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Lowell Burkhead

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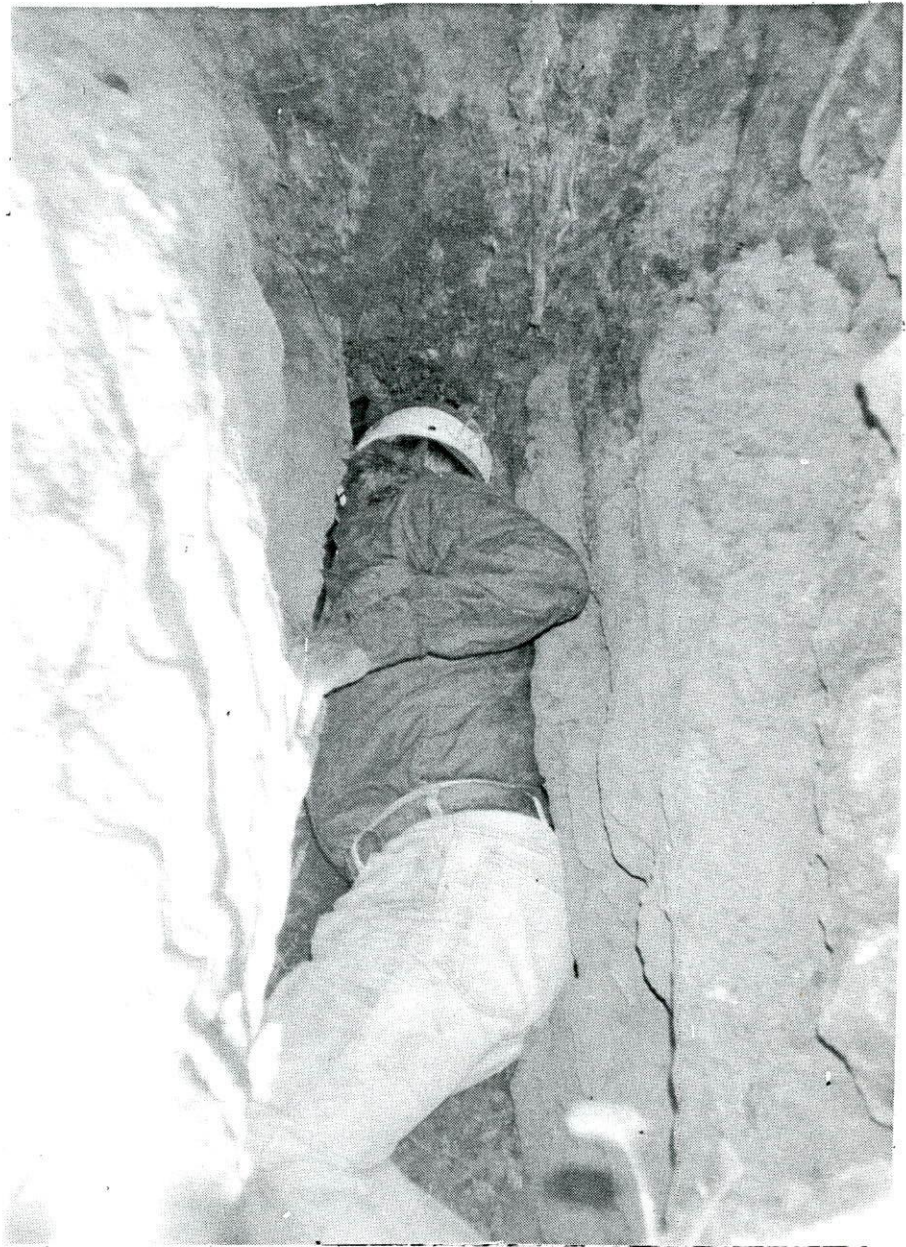
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THE IOWA GROTTO

National Speleological Society

I N T E R C O M



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Editor and Typist: Lowell Burkhead
2611 Alderman Rd.
Springville, IA 52336

INTERCOM staff: Mike Lace and Stacey Cyphert
Photo processing: Jim Hannon

The Iowa Grotto meets at 7:30 p.m. on the fourth Wednesday of each month in room 226 of Trowbridge Hall on the campus of the University of Iowa in Iowa City, Iowa. The Iowa Grotto was founded in 1949 and is celebrating our 40th anniversary this year and is the third oldest grotto west of the Mississippi.

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Cover Photo: Gary Engh pushes into Bries Pit, Clayton County, Iowa,
showing his better side. Photo by Larry Welch

Rear Cover Photo: Gary Engh probes the rubble flooring a sinkhole, searching
for Wiedenman's Pit. Photo by Larry Welch

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IOWA GROTTO
National Speleological Society
P. O. Box 228
Iowa City, Iowa 52240

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Vice-Chairman - - Lowell Burkhead
Secretary-Treasurer - Larry Welch

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IOWA GROTTO MEETING MINUTES

Regular meeting June 28, 1989

The meeting was called to order by Chairman Mike Lace at 7:42 p.m. in room 125 of Trowbridge Hall. The minutes of the previous meeting were not read. The Treasurer's report listed \$363.58 in the club treasury. TRIP REPORTS: Lowell Burkhead reported on a dig at April Cave at the site of an old resurgence. Mike Lace reported on a sump dive in April along with Mike Nelson and Jay Wells. Larry Welch reported on a survey trip in April's Black Slime Sewer with Stacey Cyphert. Mike Lace reported on vertical training at Dutton's Cave following the April trip. Mike also reported on a trip to Wiedenman's Pit following the April trip and on the survey activity at Coldwater including the Susch Passage and Wimp Dome which was finally opened by Stacey Cyphert and Jay Wells. Lowell Burkhead reported on a lead checking trip in the Indian Bluffs Nature Preserve that found a few small caves. FUTURE TRIPS: A Glenwood survey trip and a vertical training session is planned for the July 4th weekend. The grotto picnic will be the first weekend in August and will include caving at Gouldsberg Cave and Wet Cave. Beyond Deep Misery Cave will be explored on Sunday, July 2. Contact Lowell Burkhead for that trip. Loren Schutt is planning a trip to check some leads near North Buena Vista. OLD BUSINESS: Compliments abounded for the photo quality in the last issue of the INTERCOM. NEW BUSINESS: An in-depth discussion took place on the damage to landowner relations that took place on the last trips to April Cave and Coldwater Cave. The owners of both caves have requested that all children be supervised when on their property. This request will be printed in the HOTLINE, and all grotto members should take note. A number of members who were also irritated by the same problem voiced opinions as well. The meeting was adjourned at 9:33 p.m.

Regular meeting July 26, 1989

The meeting was called to order by Chairman Mike Lace at 7:39 p.m. in room 125 of Trowbridge Hall. The minutes of the May and June meetings were read and approved as read. The Treasurer's report listed \$281.17 in the grotto treasury. TRIP REPORTS: Mike Lace reported on a Glenwood survey trip that netted 140 meters of survey in the stream passage of the cave. Some underequipped Luther College students were encountered, some of whom Mike later gave a tour at Coldwater. Gary Engh reported on a dig near Coldwater Cave. Mike Lace recounted another dig done nearby that same day. Lowell told the story of the vertical push trip at Beyond Deep Misery Cave and further lead checking done that day. Lowell also described another trip to Swallet and Fungi Caves. Larry Welch reported on trips to Cave Canem and Coldwater Caves. FUTURE TRIPS: Lowell Burkhead has several potential lead-checking trips that could be arranged. Mike Lace has a lead near West Union. The MSS Corn Feed will be Coldwater weekend in August. The 40th anniversary Iowa Grotto picnic will be the first weekend in August. The WSS Hoadag Hunt will be Coldwater weekend in September. OLD BUSINESS: Last minute planning for the picnic took place, including estimating the crowd to forecasting the necessary utensils. Further discussion on the landowner complaints at April and Coldwater ensued. NEW BUSINESS: The upcoming issue of the INTERCOM was discussed and a division of labor agreed upon. The issue will hopefully be done in time to be distributed at the picnic. The meeting was adjourned at 9:40 p.m.

Regular meeting August 23, 1989

The meeting was called to order by Chairman Mike Lace at 7:33 p.m. in room 125 of Trowbridge Hall on the U of Iowa campus in Iowa City. The minutes of the previous meeting were read and approved under the condition that the INTERCOM editor make slight changes. The Treasurer's report listed \$313.57 in the grotto

treasury. TRIP REPORTS: Mike Lace reported on the 40th anniversary picnic, including vertical training, food, and caving at Gouldsberg, Falling Spring, and Wet Caves. Larry Welch added a few comments on the completion of the Wet Cave survey during the picnic. Larry Welch reported on a solo tour of Tourist's Delight Cave. Mike Lace reported on a follow-up trip to Tourist's Delight that saw continuation of the survey and pushing into virgin passage. Larry Welch reported on the completion of the Baking Soda Passage survey in Coldwater Cave. FUTURE TRIPS: The WSS Hodag Hunt will be Sept. 16 and 17. Loren Schutt is planning to visit some mines near North Burna Vista that same weekend. An NCRC rescue seminar will be held at Minnesota Mystery Cave on Sept. 9 and 10. The MVOR (Missouri Valley Ozark Region) get together will be Oct. 13-15 in Southern Illinois. There was no OLD BUSINESS. NEW BUSINESS: Expanding the number of our exchange publications was discussed, with particular interest in coordinating with Colorado and Missouri Grottoes. Kemling Cave was mentioned and the current status of the cave was summarized. Material for the July/August INTERCOM is due to Lowell Burkhead by Sept. 14. Doug Schmucker is putting together a display on caving for the Osborne Nature Center in Clayton County. If you have any material you can contribute, please contact him. Lowell reported on Steve Moon having found a trip report from January 1987 that hasn't been published while moving. (This issue, page 61) Mike Lace encouraged contributions to the New and Improved Grotto Cave Index, then gave a belated trip report on a trip to Glover's Cave near West Union and Lowell reported on visiting Deep Misery Cave and several leads that didn't pan out on the same trip. The meeting was adjourned at 8:44 p.m.

GLENWOOD SURVEY 3

Glenwood Cave, Winneshiek County, Iowa
 July 1, 1989
 Mike Lace and Larry Welch

by Larry Welch

A warm summer day is a good time to visit Glenwood Cave -- unless it rains. Fortunately, Winneshiek County was protected by a bell of high pressure on this weekend, and the skies were perfectly clear. We had hoped to have a team of three on this day to continue the survey, but just as had happened on the last trip, Mike and I were the crew for the day.

It felt good to get into the water and cool off, and we set off through the Lake Passage. Water levels were very low and progress was slowed due to the large amount of silt on the floor. The dome at the end of the Lake Passage was our starting point from where we were to start surveying the stream passage. The downstream passage had plenty of airspace on this particular day and we could see quite a ways back there. We set off upstream with me doing lead tape, rear compass sighting, and clinometer. Mike had his hands full with the book, rear tape, and forward sightings.

We set a chip in the large dome upstream of the junction which has the upper lead first climbed by Jagnow back a few years. The climb looked possible, but difficult to perform without stepping on some pretty flowstone in the dome. A windey region past the dome slowed progress to shorter survey shots, and in this region, we started to chill. We crawled ahead to build up some steam, then went back and surveyed some more. We ended by placing a chip in the center of the passage on the ceiling. It is in a rather featureless region, but just follows a small infeasor on the left as you venture upstream. Total for the day was about 140 meters, which brings the survey to around 640 meters at this point.

On the way out of the cave we encountered a group of flashlight cavers and gave them directions to Skunk Cave. They had seen a copy of the 1974 Convention guidebook at the Luther Collage library, where they read about what a nice cave Glenwood was. We got them turned around pretty easily, and suggested better equipment next time.

"THE (NEVER LONG ENOUGH) JULY 4th WEEKEND OUTING"

July 1-4, 1989

by Julie Whitfield

ON ROPE My son Wesley and I reached Dutton's Cave Park around 5:30 Friday afternoon, with Mike Lace not far behind. Tom and HeatherBeck arrived 9:30-ish with Larry Welch getting there sometime before midnight. Mike and Larry took off for Glenwood Saturday morning and that's the last we'll be hearing about them in this trip report! Tom and Heather, the father-daughter caving/climbing/diving duo from Wisconsin, conducted a vertical "training session" for Wes and me that lasted from 10:00 to 4:00. We rappelled with both rack and figure eight and I even "got to" use Prussik knots. After de-rigging, we were joined back at camp by Gary Engh and then Mike and Delores Nelson, and Scott and Val and Matt Wickwire.

GOULDSBERG CAVE Tom, Mike, Heather, Gary, Wes and I headed for Gouldsburg Saturday night. After Tom made a pit stop at the Ladies Room (sorry Tom!), we geared up and trekked through and around(!) the cornfield to get to the cave. It was an opportunity to do some climbing and crawling and wedging ones self through small, tiny places (well, some of us did anyway!) as Val and I had fun squeezing through narrow slots and hearing Mike ask incredulously, "How did you get through there?" I became slightly disoriented and Val and I had a few chuckles taking pictures of "new" discoveries! Tom was a dear as he offered, halfway back to our vehicles, to go back to retrieve "someones" fanny pack (and I never heard the end of it all weekend long, I might add!) We were back to Dutton's around midnight and into our sleeping bags after a long, full day of physical activity.

WILLARD CAVE The Nelsons, Wickwires, Whitfields and Becks were joined by Doug Schmuecker and Jay Wells for a caravan to Willard Cave for some vertical work. We all took our turns and Delores did some free climbing while on belay. It was at this local that I discovered how vicious and unrelenting certain Iowa Grotto members can be (and Mike Lace wasn't even there!) One after the other, they all took pot shots at me. I forget who started it but his initials are Doug Schmuecker! Although I'd scarcely met the man, he took the ball and ran with it! Even Val managed to hurl some abuse my way. It was all in the spirit of fun (or so I'm told) and I was able to dish out a few choice ditties myself from time to time.

CAVE CANEM After Willard, we drove to the Thurn Cave property but as no one was home, we headed for the Anderson Caves for a look and decided to drop Cave Canem "Beware of the Dog" Cave. The Nelsons and Wickwires headed for home so Jay, Tom, Doug and I tackled Cave Canem. Jay and Doug measured the drop at 63 feet 9 inches and I'm told the sinkhole itself is 40 (!) I was certainly getting some rope work experience this weekend. Jay and Doug headed back to Dutton's and Tom, Heather, Wes and I stopped for pizza to round out the day.

MIELKE CAVE Monday morning found us anxious to get in one more outing before heading back to our respective homes. Jay, Doug and Tom dug out their maps and we decided to check out Wompi and Mielke Caves. As with Thurn the day before, the Wompi Cave owners were not home so it was off to Mielke. Tom had visited with the owners a year earlier but had not seen the cave - none of us had. As Jay put it, the cave is in a beautiful "photo opportunity" setting and we got some good pictures. Doug was down first, followed by Jay and then Tom. Doug and Jay returned and reported snow at the bottom! Then it was my turn! I must admit to having had the shaky leg malady Nelson loved to taunt me about at Cave Canem the day before but Mielke was fine for me. It was an awe-inspiring look down and after 10 feet, a free rappel to the bottom (Cave depth 59+ feet). We had 2 ropes rigged and Wes climbed up the more difficult one while Heather went back up the same one she came down on. We all took turns pelting each other with snowballs just so we could say we'd done so - in July! It was certainly a strange vista, blue sky, 90 degree sun and green trees above and snow at your feet! After the kids were back on top (Wes and Heather; I already mentioned Doug and Jay!), their gear was lowered for us to come up. Our fingers were getting a tad chilled and it was good to feel the warmth of the sun again! Jay and Doug took off shortly after 4:00 which tickled me cuz Doug had wanted to be home at noon. Seems we were all having too much fun! Many thanks to all involved for the use of their gear and expertise, enabling Wesley and me to pack in quite a bit of vertical training in one weekend.

DUTTON'S CAVE Tom, Heather, Wes and I brought the weekend to a close by a quick "tour" of Dutton's Cave. We had quite an audience in tow as several campers followed us down after we began donning our gear. We also had a special "guest" in one Susan Cain who had been camping next to us all weekend. Susan watched and took several pictures Saturday while we were doing vertical work. We actually got her inside to view the dome near the entrance (quite an accomplishment for her, to hear her tell it!) Anyway, only Wes had on a wetsuit so we didn't get too far inside but we certainly "enjoyed" our low belly crawl through the chocolate mousse - like muck that ran for 15-20 feet! Our audience was bug-eyed and charmed, I'm sure, when we emerged from the cave coated with the agreeable muddy mixture. It was a memorable way to end a fun weekend. It sure beats getting poked in the eye with a sharp stick or sitting at a desk all day for that matter, something I was not looking forward to after having the fun, freedom and luxuriance of meeting new challenges and forging new and stronger friendships with like-minded, albeit crazy, individuals. I even enjoyed getting to know the Schmuck! Now all I want to know is, when can we all do it again?!!

BEYOND DEEP MISERY

Beyond Deep Misery Cave, Clayton County, Iowa
 July 2, 1989
 Lowell Burkhead and Greg McCarty

by Lowell Burkhead

It was already hot and humid enough that I needed the air conditioner when I pulled out at 7:00 a.m. I arrived at Greg's house at 8:30, a full hour before the meeting time at Dutton's Cave Park where we were to meet the rest of our crew. Greg wasn't up but claimed to have been awake when I knocked on the door. We arrived at the park only five minutes late, possibly a record for Greg but all for naught. The rest of our crew had already left to do something else. I'll certainly take that into account next time they commit to go on a trip. After visiting for a while with the Nelsons and a fair percentage of the grotto's newer members who had had a vertical training session the day before, Greg and I headed for

Deep Misery Cave as the day's heat started to get intense.

When we arrived, the owners were home and we talked for a while then drove around to the caves on the next road. Deep Misery was still closed by junk and washed in debris. It could probably be easily reopened on a cooler day. Our target for the day, the last in the series of sinks, was open. It had been covered over by the owner with old posts and boards to keep cattle out when we first saw it last summer. Now the sides of the sink have slumped onto the cover and a hole has washed open into the cave on the upstream side of the sink. It appeared to be enterable except for one board in the way; a definite improvement over what we expected. Getting that cover removed in the sun without even a hint of a breeze would have been pure hell.

Since there were only the two of us, we decided upon a self belay system at least for the entrance chimney. We hauled all of the gear we would need down into the sink and rigged the belay rope in the entrance. The plan was to have Greg climb down the entrance drop and, using the belay rope as a hand line, climb out over the next drop to see what we would need for vertical gear and I could send it down before I entered.

Greg slid in with both hands on the rope and both feet digging for holds. He slid out of sight very quickly and reported from halfway down that the walls were covered with very slick mud. He continued down and found that the rope bag had gone to the bottom of the 10 foot deep plunge hole and was snagged on some wire. He had to climb down and get it loose. He finally got back to where he could see down the second drop and we would need rope and vertical gear. Communication was difficult due to the echo until he got back to the bottom of the entrance drop. I sent down his vertical pack and the grotto 50 foot Bluewater rope. I got suited up while he rigged the rope down the pit.

I rigged my rack on the belay rope and started in. The rope wouldn't slide through the rack; it was rigged upsidedown. I rerigged the rack starting at the top this time and wriggled into the entrance. You have to slide in feet first over the rotted off end of a creosoted pole sticking out of the dirt fill. Then you have to turn 90 degrees into the tight slot that continues down. I couldn't get turned with my pack clipped to the side of my seat harness so I sent it down the rope to Greg. I got through the tight spot to where I could see the cave. It is a solutioned joint which is mostly filled with junk from the sinks, and rocks and dirt. It appears that it has been completely filled in the recent past and washed open to its present state. The upstream end features fill containing a 3½ foot diameter cast iron pot. The downstream end is filled up high with wood and assorted trash and loose rocks. Low, there is the old water heater tank where we rigged the rope for the lower drop. As I joined Greg at the bottom of the entrance drop, I suggested that we tie off the rigging point to the belay rope in case it came loose.

It was just over twenty feet from the bottom of the entrance drop to the top of the second drop horizontally. I squeezed under the water heater tank and rigged my rack to the second rope. The lip of this drop is a chockstone that is the end of a false floor that we had been working on top of. This false floor goes halfway back to the entrance. I rappelled down the drop which is just a wide spot in the canyon passage that is punctuated with fill, junk and false floors. If all this stuff were gone, it would be a very simple cave. The bottom of the drop was another false floor with another twenty feet to the real bottom. I thought I could climb down from there but found that I would have to play games with another small false floor that was held up by a smashed and rusty 30 gallon drum. I fed the remainder of the rope down the open area toward the entrance and it seemed to

reach near enough to the real bottom. I rerigged my rack and rappelled down with 16 inches of rope left over. The passage was only about 20 inches wide so there would have been no problem getting down and back up safely had I run out of rope.

There seems to be a cross passage intersecting the wide spot at the bottom but it is only open in one direction and that's where the water goes. It's about five inches wide and four feet high with water of unknown depth standing in the bottom. The bottom of the canyon goes about fifteen feet each direction from the wide spot. The end away from the entrance probably also takes water since it heads down as it gets too narrow to negotiate.

We estimated the depth of the cave to the present level of the fill in the bottom to be about 75 feet below the entrance and the length at about 60 feet. All of the passage is much larger than any in neighboring Deep Misery Cave which is up valley about 100 feet. We found no evidence that the drainage from Deep Misery Cave ends up in Beyond Deep Misery Cave but we know that it must.

Greg came down and checked out every little hole again and then I started up the rope as we compared notes on findings at the bottom. The trip up the ropes was uneventful except for the places where the passage is too narrow to bend your knees for climbing and too slick to chimney. Greg packed up the ropes on his way out which left me time to visit with the owner who was at the entrance when I hauled myself through that orifice. I also had time to visit with the local passerby out on the road who wondered how deep we had gotten and gave me directions to another cave only four miles away. After leaving the two Miserys, we went and found it and checked out the entrance. We didn't have the energy left to explore it except to verify that it goes. The owner's son had gone in years before and it took 110 feet of rope to get him to the bottom. This little beauty should make a great fall trip. Anyone interested?

100 IN THE SHADE

Swallet and Fungi Caves, Clayton and Allamakee Counties, Iowa

July 9, 1989

by Lowell Burkhead

Lowell Burkhead, Bob Wahlstrom, Dave Wahlstrom and Greg McCarty

This was another trip in the continuing effort to find a cave in a sinkhole that allows entry into a spring cave. Recent trips have been into deep pits that take lots of water and the drains at the bottom have been rat holes. The problem is that large amounts of water can be forced through a very small hole when there is a 100 foot or more head of water on it. A little rat hole flows like a broken water main or a small river. My idea was to check the only cave I know of that takes large amounts of water and has almost no vertical extent: Swallet Cave. It drains a whole valley of probably several square miles and sumps less than twenty feet below the entrance. With the drought, the hope was that it no longer sumps.

We passed on Saturday with its 98 degrees and a 20% chance of rain for Sunday with no chance of rain and forecast 100 degrees. The heat had already started to set in as we waited the 25 minutes past the meeting time for Greg to show up. He is becoming somewhat more reliable but some people would rather not cave with him than wait for him. By the time we arrived at the owner's house and there was no shade to park in, it was getting nasty and the air conditioner in my car had quit after working perfectly on the way up. Greg talked to the owner as we waited in the car and wondered what sort of deal he was making. The porch where they were

standing was covered with boots, each sporting a green plant and every boot was better than the ones that Greg was wearing but he left still wearing his open toed jungle boots with duct tape.

We drove around the edges of the fields most of the way to the cave and then followed the streambed to the cave. It flows along on bedrock with a bluff along one side then takes a sharp bend to the left and goes under the bluff in walking size passage. The entrance was wide open where it sometimes requires moving some logs. Just inside, the passage goes both directions, straight in and back under the stream where it is mostly filled. Going in, there was a driftwood plug in the usual place less than 100 feet from the entrance. At the plug, it was stoop height and over four feet wide and it pinches down to a four inch wide slot that gets wider the deeper you dig in the sand floor.

Greg and Bob dug until Bob could squeeze through then Bob dug from the other side until Greg could squeeze through. The opened passage had to be traversed on one's side down a sand slope to the tight spot at the bottom and up a sand slope on the other side. The wet sand would pull in after you from both sides which didn't help at all. I gave it a try and decided against it. It was plenty roomy but I don't bend very well so I waited for the report from the other side before committing myself since I had already seen the remaining forty feet of passage to the sump years ago. Dave also decided against it lacking experience enough to be comfortable in tight stuff.

Greg got to the sump and reported that it is still there. He worked on it for a while until he was sure it wasn't passable since it was somewhat lower than last time he was there. There were signs in the cave of fairly recent rain. There was a green leaf stuck to the ceiling and it was just too wet for the drought conditions at home. We may have just picked the wrong weekend.

This cave is still unique for Iowa caves that take water. Most of them have very hard rock at the end and very small passage that takes the water. This one has very rotten rock at the end. You could pull it off by the handful. The sump is wide enough to be enterable below water and is apparently deep. This is definately not a rat hole and with the crumbly rock, could be working its way open.

After talking to the owner's son (new owner), we headed up north of Monona to see Fungi Cave. The owner there decided to go with us in the cave. The dog followed along for good measure. Fungi Cave is on the same property as Fantastic Fossil Pot which is vertical and probably too tight for Greg or I in our present state. Fungi has a sizable walk-in entrance and used to take a stream until the owner's father diverted it years ago.

The first fifty feet is quite roomy starting at 10 feet wide and 20 feet high. It slopes down straight in for 100 feet getting down to crawling height in a couple of spots. Then there is a hole in the floor that has to be chimneyed down about 15 feet to where the passage goes back under itself toward the entrance sloping down another 15 feet to an impassable slot. This lower area has one wall covered with very nice flowstone. Standing space was limited here so as Greg started glopping mud out of the slot, I headed out. Dave had preceeded me and was up the chimney. As I started to climb up it, a rock of about fifteen pounds bounced off of my hardhat and rolled off of my shoulder. The owner's dog had dislodged it on the steep rock covered slope leading to the drop that had stopped her progress following her master. Dave drug her up the slope from the top and she made a quick exit from the cave. I was not hurt since the rock only fell about two feet before hitting my hardhat.

The others weren't far behind as Greg proved no match for the mud at the bottom of the cave. When we got back to the owner's house, the thermometer on the front of the garage was stuck on 100, right where it had been when we left. The drive home was sticky with no air and 100 in the shade.

UP THE CREEK

Coldwater Cave, Winneshiek County, Iowa
July 15, 1989

by Larry Welch

It was a lovely day to go caving, so I used the occasion to visit Cascade Passage. My only companion was a salamander and a few extra CO₂ molecules that wanted to visit my lungs and succeeded. At the end of my hike, I chased any mystery that I could find, yet at every cranny that I yearned to follow, I was met by the ghosts of cavers past.

These crawlspaces have yet to yield to the almighty survey tape, but their day will come, though 'twas not to be this one. A couple of spots resisted my timid forays, taunting me with the song of the sirens. Though it caused great duress, my soul stood firm, and I reversed my path. The retreat gave me more inner peace than the outward bound leg. I let down my guard and relaxed, not realizing my carelessness was to cost me my cherished dive hood somewhere near Holy Cow Crawl. Another lesson learned ...

A SHORT TOUR

Maquoketa Caves, Maquoketa Caves State Park, Jackson County, Iowa
July 29, 1989

by Larry Welch

Larry Welch, Bob Kooser, Pat Kooser, Ara Kooser and Mandy Kooser

The skies were threatening, but the scheduled tour of the Maquoketa Caves State Park took place anyway. My department chairman had expressed an interest in taking his family out for a Saturday of caving and Maquoketa was an ideal spot. The tour was standard fare and everyone had a good time.

Of particular interest on this day was the fact that the Tourist's Delight Cave was open. Every other time I've been to the park, it has been sumped, so this was a bit of a surprise since there was standing water in Wye Cave and the Steel Gate Passage, suggesting that there had been recent precipitation. One of the rangers noted that the Dancehall Cave Stream had been rerouted; this probably was the reason that the Tourist's Delight entrance was open.

I stuck my head in enough to see that I would get pretty wet. It was early in the day so I waited until we'd seen everything else before I soiled myself. None of the others were crazy enough to follow me, so I bellied in on my own as a light rain started to fall. The pool of water in the entry room was only knee deep despite the fact I had been told by a ranger that it was over waist deep. When questioned later, he admitted that he'd never been in the cave! The water was left behind as I squeezed through a constriction into a mud-floored crawlway. Even though another group had claimed to have seen the cave already that day, it was obvious that no one had been through this squeeze recently as there were no prints in the mud.

The crawlway became more roomy, and was studded with numerous formations. A couple of old rimstone dams were negotiated with care not to scrape on the ceiling while climbing over the top. After a comfortable room with a mound in the center and another squeeze on the far side, the decoration began in earnest. The aragonite popcorn was impressive as well as the large formations similar to those in the Steel Gate Passage. Past some easy walking areas were clusters of pristine white stalactites that cannot be found elsewhere in the park but supposedly existed in several of the caves before they became a popular tourist spot.

I eventually reached the 15 foot crawlway that stopped Mike Tempel on the 1980 trip. I knew that I could fit and could see that the cave continued, but I was also cognizant of the fact that it was raining and that I had told the rest of the party that I would only take a quick look around. The return journey was done as rapidly as the outward-bound leg, with continuous self-reminders to be careful of all of the formations that were within range of careless helmets. Everyone got a laugh at how dirty I had gotten after popping out of the cave following my 45 minute tour. We cleaned up and headed back home to Galesburg.

A CAVE LEAD FROM A PENNY POSTCARD?

Glover's Cave, Fayette County, Iowa
 July 30, 1989
 Mike Lace and Lowell Burkhead

by Mike Lace

It all started at Solon Beef Days the week before. I was rummaging through a stack of old commercial cave postcards in one of the many booths set up along Main Street when I ran across a card with a photograph of a limestone outcrop with a sizable shelter entrance. Below the photo was a name and location - Glover's Cave, West Union, Iowa. "Glover's Cave?", I frowned, "where the hell is that?"

I called Lowell later that week, knowing that with his infallible memory, we should be able to solve this cave puzzle. Well, Lowell hadn't heard of it either but we decided to take a drive up to Glover's Creek which runs south into Echo Valley State Park near West Union. The coincidences in name and location were too much. At least we might find a nice shelter cave that could be included in the Iowa Cave Index.

After stopping to chat with a nearby landowner, we walked along the creek and, with the help of a local fisherman, found the spot. The outcrop was there, the entrance was there, and lo and behold, an actual cave passage snaked back into the bluff; this was really a cave! We crouched down and stoop/crawled some fifty feet into a four foot wide room that has at least two promising digging leads.

The passage, in general, was bare except for a few small soda straws and flowstone ribbons. The rock reminded me of the intricately pocketed walls in Worden's Cave (Jones County) and it appeared as if the creek flowing by the entrance has been washing silt into the cave during normal water levels.

Who knows? A good day's worth of digging may open up more passage. All I know is that the location of a small but interesting cave is worth the price of an old postcard.

THE REST OF THE TRIP

Deep Misery Cave, Clayton County, Iowa
July 30, 1989
Lowell Burkhead and Mike Lace

by Lowell Burkhead

I had a lead that we had also planned to check near Postville so after an unplanned drive through the West Union business district, we headed east. This is a lead that Mike Gerald's had gotten at work from the landowner's brother. I had called him earlier in the week and gotten permission to check it out even though he wouldn't be home. Talking to a complete stranger, I thought I did OK.

The lead was a sinkhole that had dropped open in a creek bed the summer before. This was the first year that the creek had been dry so it was a good time to check it out. We found the place and drove back the farm lane through the pasture next to the creek. We didn't see any sink in the creek but the one on the hillside that was supposed to be directly above it was there. Finally, we parked the car and walked the creekbed. We found it. It was a four foot diameter whirlpool hole into the dirt bank that was a few inches lower in the bottom than the streambed. If it had been open, it sure isn't any more.

It is a mile west and four miles north of Postville. Until now, I had thought that the sinkholes started on the other side of Postville and I wouldn't have expected to find a sinking stream in this mostly flat farmland.

Since it was too early in the day to quit and go home, we decided to try to open the entrance to Deep Misery Cave which was just down the road. They weren't home so we left a note on the door (which happens more often than not here) and drove around the block (square mile) to the cave. Mike hadn't seen the entrances of either of the caves so a quick look down Beyond Deep Misery Pit was the first order of business. Then we started moving junk and driftwood from the entrance to Deep Misery or as close as I could figure was the right spot. After working for a half hour or so, we opened up a small hole that we could see down. The actual entrance was at least six feet lower and there was a large log and a water heater between us and it. The log was buried on both ends and the water heater was partially buried and blocked the way to dig under the log. It could be opened but it would take more tools and people than we had with us.

We stopped and talked to the owner on the way out and told him what we had found. He thanked me for Greg McCarty's phone call after the last trip to inform him that we had forgotten to put the cover back over the entrance to Beyond Deep Misery Cave after the last trip. He said that we were welcome back any time and we thanked him and headed for home. We considered other possibilities on the way but had either gone too far already or couldn't find them.

JUST AN OLD FASHIONED PICNIC

Dutton's Cave County Park, Gouldsburg Cave, Wet Cave
August 5, 1989

Fayette County, Iowa
by Mike Lace

Mike Lace, Scott Dankof and family, Larry and Beth Welch, Greg and Deb McCarty, Lowell Burkhead, Jay Wells, Doug Schmucker and family, Stacey Cyphert, Peter Hilsenroth, Mike Bounk, Loren Schutt and Jim and Leslie Sinning.

Dutton's Cave and Park

The Iowa Grotto 40th anniversary picnic had been organized months in advance but the one wild card of the weekend was the series of storm fronts that began to roll across Iowa leaving a trail of wind and hail damage and leaving those of us camping at Dutton's County Park with leaky tents and a wild show of thunder and lightning. By Saturday morning, however, there were only a few harmless looking clouds left and a beautiful day in store for the twenty or so cavers and their families.

The stream bed that runs over the top of the 40 foot high entrance to Dutton's Cave had been filled three feet wide with brown, churning water the night before but was now empty and dry, allowing us to rig one of the two ropes directly over the center of the entrance. The other rope was rigged to the side, providing a relatively easy climb with no overhanging ledge to deal with. Several people took their turns rappelling and ascending, including a few "first-timers" as well as the usual vertical practice and demonstration of different vertical rigs.

While the climbing area had dried out well enough, the lower level of the cave had not. A few rocks dropped into a pool of water below quickly snuffed any idea of a lower level tour that day but Stacey and Pete took a brief tour of the main level of the cave while the rest of us leisurely prepared to leave the park for the day's caving.

Gouldsberg Cave

Stacey Cyphert, Peter Hilsenroth, Doug and Nathan Schmuecker, Loren Schutt and I headed to a dry crevice cave that Mike Nelson had shown me more than a year ago. Gouldsberg Cave is located in a small county park in Fayette County and had been first visited by the grotto when Mike Nelson and Greg McCarty crawled and walked their way through its several hundred feet of passage two years ago. I remembered it as a fun cave with lots of little nooks and crannies to climb or squeeze into. Being a crevice cave, of course, meant that some portions were a little unstable but the majority of the passages were safe to traverse.

My memory isn't the greatest so we had a little trouble finding the route to the main section of the cave but eventually we popped into the thirty foot high trunk passage that seems to follow the ridge. We only noticed a few bats scattered throughout the cave but there were plenty of "vugs" (crystal-lined pockets in the crevice walls) and old dated signatures scratched here and there. The oldest date found was 1908 and looked believable.

I would say we spent two to three hours in the cave before exiting and heading to nearby Wet Cave to check on the other trip scheduled for that afternoon.

Wet Cave

Before meeting the other group, we took a quick look at Falling Spring Cave which was flowing nicely, creating a scenic 20 foot waterfall and a cool breeze to greet us. Jay and Stacey climbed up and into the entrance to take a brief look at the crawlway at the top of the waterfall; without wetsuits, the crawlway would be a miserable thing to pursue. We soon met the other party on their way from the cave; they had completed the correction of the old survey while folks new to the cave had gotten the chance to see the passage beyond the breakdown.

Jay, Stacey, Pete, and I decided to take a quick tour of Wet Cave before heading back to Dutton's for supper. The cave is located in a beautiful little valley with a small stream flowing from the cave's spring entrance. A dry entrance and a short dirt-filled passage lies to one side while the stoopwalking stream passage leads back through the main body of the cave. The passage walls were washed clean and scalloped, forming sharp ridges and pockets while occasional sections of flowstone can be found as one approaches the breakdown section. We decided to turn around at this point since the description of the passage through the unstable breakdown didn't sound too pleasant.

Wet Cave Survey Trip

by Lowell Burkhead

It was early afternoon by the time we finally got split up into two caving groups at Dutton's for the two planned trips. Most of the morning was spent on vertical practice and waiting to see what the weather was going to do before going into a spring cave. The skies were clearing and we were off. Mike Bounk went to get permission while the rest of us readied our gear along the roadside a mile away. When Mike showed up we headed through the fence and into the field of cows with calves and three bulls to the cave. There was almost no flow in the creek that the caves feed after two years of record drought.

There was no way to plan this trip not knowing who we would have for people until the last minute. The trip was planned on the way to the cave and into the cave. We had me, Larry and Beth Welch, Jim and Leslie Sinning and Mike Bounk. It occurred to me as we started to survey at the start of the breakdown that it would be best to run as few people through the breakdown as possible and it would be best if those were people who hadn't seen it. After finally sorting it all out in a flurry of confusion, Larry and Leslie were on tape and compass and Jim was on book. Mike, Beth and I made ourselves comfortable on the first of the breakdown and then Beth went back to photograph the formations in the entry passage. Just after Beth showed up at our position, Greg McCarty showed up in street clothes and visited until the survey team got finished.

The cave had been surveyed back in 1979 by Mike Bounk, Ed Smith and others to the breakdown. The breakdown area was sketched from memory by Greg McCarty for the map that was published in the INTERCOM in 1980. I had considered the sketch portion to be less than accurate since it didn't match my memory of the cave. We'll find out when Mike Bounk gets the new survey data on the map.

The Picnic at Dutton's Cave County Park

The day ended with a potluck picnic second to none in recent memory with great food and conversation. Three Coleman stoves were fired up when everyone finally got back from caving. There was Grotto Picnic Chili, (See recipe in Volume 11, No 5, Sept.-Oct. 1975) pinto beans, hot dogs and brotts, hamburgers, corn on the cob, watermelon, brownies, chips and more. It was all more than just good, it was great. The whole group pigged out. There were more calories consumed than burned in the day's caving. Even Greg who doesn't like anything dug right in and did himself proud.

The satisfaction on the day's events, caving, eating and socializing, was completely evident. There were nothing but compliments. It was good to see that the grotto can succeed in organizing and pull off such an event. It may not seem like an astounding achievement when compared to other organizations but I think it's a sure sign of improvement in getting a scattered group of cavers more involved in Iowa Caves and caving. (This paragraph, a composit by Burkhead & Lace)

RETURN TO TOURIST'S DELIGHT

Tourist's Delight Cave, Maquoketa Caves State Park, Jackson County, Iowa
 August 13, 1989 by Larry Welch
 Larry Welch, Beth Welch, Mike Lace, Stacey Cyphert, and Gary Engh

After my previous foray into Tourist's Delight, I had coordinated with Mike Bounk the continuation of the survey of this cave. Mike wasn't able to make this trip, but was hoping to help out at a later date. Another reason for the trip was to photograph the relatively pristine formations before their inevitable demise due to the increased traffic that the more accessible entrance will allow.

We got to the park early Sunday morning so we could slip into the cave without making a scene. I led the way in to the big breakdown room. The park crew had moved some rocks so the entrance wasn't so obvious, but there were signs of increased visitation nevertheless. Everyone was pretty gung-ho and made quick work of the squeezes in the entry section, and then got to enjoy the treat that a well decorated cave can be.

At the breakdown room we split up, with Mike and Stacey taking the camera for a photograph and push trip, with the rest of the group surveying. Gary was cajoled into taking book, I read the compass, and Beth did lead tape. We started at the junction where the upper-level passage takes off, surveying through the most comfortable and picturesque portion of the cave. We set 12 stations through winding passage for a total traverse of about 150 feet. We tied off when the crew got chilled at a point about 2 stations before the 15 foot dig/belly crawl.

Meanwhile, Stacey and Mike had pushed into virgin cave at the bottom of the pit near the cave's end. They had also gone past the old sump into continuing passage. One of them will report on their sortie separately. They were very wet when they passed the survey crew on the way out of the cave. We finished soon afterward; Gary and Beth set a chip while I looked ahead as far as the pit.

The trip out of the cave went smoothly. When we came out, there were many tourists in the park, and they were indeed delighted at the muddy mess we were trying to clean. A group from the Windy City Grotto were doing helmetless rappels between beers, which impressed us to no limit. This sort of display is certainly going to leave a good impression of cavers in the minds of all the folks visiting the park

BAKING SODA SURVEY

Coldwater Cave, Winneshiek County, Iowa
 August 19, 1989 by Larry Welch
 Larry Welch and Beth Welch

It has been a disappointing summer at Coldwater, and this month was the same old scene. I had the good fortune of bringing my wife along this month, so at least I didn't wind up caving solo again. A survey trip to finish up the Baking Soda Passage seemed within our capabilities, so we packed up the survey gear and left. Anyone who is truly dedicated to the project will understand that these seemingly unimportant passages need to be surveyed, and I'm not doing them because there's nothing else I'd rather be doing.

Beth had been in the cave several times, but had never done any surveying at Coldwater. Still, she was fresh off of surveying at Tourist's Delight and anxious to read the compass for a change. A two person survey was an ideal chance since I was going to have my hands full with the book. We made good time to Dead Coon, where we left our packs and took only the surveying necessities on to the chip several hundred feet into the passage. The name Baking Soda Passage came about after its terminal dome had been named the Arm and Hammer Dome to commemorate how it was opened. The first part of the passage had been surveyed in April of this year by Doug Schmuecker, Jay Wells and I.

Due to the digging that was done to open the dome and the minimal stream flow in the passage, most of what we surveyed involved wallowing in several inches of mud. Beth found this to be very frustrating when she was reading the compass. Fortunately, she was very persistent and we got our bearings. We weren't moving very quickly though, and Beth had numb feet by the time we were done.

Squeezing past the obstruction didn't seem as hard this time, and we tied off the survey in Arm and Hammer Dome after 148 feet of survey. Beth, only the third person ever in the dome, found a perfectly round piece of polished quartz in a pool at the base of the dome. There is a potential chimney in the dome, but it appears to pinch 10 feet up or so. We were horrendously muddy by the time we turned around. I couldn't clear the slime off where I was writing in the book, so took notes for the last shot on the corner of the page, which was still clean. I've been looking at the Chairman's books trying to improve my style, and despite the mud, I am convinced this is my best one ever.

Once back at the mainstream, we got cleaned off and then made our way back to the entrance. Beth had done very well under less than ideal conditions, and now has a better idea what kind of effort it takes to pick up a few feet of survey.

TOURIST'S DELIGHT SURVEY II

Tourist's Delight Cave, Maquoketa Caves State Park, Jackson County, Iowa
August 27, 1989 by Larry Welch
Larry Welch, Beth Welch, Gary Engh and Mike Lace

Everyone had been impressed with this cave when we had been there two weeks previously, so it wasn't difficult to twist arms and get a return trip together. A primary concern was to get more photos of the decorations before they are destroyed, since we didn't get very many on the last trip. Extending the survey was also beckoning, so we had dual purposes on this trip.

Knowing the crowds that inhabit the park on summer weekends, we made sure to get into the cave early. Everyone slithered in through the usually nasty crawlway. Despite wet weather in general, the water levels had dropped in the cave and it was possible to bridge the water in the entry room. Beth wasn't tall enough to bridge, but only got wet to her ankles.

We broke out the survey gear at the breakdown room before the walking passage. We had started surveying further ahead on the last trip, but after getting the old notes from Mike Bounk it appeared that we had started surveying on that trip at a chip that had been placed but not tied in. The last certain station was the one in the breakdown room. Since Gary had been coerced into taking book on the last trip, we let him choose his duty on this trip, which was lead tape. I read the compass, Beth did rear tape, and Mike took his usual artistic book.

The squeeze leading out of the breakdown room was particularly difficult because it twisted in the middle and a station was set in a less than comfortable spot. Once past this obstacle, the survey went smoothly until we connected with the point where we had started on the last trip. Of course we still had to be content with two and three meter shots in this twisting cave.

Once we had unhung the survey, we moved ahead to continue at our quitting point on the last trip. Beth took plenty of pictures in this scenic section. On the way, we got a cold slap in the face. The beautiful room containing the clusters of white stalactites had been vandalized since we had been in the cave just two weeks before. Fragments of white formations littered the floor. It was a sad sight, but one that we had expected to happen. Also observed on the trip in were various garbage items and cigarette butts.

There was nothing to do but photodocument the vandalism, so we moved ahead and continued the survey. Two shots brought us to the 15 foot squeeze. Gary finagled the stations so we could span the tight spot with a single sighting, then wormed through. Ahead we encountered the pit leading to the lower level. We couldn't get a chip to stay, but the station is on a very obvious "shark's tooth" stalactite just over the pit. Several more stations brought us through some tight stuff to a small room. Leading out of the room was a low squeeze that had been full of water on the last trip according to Mike. It was just a bit damp and full of ooze this time. The team was about chilled out, so we went ahead and put a chip on the far side of the ooze since we would be able to head out immediately if soaked. The chip is on a mud bank on the far side of the squeeze and the passage continues as a relatively easy crawlway. Mike and I stopped to check out the pit on the return trip, then out we went.

We had also run into some Coe College youngsters who came up behind us as we surveyed. They made it quite clear that they were conservationists and hadn't broken anything. When we got out of the cave we encountered the usual crowded Sunday conditions in the park, and as usual at least one rappelling group that was woefully unequipped. Several people asked where all the good caves were after seeing how muddy we were, one Arlo Guthrie clone going so far as to admit that he was interested in "speleology" himself. It was pretty obvious that with the natural defenses of Tourist's Delight missing, that it was not inviolate from visitation by local cavers.

Preventing cave vandalism is a lot like preventing AIDS in that the problem is blamed on the fact that the public has just not been educated on the facts of the matter. To this, I say bullshit. Human nature is such that there are always a few percent of the people who will do things they know are wrong like smashing formations in a cave. If enough people are allowed to travel through a cave with no supervision, eventually everything that can be broken off, will be. Basically, if the cave stays open as at present, it will become just like the other caves in the park. Not that they aren't nice, but we know that Tourist's Delight is a cut above.

As on the previous trip, we brought up our feelings with the Park Rangers. They were polite and understanding, but felt that park regulations did not permit them to limit access to any of the caves in the park. All I can say is that it sure was a godsend that the state decided not to buy Coldwater if this is their attitude toward cave preservation.

Just another misplaced trip report from a previous editor. One can't help but wonder how many more there are that are gone forever. This one was still in the envelope that took it to the grotto post office box.

JESSE JAMES

Jesse James Cave, Floyd County, Iowa

January 1, 1987

by Mike Lace

Greg McCarty, Mike Nelson, Delores Nelson, Larry Welch, Beth Patel and Mike Lace

Greg McCarty led this trip to Jesse James, Two Days Digging and Hemp Hole Caves. All of these caves are entered through prominent sinkholes in a very flat field. We first visited the sinkhole that contains the entrance to Wilson Cave which was choked with rocks. Jesse James Cave was visited next. The entrance was located in a sinkhole approximately 60 yards south of Wilson Cave. There are three sinkholes side by side aligned east to west. The Jesse James entrance is located in the easternmost hole. One of the other two holes contains the second entrance but this entrance is now impassable due to a truck carcass which has sunk into the entrance, however, daylight can be seen from the inside through this obstruction.

Some ice blockage had to be removed in order to enter Jesse James Cave. Several ice stalagmites were noted directly above the entrance on a limestone shelf as well as prominent ice curtains around the entrance. The main level of the cave was muddy but no standing water, with the exception of the lower level, and even a bit dusty in some areas. Surface debris was noted even on the walls of the uppermost level indicating that the cave does indeed flood. The cave is fascinating with solution tubes, maze-like, multiple-level complexity, and other interesting solutional features.

The lower level was briefly examined by Larry and Mike Nelson and was thought to be sumped at the end of the left section. A crevice lead was also examined opposite the side passage that led to the one foot wide crawlway trending toward Wilson Cave. By crawling on ones side approximately 7 feet into this one foot wide by 2½ foot squeeze, a lower level lead is accessed. The crevice slopes downward to an 8 to 10 inch pinch that leads to an approximately 5 foot drop to a fresh mud floor and a one foot wide by two foot high crawlway at the lower end of the crevice. There was enough room above the 5 foot drop to turn into a stooped upright position but heavy boots seemed to be a great hinderence. The crevice can be pushed but it requires a slim caver. No air flow was detected but water obviously comes through the low lead at the end of the crevice. The end of the main passage containing this crevice lead consists of a 3 to 4 foot wide passage that pinches down and is blocked approximately 20 to 25 feet past the crevice. The right side of the end of this passage contains a collapse of dirt and rock which could lead to additional passageway if the debris was removed

We exited Jesse James cave after approximately 1½ hours. Two Days Digging Cave was examined and Larry Welch, Mike Nelson and I were able to squeeze down the first 9 foot chimney to a 1½ foot high by 2 foot wide crawlway. We decided to exit the cave because of fresh raccoon dung and the possibility of meeting an inhabitant face to face in a tight crawlway. It was dark by the time we exited Two Days Digging Cave and Greg, Larry, Mike and I continued to Hemp Hole cave located approximately 100 yards west of Two Days Digging Cave.

The entrance to Hemp Hole is approximately $1\frac{1}{2}$ feet high by 2 feet wide and located at the north end of a large sinkhole. It opens to a small shelf overlooking the single room 12 feet long, 3 feet wide, and 15 feet high. A stoopway leads 8 feet to a rubble-choked end. A crawlway, $1\frac{1}{2}$ X $1\frac{1}{2}$ feet, is located at the base of the right wall as one enters. It extends 10 feet to where it turns sharply to the left. The passage is very tight at that point and it requires digging even to get to the turn. No air flow was detected but an echo may be present. The four of us exited the cave at approximately 7:15 p.m.

Larry and I plan on making a return trip Jan. 10th to begin the survey of Jesse James Cave. It may take some time but Larry will be producing a map when the survey and lead-pushing is completed.

WINTER CAVING TIPS

by Greg McCarty

In the late sixties and through the seventies, the grotto did a fair amount more winter caving than it has done during the eighties. There are the monthly trips to "Hotel Coldwater", of course, but not as many of the "real cave trips". I did little enough caving during the early to middle eighties due to other interests, so I wasn't setting a good example. That has since been fixed. We have many new members now, some of whom are less experienced in winter caving, so I suspect that it wouldn't hurt to go over a few tips for easier and more effective handling of the cold and snow we have come to know and love during Iowa winters. I'll present some things that I have run across, or learned through experience, that have helped me to be able to cave in even extreme winter conditions. And believe me, I have been on some cave trips where the weather was truly extreme. I have also been provided some tips by Jim Hedges which I will pass along.

Before I go into the list of tips, I would like to briefly discuss attitude. You could follow every one of these tips and still have a relatively unsuccessful cave trip if you don't go into it with the right frame of mind. If your intent is to get some work done, whether it be lead checking, mapping, digging or whatever, then you should be willing to do whatever is necessary, within reason, to accomplish that goal. Assembling the gear it will take to allow you to work under the conditions you can expect to find is certainly within reason. Being mentally ready to fight the elements instead of passively going down to defeat, being willing to ignore the fatigue brought on by hiking through deep snow and on slippery surfaces and being willing to crawl through pools of water knowing you will ice up once outside the cave are also within reason when properly equipped. If you want to accomplish a task, you must be mentally ready to put out. Wishing for easier times won't get the job done. Some recent summer trips have convinced me that hot summer weather is not any better.

In dealing with winter caving, one of the first things to consider is the vehicle that will get you up to the cave. If your car is not ready to handle adverse winter conditions, then you risk having an unsuccessful trip or no trip at all. The usual tips about having your engine tuned and your heater in good working order all apply, of course, but some things need more than usual emphasis. In really cold weather, use one of many available methods to keep your engine and battery warm (you're not trying to get by with an old battery, are you?). This will help insure that your car will start in the morning, so you can go meet someone on time. Use gas line antifreeze to prevent ice from stopping the gas flow; a full tank is much less likely to ice up. Put snow tires on the car!

The highways and streets may be fine, assuming it doesn't snow during the trip, but what about the gravel roads and farmer's driveways? Put a shovel in the car for digging out. A grain scoop works best for snow, and is great for digging out snow plugged sinkholes. Also throw in a bag of sand, a tow rope, chains if you have them and a come-along if available. Finding the edge of a gravel road or getting stuck in a drift can be solved with these items instead of bothering a farmer to pull you out with his tractor. Also, use some common sense on how far you drive through the snowy fields in order to get closer to a cave. Farmers don't enjoy towing, even though they may be friendly enough to not show it. A blanket for warmth in case of trouble (you can even lay on it to work on the car) and jumper cables should be included. Put cardboard in front of your radiator if your heater is inadequate, a common problem with small cars. Adjust your route if conditions warrant it. In drifting conditions, use more traveled roads. If there are scattered ice patches, go easy on winding roads. If sleet covers the roads with ice, use gravel roads for the rougher texture and lack of traffic that could endanger you. Get inexpensive towing insurance (the rider on my policy costs just \$4 per year for towing, starting and road service). Finally, follow the weather reports closely when planning trips. Watch the news for the area you are going to, as well as where you are coming from. If in doubt, use the road information line that the state has for road condition reports, (515) 288-1047. If you use more than one vehicle on the trip, the redundancy helps to conquer problems of cars not restarting after the cave and of getting stuck. If you have serious trouble in really bad weather, having a second car to go get help for the first could be really handy. Also, the fewer cavers you have in the car the more room you have to keep gear warm and to dress inside it. Fewer soggy cavers also makes for less fogging, so if you have four cavers on the trip, you probably should take two vehicles.

The next step in getting ready for a winter trip is to make sure you are physically ready. Get enough rest, and eat well before the trip. Remember, you are going to be burning off a lot of calories just to keep warm. The body can handle more fats during cold weather without digestive upset, but remember that carbohydrates are the main source of energy that the body uses for physical activity. Keep munching on them during the day so that your energy level never drops very low. Eating and drinking are very important on winter trips. The foods you need to maintain your energy level and make it easier for your body to generate heat are the complex carbohydrates. Stay away from too much simple sugars as they go through so fast they can mess you up and make you feel tired unless you are exercising vigorously at the time. And you will need a lot of water to replace the surprising amount that you lose by breathing the dry winter air. You need at least as much water during the winter if you are exercising as you do during the summer. Just remember that spring water, in Iowa or any Karst region, is not safe to drink. We all drink some water off formations, but try not to drink from any major karst springs. A thermos of hot chocolate or coffee provides a pleasant, and warm way to take in liquids.

Don't be afraid to do some outside activities in the days before the trip. Studies have shown that the people most susceptible to hypothermia and frostbite are the ones who spend all their time in a warm environment. They keep their home warm, they work inside where it is warm and they drive a warmed up car to and from places. People who work outside and live in a cool house are least likely to be stricken under the same conditions. People who work and live in a warm place, but spend time out in the cold doing other things develop a lesser degree of protection. So, get yourself conditioned for the trip by making sure it's not your first time outside in a while. If you do suffer from hypothermia during a trip, get somewhere where you can be thoroughly warmed up as soon as possible.

There are lots of public facilities that are heated, but in an emergency, go straight to a farm house. Don't worry about it if it's a minor case, but serious hypothermia has killed many cavers. You can get hypothermia (dangerous loss of body heat) at any time of the year in a cave, and indeed my worst case of it happened in June. I had been caving for less than a year, and was still getting by with cotton clothes. After several damp to wet caves, I finally lost my body heat to the point of exhaustion. About forty feet from the entrance of a short, rocky cave, I just lay down in a pool of water in the crawlway and decided to rest. I had a strange feeling that there was no need to go the rest of the way out through this belly crawl. I felt like I could just lay there and be perfectly happy, and that the outside world was no longer needed. After a while I realized that this didn't seem to make sense, and that I needed to make the effort to exit from the cave. The cool breezy weather outside continued to cool my wet cotton clothing, and I had a very chilly trip home indeed. Wet cotton is the worst thing to have on. As the water evaporates, it just sucks the heat out of your body.

Hunters tend to get hypothermia when a cold rain, or falling into water, causes their soaked clothes to be exposed to the wind and cold. Cavers can do that also, of course, so bring a poncho to protect yourself from cold rain. Use a garbage bag in a pinch. Just poke a hole in the bottom and slip it over your head. They work great when waiting your turn to ascend the rope at the bottom of a pit, especially when it's drippy. You can sit on your pack to get up off the cold, wet floor. Put the bag over your body and hold your lamp under it to trap the heat. This can save a lot of your strength for the climb out that otherwise would have been wasted on shivering. Keep a bag in your cave pack, so it's always handy. You can even use it to sit on in a muddy place where you need to dig for a while. By keeping drier, you save a lot of heat. Saving heat is the key, as the slower you lose heat, the longer you can stay in the cave and get useful work done.

One thing that hunters don't have to worry about is cold water coming into a cave and changing the situation. In the summer you have to worry about thunderstorms flooding a cave. In the winter, you have to worry about snow-melt flooding a cave. One time, a tremendous thaw flooded us out of Soward's Cave, but good. If we had been in the upper level, we could have lost a tremendous amount of surveying and photographic gear. As it was, my gloves were washed away. If we had been in the side passage that rejoins the lower level stream, we might have been in big trouble. As the flood came down the main passage, it turned and went right down that side passage before overflowing it and continuing on to the entrance. It all happened so quickly, and in a cave that we didn't really think would flood under anything less than extreme circumstances. One big problem with winter flooding, of course, is the temperature of the water. Water the temperature of snow-melt quickly strips the heat and strength from your body leaving you numb and helpless. The two people who died in Miller's Cave were not killed by the volume of water, but by the temperature. The spray of water took away their ability to climb, then their consciousness and very soon, their lives. You can't last long in a cave under those conditions, so don't get into those situations.

Editors note: The cave in the following account is now closed due to poor landowner relations. The location was published back in the grotto's dark ages so the cave name is not included so further damage won't be done.

On one occasion, we pushed the limits of what could be done in a cold, wet cave without wearing wetsuits. Besides myself, there was Ed Smith and Mike Bounk.

It was a late winter trip to a cave that had seen a tremendously successful breakthrough trip in January of that year. There had been a thaw, but now things were frozen back up and the temperature was going to stay in the twenties that day. We knew there was no flood hazard, but we didn't expect what we had instead. The sinkhole had field tile emptying lots of recent snow melt into the cave. The water was numbingly cold, but we knew it wouldn't get any worse. Eager to explore farther in this very exciting cave, we proceeded ahead. One hazard in the entrance was something you commonly run across in the winter and have to take into account. The narrow slot leading down into the cave was wet and had ice coating the walls. This has three bad effects. It makes it smaller, it makes it much more difficult to climb back out once you are in the cave and the cold icy walls are a great way to cool down quickly. Here we also had a stream of ice water pouring in beside us to spray us. Just inside the entrance, there are two ways to go. One is a short bypass through some breakdown that allows you to keep up out of the water by a couple inches, while the other takes you for a full plunge in a lake up to your neck, due to the fact that it's a crawlway. Ed and I took the breakdown route, but Mike once again could not locate it. There would be other lakes, and crawlway that featured the flowing icy stream, but nothing that would completely soak you like the first lake. By the time we reached the end of the entrance crawl and started down the first series of chimneys, Mike was getting quite chilled. Half way down the second chimney, he was shaking so bad that he could not climb safely. If he lost much more strength, he wouldn't be able to make it out of the entrance slot. He left his gear behind and headed back to the entrance. I climbed back up and followed back through the crawl until I was within earshot of the entrance. This was necessary due to the difficulty of the entrance under these conditions. If Mike had gotten stuck in the entrance slot, he might have been dead by the time Ed and I had returned from our explorations. After hearing that Mike was out, I returned to Ed and we continued deeper into the cave. This is one of the most challenging caves in the state, and features numerous chimneys. Most of them were dry enough, though, to not cause us any real problems. Many of the crawlways are normally very wet. On this day, they were especially so. When we came to one spot where Mike and I had to crawl through a lake on the first trip, we decided it wasn't real practical to continue. I checked around, and found a narrow upper route that bypassed the water. This allowed us to continue on to the chimney where I had left Mike behind on the first trip. We both proceeded down it and on to the final chimney I had descended on the first trip. I left Ed at the top of this chimney and proceeded down to the limit of my previous exploration. Telling Ed I would be back in a few minutes, I proceeded through the passage until it turned into a horizontal slot over rocks. Crawling through the water one last time, I managed to get to where the cave seemed to be getting bigger all the time, and certainly was cleaner. A nice scalloped tube of duckwalk height. In spite of the bad conditions, I had been able to push some virgin passage and see that the cave continued as interesting as ever.

At this point I was over one hundred feet below the entrance, and a thousand feet into the cave. Now all we had to do was get back out. On later winter trips to this cave we would suffer terribly in below zero cold while changing out of wet clothes in the entrance. On this trip, we had to worry about getting back out to the entrance. Things went well all the way back to the breakdown crawl near the entrance slot. There we had big trouble. Ed went through first, leaving all the packs and six volt hand lanterns with me. As he tried to get into position beside the lake, his carbide lamp fell off into it. He felt around until his hands went numb, then had to make the climb up the entrance slot while he still could. I pushed all the packs and junk ahead of me and proceeded through the breakdown. Just to the right of the entrance slot is the lake. All of the packs and stuff ended up in the lake. I quickly started grabbing stuff and looping the straps around a point of rock. Unfortunately, there were too many of them. Seven as I recall.

By the time I got to the last item, my cave pack, it had filled with water and sank. I felt around in the pool for the pack and for Ed's lamp, but I couldn't find them. My hands quickly became like chunks of wood, with no feeling whatsoever. I, too, had to give up and start passing the packs out the entrance before I lost the ability in the icy spray to make the climb up the ice coated slot. I had some good stuff in that pack, and Ed lost a perfectly good lamp, but we made it out okay. What did we learn from this trip? The effect of cold water on the human body was made very clear to us. And I think we found ourselves a little closer to the edge than we thought. This is a difficult cave under any circumstances, but under these conditions, any type of incapacitating injury likely would have been fatal. This is a risk you take only when the incentive level is very high. It was in this case. Hypothermia can kill the unwary.

Frostbite is more likely to be a health hazard you actually meet up with during the winter from a little frost nip to severe frostbite that damages tissues permanently. Hypothermia can be conquered by conditioning to a certain degree because you can warm yourself with exercise if you have the strength. In Iowa, we are not at altitude, a contributing factor, and we are never terribly far from a road. This reduces considerably the chances of severe problems, but you are still likely to run into it eventually. Frostbite can end a trip, and give you problems in your daily life for at least a few days afterward. It's worth avoiding. While wearing the wrong footwear (jungleboots due to the vertical work involved in the cave) my feet once got quite chilled during a mid-night walk of about 2/3 mile through the snow. The temperature was well below zero. My car wouldn't start when we got back, but fortunately, the farmer was still awake and he jumped my car. On the way home the heater malfunctioned, and the frozen sole of my left boot refroze my big toe. It was six months before the nerve damage healed. I made several errors on this trip, and circumstances happened in a way that compounded the problems to the point where significant damage to the tissues occurred. I will discuss clothing in depth later, but one of the problems was an uninsulated boot with a hard, thick sole. Just right for providing a means of cooling the foot, even after you get into a warm environment. I should have taken the boots off once I got into the car. Putting on all my socks and wrapping my feet in towels for the drive home would have been clumsy, but much better than leaving them in the cold boots. Also, once tissue has frozen, it is much better to leave it frozen until it can be thoroughly thawed and kept that way. Much more damage is done if the tissue is allowed to refreeze than would be done by leaving it frozen. Listen to your body and make sure it is okay while out in the cold. Keep things moving to increase circulation before they get cold, rather than waiting until after. In really cold conditions, wiggle your toes all the time and repeatedly clench your fingers. Don't wait until they get stiff! Try and carry things in packs so that your hands are not immobilized. How long do you think you can carry a steel crowbar in your hand when it is below zero? Depends on whether you want to be able to use that hand to light your lamp or if it's just decoration.

Clothing is the next order of business. One of the things I want to mention is where to keep it. Your spare clothes, coat, boots, coveralls, gloves to be worn in the cave and wetsuit should all be kept in the heated part of the car on the ride up to the cave. This also applies to drinking water, cave packs with water bottles, lunch, cameras and their millstones, carbide lamps and flashlights. A warm camera won't fog up when you take it out in the cave. You should wear your coveralls and your boots during the ride up to the cave area. This lets them be warmed by your body, saves time in getting ready to go to a cave or lead, helps prevent inertia since you are already dressed and prevents a major source of heat loss which you would encounter by trying to dress quickly out in the wind.

You will need to keep your car cooler on the ride up to prevent sweating. Sweating is something you want to prevent in cold conditions. The dampness will help chill you once your activity level decreases. Speaking of dampness, make extra sure you have a complete change of clothing. Wet clothes can halt a winter trip due to misery and outright danger. There is nothing wrong with getting soaked in a cave under even sub-zero conditions, but you must have a supply of clothes to change into as soon as possible after you exit the cave. If it is too cold, you must have a place to change that is warmer. You can change out of wetsuits and wet clothes in the snow if the temperature is at least in the teens. It is dangerous to try it if the temperature is down to single digits or below. I have tried it and it does not work if there is any wind. Just ask Ed Smith. In the teens, it will be painful, but it is quite possible if the winds are not too bad. Anything above that is no problem, but a farm outbuilding is always welcome relief from the wind.

I once got soaked up to my neck in Winneshiek County, wearing just long underwear and insulated coveralls. The temperature that evening was six below zero, and there was a hike of about 2/3 mile back to the vehicle. It was near the end of a long day of checking caves that normally sump, but which we hoped the long winter had opened up for us. This not only didn't finish me off, it didn't end the trip either. By plowing through the snow at a fast pace, I generated enough heat inside the armor of ice that I felt pretty good. The ice protected me from the wind, and my dry gloves I changed into protected my hands on the walk back. The farmer turned down my request to change in the barn and insisted I come inside the house. After cutting the boot laces and prying the frozen coveralls off, I changed into dry clothes and was ready for more. Conditioning was a big factor here. We drove another forty miles and checked yet another cave that night before calling it quits. If you are wearing a wetsuit, you may want to wear it home. This has worked for me on numerous occasions where it was too cold to comfortably change. It's more comfortable driving if you pull off the jacket, though. When you come out of the cave, be sure and take off the rubber gloves. Dry your hands with a towel and put on winter gloves for the walk back. I've often worn a wetsuit up to the cave also. This works great if you know your first stop is a wetsuit cave. If this is not the case, not to worry. Changing into a wetsuit is less of a problem than changing out. You are dry so you can stand cold air better if you choose to change outside. You are clean, so you can use public restrooms to change in. County courthouse restrooms are usually roomy and work well. I once managed to change into my wetsuit in the front seat of my car without any help. It was five below that night, so afterward I didn't change out until I got to where I was staying in Decorah. It dropped to twenty-seven below zero that night and turned my car into a useless hunk of metal.

What should the well dressed caver wear on a winter trip. That all depends on what the conditions will be, and what type of activities are planned. You would not dress the same for a day of zero degree surface tramping as you would for a twenty degree hike to a cave that was near the road. For the latter, you can do almost anything you want and get away with it. For the former, you had better be prepared if you want to be successful. I'll start with the feet and work my way up. For boots, the key is to have enough room to allow easy blood flow. Tight fitting, uninsulated leather boots invite frozen feet. A little frost nip is okay if you are willing to put up with some pain and itching for a few days, but why not avoid it if you can. Get some insulated rubber boots that are one and a half sizes larger than your feet. Make sure you get the kind with the lugged sole. They are usually brown, and can be found in places like Walmart. Next, get a felt insole pad to put in the bottom. This gets you up off the frozen ground; something I learned from icefishing before I joined the grotto, and makes quite a difference. Without the larger boots, the pad wouldn't fit.

Then put on a couple of pairs of thick wool socks. As long as you keep flexing your toes to keep the blood flowing, you can hike all day wearing these boots, and they work well in the cave also. Climbing is no problem. I used a pair for wetsuit caving, and as my spare pair of boots in case I got the other ones wet, for most of my caving career. Now I use jungle boots for wetsuit caving and cave diving. By the way, don't buy boots for wetsuit caving unless you bring along the wetsuit booties to try on for fit. I couldn't get rubber boots quite large enough for my booties, so I burned out the fuzz on the inside to make room. Keep the boot cool with water if you try this, and each time the fire goes out, you need to vacuum out the smoke so you can relight. Don't vacuum while burning! You may want to consider replacing any cotton boot laces with stiffer nylon cord. They will untie much easier when wet or frozen, but unfortunately, they also tend to untie themselves. (Ed. I use multiple knots which stay tied and still untie easily enough even for cold hands; bows don't work)

Moving up the body, we come to long underwear. A must in the winter, and in any cave where you will be getting wet without a wetsuit. Cotton mesh will get you by in dry conditions, but is of little use if you get wet in the cave (or on the surface). Wool will be able to keep you much warmer in wet conditions, as will the more modern fabrics like polypropylene, by wicking away moisture and sweat. They're not perfect, but they are well worth the trouble to get a set. For really nasty caves, I wear a 100% wool union suit (yes, it does itch), but these are very hard to find. Some of the new fabrics are very expensive, but I bought a cheap set of polypropylene underwear at K Mart. These are much more comfortable for less serious damp caves, and for tramping around in the winter. I wouldn't say that they work quite as well as the wool, though. Don't get underwear made with Duo-Fold wool. It is really 75% cotton, with very little wool. Some cave trips are just not possible to endure without protective underwear of this type. You lose too much heat and slip into hypothermia. Wet cotton fabric will actually cause you to lose more heat through evaporation than would be saved by the insulation provided. Tests have shown that if there is any breeze, you will be warmer naked than if you are wearing wet cotton jeans and shirts. I have experienced this myself on many occasions. The breeze quickly dries your bare skin, and you feel much better even if it's well below freezing. No reason to stop at wool underwear, though. A long sleeve wool shirt is just the thing for damp cave trips. I use them now for all but the driest caves, with or without the underwear. You can save a lot of valuable heat that way. And they can be very cheaply acquired in used clothing stores, such as Goodwill. Four to six dollars for a good wool shirt would be a very smart investment. While you're there, take a look at the wool navy pants. These dress wool pants make great caving pants once you turn the bell bottoms into straight legs, or you can try the wool army pants. Get some wool, and have the ability to stay in the cave longer before chilling and fatigue force you out.

The next step is outer wear. It is important to have adequate outer wear if the temperature is low and the wind is howling. With the proper clothing, you can have a successful cave trip on the coldest day that Iowa can provide. I know, because I was out caving that day and we had a very successful trip. The windchill was eighty below zero, very dangerous if you are not prepared, yet we marched through the snow to a sinkhole cave that needed pushing. Once in the cave, we crawled through pools of water to break through into virgin passage, making a significant extension to this cave and leading the way for breakthroughs in two similar caves during the next three frigid weeks. Naturally, we suffered some minor frostbite and went through a lot of pain, but it didn't stop us from accomplishing our objective. I have already mentioned that you should wear your coveralls; combined with your pants and long underwear, they should protect your legs under most conditions. Think of winter caving as allowing you to wear additional

protection against the brush without sweating. For the upper body, I would suggest a cheap synthetic fill vest. It will help to insulate the important body core, and can be worn under your coveralls for digging in the muddy but frigid entrance to a cave or sinkhole. I purchased mine during a cave trip for only seven dollars, on sale. The vest is also something that can be removed and stuffed into a pack if you get too warm. The layered approach is best. Over the vest, you will need a hooded parka. I would suggest that you acquire two parkas for caving. One inexpensive one, used or just cheap, to wear over your coveralls when it is time to go to the cave. When you come out of the cave and are all icky and wet, just tie the arms of your coveralls around your waist without taking the coveralls all the way off. Leave it zipped up to the waist also, to help hold them up while you walk. Turning the arms inside out keeps things cleaner. Then put your parka back on. This way, you have better protection for the walk back, you don't have to carry your coveralls back (always awkward when muddy and frozen) and you don't have to worry about the zipper freezing on the coveralls because you have already unzipped far enough to be able to get out. Once back to the vehicle, change out of your damp clothes and then put on your clean second parka. Often, just replacing the shirt will do wonders, although you will be chilled if you ride very far to the next stop, and the car windows will fog terribly. The second parka should be heavier, and worn whenever you will be driving or hiking around without getting into a dirty and wet situation. Your parkas should have a tough exterior that resists the tearing action of briars and barbed wire. You will encounter plenty of both. Also they should not be down filled, with the possible exception of the clean parka. Down is light and a very good insulator, but it has other drawbacks besides expense. If it gets wet, it is very heavy and worthless as insulation. If you get a tear in the parka, you could suffer a serious loss of down before getting back home. It is also more difficult to clean. Dacron or polyester fill will be just fine for caving use. A stocking cap for your head is a must. So much heat loss takes place through the many blood vessels in the head that in many caves, a stocking cap is of more use than a helmet. I have spent many long hours laying in a cold cave passage digging with a stocking cap on my head and a six volt lantern for light. You can lay your head on the lantern and keep cleaner and dryer that way.

With a stocking cap and the parka hood pulled close around your face, you can handle most situations. For really severe wind and cold, though, break out the scarves or face mask stocking caps. It makes quite a difference in whether you are free to see where you're going when you have to walk into the wind. Well insulated gloves top off the ensemble. Mittens insulate even better in really cold weather, but they don't give you the same tactile abilities. If carrying gear or climbing, you may need to stick with gloves. Just remember to keep flexing those fingers. And I mean all the time, not just after they get cold. Carrying things in your hands should be held to a minimum, as this always leads to cold fingers. You should have a spare set of gloves and a spare stocking cap in case you get the primary set wet or muddy. Places like Goodwill have lots of stocking caps. Why have a trip ruined, or limited in scope, by a simple thing like wet gloves because you fell on an icy puddle and your hands broke through the ice? Digging in wet snow can quickly soak your gloves also. Wearing your stocking cap into a cold and damp lead can lead to a muddy mess, so why not have a one dollar spare? A spare pair of caving gloves can really make it a lot more pleasant to enter a second cave later in the trip. Cold wet gloves are never appealing on frigid days.

In transporting gear to the cave there are two categories of items that should be in out of the cold, if possible. These are sources of light, and optical glass. If you wear glasses in the cave, it won't take you too many winter trips before you discover that they fog over as soon as they hit the warm cave air. One way to avoid this would be to take them off as you approach the cave, and put them inside a shirt pocket where it is warm. This will give them a big

head start on warming up to cave temperature, and should shorten the amount of time you are blind. Cameras need to be stuck inside your coat for the walk to the cave, or you will have a long wait while you watch the lens slowly clear up. If the millstone is warm from the car, and the walk is not too long, you may be okay. A flashlight should be carried inside your coat if possible, as the cold will really reduce the effectiveness of the batteries. If the flashlight is to be your primary light source, this is particularly important. A frozen battery will stay cold a long time in a cave, and will not be as bright or last nearly as long. Don't keep the flashlight in the trunk on the ride up to the cave. A carbide lamp also needs to be warm to prevent trouble. If you put water into a zero degree lamp, I can guarantee that the dripper will freeze and you will get nowhere. Once the lamp is running, the heat of reaction will keep the lamp nice and warm. It's before you get it running that the troubles hit you. Carry your lamp to the cave inside your coat, and avoid trouble. A damp felt can freeze and stop the flow of gas. Thaw it in your hand. A tip can freeze, often with carbon mixed in with the ice, and stop gas flow. Using another lamp flame to carefully warm the tip will thaw it, then use a tip cleaner. A tip reamer can go through the ice directly, if you have one. A frozen dripper can be thawed by hand, flame or with urine. You can spit in the bottom to start the reaction with the carbide and let the heat from that thaw the dripper. Don't spit too much, though, or you'll have a six inch flame and lose a bunch of carbide. If the bottom freezes onto the lamp, use your hands or flame to warm it. You should also carry your gloves that you will wear in the cave on the inside of the parka. In your coveralls front pocket would be a good place. Back pockets should be sewn shut when you get the coveralls so they won't snag and tear off the whole seat. Stiff and frozen gloves are no way to start an ambitious trip into a cave. (Editor's note: There are some good products on the market to keep glass from fogging up and it works as well on glasses as on car windsheilds. On carbide lamps, on leaving the cave, dump the water and open the dripper to drain it. One time frozen solid will split a dripper tube end to end. I have several of them that I've taken out of mistreated lamps. Leaving a lamp burning for the walk back to the car will also protect it from freezing if there is no wind.)

Now on to the final topic, multi day trips. It is possible to have successful multi day trips in the winter (I mean other than at "Hotel Coldwater"). It is unlikely that you will feel up to more than one day of hard caving, though, so plan your days accordingly. And believe me, putting on yesterdays frozen wetsuit from the trunk of the car is quite an experience, one you can probably live with-out, but you are welcome to try. I remember a three day trip where I wore a wetsuit into a cave all three days. You had to lay the suit on the ground and jump up and down on it to break the ice up, then dump it out the leg holes. Figuring out where to sleep is your main problem during the winter. Try to find a warm place if at all possible. I have camped out a couple of times down into the teens, both in vehicles and in tents, but if you are all muddy and cruddy, this can be a lousy proposition. For really cold temperatures, you need expensive sleeping bags. But who wants a bunch of mud and crud in an expensive sleeping bag? If you have gotten seriously chilled by being wet for a long time, it takes forever to warm back up in a sleeping bag when it's really cold. Also, you have to watch out for your water supply freezing solid overnight. Cramping several people into one motel room is one solution. A contact at a local college can lead to sleeping in a dorm study lounge. Occasionally, a cave owner will offer to put you up, but he should be the one to ask, not you. A friend who lives in the area is another possibility. Sleeping in a dry cave is also a possibility. I've never liked the mess that goes with cave camping, and so never do it. The final option is difficult, but I have done it. That is to keep caving through the night and into the next day. It is very tiring, though, and the drive home becomes very risky.

Actually, there is one more solution to the problem, and I have taken that route as being the best one. Move up to cave country, and then you can go home at night. You'll be glad you did.

Much of this information originally appeared in the Hotline, the October 1985 through December 1985 issues, during a time when the INTERCOM was not being published. I received some feedback from Jim Hedges on the original material, and will now present his additional thoughts on the subject:

I used to get a lot of caving done in the snow, out in Iowa. Slept in the entrance to Dutton's Cave one January, in two sleeping bags. Slept in an igloo in a roadside ditch one time. Uncomfortable, but possible. Cave camping is no mess - or maybe it's just that I don't notice, because I'm always a mess? I don't go to wet, muddy caves in winter, for one thing, so I can strip off my clothes and be clean enough underneath to get into the sleeping bag. Just take a ground cloth, so you can scatter things around without getting them dirty in the cave. Leave your glasses in the car, unless you're blind without them. A wet pocket will smudge them. If you can see your hand in front of your face, you can see an Iowa cave without your glasses. Put 50% rubbing alcohol in the water for the lamp. It won't freeze (and will still work almost as well.) Get real chains with V-bars that go all the way around the wheels, not just wimpy buckle-on chains. The quickie chains are worthless. Weather reports are worthless, too. Use your common sense - you'll be right as often as they are.

One last note. Jim's comments about the weather forecast may be colored by his experiences in the late fifties and early sixties here in Iowa. Weather forecasting has made giant strides since then. Listening to the radio while driving between caves can give you updated reports that can take into account the storm fronts that change from the original forecast. Once, we fought a bad blizzard up to Colesburg to meet Ed Smith, who had come in to Elkader the night before. A call from Anamosa to Elkader to cancel the trip produced a report from Ed that the snow wasn't bad up there. After fighting our way up there, we listened to the radio and got the report that they were pulling all the plows and highway patrol cars off the roads. They were going to let the roads all blow shut. We quickly turned around and headed for home, barely making it through the drifts. At one point we had to drive for over a half mile in the left lane between Monticello and Anamosa. If the cavers from Grinnell College had listened to the same weather reports I did on the night before their fateful trip, they would never have descended into Miller's Cave and Iowa would still have a perfect record of no cave fatalities in the state. The predicted rain, followed by sleet and then snow came right on schedule. I was out caving that day near Garnavillo, and made sure that the trip ended before the rain changed into the awful ice and blizzard that was predicted. If you are prudent, you can have perfectly safe and productive trips all year round. Don't let a little cold and snow get in the way of your pet caving projects. Remember, though, that checking sinks that haven't been seen before can be a waste of time if there is much snow. Unless it is wide open, you can't tell for sure whether you can open it up or not. I've seen many known caves show no trace of enterable passage during the winter. And even if you see that it could be dug open, maybe due to raccoon trails leading into it, the frozen ground makes that almost impossible. So you have to come back in warmer weather anyway. Why not save a trip? Winter is a good time to do projects inside of caves that have already been found. Dig that lead, descend that pit, map the cave or take pictures. You're warm and cosy and the cave is probably drier as well. Enjoy the winter, don't dread it.

INSTANT REVIEW on Greg McCarty's "WINTER CAVING TIPS"

by Lowell Burkhead

After studying this thing long and hard enough to edit and type it, I would have to call it a remarkable work that borders on real science. Greg has done his homework on this one. I know that to be a fact because I went with him now and then and froze my butt off. This article is the final report on twenty years of research that he referred to as "experience". Believe me, it's more than experience. I have experience, and if I had a lifetime of it, I wouldn't have learned half of what's in this article. That's because I have better sense than to try most of the stuff that he did to gain all this information. Everybody has better sense than that except Greg and that's what makes this article so special. He has done it for us and gone to the time and trouble to put it all on paper. Few people who would do all the things he did in the winter would have lived to tell about it. It reads like an issue of "American Caving Accidents". Even fewer people who would do all these things would be smart enough to learn anything from their experiences or smart enough to put it in order and write it down or even smart enough to write for that matter. That's what's special about Greg. If there's a wrong way to do something, he's tried it. If the article says that something won't work, it won't work. I was out there with him enough times to know that he's tried it because I remember a lot of those trips. I had better sense than to crawl through the water and stand out in the wind when it was thirty below, but then what did I learn about winter caving. I wouldn't have learned anything except that I was watching Greg and saw him do it. From that, I learned enough to get by but now we've heard it from the horses mouth. I just wish that there had been something like this as a guide when I started caving. It would have certainly have made a difference. That's why I wanted to get it published before winter, so you folks who are going to buy winter caving duds and equipment will know what to get. I would like to thank Greg for the time and effort he put in on this article because I think it could make a real difference in winter caving if people go to the trouble to wade through its rather wordy form and believe that he's a real authority on the subject. He is. Thanks Greg.

