

# BLIND FISH SPRING

LAWRENCE COUNTY, INDIANA

Total surveyed length, 4/23/76- 510 feet

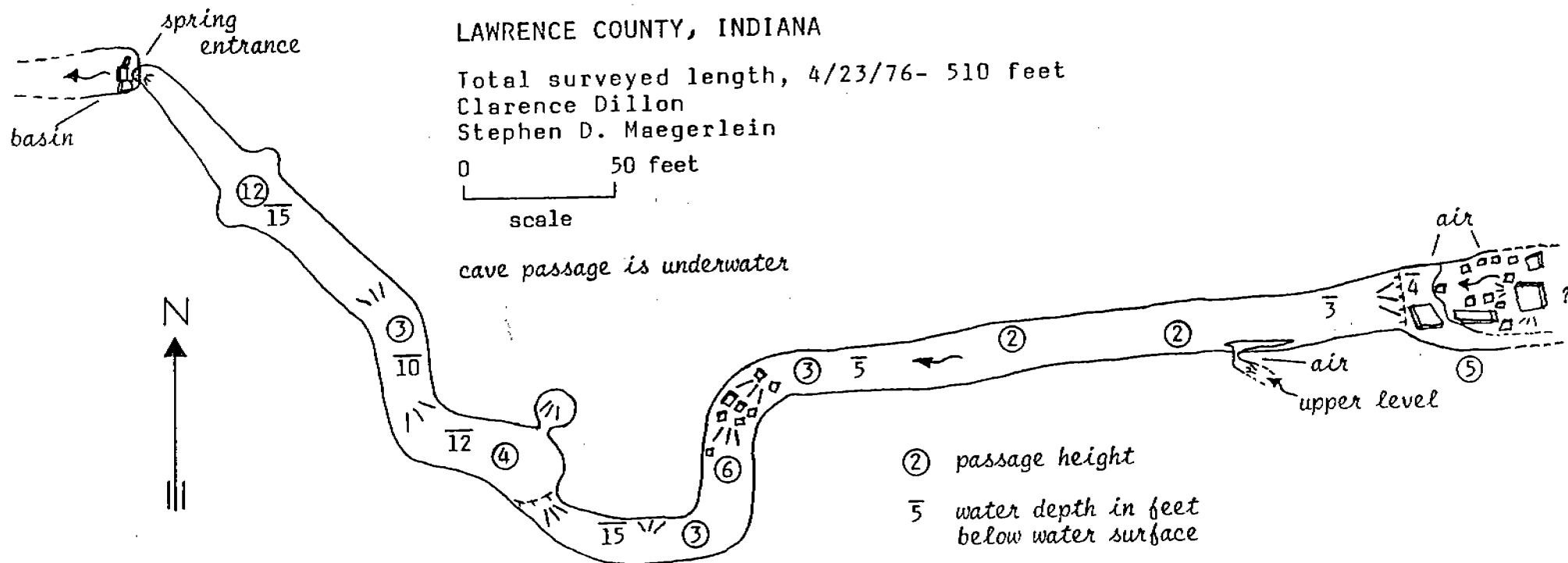
Clarence Dillon

Stephen D. Maegerlein

0 50 feet

scale

cave passage is underwater



## underwater speleology

OFFICIAL NEWSLETTER OF THE CAVE DIVING SECTION OF THE NATIONAL  
SPELEOLOGICAL SOCIETY ©April, 1979, Vol. 6, No. 2

# UNDERWATER SPELEOLOGY

published bi-monthly  
beginning in February

by  
The Cave Diving Section of  
The National Speleological Society

Membership in the NSS Cave Diving Section is open to any NSS member in good standing that is interested in cave diving and has paid the dues (\$3.00 for 1979). Immediate family of members not wishing to receive a newsletter may also join for \$1.50. Persons not wishing to join may subscribe for \$5.00 per year. Checks should be made payable to "NSS Cave Diving Section" and sent to the treasurer, Stephen Maegerlein.

Deadline is the second Friday of the preceeding month. Send articles and correspondence to the editor, Gene Melton.

Opinions expressed herein are not necessarily those of the NSS Cave Diving Section.

CHAIRMAN - John Zumrick, 2114 NW 55th Blvd., #12-A, Gainesville, FL 32601

VICE CHAIRMAN - Tom Cook, 378 Webster St., Manchester, NH 03104

SECRETARY - Bill Fehring, 5439 Ginger Cove Dr., Apt. A, Tampa, FL 33614

TREASURER - Stephen Maegerlein, P.O. Box 60, Williams, IN 47470

EDITOR - Gene Melton, 505 37th Ave., Vero Beach, FL 32960

PUBLISHER - Stephen Maegerlein

SLIDE PROGRAM COMMITTEE - Paul W. Smith  
2842 NE 14th Dr., Gainesville, FL  
32601

TRAINING COMMITTEE - Forrest M. Wilson,  
2832 Concord Dr., Decatur, GA 30031

INTERNATIONAL COMMITTEE - Joseph Lieberz, c/o Electronic Product Testing, 1905 Victory Blvd., Unit 13, Glendale, CA 91201

WORKSHOP COMMITTEE - John Zumrick

SAFETY COMMITTEE - Tom Cook

PROSPECTIVE STUDENT LIST - Karan Exley

AWARDS COMMITTEE - India Young, Rt. 3,  
Box 119K, Byron, GA 31008

\*\*\*\*\*

## COVER

Blind Fish Spring has the possibilities of connecting with much larger systems.

## CAVE X

What cave said to have no possibilities, only 200' and "walled out" by the "greats" has now been surveyed to 8043 feet and going?

## CALENDAR

July 29 - Aug. 4, 1979; "Cave Rescue Operations and Management Seminar" Albany, N.Y. Contact: National Cave Rescue Seminar, 834 Louise, Petacuma, CA., 94952, (707) 763-4884.

Aug. 5-12, 1979; Cave Diving Session and Annual Section Meeting at NSS Convention, Pittsfield, Mass.

Sept. 1981, Fifth International Cave Diving Camp, Bowling Green, Ky.

Contact: Joe Lieberz - address on left

## CAVE DIVING COURSES

June 29 - July 8; Contact: Lewis Henkel  
P.O. Box 13226, Orlando, Fla. (305)  
857-2822.

## EDITORIAL

European Cave Divers want the Section to finance their trip to the Conference in 1981. The Editor's opinion is that they should provide their own way to the U.S.A. and then the Section should help with food and lodging. If you have ideas send them to the Editor.

## WORLD NEWS

As a result of the Keldhead Connection (2 1/2 hours), the BSAC Cave Diving Section has proclaimed themselves "World Champions" in DIVER, April, 1979.

# BLIND FISH SPRING

By Stephen Maegerlein

Blind Fish Spring did not appear to be a promising site for exploration. The spring basin was only inches deep. Water welled up around breakdown blocks laying against a low limestone ledge. Mr. King, the owner, said that blind fish had been caught in a net placed in the basin during flood flow, which gave the spring its name. Water flow is less than a 1/4 cubic foot per second during dry weather. I did find the spring was worth some excavation. A stick could be pushed down between the breakdown blocks to a depth of 6 feet without encountering any floor under the entrance ledge.

Mark Dailey, Bud Dillon and I cleared rocks from the spring entrance by hand. Rocks as large as a 1/4 ton were dragged out of the spring vent with chain and a portable winch attached to a tree. Our 4-hour effort yielded a man-sized hole back under the ledge. The opening looked like a solution crevice which was filled with breakdown in the spring basin. Bud made the first short dive in the vent to determine if the cave was worth a cave diving expedition. Just under the ledge he found another large submerged rock blocking the crevice. Bud was able to push the rock over a precipice. I could hear the rumble as the rock hit the floor. Bud returned in a few minutes with good news. He had found a 12-foot high canyon passage with very little silt on the walls and visibility of 15 feet -- excellent visibility for an Indiana cave. The cherty limestone ceiling was 3 feet below the basin water surface. We were not prepared to make a long dive so exploration was postponed.

The next weekend Bud and I returned fully equipped for cave diving. Visibility was initially 15 feet in the canyon passage but soon deteriorated to 5 feet when we stopped moving upstream ahead of our silt cloud. The ceiling became lower 75 feet from the entrance. Swimming over a silt mound lead into a low room with two low passage leads. The lead to the right was a small dome full of nervous shad and blind fish. The lead to the left was a continuation of the main passage. Silting became much worse as we crawled up into a 2-foot high passage with water depth of five feet to the floor. The floor was coarse gravel covered with silt. Our air bubbles flowing along the ceiling knocked off enough silt to reduce visibility to near zero. We found an air filled crevice after groping through 150 feet of crawlway. The air crevice provided a rest station where we could discuss the dive. Water trickled into the crevice from an upper level passage, which was much too small to enter. We decided to explore the crawlway farther upstream. Bud lead off and after considerable thrashing around disappeared upstream. I followed but found the passage was so low that my tank was wedging against the ceiling. I could not find the slot Bud was moving through. I backed out of

the tight passage and returned to the air pocket. Bud returned shortly. He had slid his tank to one side in order to crawl through the low passage. He found a slightly larger passage ahead which seemed to terminate the dive. Water was flowing over a talus pile in a very low air filled room. It would be difficult to remove diving gear in the cramped space to explore the crawlway ahead.

Bud said he had a tense moment when his tank valve was turned off by scraping along the ceiling while he was backing out of a very tight spot.

The dive termination point is near a wet weather spring rise up on the surface. The rise is probably associated with a collapsed section of cave passage. Farther east along the bluff is a pit cave with a water filled passage at the bottom. No dive has been made to determine if this is a continuation of the Blind Fish Spring stream beyond the collapsed area of the rise.

Dye tracing has connected the drainage area of Convention Cave with Blind Fish Spring over 1 1/2 miles apart. There is a sump in the Surprise Room at the downstream termination of Convention Cave. We have the potential for considerable underwater passage connecting Blind Fish Spring and Convention Cave. The deterrent to making further dives is the long equipment carry from the nearest road.

## BLUE BUTT SUMP

by Jim Pisarowicz

Part of the excitement of caving is the anticipation. The possibility of discovering a large system or one of great depth always seems to sit in the back of your mind. In fact, the dreams that can accompany such possibilities can easily get one through long and sometimes boring weeks in Denver. So it was with Blue Butt Cave. According to Caves of Colorado, the full extent of this cave could connect to Fulford, far up the mountain. Wouldn't that be grand! If such a connection were made, the vertical relief of the system would be of a magnitude of 250 to 300 meters. Possibilities like that can easily get one through to the next weekend of caving.

With excitement like that, it was easy to lure Doug and Dave Wilson into a wet suit, SCUBA trip to Blue Butt. I had previously

visited the cave and noted that it sumped about 50 meters in from the entrance. Although this sump was not a promising as the Spring Cave affair, it appeared to me that it should be checked. Thus Doug, Dave and myself found our way to the Fulford Cave campground on Friday, July 21st with a carload of caving equipment including two sets of SCUBA gear.

Saturday morning we drove the car down to the stream that resurges from the cave and began assembling the equipment needed for the dive. The water flow from the cave was the lowest I had ever seen. Donning wet suits, Doug and Dave carried the SCUBA equipment while I lit a Coleman lantern and started into the cave. Since the distance from the entrance to the sump was fairly short, and the passage was relatively small for all the activity that preparing for a dive involves, the Coleman lantern lit up the dive preparation site marvelously.

Exiting the cave I found that Doug and Dave had all the equipment at the entrance. Here we stopped to make our dive plan. We would don our SCUBA equipment here, at the entrance, and crawl into the cave to where I had left the lantern. I would be the lead diver, to be followed by Doug if the passage continued. Dave was assigned the task of waiting at the sump for our return.

With that agreed upon, we all started into the cave. The going was fairly slow as we made our way through the shallow water, deep mud, and low ceiling of the entrance crawl. Fortunately, the water got deeper where I had left the lantern and before too long, all three of us were looking through the key hole into the room beyond.

Placing my regulator into my mouth, I took a breath. Everything seemed to be working fine and I looked over to Doug. He gave me an "O.K." sign and I dove into the water. Seconds later I surfaced in the room beyond the keyhole soon to be followed by Doug. This room was perhaps six meters in diameter and can be reached by free diving. Unfortunately, there was no surface exits from this room. If the cave were to continue further, the passage would have to be underwater.

I handed Doug the end of the safety line and told him that I was going down to look for a continuation of the cave. He was to remain there until I returned. With these instructions understood, I took the safety line spool in one hand, dive light in the other and gradually sank into the depths of the sump.

As I descended, I played the light around the walls looking for a passage. None could be found. I sank deeper, continually looking for that all important passage that would lead to more cave. Suddenly, my lamp appeared to go out. For a moment I was startled as I was quickly enveloped in complete darkness. I shook the light from side to side and began moving my finger toward the switch as I turned the lamp toward my face. Then I realized what had happened. When the light was about a hands length from my mask, the water turned a translucent brown. I had sunk into the liquid mud at the bottom of the sump and my powerful sealed-beam diving light could not penetrate through the turbid water. Still, I had not found any

sort of passage on the way down. The water had to come from somewhere!

I decided to feel my way around the bottom and soon found a small crack in the rock that must be the source of the water that flows out of Blue Butt. The crack was about two meters wide but only about half a meter high. Under zero visibility conditions, I attempted to get through the crack but soon heard the sound of the valve on my tank hitting the solid rock on the roof of the crack passage. It was no use, with the SCUBA tank on a backpack, the crack would be impossible to penetrate. Besides, I was beginning to consider exactly what I was doing--pushing an underwater squeeze under zero visibility. I'm not all that crazy, so I decided to retreat.

Quickly I surfaced but the entire ascent was blind since the silt had now spread throughout the entire sump. I told Doug of what I had found and then took a look at the survey tape I was using as a safety line. I read 9 meters. I told Doug that the crack was about seven meters underwater, that I had penetrated it about two meters, and that it was located on the north east wall near or at the bottom of the sump. He was game for going down to feel around some more for other possible passages. Actually "looking" for other leads was clearly out of the question.

Giving Doug my dive light, he descended into the murky water and soon returned to confirm my finding. He described the experiences as "weird" which summarizes the entire dive accurately. We then descended again, swam through the underwater keyhole, and were reunited with Dave on the other side of the now terminal sump. Doug then flashed off a few photos, Dave donned a set of SCUBA to also experience the mucky sump, and we exited the cave.

Perhaps the cave does go, but it will take a diver with a tank strapped to his side to push the crack because backmounted units will not permit easy entry there. The crack could perhaps be done by taking off your tank and pushing it ahead of you, but under the kind of visibility conditions encountered, this should not be advised. The other alternative might be to dive the cave during peak spring run off. Then, perhaps, the silt will be flushed out of the sump so divers can see what they are doing. As far as I'm concerned, the full extent of Blue Butt is now known (for all practical considerations).

# SPRING CAVE PREPERATIONS

By Norm Pace

Currently, the major "team" project of the Colorado Grotto is the exploration and survey of Spring Cave. As most C. G. members are aware, Spring Cave is a major drainage route for several square miles of the western flank of Colorado's White River Plateau, which harbors the most extensive caves thus far discovered in the state. A series of SCUBA dives during 1975-77 succeeded in passing three sumps and surveying over a half-mile of major trunk river passage between Sumps 1 and 2, with progress presently halted at Sump 4, nearly two miles from the entrance. Water conditions permitting, at least two dives in the cave are envisaged for the summer of 1978. The first of these will push through Sump 4 and a second, more lengthy expedition will establish a camp for the purpose of exploring and surveying beyond Sump 4. The format and extent of the second of these expeditions will be predicated by the initial findings beyond Sump 4, but the plan for the first push has already crystallized. Although the undertaking will be strenuous, the consensus is that Sump 4 can be dealt with in "alpine style", from the entrance. It is planned that a party of 15-18 (including divers) will move six sets of dive gear (about 400 lbs.) a mile into the cave, to Sump 1. Six divers then will pass Sump 1 (250 feet of submerged passage) and haul three sets of gear to Sump 2. Three divers then will negotiate Sumps 2 and 3, which do not require removing gear between, and then carry their own equipment (about 60-70 lbs. per diver) to Sump 4 for an exploratory dive. Such task will require the ascent of a series of waterfalls, which in this wet year may pose substantial problem.

Although Sump 4 probably can be probed from Spring Cave's entrance, further explorations will require an in-cave camp. Because of the difficulties of moving camping gear under water, the first camp probably will be located near Sump 2 in a relatively dry, sand-floored, upper-level passage. Bivouac sites further into the cave will be established as needed; these will be dictated by the type and extent of the cave beyond Sump 4. It is anticipated that the cave soon will start to ascend, since the presumed source of the Spring Cave river is nearly 2000 feet above the present extent of exploration. The adventure promises to be an outstanding one.

As with the lead climbers of Himalayan ventures, the focus of cave diving expeditions tends to be drawn toward the divers. It is important to realize, however, that in Spring Cave the divers are dependent upon a reliable support crew, or "tank niggers", as they are affectionately known here. If interested in working in Spring

Cave, service on such a crew likely will be your first experience with the place. Far from mere drudgery, the haul to Sump 1 really is a fine trip. You traverse considerable spacious river gallery--it's about a mile from the entrance to Sump 1--and you get some experience in coping with chilling, alpine waters. This, of course, necessitates the use of a wetsuit, which as well may be a novel experience. Several members of the Grotto are well-versed in alpine river caving, and are more than willing to provide impromptu instruction in the care and repair of wetsuits, and in special problems attendant to cold water caving, such as the ever-present threat of hypothermia. Moreover, you get an intimate look at some reasonably hard-core cave diving, and there are not many projects of this type going on.

So, if you decide to participate in one of the Spring Cave dive trips, what do you need to be effective? Besides your standard caving gear, the most conspicuous need is a wetsuit. A full, "1/4 thick, standard wetsuit is desirable; anything less than a 3/16" suit is unacceptable. Appropriate wetsuits generally can be rented for a weekend for \$15-20, depending on the dive shop. This price might seem a bit stiff considering that one can buy a good mail order suit for less than \$60. However, if you are not certain that you will enjoy (if that's the right word) dipping into frigid water, the rental suits certainly are the cheapest experiment. If you do rent a suit, be sure to bring along coveralls to protect it from being torn and abraded by sharp rocks; repair fees for rental suits are best avoided. Very importantly, try the suit on at the dive shop. Make sure it is snug, but not strangling. Consider that you must do some rather vigorous caving, moving heavy loads, and you are not in the water continuously. As you try on the suit, if there is any question of whether the suit is too tight or too loose, err on the loose side. Remember also not to tell the dive shop that you are using the suit for caving; if the question comes up, tell them you are kayaking.

Besides the full wetsuit, you will need some protection for your feet and appropriate footwear. For the latter, it generally is preferred that boots are worn because of the lugged soles. Jungle boots are a good choice, or your regular boots if you don't mind getting them sodden. I suppose that a haul trip would be a good, although harsh, way to break in a pair of recalcitrant boots. However, it is important to minimize damage by melting some Sno-Seal in the boot exterior and interior surfaces. If you do not wish to commit your boots to a soaking, sneakers may be worn. However, sneakers do not work well on mud or wet rock, and you, therefore, will not be permitted to handle tanks; they may explode if, through clumsy handling, they are dropped on a valve.

In addition to proper boots, wetsuit booties are recommended. An article regarding their construction is elsewhere in this issue of CINTHER. Dive shops do not rent the things. If you cannot obtain or borrow some neoprene booties, then two pairs of heavy wool socks sandwiching a plastic bag are purportedly useful. However, everyone

I've asked seems to agree that this doesn't really work very well.

Besides wearing apparel, a waterproof flashlight is desirable. The easiest approach to this is to coat all the contacts in your regular flashlight with grease to prevent corrosion. Attention to spare light sources is considerably more important in river caves than in dry ones. You will find them comforting to have at hand in areas where your lamp may be doused by water.

Lastly, eat a hearty breakfast the morning of the haul to Sump 1. This is not necessarily because the trip is all that physically taxing, but because a load of carbohydrates wards off chilling and, therefore, promotes good mental attitude. I am convinced that pre-trip diet has been responsible in large part for the fact that Spring Cave has bummed out several people. So, eat a lot before going into the cave. Do not simply gobble a bowl of cold, sugar-frosted cereal. The traditional bacon-and-eggs is not an adequate meal; the combination has no more coloric content than a few glasses of milk. Stuff yourself with hot oatmeal and doughy pastries. Additionally, carry along a few candy bars; particularly when you have to duck completely underwater, 40° water is quite discouraging.

After a few haul trips, you might get interested in having a go at diving. If Spring Cave continues, as it has every sign of doing, you should have considerable opportunity to use the developed expertise. Moreover, there are other interesting cave diving sites in this state, not to mention the rest of North America. Serious, exploratory cave diving is a rather recent development in this country, so it is to be anticipated that many significant funds will emerge from such ventures during the next decade. However, cave diving is not an endeavor to undertake lightly; if you do not have your act absolutely together, the prognosis for a long life is not good. More on that below.

The first step toward cave diving, of course, must be to accumulate substantial experience in caving, in general. It is extremely important that you feel completely at ease underground. The diving experience is a considerably stressful one and the momentarily panicked or inattentive diver can ruin a dive by, for example, dropping onto a silt bank for a few seconds of touching solid ground. Numerous scenarios with more profound consequences are readily envisaged. Beyond achieving appropriate caving experience, it is imperative that you undertake a course of formal instruction leading to certification in SCUBA (Self-Contained Underwater Breathing Apparatus). Such instruction is available through most dive shops and involves 6-8 lecture/pool sessions plus 2-3 "open-water" dives. The cost of such a course is \$80-120, but creeps up to \$150-200 by the time you purchase necessary equipment such as mask and fins. The cost goes up considerably more if you as well purchase a tank and regulator, and other accessories. Upon successful completion of the course, you receive a "certification" card, attesting to your having completed the program. Without such a certification card, no reputable dive shop will fill your tanks, or sell or rent life support equipment to

you. So the formal training program is practically mandatory. Additionally, without certification, you would not be accepted on a dive by any experienced cave divers that I know of.

Further discussion of the equipment and procedures for cave diving is not within the aim of this article. However, a non-diving member of a dive team may appreciate the explanation of a few odd things he likely will notice about the divers. For example, the divers in Spring Cave will be wearing or will don at the dive site considerably more neoprene than recommended above. I use a 1/8" "shortie" wetsuit under my standard, full, 1/4" suit for the obvious reason that complete, prolonged immersion in the 40°F water is very much more taxing than the occasional dip encountered en-route to Sump 1. Also, the pre-trip, almost ritual gluttony of the divers is a bit conspicuous; adequate consumption of calories is of paramount importance to warding off hypothermia during explorations involving diving under these frigid conditions.

As noted above, the decision to take up cave diving is not a trivial one; cave diving is rightfully considered to be an extremely hazardous endeavor. Dozens of cave diving deaths have occurred in the U.S., mostly in Florida. This is because divers not familiar with caves have ventured into underground waterways and, encountering problems, were unable to extricate themselves before running out of air. Some of these victims obviously got lost. Others likely overextended themselves and, undoubtedly driven into panic by the cave environment, blew off all their air on a frightened dash for the surface. You consume considerably more air when panting than when breathing in a trained, calm fashion. When I first was dragged toward diving by the Spring Cave work, I was firmly convinced that inexperience in caves was responsible for the abundant fatalities in cave diving. Being underwater is a strange head indeed; so is being underground. Mix the circumstances with limited air (40 minutes per tank, at best) and you have a very volatile situation. However, I was forced to abandon the smug attitude that inexperience was responsible for the high fatality rate when Roger Solari drowned.

Roger Solari was one of the world's most experienced cave divers as well as being an accomplished caver. On June 15, 1974, Solari and Martyn Farr dove into Sump 4 in Agen Allwed, Wales. Reaching the end of a long push, they tied off the line and started back. For some reason, they halted in a small room. Farr signaled that he was dangerously low on air and had to start out. Solari waved him on, but didn't immediately follow. Two hundred feet away, Farr looked back, but Solari still had not appeared. Too low on air to return, Farr finned on out to the Sump entrance. Solari was still missing after a much longer time that the available air would permit and the line, ostensibly tied off, reeled freely in to reveal a cleanly cut end. Although Solari's body has not been recovered and the mystery of the accident is not solved, speculation has it that Solari got tangled in the line, cut it, and followed the wrong end. To be sure, Solari violated the "buddy system"; he nonetheless was an experienced cave diver and still died. So, you must recognize

that you can get killed doing this stuff.

Enough morbidity; let us be aware of the threat and proceed cautiously in Spring Cave.

### NEWS FROM TOM COOK

#### Convention News

The hoped for easy access dive sites are still off limits and look like they will stay that way. That leaves sump diving and one possible spring dive, Jordens. Also, if we want, a sea cave dive off the coast of Mass. A long drive for one cave dive, but I could maybe get the South Shore Neptunes to host a boat dive for us for a cheap price. I'll look into it. It would mean a drive from one end of Mass. to the other and back, a long long day.

#### Sump Dives

Connection between Sump Cave and Chock N.Y. Stone Cave, a 20-30 ft. rappel from surface into water of Chock Stone Cave, wading and a 100 ft. dive into Sump Cave and swimming out of Sump Cave. U/W passage is tight and has sharp projections, visibility not good.

Morris, Vt. - 800 ft. crawl to lake room, belly and hands and knees, difficult to get equipment back without cave pacs, doubles won't fit in through the constrictions in the crawlway. U/W passage 20' deep ? ' wide - 150+ft. long, unlimited visibility. Need mucho porters, I doubt that we could get them as all my people will be working at the Convention.

Clarksville, N.Y. - 80 ft. sump, both ends connect to main passage, I think I wrote an article about it in the Newsletter.

Jordens Spring Cave, N.Y., uproad from Sump and Chock Stone, a large spring flows thru an underground passage with collapsed sections open to surface, easy to get to and enter, u/w section narrow 4 x 4 ft., visibility usually not good, good current heading out.

Deans Mills Falls Cave, N.Y., a u/w maze cave, narrow and low passages, I've never been there, but will be next month.

Those are the for sure dives within an hour drive time of Convention. There are more dive sites in northern N.Y., 4-5 hrs. away.

As soon as I get owner's permission and dates set up with them, I'll send you a write-up and map of each one for the Newsletter.

I liked your cartoon, a northern squirrel is called a BLIVIT. And everyone knows that Blivits aren't born, they evolve from something or other.

If I come down, I would like to give a short blurb on the NCRC and its resources, at the seminar.

O'h, I wrote a letter to Mrs. Donnahoo. What about offering a cavern diving course during the Convention? We could pick up some more money for the section. We could use Jordens, maybe, and Clarksville and something else.

Also, there is a pond at the campground we could set up some u/w obstacle courses and zero visibility runs. There's also an outside pool.

I'll reserve a section of the campground for the section since I'm NRO Chairman of Vice and the NRO is putting on the Convention, I do have some pull. No one questions my authority after I showed up at Duffy's Tavern for a NRO meeting dressed in black with vest and top hat, escorted by two blonds in black jumpsuits and carrying whips. And I squeezed the funds out of the NRO treasurer, (after the girls worked him over), for a keg of beer for the campground meeting. Evidence my position paper presented to the voting electorate of the Northeast underworld.