0 5 10 15 20 30 40 50

zero datum

entrance

feet

meters

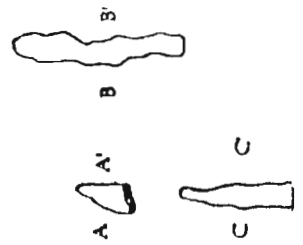
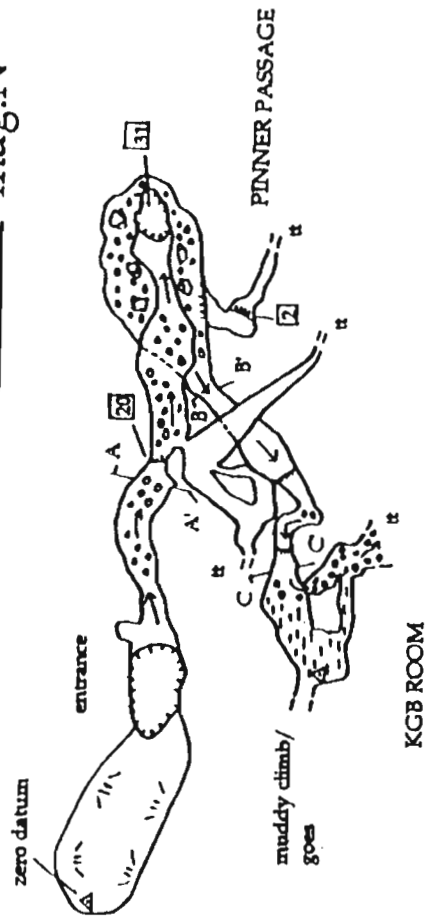
BIG FATTY CAVE

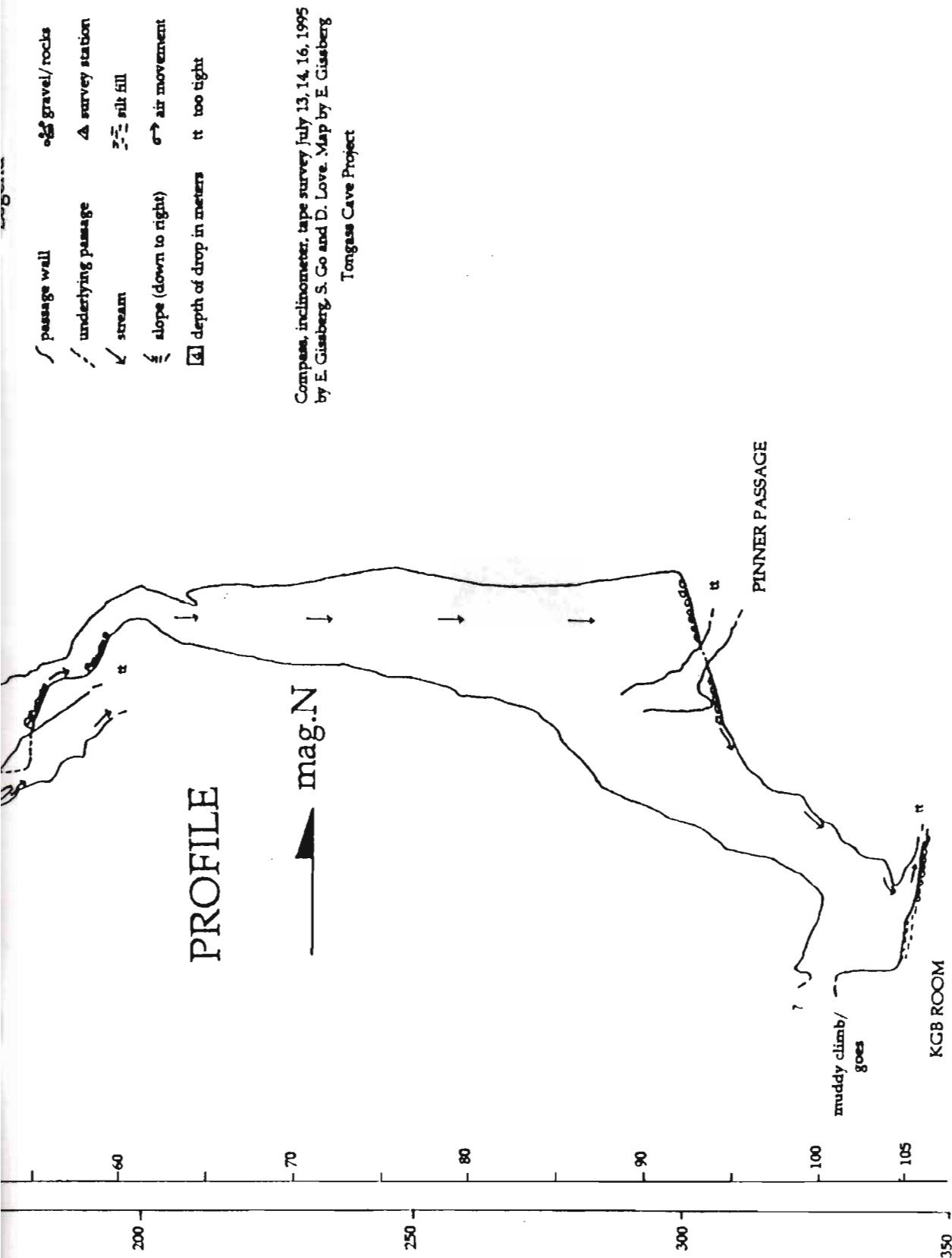
HECETA ISLAND, ALASKA

Survey length: 195.47 meters
Survey depth: 106.5 meters

PLAN

mag. N





COME AGAIN CAVE

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

by Kevin Allred
January 18, 1996

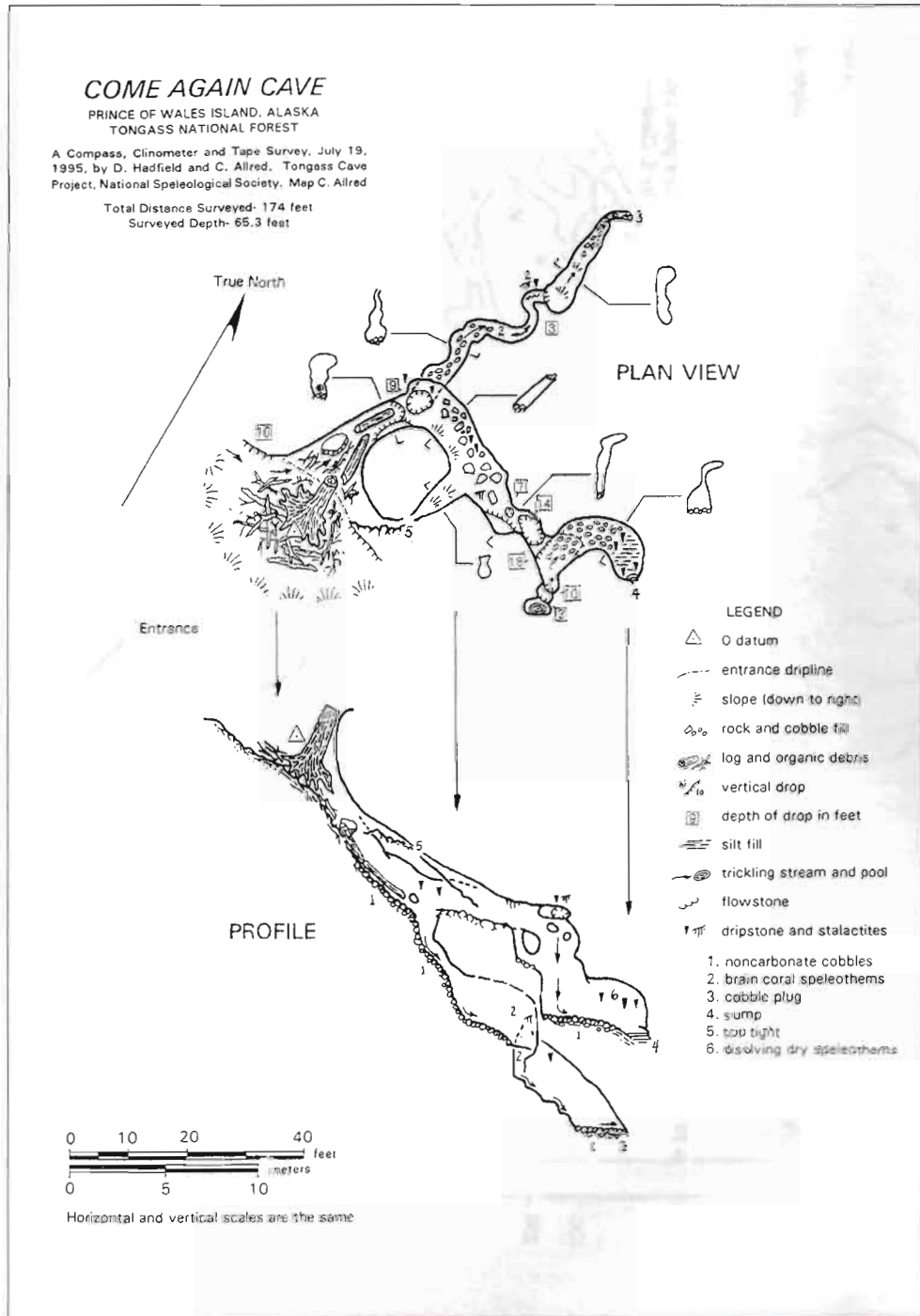
DESCRIPTION: Come Again Cave, an insurgence vadose network is formed in Heceta Limestone on Prince of Wales Island. There is a large clear-cut above the cave. Mark Fritzke discovered Come Again in the same area as Fatman Filter Cave, and Hair Trigger Pit.

Logging has resulted in woody debris at the entrance. Upon entering the entrance sink, the insurgence stream is followed down steep debris into the entrance located at the foot of the 10-foot headwall. After only 25 feet, a side passage heads east, and was probably an earlier route of the stream. This fossil passage is a low, broad inclined passage with some speleothems. There is a short branch which trends up towards the insurgence sink. This branch configuration has much in common with Spike Cave (see report #109 AK Caver 13(6), Dec. 1993) indicating a higher, former swallet passage. Continuing along the east branch, two more minor passages take off from a 10 foot deep pit. The main branch ends with a sediment floor and small sump.

Back at the main cave stream, the passage becomes very sinuous and canyon-like with a cobble floor. A few white, lumpy speleothems, soda straws, and stalactites adorn the walls until the steep way becomes cobble clogged. Total surveyed passage is 173.6 feet; depth is 65.3 feet.

MANAGEMENT RECOMMENDATIONS: Due to the delicate speleothems found in

Come Again Cave, we recommend that the location be restricted to those aware of the value of the resource. The entrance area and hydrologic system have been damaged by logging. No further road building activities or logging should be permitted in this heavily karsted area. Tree thinners should not leave slash in the insurgence streams, sinkholes, or entrances of the area.



NO KARST ON SUEMEZ CAVE

Suemez Island, AK • Report #251

Tongass Cave Project • National Spelological Society

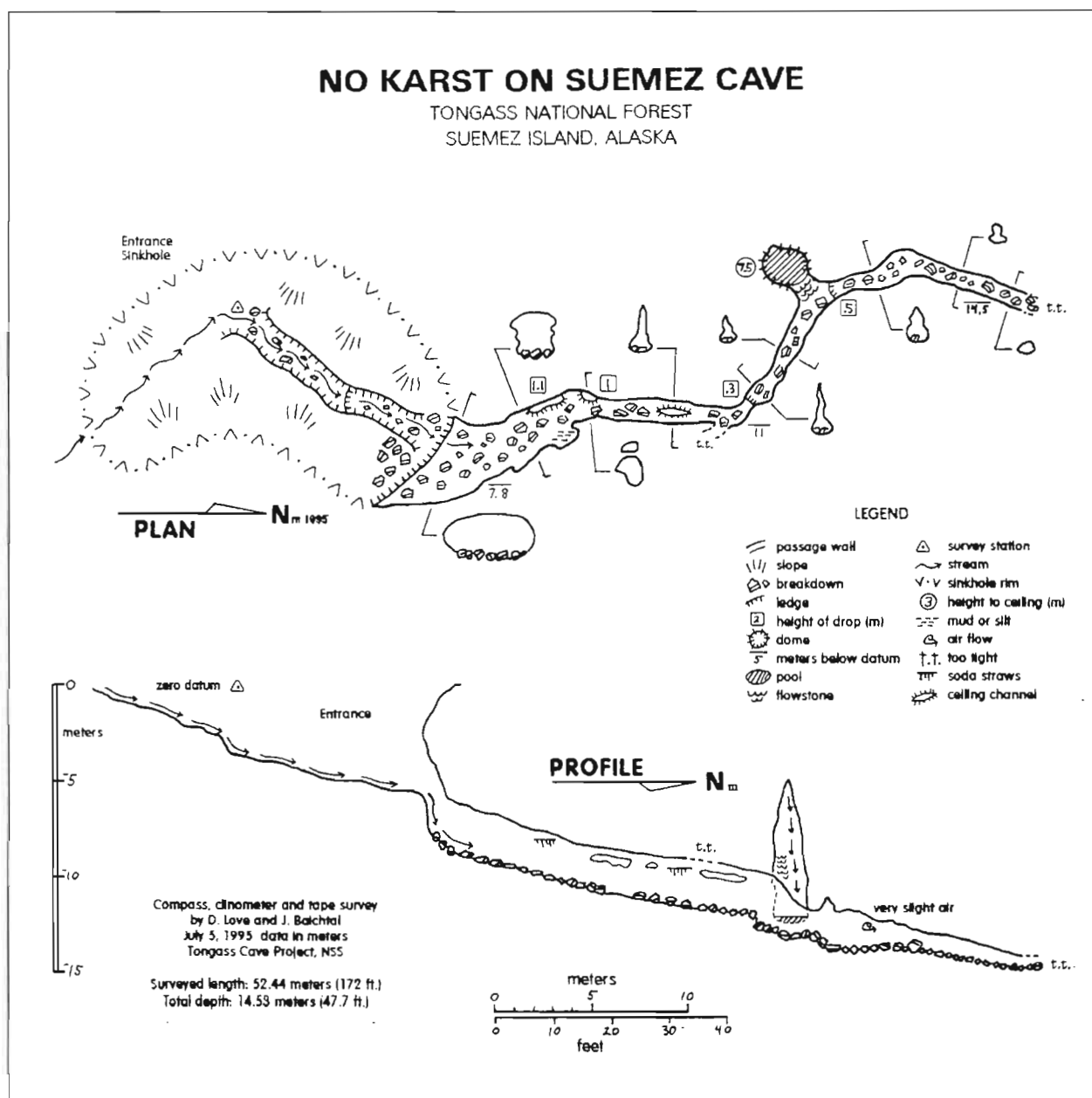
by Nick Olmsted
January 1996

DESCRIPTION: The sinkhole entrance of No Karst on Suemez Cave has a short tight spot before opening up to a walking passage on a gentle incline with breakdown. The cave is well decorated and the passage is tight below some formations. Care is required to avoid damaging speleothems. There is one dome with a pool, no invertebrates were noted but could be present. Light air flow was noted in the lower end of the passage which ends choked and too tight. No rope is needed in the cave.

Surveyed length is 52.44 meters (172 feet) and surveyed depth is 14.53 meters (47.7 feet)

GEOLOGY/HYDROLOGY: This cave has an active stream channel, with water flowing directly from a nearby muskeg. Active speleogenesis is occurring, and flowstone, soda straws and stalactites were noted.

MANAGEMENT RECOMENDATIONS: This cave should be managed in the category of "directed access".



GULLIBLE'S TRAVELS CAVE

Kuiu Island, AK • Preliminary Report #54 Tongass Cave Project • National Speleological Society

by Pete Smith
January 18, 1996

DESCRIPTION:

Gullible's Travels Cave was surveyed by David Love, Pete Smith and Robert Knotts on August 8, 1995.

This cave has a slash filled sink entrance which is in a recently cut logging unit across the valley from Hooter Cave, Gooseberry Grotto, and Broken Promise Cave. There are big unstable rocks just inside the entrance, and a downclimb of 10 feet. The Silurian limestone seems to be a fairly small pod of more solid makeup than that seen in the other caves mentioned.

This cave is another example of an active vadose stream passage system. Digging was required to get as far as we did in the cave, and more digging could possibly make the cave longer. The passage is a narrow winding canyon with a non-carbonate cobble floor.

The total surveyed length is 69.3 feet (21.12 meters) and depth 43.3 feet (13.2 meters).

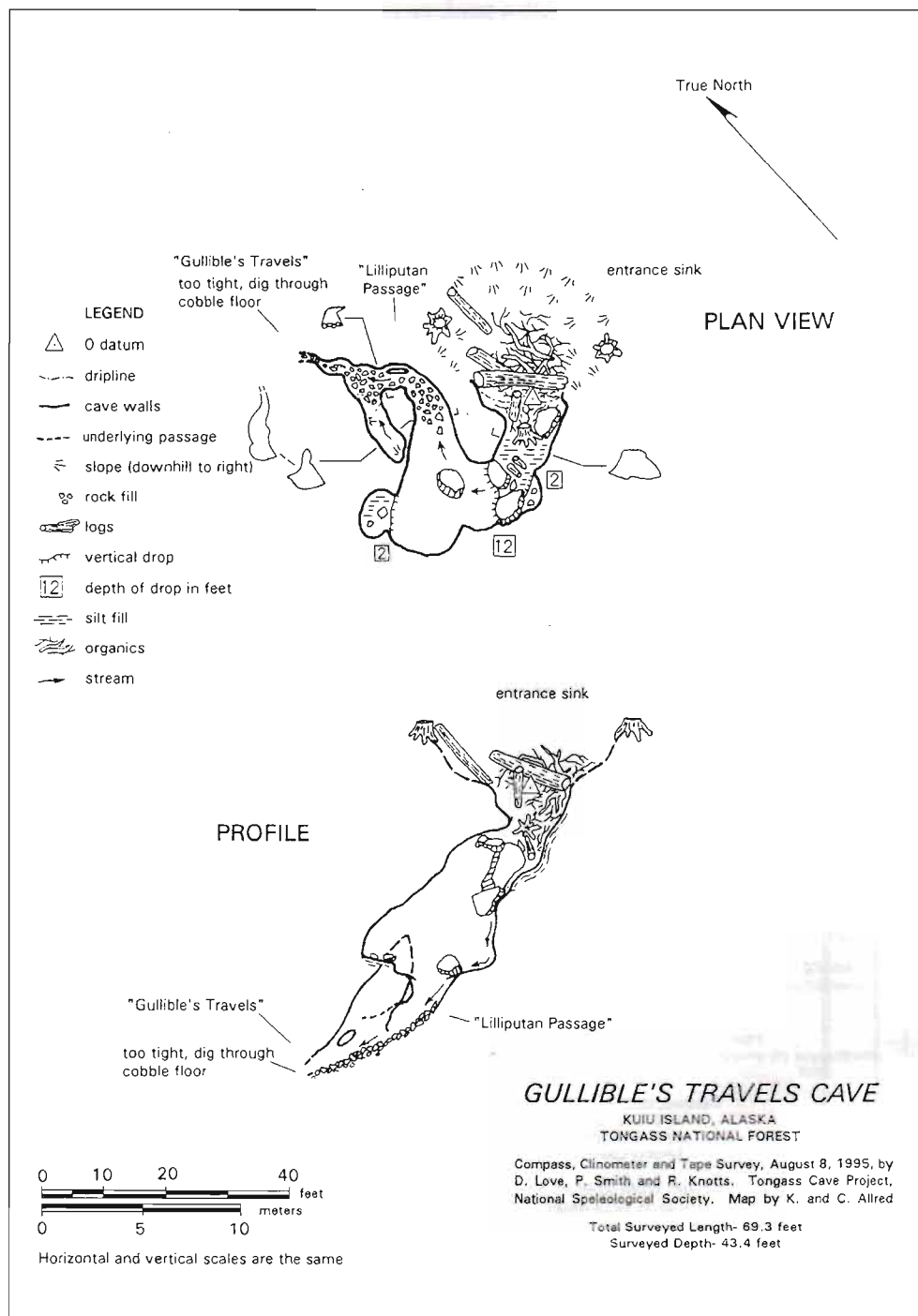
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Caving Newsbrief

According to the NSS NEWS 53(12) two entrances of Mammoth Cave were scheduled for redesign this year. The entrances, New and Frozen Niagara, received air locks as a means of protecting these portions of the cave from water, air, animals and plants that unnaturally move in and out of the underground. The openings were blasted into the cave in the 1920s and have been used since that time.

MANAGEMENT RECOMMENDATIONS:

We recommend that this cave be classified as limited access because of the dangerous unstable boulders.



THE ROAD WILL SOON BE IN THE CAVE

Heceta Island, AK • Preliminary Report #229 Tongass Cave Project • National Speleological Society

by Eron Gissberg
July 22, 1996

DESCRIPTION:

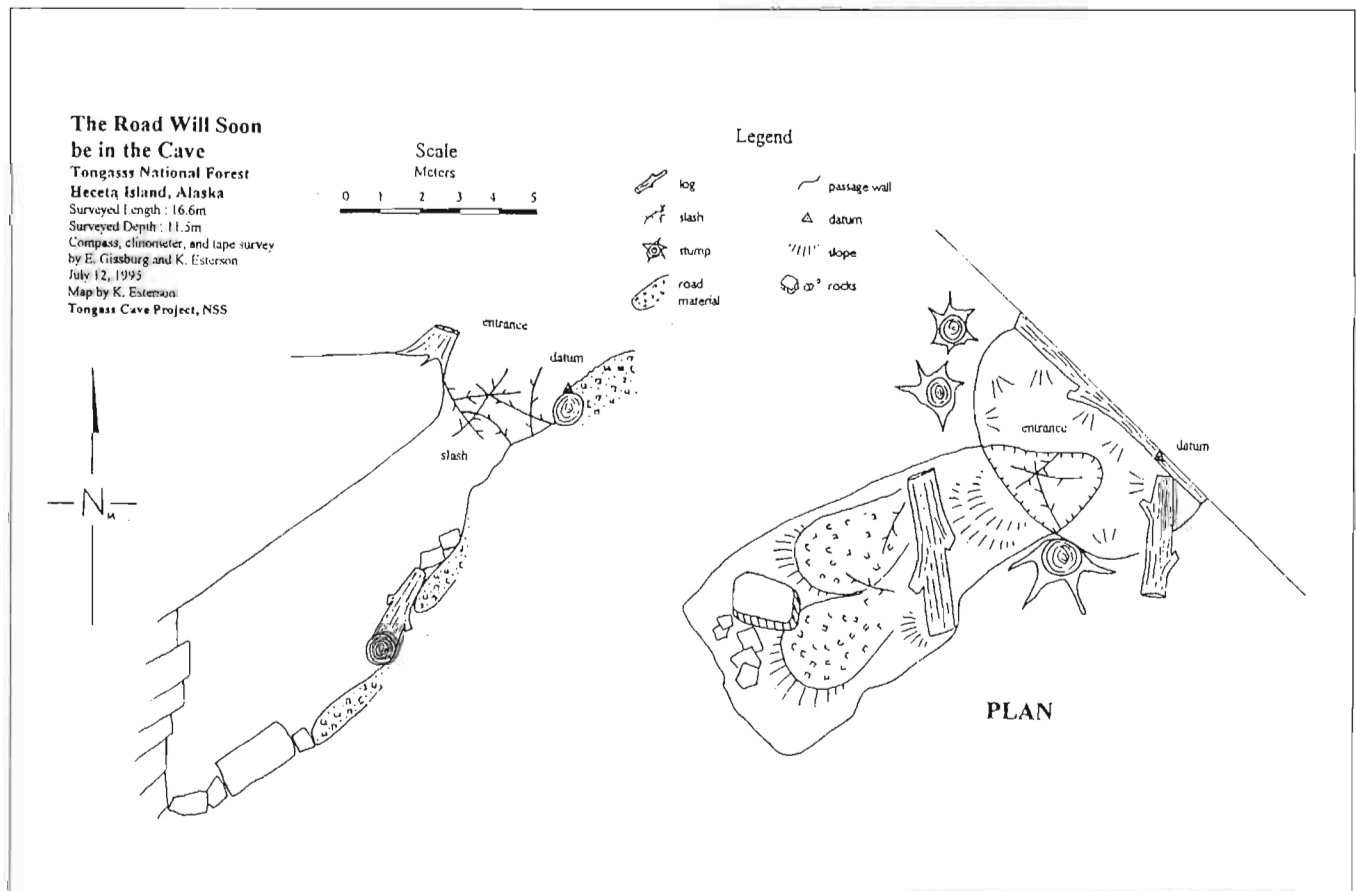
The Road Will Soon be in the Cave was surveyed by Kris Esterson and Eron Gissberg on July 12, 1995. It is a 16.6-meter (54.44 feet) long, steeply dipping cave that has been seriously damaged by construction of the 1425-500 road. The cave has been plugged with stumps, slash, logs and road building materials. Similar to other caves on this same road, this cave will swallow part or all of the road in the not too distant future. Unless the bottom collapses it is unlikely this cave will be around for much longer. The cave requires no vertical skills to explore its short passage.

There was no biology noted in the cave and, considering the changes in habitat wrought by road construction, it is unlikely that this cave contains sensitive species.

The cave is part of a highly developed subsurface hydrology. It is without doubt important to biota and the development of cave resources. The water in the cave may be important to humans using downstream resurgences for fresh drinking water. It may now be having detrimental impacts on associated systems.

MANAGEMENT RECOMMENDATIONS:

Damage to the cave should be monitored to learn more about how caves and karst are affected by surface alteration, and how capable the systems are of repairing themselves. The cave is an example of the impacts that poorly planned timber harvest can have on karst systems.



DARK CAVE

Heceta Island, AK • Preliminary Report #226 Tongass Cave Project • National Speleological Society

by Eron Gissberg
June 22, 1996

DESCRIPTION:

This cave, discovered by Kris Esterson, has a very long name which is painful to type and even more painful to say. It is, "The One-eyed Flaming Purple Karst Possum Dwells Beside the Ninth Sky with the Six Dangerous Five Hot'n Soluble Space Pigs Just Beyond the Point of Extreme Unction at the Start of the Hydrophobic River in this Cave, a.k.a. Dark Cave".

The cave is relatively short with 22.80 meters (74.8 feet) of passage surveyed to a depth of 12.5 meters (41 feet) but is aesthetically pleasing. It is located in a low volume forest-muskeg at the bottom of a large doline and is an important insurgence point almost certainly connected to the Arabica/Icy Fate hydrological systems. The cave passage follows the dip of the bedding plane and is vadose in nature. The passage of the cave is a scramble until the Point of Extreme Unction where a very tight and awkward lead continues until it becomes too tight. Just before the Point of Extreme Unction a room

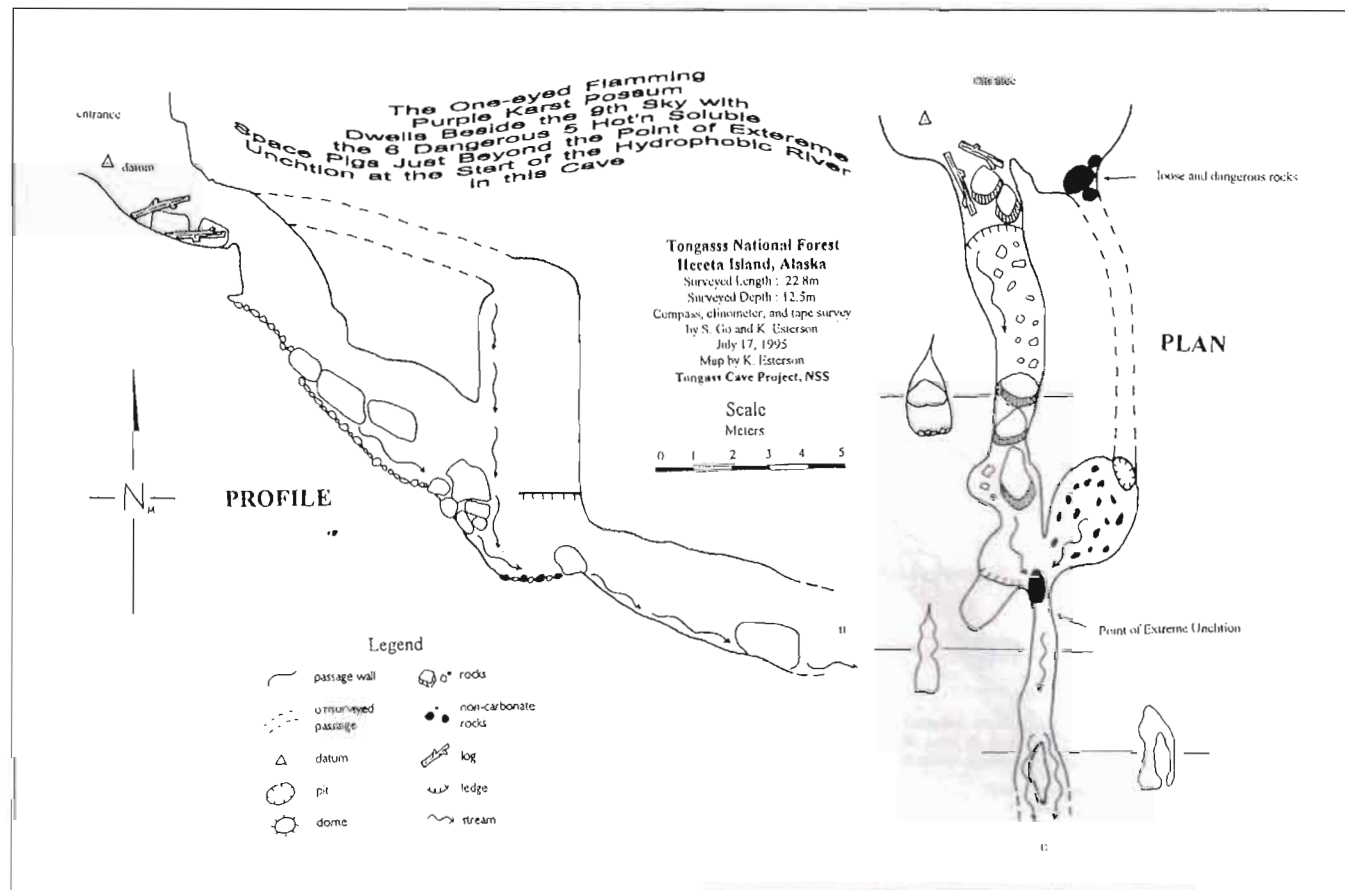
with non-carbonate rocks on the floor is a point of insurgence for another small stream.

There are some small pools at the bottom of the cave which may support a small colony of cave adapted spacepigs, but probably not.

MANAGEMENT RECOMMENDATIONS:

Dark Cave is located in a pristine environment and is an integral part of a very significant karst system. The hydrology associated with this cave is important to the cave's development and biology. The cave offers recreation for beginning cavers and is a very good example of the interaction between muskeg and limestone that is so essential to the formation of many Southeast Alaska caves.

This cave should be protected from logging activities so the inaccessible passage below and its hydrology remain undisturbed.



THREE PLEAD GUILTY TO DESTROYING CRYSTAL CAVE IN Theft Spree

From the CIG Newsletter Published by the Central Indiana Grotto

Mammoth Cave National Park, Ky. — The damage to the cave that was once the resting place of Floyd Collins is extensive: entire sheets of gypsum torn away, powdery piles of crushed gypsum crystals on the cave floor, and delicate, lacy helectites snapped clean from their roots and missing. And on an outer wall, in bold white paint sprayed in a corner: "Leon R." and "Tony H."

Yesterday, Wendell Leon Reynolds, 18 of Mumfordsville, Anthony Wayne Hawkins, 33, of Radcliff, and Anthony Dale Stinson, 23, also of Mumfordsville, pleaded guilty to federal charges that they destroyed C Crystal cave at Mammoth Cave National Park when they stole cave formations from it last spring.

Reynolds and Hawkins now face maximum sentences of 35 years in federal prison, plus fines of \$750,000 each. In addition, Stinson admitted that he stole two clay masks of Collins and his brother, Homer. He could be sentenced to a total of 45 years in prison, plus a \$1 million fine. Sentencing was set for May 22.

The three admitted to U.S. District Judge Thomas B. Russell that from April to June they made repeated trips "in the dead of night," as the indictments charge, tunneled under an entrance gate and hauled out 800 pounds of "cave rocks" in duffel bags. Baseball bats were their tools of choice.

"Some of them we broke, and some of them were loose," Reynolds told the judge yesterday.

"We put the rocks inside duffel bags and carried them out," Stinson said in court.

In stealing formations, the vandals dragged the heavy rocks up and down steep cave paths. They got out by squeezing through a muddy hole no more than a foot wide and two feet deep. Then they lugged the heavy bags another mile to their vehicles.

The cave "is trashed for eternity," said Randy Ream, the assistant U.S. Attorney who prosecuted the case.

The National Park Service estimated they damaged roughly a mile in one passage, and ruined a quarter of a mile of another. A tour for reporters yesterday revealed that the vandals pulled away entire sheets of gypsum along some passages, and took whole sections of the lacy formations known as helectites. Related to stalactites and stalagmites, the familiar cave "icicles," helectites grow in curlicues and defy gravity and logic. Damage to the cave was put at \$270,000 by the government.

Ream said the trio peddled their cache to rock and souvenir dealers that line the entrance roads to the park.

For all their efforts, they got less than \$1,000 or less, Ream said.

Federal investigators confiscated the booty but did not arrest the shop owners. Ream said he couldn't prove that the shop owners knew the formations came from the park.

The vandalism enraged the executive director of the American Cave Conservation Association, David Foster, who criticized the National Park for being slow to install a better gate at the cave, and the Mammoth Cave area rock shops, for ignoring a 1988 state law that bars the sale of "speleothems" as the cave formations are formally known. However, Foster acknowledged that it's only a misdemeanor to sell the rocks, and has been a low priority to law enforcement.

His criticism of the park service's protection of Crystal Cave was echoed by Crystal Collins, whose husband is a great-nephew to Floyd Collins.

Vickie Carson, National Park Service spokeswoman, responded that the park service has a new cave-gate-building program under way. She also said the park service runs surveillance on cave entrances, and also relies on tips from the neighbors.

In 1925, while trying to find a new entrance closer to the main highway, Floyd Collins died in what is now known as Sand Cave. Crystal Cave became known as Floyd Collins' Crystal Cave, and was a place tourists could see Collins' body in its casket. The cave closed in 1961 when the park service bought it, and Collins body was reinterred in another cemetery in the park.

NEWS AND NOTES NSS NEWS

Following the May 22 conviction of three men who vandalized Floyd Collins Crystal Cave, Kentucky State Police issued citations to eight Mammoth Cave-area souvenir shops caught selling cave formations. The convicted vandals sold hundreds of pounds of their ill-gotten spoils to are rock shopsk despite the existence of an eight-year-old state law banning such sales. Mammoth Cave NP officials said the shops have indirectly encouraged the looting of caves by creating a market for cave formations. Officials would like to see stricter enforcement of the law and support making the offense a felony.

Contributing to the Park's problems in protecting their cave resources is that they are seriously understaffed. On most nights, one ranger patrols the entire park.

Continued from President's Corner page 1

outside the Ketchikan area, hopefully your local gym will let you use their facilities.

Since most gyms have top ropes already installed, and floor anchors spaced near belay stations, it's easy to secure a rope for vertical ascending, and rappelling. Quick draws that would normally be used for lead climbing can be used to rig directionals and rebelay on the rope. (Any of you readers that have rappelled or ascended past directionals and rebelay know how important it is to practice this skill.) Many gyms also have bolted routes up walls and across ceilings. I am finding the bolted routes in our gym to be a good place to practice aid climbing. Another useful skill for caving. And, many gyms also have rappelling balconies. Another good place to practice rappelling and ascending in a safe environment before caving.

With the limited day light and the less than desirable weather in the winter a climbing gym might be just the answer to keeping our vertical rope skills honed. Not to mention indoor climbing is also a good way to stay in shape.

Disclaimer: The above mentioned information was not meant to be an advertisement. Most of the Ketchikan active members of the grotto and ACR are already using the gym. For those of you in Fairbanks, UAF has a small wall. Anchorage, has two commercial gyms. And for those of you in the Lower 48, there is most likely a gym not far from your home.

One last item: I am now in my 3rd term as President of the Grotto. I have enjoyed my time as President. However, this will be my last term. Time restraints and other commitments, that I have been letting slide are calling. Please start thinking about who you want to nominate for all the offices.

OHIO NSS News 53(12) December 1995 by D. Bewley

On July 16th 1995 a paleo-biological dig at the Sheridan Pit at Indian Trail Caverns, in Wyandot County, Ohio, produced a find of a different significance in reference to the material which had been unearthed since the dig began in 1988. Four workers, a Ph.D. candidate and site director two paid interns and a volunteer worker, and NSS member, found what will probably be confirmed as the oldest evidence of man's presence in Northwest Ohio. Since its start, the dig, which is coordinated through the Cincinnati Museum of Natural History, has produced bone and bone fragments of extinct and extant species from approximately 11,000 years ago. What the workers found was a worked tool, an antler spearpoint of the Clovis culture, which marks the first evidence of human activity found in this "sinkhole".

Though the precise date of the artifact is still being determined, the spearpoint measures slightly more than five inches in length, and was lying immediately above a level of earth dated to 11,060+/-60 years before present (BP). The artifact is unique to Ohio and the Midwest.

The spearpoint is made of the dense antler of a yet-to-be-identified large mammal. The Museum has established that it is most likely a weapon belonging to the Clovis peoples, the earliest inhabitants of the New World.

While the origin of the spearpoint is presently unclear, it is possible that it was embedded in one of the animals which entered the pit and over time became separated from the animal's remains by the action of wind and water. Because of prior evidence unearthed by the Museum of large Ice Age mammals including flat-headed peccary, short-faced bear, giant beaver and elk-moose, the cavern may have been a hunting locale of the late Pleistocene (Ice Age) human population.

More information can be obtained from Julie Gislason, The Cincinnati Museum Center for Natural and Cultural History and Science, 1301 Western Avenue, Cincinnati, Ohio 45203-1127 or cave owner, Richard Hendricks, PO Box 127, Vanlue, Ohio 45890.

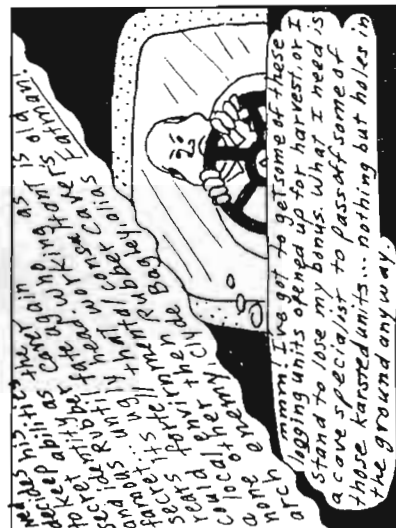
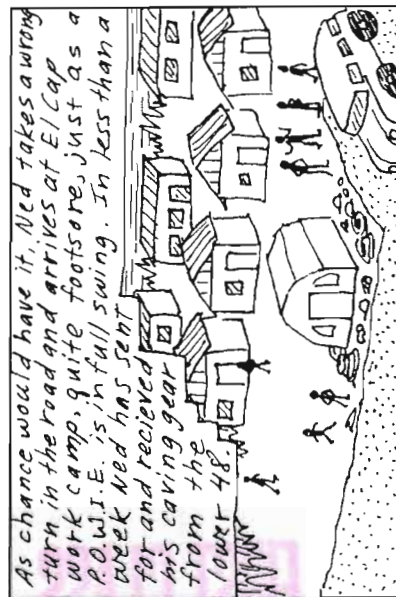
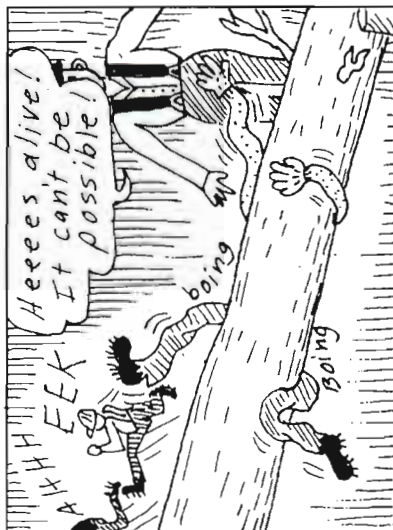
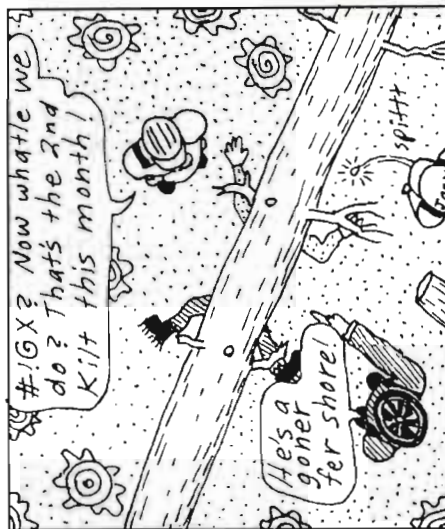
Continued from page 5

are moving to implement the recommendations of the Panel. I personally would like to thank the army of volunteers from the caving community, the NSS, ACCA, the researchers, and USFS employees who have made this program possible. It is through your efforts that our understanding of the karstlands of southeast Alaska grows.

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The Adventures of RUBBER ^{by} K. and C. A/I/red



TO BE CONTINUED..

MISCELLANEOUS

EXECUTIVE COMMITTEE

The Board of Governors of the NSS met on March 16, 1996 in Seattle at a meeting hosted by the Cascade, Puget Sound and 4th Corner grottos. The motion to reorganize the Executive Committee passed. One of the changes was to add a third Vice President, known as Operations Vice President.

The Board accepted the resignation of Secretary-Treasurer Kevin Smith. President Luckins expressed the Board's appreciation for his service to the NSS. Later, Paul Stevens was elected to fill the position.

The first NSS Satellite Library is located at the home of Jack Speecwe in Pennsylvania. His address is in the NSS Members Manual.

Elizabeth Francis replaces Sheila Smith at the NSS office in Huntsville. Smith resigned in February.

Dr. Louise Hose was named editor of *The Journal of Cave and Karst Studies*, The National Speleological Society Bulletin, and Dr. James Pisarowicz, the production editor.

The Convention Abstracts Committee was abolished. Its functions will be absorbed by the Editorial Board of *The Journal of Cave and Karst Studies*, The National Speleological Society Bulletin.

J. Reynolds Duncan of Toney, Alabama was confirmed as the NSS Archivist.

The fall 1996 Board of Governors Meeting will be Nov. 2, 1996 in Phoenix, Arizona.

The effective date for special dues rate offered to non-NSS members and those paing dues for three years was extended to July 1, 1996.

Taken from "What They Did in Seattle" by Jean DeVries, NSS Administrative Memo., June 1996, P. 11.

Postal Changes

Several changes have occurred in the post offices. The following comments are taken from the NSS ADMINISTRATIVE MEMO, June 1996 which is reprinted from the Sunday Caver in Virginia.

Preparing mail to be compatible with new automation machinery could speed it on its way. Encasing newsletters in envelopes would be one way (without protruding clasps to snag on the machinery). If sent as self-mailers, the bottom edge of the address area should be a fold, with no protruding staples to catch in the machinery. Doing without staples (use tape) would be easy if printing is on 11x17 paper.

First class is the same but these classifications have been added:

Periodicals (formerly second-class)

Standard Mail (formerly third-class)

Priority Mail and zoned-rate Standard Mail (formerly fourth-class)

Special Standard Mail and Library Mail (formerly special fourth-clas and library rate, respectively)

Only barcoding from USPS-approved software is acceptable at the post office. Most of the highly touted big discounts for special sorts will not help small nonprofits; they are designed for quantity mailers (national charities, magazines, mail-order houses, etc.)

Editor's Note: The Alaskan Caver should be back on schedule by the end of the year. The book that has been taking so much of my time will be sent to the publisher within the week, and the contract to design Volume II hasn't started. What a difference a few pages can make—20 pages in the *Alaskan Caver* and 400 in *Duty Station Northwest*.

The Alaskan Caver

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