
IKC Update

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INDIANA KARST CONSERVANCY

INDIANA KARST CONSERVANCY, INC.

PO Box 2401, Indianapolis, IN 46206-2401

Affiliated with the National Speleological Society.



The Indiana Karst Conservancy, Inc. is a non-profit organization dedicated to the conservation and preservation of caves and karst features in Indiana and other areas of the world. The Conservancy encourages research and promotes education related to karst and its proper, environmentally compatible use.

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Cover - Bambi Erwin and Dave Seng in Clayton Conrad Cave, Orange County, Indiana. Photo by Scott Fee.



Publishing courtesy of *Myotis Press*, Editor and Publisher Keith Dunlap.

ANNUAL BUSINESS MEETING REMINDER

SATURDAY, MARCH 19th, 7:00 PM

INDIANAPOLIS, INDIANA

INDIANA WAR MEMORIAL

(SAME ROOM AS CIG MEETING)

The annual business meeting is for the explicit purpose of elections. It is also for members and other interested persons to have an open forum for talking about cave and karst conservation and related topics. Past, present, and future IKC projects are discussed to solicit comments and input from our members and the caving community as a whole. The meeting is informal, and everyone is encouraged to attend and participate.

Preliminary Agenda Items: elections; brief recaps of last quarter's activities; SR 37 4-laning project status; 1995 National Cave Management Symposium; land acquisition committee report; OVR conservation project; Hoosier National Forest cave activities; IDNR activities; Indiana Cave Symposium; Under Earth Day V; next IKC Special Reprint?; HNF ridgewalk; and more....

Meeting directions: The War Memorial is located four blocks north of the circle in downtown Indianapolis. It is bounded by Michigan, Pennsylvania, Vermont, and Meridian streets. Enter by the north door, the room is in the NE corner.

EVENTS CALENDAR

- 19 MAR = IKC ANNUAL BUSINESS MEETING, Indianapolis (see above)
- 20 MAR = IKC SPONSORED HNF RIDGEWALK, Bedford (see page 4 & 8)
- 02 APR = WYANDOTTE CAVE RESTORATION, Corydon (see page 5)
- 10 APR = CIG SPONSORED HNF RIDGEWALK, Bedford (see page 8)
- 23 APR = EARTH DAY INDIANA, Indianapolis
- 23 APR = LOST RIVER TOUR, Orleans (see page 5)
- 23 APR = INDIANA CAVE SYMPOSIUM, Spring Mill (see page 9)
- 24 APR = UNDER EARTH-DAY V, Sullivan Cave (see page 10)
- ?? JUN = HANCOCK PROPERTY WORKDAY, Bloomington (same day as meeting)
- ?? JUN = IKC QUARTERLY MEETING, Bloomington (to be determined)
- 09 JUL = OVR CONSERVATION PROJECT, Salem (see page 5)
- 28 AUG = COON CAVE RESTORATION TRIP, Bloomington

Membership to the IKC is open to anyone interested in cave and karst conservation. Annual dues are \$15. Please see inside back cover for the membership application form or to make a donation.

This newsletter, distributed for free, is published quarterly for members and other interested parties. The purpose of this newsletter is to keep the membership and caving community informed of IKC activities and other news related to cave/karst conservation. Submission of original or reprinted articles for publication is encouraged.

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RAMBLINGS FROM THE PRESIDENT...

By now all IKC members should have received an election ballot and you might have noticed that my name is at long last absent from the President's position. Thus I can happily say this is my last Ramblings column! While the responsibility of representing the IKC has been rewarding and challenging, seven years as President is more than I had bargained for when I innocently accepted the nomination in 1987 (this was because our founder and first President, Bill Wilson, took a job at the Sinkhole Institute in Florida and promptly left the state). For the past several years I have been seriously trying to find a successor as I strongly feel that for an organization to mature and expand, it must constantly recruit new leaders with new thoughts and enthusiasm. We are still a young organization and we cannot afford to become complacent and stagnate.

So what profound knowledge am I going to share with the members in my last column? Well, actually none. I thought I would use this last column to look back and reflect on a little history and a few of our greater accomplishments over the past eight years.

The IKC was essentially formed to protect a few caves in the Garrison Chapel area from further vandalism. Our goals were modest and the founders naive (Bill

Wilson spearheaded the effort in late 1985, recruiting Dave Haun, Tom Rea, Cindy Helmling (Riley), and myself). Soon we incorporated and became tax-exempt, holding our first "official" meeting and elections in March of 1986. The first year was very rocky with considerable criticism (some justified and some not) coming from the Bloomington area cavers related to our then controversial management techniques. Fortunately, things have improved over the years as we've learned to work together.

Some of the accomplishments we should be most proud of include: our restoration and management efforts at Grotto, Coon, and Wayne's caves, our cooperative efforts with the Hoosier National Forest and the cave management plan in place to protect the HNF caves, our good working relationship with several Divisions of the IDNR, our reputation as a significant information resource and "authority" on caves and karst within Indiana, our national reputation within the caving community for being a pro-active conservation organization, our efforts to take on IN-DOT, our bat conservation and education activities, and finally our member's support and dedication.

- Keith Dunlap

IKC SPONSORED RIDGEWALK ON HNF BEDFORD, IN - MARCH 20th

The IKC is once again sponsoring a ridgewalk on the Hoosier National Forest to look for and inventory the cave and karst features found. We may also survey a cave or two depending upon interests of the participants. This information will be used to assist in the development of the Forest's land management plans that will protect these resources.

Anyone interested in carpooling from the Indianapolis area, give Keith Dunlap a call. Otherwise, we will meet at 10 AM at the McDonalds in Bedford and carpool to our assigned areas. In case of bad weather or heavy snow, we will postpone the ridgewalk until April 10th (in conjunction with the CIG).

Direct questions to Keith Dunlap (317) 882-5420 or Larry Mullins (812) 358-2675.

NEWS BRIEFS...

- ❑ Wyandotte Cave is holding its third annual restoration workday on April 2nd to undertake several conservation projects in the cave. The number of participants will be limited and reservations are required. Call Roger Gleitz, (812) 738-2782, at the Wyandotte Cave visitor's center for more information.
- ❑ Marengo Cave's restoration work weekend has been canceled this year because of the remodeling/expansion work being done on the visitor center/gift shop. Due to the bad weather, the construction is behind schedule and the owners felt they could not adequately prepare for the weekend with their attention focused on their other project. The restoration weekend will return next year.
- ❑ This year's Ohio Valley Region's Annual Conservation Project will be on July 9th at the Big Spring Nature Preserve near Salem, Indiana. Several projects need to be accomplished at this newly acquired ten-acre property, including installing permanent boundary posts, trail building, installing a Nature Preserve sign, and maybe some fence construction. A complete article covering this project will be included in the June *Update*. Specific questions can also be directed toward Keith Dunlap or Hank Huffman.
- ❑ Bob Armstrong will once again be hosting several tours of the Lost River this spring and fall. His tours are very interesting and are the only real way to fully appreciate the national significance of the Lost River drainage basin; and best of all -- they're FREE. All tours start at the SE corner of the square in Orlean at 8 AM heading east to the head waters of the Lost River and end at the Orangeville rise around 4 PM. Dates include April 23rd, May 14th (tentative), June 4th (tentative), September 24th and October 8th. For more information, give Bob a call at (317) 926-4266.
- ❑ The US Dept of Agriculture's Soil Conservation Service (SCS) sponsored a workshop at Spring Mill State Park on February 16th entitled "Sinkhole Design and Stabilization." Approximately thirty people attended the workshop representing various state and federal agencies (USDA, SCS, USFWS, EPA, IDNR, IDEM) and private conservation groups (IKC, HEC, LRCA). The workshop was part of the Mill Creek Water Quality Demonstration Project which has the goal of developing practical methods of improving the water quality (primarily the issues of soil erosion and agricultural chemicals) in the Mill Creek sinkhole drainage basin that ultimately feed Hamers and Shawnee cave systems in Spring Mill State Park. The specific goal of the workshop was to see if the participants could come to any consensus on methods to reduce sinkhole enlargements and related problems with unstable walls. The meeting was well facilitated, soliciting all concerns and considerations that might impact the "systems" should modifications be attempted. There seemed to be general agreement that several stabilization demonstration projects should proceed, but there was much skepticism that SCS's proposals using heavily-engineered designs were cost effective. The alternative related to sinkhole stabilization is for the SCS to do nothing and not develop any recommended practices; this however encourages farmers to continue tackling the problems themselves, which often means dumping trash, fence wire, and other materials in the problem sinkholes.

During the workshop, the SCS also discussed the significant progress they have made in changing land use practices over the past ten years. Essentially, all the farm land in the Mill Creek drainage area had been converted from traditional row-crop to no-till crop land, pasture, or CRP land (basically a program to pay farmers to not farm erosion-prone land and maintain the land in grass). Unfortunately, the CRP program expires in 1995 and this land will return to production causing renewed erosion problems.

- ❑ Two highway projects in Washington County could adversely affect the karst topography. The first is the upgrading of SR 135 between Salem and Palmyra. The second project is the construction of a new by-pass around the south side of Salem connecting SR 135, SR 56 and SR 60. On this latter project, the IKC was contacted to review the proposed alignments and comment on the cave and karst features which might be impacted.

We were invited to participate the meeting between the contractor doing the environmental work, the contractor doing the design work, the IDNR and USFWS biologists with permitting responsibilities, the Mayor for the city of Salem, and the attorney for the city of Salem. The City wished to use their "preferred" alignment which cut across three miles of heavily sinkholed country to the west of Salem and would have destroyed at least three caves. Basically with the "threat" of newly executed INDOT MOU, the Mayor and attorney were convened to use the "alternative" alignment which is shorter, follows an existing road, and impacts significantly fewer karst features.

- The Evansville-to-Indianapolis highway proponents received an \$800,000 "barrel of pork" grant from Washington to fund another study looking at connecting I-69 from Indianapolis to Houston. The proposed route would follow SR 37 from Indy to Bloomington, then literally cut west through the karst topography before turning south to Evansville. It is estimated Indiana's share of the cost would be over \$1 billion dollars -- money that could be better spent to maintain and upgrade our existing highways.
- The Hoosier Environmental Council held their Annual Business meeting on December 11th at Bradford Woods. Keith Dunlap attended the meeting representing the IKC, an organizational member of HEC. Much of the meeting focused on HEC's Strategic Action Plans which include the following six categories: water, air and energy, native biodiversity, waste reduction, coal mining, and appropriate funding for environmental protection. The HEC in just ten short years has grown to be the most powerful environmental voice in Indiana. They and the IKC have worked together on several occasions related to karst protection.
- Frank Voytas, the Hoosier National Forest Supervisor since 1987 retired on January 3rd. Mr Voytas was assigned to the Hoosier at a time of considerable turmoil and legal action against the Forest's Management Plan. He took some very bold steps to redirect a plan that emphasized timbering to a plan focused on biodiversity and recreational resources. Frank was also instrumental in incorporating significant language in the Management Plan related to cave and karst protection, language that is serving as a model for other Forests and government property units.
- Good news back at the IDNR with the return of Gary Doxtater as the Director of the Fish & Wildlife Division. Gary has spent most of his professional career within the agency, but last year took a job in the private sector which didn't pan out. He is returning to a position one notch below where he left, but will still provide plenty of challenges and allow him to concentrate to specific fish & wildlife issues. Gary has been environmentally sensitive in the past and should continue to be an asset in the future.
- Its tax time again and residents of Indiana have an opportunity to donate a part or all of their state income tax return to the Endangered Wildlife Fund. This donation fund is the ONLY state revenue source which runs the Nongame and Endangered Species Program of the IDNR, the program that protects the 550 nongame mammals, birds, reptiles, fish, amphibians, crustaceans, and mollusks. The Nongame Program has protection responsibilities for essentially all cave fauna including endangered bats and cave-fish, but is probably better known for its eagle and falcon re-introduction projects. Last year only three percent of Hoosier taxpayers made a contribution. Please use line 28 on your IT-40 form, or make a donation directly to the Endangered Wildlife Fund, Division of Fish & Wildlife, 402 W Washington Street, Room W273, Indianapolis, IN 46204.
- Not to be confused with the Endangered Wildlife Fund is the Indiana Heritage Trust Fund, financed completely by the special Environmental license plate. In its first year, the Heritage Trust has received proceeds of over \$700,000 to be used exclusively for purchasing public land for the State. Nine properties, totaling 900 acres have already been approved including expansions to several state parks, wildlife habitat properties, and Nature Preserve parcels. To obtain an Environmental plate, just ask at the license branch, or include an extra \$35 in your mail-in renewal.

- ❑ A "once-in-a-millennium" event occurred in Mammoth Cave in January. A 100-ton rock fell forty feet from the ceiling in the Rotunda area, approximately 800 feet from the Historic Entrance. The seventy-foot by twenty-foot by one-foot rock smashed part of the saltpeter works exhibit and safety handrails. No one was in the cave at the time of the fall and it is suspected that the extremely cold weather caused a freeze fracture, dropping the rock to its new location.
- ❑ During the same cold spell, Bruce and Cissy Bowman, Keith Dunlap, and Jonathan Schwer installed a large wooden sign near the entrance of Jim Ray's Cave (Greene) to discourage visitors from entering this important bat hibernaculum. The sign was requested by the owner, routed by the IDNR, and assembled and installed by the IKC.
- ❑ Richard Clawson, chairman of the Indiana Bat Recovery Team, reported his findings on the Indiana bat populations in the seven Priority I hibernacula he is responsible for monitoring. The population was stable or down in five of the caves including Dixon, Bat, and Hundred Dome caves in Kentucky, Great Scott Cave in Missouri, and Batwing Cave in Indiana. Only Bat Cave in Missouri and Twin Domes Cave in Indiana showed increases. Since 1983 when Richard started systematic surveys, the population in these caves has dropped 41%, and may have dropped by as much as 62% since 1960. Over the last ten years, only Twin Domes Cave has not shown significant population decreases with the 1993 population at an all time high.
- ❑ The Land Acquisition Committee has been working to put together a prioritized list of approximately one hundred cave properties to investigate. The goal is to contact owners to let them know that should they decide to put their property on the market, the IKC would be interested in discussing details with them. The IKC has missed a couple of good opportunities just because the properties were offered and sold before we found out about them. Granted many of the caves will be out of our price range due to large tracts, but not even having a chance to consider the option to purchase will only lead to missing the boat on other properties in the future. If any member knows of properties with caves for sale and in need of protection, please contact Keith Dunlap.
- ❑ At the December Quarterly IKC meeting, some hat swapping took place that included Keith Dunlap becoming the chairman of the organizing committee for the 1995 National Cave Management Symposium. This will allow Bruce Bowman to pursue the Presidency of the IKC, a position that was in need of new-blood and enthusiasm.
- ❑ One of Indiana's most active cavers for the last ten years, Scott Fee, is moving to Alabama to pursue a new career opportunity. Scott has been an IKC member almost from the beginning and most recently served as our Treasurer. His greatest contribution to Indiana caving has been his tremendous interest in the caves of Orange County. An avid surveyor, his documentation and mapping of many little known caves has significantly added to the knowledge base that could eventually help protect them.
- ❑ Thanks should go to Larry Reece for putting together the 1993 index distributed with this issue.
- ❑ Six new members have joined the IKC since December. Welcome the Dewitt Family, Tom Little, Cathy Logan, the McCamman Family, and Scott Nordhoff. Also the Dayton Underground Grotto (DUG) has joined as an organizational group. The current membership stands at 174 individual members and 8 organizational members. The IKC's complete mailing list is included in this issue starting on page 23.

DON'T FORGET TO RENEW YOUR DUES

1994 HNF K.A.R.S.T. SCHEDULE

provided by Larry Mullins

Cave and karst related activities on the Hoosier National Forest are once again in full swing with the most productive ridge-walking happening now through April. Volunteers for K.A.R.S.T. (Karst Analysis, Research, and Survey Team) are needed on a variety of projects. The more that is known about the karst features on the Hoosier, the better they can be protected. If you think you do not have any skill to contribute, don't worry, they'll teach you.

The schedule for the rest of 1994 is as follows:

MARCH 20 - IKC ridgewalk and/or cave survey (probably Tucker Lake area).

APRIL 10 - CIG ridgewalk and or survey.

APRIL 16 & 17 - Weekend objective is to dye trace Tincher Valley area and conduct other field work.

MAY 7 & 8 - Surveying in unmapped caves on the Forest (Lost River Unit)

MAY 14 - Take Pride in America Day, with cleanup on the Lost River. Also along trails or in caves.

MAY 15 - Forest Committee meeting 10 AM, K.A.R.S.T. meeting at 11:30. Pitch-in picnic/BBQ for volunteers and HNF personnel 2-4 PM.

JULY 16 & 17 - Woods Navigation Course. The objective is to teach volunteers the fine "art" of finding their way in the woods and being able to pinpoint their location on maps.

SEPTEMBER 24 & 25 - Cave resource inventorying in selected HNF caves.

OCTOBER 2 - Forest Committee meeting and K.A.R.S.T. meeting for planning fall's activities.

OCTOBER 15 & 16 - A weekend of intensive para-training in a variety of cave sciences (geology, hydrology, biology, archaeology, etc...) These skills will aid in the inventorying the cave and karst resources on the Hoosier.

NOVEMBER 5 & 6 - Ridgewalking on the Lost River Unit.

NOVEMBER 25-27 - Ridgewalking on the Tell City and Patoka Units.

The dates for the March and April activities are firm; all other dates are subject to change. Cavers are also encouraged to take on individual projects on the Forest that may fit their own schedule better. For more information on any of the above activities or to find out more about the HNF, contact Larry Mullins at (812) 358-2675 (days) or at (812) 834-5313 (home).

JUSTICE SERVED!

by Keith Dunlap

The "system" does work sometimes (even if it was a little slow). On December 16th, Randy Branaman and Jeff Lambert pled guilty for vandalizing Suicide Cave in Washington County. To my knowledge, these were the first convictions in a non-commercial cave using the Indiana Cave Protection Law since it was enacted in 1984. A third participant, Larry Myers, pled not-guilty and will be scheduled for a trial sometime in the future.

How did these two convictions come about? LUCK! We were lucky that the CIG had previously performed a thorough cleanup removing all graffiti in Suicide during the Summer of 1991 (see the September 1991 *IKC Update*, pp 9-10). We were lucky that Jim Adams (the IKC Secretary) and Eric Higbie revisited the cave in April of 1992 and noted new graffiti that was just a few weeks old. We were lucky the Jim had his camera with him and pho-

continued on page 9. . .

THE SECOND ANNUAL INDIANA CAVE SYMPOSIUM

by Dave Black / Keith Dunlap

The second annual Indiana Cave Symposium will be held at the Donaldson Cave shelter in Spring Mill State Park on Saturday, April 23, 1994. This year's event is being co-sponsored by the Indiana Karst Conservancy, the Indiana Cave Survey, the Central Indiana Grotto, the Evansville Metro Grotto, and the Harrison Crawford Grotto. The purpose of the event is to allow the active caving groups in Indiana to share their projects with each other and to promote cooperation among the groups.

The Symposium will begin with a hot-dog roast at 4:30 PM. The presentations will start at 6:00 and should be over by 10:00.

Presently, speakers are being solicited. The subjects of the talks will be on each groups' recent activities. The emphasis will be on exploration, surveying, and conservation projects. It is preferred that the talks be on activities within Indiana, but if the caving group's most significant project is outside the state, exceptions will be made. The talks should be from 15 to 30 minutes in length with time for questions. There will be a slide projector available, but slides are not required.

During the day on Saturday, Bob Armstrong will be conducting a tour of the Lost

River area. It is an interesting tour of some impressive karst features. Part of the tour will be a discussion of how the various proposed highways will effect the karst and caves. The tour will leave the square in Orleans at 8 AM. For more information contact Bob at (317) 926-4266.

On Sunday the Indiana Karst Conservancy will host their Under Earth Day cleanup at Sullivan Cave (see the article on page 10 for more information).

There is no cost for the Symposium except for the regular park fees. The day pass/entry fee is \$2.00 per vehicle. The fee for overnight camping in the primitive group camp is \$1 per person (full service camp sites are also available).

Hotdogs and related condiments will be provided. It is suggested that attendees bring chips, salads, or desserts to share, and their own beverage of choice.

For the weekend to be a success, there needs to be involvement of the active cavers throughout Indiana and the neighboring states. It will be a great weekend with the Lost River tour Saturday morning, Symposium Saturday night, and the Sullivan Cave Cleanup on Sunday.

For more information or to schedule a talk, contact Dave Black at (812) 951-3886.

continued from page 8. . .

tographed all the new vandalism including several names and a reference to a high school starting with the letter "M" (see the June 1992 *IKC Update*, pp 11-12). We were lucky that there was a caver who lives in Salem, Ronnie Burns, who also happens to be a State Police officer. We were lucky that Ronnie was able to track down the three vandals (formerly from Medora HS, but adults when the crime was committed) and filed charges against them. Finally, we were very lucky that the Washington County Prosecutor's office actually brought the case before a judge (unlike our past experience with Monroe County -- dismissing minor offenses).

So what punishment did the two men get? Gas chamber? Electric Chair? Life

in prison? Well.... we weren't THAT lucky. They did get a sentence of 180 days in jail, but with all but two day suspended (assuming they stay out of trouble) and they were only required to actually serve one of the two remaining jail days. They were also fined \$173 each for court costs. And finally, they were ordered to perform "community" service with the judge recommending their participation in a cave cleanup (after Ronnie discussed this with several cavers, it was decided the two would perform their "hard time" working at Delaney Park rather than introducing them to another cave).

Our thanks should go to Jim, Eric, Ronnie, and Robert Hamilton (the prosecutor that handled the cases) in bringing a little bit of justice to the otherwise cruel world that caves must survive in.

UNDER EARTH DAY V, APRIL 24th

by Keith Dunlap

The Indiana Karst Conservancy will once again be sponsoring a cleanup in Sullivan Cave (Lawrence Co) to celebrate Earth Day. This year's date is Sunday, April 24th, starting at 10 AM.

For cavers who are not familiar with Sullivan Cave, it is Indiana's third longest, with over nine miles of passage. The cave is privately owned, and has seen its share of abuse over the last thirty years. In 1989, the Central Indiana Grotto installed a gate on the entrance at the request of the owner. Since that time, numerous restoration trips have been completed, improving the aesthetics of the cave significantly. However, there is still much to be done and your participation is needed.

Sullivan is a caver's cave, offering something for everyone. If you are a novice caver, an easy trip to the Mountain Room and back will wet your appetite for this cave. There is plenty of wire brushing and mud-washing that can be done in the Backbreaker area. For the experienced caver, you may wish to venture up or downstream in Sullivan River (assuming the water is not too high) removing graffiti

and collecting trash in the lesser traveled area. Haul bags, plastic bags, wire brushes, and other equipment will be provided, but feel free to bring your own.

Sullivan is appropriate for beginners and older children. ***All that we ask is that everyone have a helmet and adequate light sources.*** A liability waiver must also be signed to protect the owner.

For those coming from the north, we plan to carpool from the westside Bloomington Hardees (SW quadrant at SR 37 and 48, specifically the K-mart parking lot behind Bob Evans), leaving at 9:15 AM. There will be a short safety/orientation meeting at the cave's parking lot at approximately 10 AM. Someone will be stationed at the cave's entrance all day, so you may show up later and still participate. Plans are to be out of the cave by 4 PM. To obtain further information, contact Keith Dunlap (317-242-2505/882-5420) or Bob Vandeventer (317-888-4501).

[Editor's note: To get a better appreciation for this project, see Bob Sergesketter's below about last year's cleanup.]

UNDER EARTH DAY 1993

by Bob Sergesketter

April 25, 1993 was the date for the fourth annual cleanup and restoration trip in Sullivan Cave. The Indiana Karst Conservancy has been sponsoring a trip each year to coincide with Earth Day (or Earth Week), and each year has seen much improvement to this very nice but used cave.

For many years Sullivan Cave, Indiana's third longest, saw almost unlimited access by anyone who cared to enter. It was located only a few hundred feet off a state highway and a parking area soon developed along the shoulder of the road. That wide spot in the road is what prompted me and a friend to stop and look for the cave thirty years ago. We had read all about the cave in Powell's book and on the day after Thanksgiving in 1963, we set out to find it. We had been on a few cave trips with the Explorer Post and we

were ready to go on our own. We made it all the way to the Mountain Room on that first trip and I've lost track of all the times I've spent in that cave since then.

As the traffic to the cave increased over the next several years, the owners of the cave built a lane and a parking area in the woods near the entrance and started collecting fifty cents from everyone entering. For a long time there was an old ammo box with a slot in it fastened to a tree. You put your name in the book, dropped in your two quarters, and went caving. And cave they did. The spray paint, food and drink cans, beer bottles, and dead batteries just kept piling up. Periodic cleanups had little or no effect until the entrance was gated a few years ago. Now you can see progress.

Since most of the visible trash has been

removed in past cleanups, efforts have had to become more creative in order to show improvement. This year's innovation was a mud sprayer. It was actually a hand operated sprayer which is used to apply some sort of thin plaster when putting in a textured ceiling in a home. It was hoped that spraying mud over graffiti would be a better way of hiding it than scraping it off or painting mud over it. Using wire brushes to get rid of spray paint often leaves the walls looking almost as bad as when the paint was there and paint brushing leaves unnatural brush marks. The sprayer was worth a try anyway.

Tom Sollman "volunteered" to test it under clinical caving conditions and I decided to forego my usual trip into the lower level to give Tom some help. I had pretty much decided that I was going to spend this year's trip in the Backbreaker anyway because last year, when we came out from the trip through the connection spring, passing through the Backbreaker I noticed some trash still there. Nothing real big or obvious, but a lot of broken glass, cellophane wrappers, and stuff like that. I'm sure that most of the cleanup crews had other objectives in mind as they flew through this section of the cave and only picked up the most obvious litter. Anyway, Tom and I along with Tom's father, Bob, and Joe and Claire Park, took the sprayer and some gallon jugs of water as well as some other accessories into the cave and found a spot near the first dome where we decided to try it out. We scooped up and sifted some of the dirt and mixed it with water and made a slurry in the tank which Tom then sprayed on some graffiti. To our surprise it worked, but not for long. The nozzle clogged up and had to be cleaned. No matter how much we sifted the dirt, something always got into the mixture that would soon clog it up. The dirt in this passage was too sandy to make a good mix. We had heard that some *special* mud, imported from Grotto Cave, was being brought in, but we never did see it.

While Tom and his crew continued their efforts to get better results, alternatively spraying the cave walls and passing cavers, I decided to do a detailed search for trash in the immediate area. I didn't have to go far. Piles of broken glass were everywhere. Behind every rock was either a dead battery or a beer can. Cigarette and candy wrappers were numerous and an occasional carbide dump could even be found. Up in a crevice I

found a bottle of Boone's Farm wine, still half full. I didn't sample it.

Tom and Company eventually took their gear and headed further into the cave. I told them that I was going to stay where I was and continue my hand and knees search of all the nooks and crannies for whatever I could find. Tom told me later that while he was demonstrating the sprayer to some other cavers and showing them how much fun it was to use, they insisted on trying it themselves. It took a lot of begging, but Tom finally relinquished the sprayer and fled to the depths of the cave. Is his last name Sollman or Sawyer?

Back in the Backbreaker, I met a couple of cavers who were on their way in with milk jugs full of fine limestone dust that they had gotten from under a stone saw at a quarry. They wanted to try making a mix for the sprayer with the dust so I directed them to where I thought the sprayer was. I heard later that the dust slurry worked pretty well. That's what it is going to take to make the sprayer work, a very fine uniform powder or dust with no lumps or chunks to clog the nozzle.

Around mid-afternoon, people started drifting past me and heading for the entrance with their bags of trash gathered from the far reaches of the cave. We were supposed to be out around 3:30 so I realized that I wasn't going to make my goal of doing the whole Backbreaker. I was getting near the second dome so that became my new goal. As I finished up, I had to triple-bag my trash because of the weight and because there was so much broken glass. The bag wasn't real large but it was heavy.

I got to the surface about 3:30 and although it wasn't raining then, it looked like it had been raining all day and was about to start again anytime.

Soon, everyone was out. True to tradition, an EMG group was the last to leave the cave. The gate was locked and while everyone was changing, the rains came again.

This year's cleanup had slightly fewer participants than previous events although the ominous weather may have had some bearing on it. Still, about sixty-five cavers came and a lot of work was done.

I hope to see everyone back at Sullivan in 1994.

[Editor's note: Reprinted from the Petroglyph (EMG's newsletter), Vol #29, No 1.]

A REPORT ON THE DARK CANYON EIS

by Larry Reece

For those of you who may not be familiar with this item, Dark Canyon is on Bureau of Land Management and private property north of Carlsbad Caverns National Park in Eddy County, New Mexico. In January of 1991 Yates Energy Corporation filed an application for a permit to drill a gas well on a lease that it held in the Dark Canyon area. The specific site chosen is on private land but the mineral rights are held by the BLM. Dark Canyon was designated as a special management area and thus the BLM determined that an environmental impact statement was needed before drilling was approved.

A draft environmental impact statement was prepared and published to interested parties. Since the proposed drilling site was in a karst area and close to Carlsbad National Park and even closer to known areas of Lechuguilla Cave the information was spread to many members of the caving community. There were many unanswered questions in the draft and comments by the cavers led to further investigation and changes to the Final Environmental Impact Statement which was published in December of 1993.

Most of the concerns expressed by cavers were related to potential damage to Lechuguilla that could be caused if the proposed well intersected a cave passage connected to Lechuguilla and gas, oil and/or drilling fluids were introduced into the cave system. The majority of people commenting on the draft EIS felt that the alternative which prohibited drilling in the area should be the preferred choice. Based on the information gathered and studies done prior to release of the final EIS the BLM chose the alternative which allowed drilling but moved the drill site several hundred meters from the proposed site. This was to avoid drilling on a lineament (a geological structure closely associated with caves in the area) and thus reduce the potential for intersecting cave passages. Additional precautionary and mitigative items were also associated with this alternative.

The Final Environmental Impact Statement is a weighty document containing somewhere around 500 pages of double

sided text, charts, graphs and quite a few maps of the area showing how various features relate to the proposed action. It is not possible to fully explore all the material therein with a short article like this. I have a copy should anybody be interested in reading the entire text. After filing of the final EIS with the EPA on December 17, 1993 the BLM was required to wait at least 30 days before reporting a Record of Decision in the matter. This means that after 30 days they could decide which alternative to take. In early February I heard that they chose their preferred alternative (G) and thus will issue a permit to drill to Yates Energy following the provisions in this alternative.

Since it has been three years since the original permit was requested it will be interesting to see how quickly Yates Energy begins drilling if in fact they still wish to drill on this lease. It was discussed that Yates might sue if their request was totally denied. There was also talk that cavers and other organizations might sue if the permit was approved. So, this might not be over yet.

The preferred alternative (by the BLM) while far from what the cavers wanted at least is possibly better than the original site. The potential for damage to Lechuguilla is still there and we can only hope that if the well is drilled no damage will result.

[Editor's note: This problem seems so far removed from Indiana, but it could happen here. The IDNR, Oil and Gas Division recently received a request to lease 6000 acres for gas exploration in the Harrison-Crawford State Forest (it is not known if the area was near Wyandotte Cave SRA or Wyandotte Woods SRA). While the IDNR supposedly "returned" the request claiming they currently have no procedure for evaluating the proposal, the subject is far from dead. Drilling and the pipelines required to transport the gas away from the wells would cause substantial environmental impact to the surface and sub-surface resources. Hopefully we will know more details by the next issue.]

MAMMOTH CAVE WEEKEND CLEAN-UP

by Larry Reece

On the weekend of January 8-9, 1994 several IKC members along with members of the CIG and several other grottos gathered at Mammoth Cave for one of the three weekend clean-up trips held each year. Altogether there were about 40 people on hand for this weekend activity.

As in the past the Park Service made the Maple Springs facility available to us for bunk space as well as showers and toilets. Really a pretty hard time winter camping in heated buildings with hot showers and flush toilets, but we were able to withstand it anyway.

On Saturday morning we gathered at the Firehall and met with Ranger Rich Caldwell who was in charge of our activities on this day. We divided into two groups with nine going to the Carmichael Entrance and the remainder headed for the Frozen Niagara Entrance.

The project at Carmichael was pretty easy, to sweep out footprints in the dirt outside the trail area down Cleveland Avenue from the entrance to the Snowball Dining Room. This group also took the opportunity to examine various holes and passages off of Cleveland Avenue and to pick up any trash that still remained in these areas. The project went fairly quickly and we were at the Snowball Dining Room about lunch time. Unfortunately due to a malfunctioning elevator (new last summer) the dining room was closed and tours were not conducted through this area. So we had to eat whatever we had with us and didn't get to sample the famous Snowball Chili. Since this day's project was completed in this section of the cave, Rich took us on a short tour of the Cathedral Domes area.

On the Frozen Niagara side the group there scoured holes and side passages in the Aero Bridge area and accumulated quite a bit of trash, old wood and other debris which they hauled outside to a waiting park service truck.

On Sunday morning the entire group was led by Bob Ward back to the Frozen Niagara entrance with the objective of cleaning debris from Felicia's Dome which is near The Forks of The Cave. This was a

pretty good hike from the entrance through Grand Central station, past Aero Bridge, the Grand Canyon, up and down Mount McKinley, and down Kentucky Avenue.

Since some of the people were first timers and others had not seen the restoration work in the Snowball Dining Room, part of the group first went there to see the area and then returned to the work area at Felicia's Dome. Another small group stopped first at Aero Bridge to remove a small dam in a side passage that had been constructed many years ago but was now deemed inappropriate for the natural state of the cave.

All in all, the work was fairly easy, everyone had a good time and got to see a lot

continued on page 18. . .



photo by Larry Reece

Matt Reece in the Snowball Dining Room admiring the recently bleached ceiling.

SR 37 HIGHWAY STATUS

by Keith Dunlap

Working way into December, the contractors for the SR 37 four-laning project have finished all the concrete work and the majority of the other construction. Unfortunately, working that late into the year allowed much of the right-of-way and median to not be properly seeded. Compared to last winter however, the erosion control measures taken are significantly better and for the most part appear to be effective. An informal inspection in mid-February by Tim Maloney (HEC), Bob Armstrong, Scott Pruitt (USFWS), three employees of the EPA, and myself found most of the ditches properly protected and sod used in critical areas. We did find problems however at sinkhole #8 and #9.

At sinkhole #8, a small vertical hole had formed that was allowing water to completely by-pass the filter structure and enter the sub-surface drainage system without any treatment. This hole was also observed and reported to INDOT in early October, but was not noted on the quarterly inspection by WW Engineering, the consulting firm hired by INDOT to monitor the environmental impacts of this project. Thus either the hole was "fixed" and recently reappeared, or the consulting company missed a very obvious deficiency. Also at sinkhole #8, the ditch from the south initially had riprap dams installed to trap sediment. But due to the heavy rains in November, these dams have washed out and the sediment transported to the sinkhole and sucked down the hole previously mentioned.

At sinkhole #9, the partial installation of the peat filter is raising a lot of questions and speculations. While not complete, it would appear that the filter foundation is too high to allow water to flow properly into the filter. There was also evidence of water by-passing the filter system and entering the culvert drop box along its sides. Finally, a faint petroleum smell was noted by one of the EPA employees at the sample well downstream from the filter (WW Engineer also noted this smell during their quarterly inspection and suspected it was coming from a nearby storage tank).

Other question raised during our visit dealt with the "low salt" strategy that was supposed to have been implemented on this section of the road. With all the snow and ice that occurred in December and January, we pondered how effectively (or ineffectively) the strategy was followed or if the instructional procedures had ever actually been communicated to the actual snow plow truck drivers ultimately responsible for minimizing the amount of salt to be used. INDOT had previously stated that their main instrument for compliance would be road signs reminding the DOT drivers of the "low salt" zone, but no special signs have been installed even though they've had over a year to get this task done.

On the brighter side of this issue, WW Engineering published their report on the dye-tracing performed to delineate the 16 active sinkholes used (or to be used) for highway drainage. It was found that the two most northern sinkholes drain to Pless Cave while all the remaining sinkholes on the current project drain to Blue Springs (this was expected). What was a little surprising were the trace results of the four sinkholes along the next section of the highway to be upgraded near Mitchell. The first three, all near the SR 60 W intersection (adjacent to the Carpenter Bus plants) drained north to Blue Springs rather than South to the Orangeville Rise. The final sinkhole just south of SR 60 E traced to Hamer Cave in Spring Mill State Park.

The other positive news from this project is final signing and execution of the MOU between INDOT, IDNR, IDEM, and USFWS. The MOU (reprinted on the following pages) was one of the principal resolutions to the IKC/HEC/POW administrative lawsuit filed in July of 1992. While the MOU is just a piece of paper and is not legally binding, it is nevertheless significant in that it holds INDOT environmentally responsible for their projects in karst regions and stresses avoidance as the primary tools for minimizing impact. It will not stop projects in karst areas (nor should it), but it will commit INDOT to do

continued on page 18. . .

Memorandum of Understanding

This Memorandum of Understanding is made and entered into this thirteenth day of October, 1993 between the Indiana Department of Transportation (INDOT), the Indiana Department of Natural Resources (IDNR), the Indiana Department of Environmental Management (IDEM), and the US Fish and Wildlife Service (USFWS) for the purpose of delineating guidelines for construction of transportation projects in karst regions of the State.

Whereas, INDOT, IDNR, IDEM, and the USFWS wish to cooperate in the identification, study, and treatment of drainage in karst regions related to the construction of transportation projects and,

Whereas, INDOT, IDNR, IDEM, and the USFWS accept responsibilities to ensure the transportation needs of Indiana are met in an environmentally sensitive manner that protects the habitat of all species and,

Whereas, design and construction practices must protect groundwater quality, public health and safety, and the environment and,

Whereas, IDNR will conform to the terms and conditions of this MOU on their transportation projects. Likewise, it will be IDNR's responsibility to provide standard biological review for projects in the karst region.

Therefore, in consideration of the terms and conditions set forth herein, the INDOT, IDNR, IDEM, and USFWS agree as follows:

1) INDOT in cooperation with IDNR, IDEM, and USFWS shall determine the locations of sinkholes, caves, underground streams, and other related karst features and their relationship prior to proposed alterations or construction in karst regions of the state. A consultant with expertise in karst geology/hydrology may assist in the identification and characterization of the karst features. The choice of the consultant retained by INDOT will be subject to the review of IDNR, USFWS, and IDEM.

2) Tasks to accomplish this work will include:

Research available from public and private sources for information relative to karst features.

Field check karst and cave features that appear from the first task and identify any additional karst features.

Prepare a draft report with photographs and maps, drainage areas, and land use of that drainage area for each sinkhole or karst feature, dye-tracing, and/or other geotechnical information to determine subsurface flow of water in the project area and surface water drainage patterns of the area. Calculations of estimates of annual pollutant loads from the highway and drainage within the right-of-way will be made, including prior to, during, and post construction estimates. The design of treatment of the karst features will take into consideration treatments necessary to meet the standards of the monitoring and maintenance plans.

That the report will be used as a tool to assist in determining the proposed highway alignment. The intent of INDOT is to avoid karst areas and use alternative drainage where possible.


- 3) IDNR, IDEM, and USFWS will be requested to review and comment on the findings at the early coordination phase of project development.
- 4) INDOT, using the input from IDNR, IDEM, and USFWS will begin to formulate appropriate measures to offset unavoidable impacts to the karst features. It is understood by all parties that some of the methods proposed at this time will be generic and could be applied throughout the length of the corridor. Other methods may be specific to a particular cave or karst feature. Some of the approaches may require additional investigations to determine their necessity and/or their feasibility. A revised draft report will be prepared by INDOT's consultant and provided to the IDNR, IDEM, and the USFWS as part of the design review process.
- 5) Drainage entering from beyond the right-of-way will be treated according to the same process as drainage generated by the project.
- 6) As the project progresses further into the design phase, the IDNR, IDEM, and USFWS will be invited and will attend field checks and meetings dealing with efforts to negate or minimize adverse impacts.
- 7) Hazardous material traps (HMT's) will be constructed at stormwater outfalls and other locations that will protect karst features from spill contamination.
- 8) INDOT agrees to develop a monitoring and maintenance plan for the affected karst features. IDNR, IDEM, and USFWS will be provided an opportunity to review this plan. The establishment of water quality and a point at which a standard is established for remediation will be a part of each monitoring plan. The results of the monitoring will be submitted to IDNR, IDEM, and USFWS on a regular basis.
- 9) A low salt and no spray strategy will be developed for each future project. A signing strategy for these items will also be developed for each project.
- 10) Prior to acceptance of the final design plans an agreement will be developed which will set out the appropriate and practicable measures to offset unavoidable impacts to karst features. This agreement will be signed by the Department Director of IDNR, the Commissioner of IDEM, the Commissioner of INDOT, and the Supervisor of the USFWS Bloomington Indiana Field Office. The agreement will become a part of the contract documents for the project, will be discussed at the pre-construction conference, and will be on file at the office of the Project Administrator.
- 11) INDOT will assure that the terms of the agreement will be completed with all safeguards given to the karst area. Special provisions, which are binding provisions that are a part of the construction and design strategies for handling karst features will be discussed with the contractor(s) and Project Administrators during the pre-construction conference. The Project Administrator shall ensure that the contractor is following the new erosion control standards that meet rule 5 of 327 IAC 15 and any special precautions outlined in the design plans that the sinkhole treatment is being handled correctly. The erosion control plan must be available at the Project Administrator's office. An emergency response plan will be made a part of the contract

documents. In addition, the contract documents will contain a strategy for signing to alert the public to the fact that all types of spills are potentially hazardous to the karst environment. For INDOT, this plan would be Procedure 20 of the Field Operation Manual dated 6/24/92.

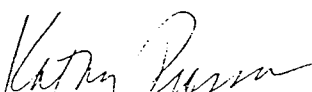
- 12) The location and nature of the sinkholes and drainage schematic will be provided to the IDEM. They will provide the information to the appropriate local authorities and the HAZMAT teams. An emergency response plan will be followed. This constitutes Procedure 20. Included in this information is an understanding that all types of spills are potentially hazardous to karst regions.
- 13) IDNR, IDEM, and USFWS personnel will monitor construction and maintenance to the agreed upon terms, as deemed necessary.
- 14) If during construction it is found that mitigation agreements must be altered, all agencies will be contacted and agreement reached prior to work continuing in that specific area of the project. In order to not unduly delay projects, a two working day response time is needed from the resource agencies.
- 15) Treatments will be maintained during construction by means of a visual inspection on a weekly basis or after every rain. Corrective action will be taken as needed.
- 16) If after the above procedure is followed and a state/federal endangered/threatened species is found during construction, work in that area of the project will stop. The IDNR and USFWS will be immediately notified. The IDNR and USFWS will promptly investigate the situation, advise the Project Administrator, and assume responsibility for protecting the endangered species and take the appropriate action.
- 17) This document will be reviewed annually or more frequently at the request of any of the foregoing agencies.



MR. FREDERICK C. P. POOL, COMMISSIONER
INDIANA DEPARTMENT OF TRANSPORTATION



MR. PATRICK R. RALSTON, DIRECTOR
INDIANA DEPARTMENT OF NATURAL RESOURCES



MS. KATHY PROSSER, COMMISSIONER
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT



MR. DAVID C HUDAK, FIELD SUPERVISOR, BLOOMINGTON FIELD OFFICE
U. S. FISH AND WILDLIFE SERVICE

WAYNE'S RESTORATION TRIP

by Keith Dunlap

Since 1987, the IKC and the Central Indiana Grotto have co-sponsored a cleanup trip into Wayne's Cave on the first weekend in December. This year, thirty-six participants helped in this long term restoration project, making progress while also enjoying the recreational aspects of this popular cave.

Since I spent my entire time working solo to harvest carbide dumps in the first third of the crawlway, I really can't describe what the other thirty-five cavers did, so I will excerpt from an article in the *Windy City Grotto's Speleoneews* written by Bill Owens:

"Sunday morning we awoke, made breakfast, ate, and got geared up. We were all to meet at the cave at 10 AM. . . Instructions were given, with emphasis on spending time concentrating on cleaning the crawlway. By 10:15 we entered, agreeing to meet back at the crawlway at 3:00 PM to start exiting. At 11:15 we cleared the crawlway and the first lot of us split into two groups at Camp One. One group went on to the RPI, while our group headed for Camp Two. Just past Camp Two, all of us enjoyed an approximately three-to-four foot high formation room. The ceiling was totally filled with stalactites and a small path made its way through the many stalagmites and some columns.

"Two of our party pushed on to Camp III/IV to meet up with two cavers who had entered earlier. They were doing a photo

shoot and would be spending the night. Being 1:00 PM, we started back towards the crawlway. Along our journey we found mostly batteries and miscellaneous wrappers, some carbide, and a small amount of graffiti. We made and entered the crawlway at 2:20. Moving a little slower now, and with more congestion (people) in the crawl, we exited Wayne's about 3:40.

"I didn't see much trash as in some of the other more popular caves in the area. Maybe because, I was told, someone took a group through the day before. I could not help wondering, being somewhat novice, how trash gets into gated caves (I was told the cave has been gated for some time with many previous cleanup trips)? . . ."

How does that trash keep getting in a gated cave? Hummmmm?

Participants this year included: Steve Beardguard, Tom Clark, Al Clawson, Jeff Cody, Cliff Collins, Chris Culver, Scott Cummings, Matt Davis, Mark Deebel, Amy & Mike Dewitt, Keith Dunlap, Jason Ferguson, Todd Fields, Dan Harris, Dave Haun, Kenny Hedges, Dale King, Rich Martin, Jeff & Kelly & Zack McCammon, Libby Miles, Dave Morgan, Bill & Bill (son) Owens, Randy Parsons, Ken Redeker, Bill & Mark Tozer, Clay Whitaker, John Wilkerson, Mike Williams, Doug Winburn, and Mark Woods.

continued from page 13. . .

of cave, and the park service got lots of free labor and also accomplished several tasks on their wish list.

These weekend clean-up trips are held three times a year and limited to about 35 to 40 participants. Spots are allocated to

grottos expressing a desire to participate and rotated so that all grottos have their chance. With a high demand and limited availability it takes a year or two for your grottos time to come up so if you are interested keep your ears open and sign up on your grottos list as soon as a trip is announced.

continued from page 14. . .

their homework up front before the design work can proceed.

Another important aspect of the MOU is that it fully involves the USFWS in the environmental review and design process

(previously they were excluded if federal endangered species were shown not to be a concern). This is significant because USFWS is much less likely to fold under state political pressure compared to IDNR or IDEM in difficult situation.

INDIANA KARST CONSERVANCY TREASURY REPORT
Income Statement
From October 01, 1993 to December 31, 1993

INCOME:

Previous Dues	\$10.00	
Third Quarter Dues	\$662.50	
Donations: Misc	\$32.00	
Boy Scout Troop 97	\$25.00	
Karst Encounters Raffle	\$11.00	
Gleanings Sales (Net of Postage)	\$6.56	
Interest	\$28.40	
T-Shirt Sales & Postage	\$498.00	
		\$1,273.46

EXPENSES:

T-Shirt Cost & Postage	\$398.43	
IKC Update (Printing/Production/Mailing):	\$165.69	
Post Office Box Fee	\$49.00	
Postcard Mailing & Stock	\$28.95	
Indiana Cave Symposium Donation (4/93)	\$25.00	
Waynes Cave Maintenance	\$18.36	
IKC Update Cover Prints	\$17.39	
IKC Update Supplies	\$16.98	
Future Caving Event Doorprizes	\$14.30	
Misc. Publisher Postage	\$7.00	
Secretary Paper/Phone/Postage	\$5.45	
Return Cave Management Symp. Fee (Bowman)	(\$100.00)	
Cave Management Symposium Expenses	(\$4.00)	
		(\$642.55)
Total Expenses:		(\$642.55)
Current Operating Excess (Deficit)		\$630.91

Balance Sheet
December 31, 1993

ASSETS:

Prepaid Exp: 1995 Cave Management Symposium	\$734.00	
Cash in Bank	\$3,665.56	
Total Assets		\$4,399.56

LIABILITIES & OPERATING EXCESS:

Hancock Fund	\$219.49
DNR Non-Game Fund	\$270.00
Indiana Cave Symposium Donations (4/93)	\$100.00
Deferred Dues: 1993: 178 Members @ 25%	\$667.50
1994: 3 Members	\$45.00

Previous Operating Excess	\$2,466.66
Net Excess (Deficit) This Period	\$630.91

Current Operating Excess	\$3,097.57
Total Liabilities & Operating Excess	\$4,399.56

IKC QUARTERLY MEETING MINUTES

Saturday, December 4, 1993

Bloomington, Indiana

BOARD MEMBERS PRESENT:

James Adams	Bruce Bowman
Jeff Cody	Bruce Devore
Keith Dunlap	Scott Fee
Hank Huffman	Tom Rea
Eric Schmidt	Tom Sollman

BOARD MEMBERS ABSENT:

Dave Haun	Scott Johnson
Larry Mullins	Ernie Payne
Bill Tozer	

OTHER MEMBERS/GUESTS:

Chris Carpenter	Mark Deebel
Floyd Waldrop	

The meeting was called to order at 7:15 PM by IKC President, Keith Dunlap, at the IU Geology Building. Introductions were made. The Minutes of the September meeting were approved as published in the December 1993 *IKC Update*.

Treasurer Scott Fee reported that the IKC has approximately \$3,500. Recent publication expenses totaled \$230. A complete report was published in the December *IKC Update*.

The owner of Ray's Cave would like a highway sign moved because people use it as a marker to the cave. The owner also wants a new sign that will appeal to trespassers' moral sense. US Fish & Wildlife and the DNR have asked the IKC to provide the signage and have suggested that this should be done during December. A motion was made to allocate \$100 for the sign. Passed.

Jim Adams reported that no further work has been done on the Shiloh Cave gate due to extremely wet weather. No further attempts will be made this year. The quarry owner remains friendly.

Nine acres of land including Big Spring, located South of Salem, Indiana, has been dedicated as a nature preserve. There is much work to be done at the property including the installa-

tion of markers at the corners of the property, construction of foot trails, routing of a sign and the addition of a rustic wooden fence with an electric wire. A motion was made to recommend this as an Ohio Valley Region project for 1994. Passed.

The 1995 National Cave Management Symposium is being sponsored by the IKC and the Hoosier National Forest. The event will take place the week of October 23, 1995. Seventy-three of the seventy-five rooms at the Spring Mill Inn have been reserved.

At the last meeting, Bruce Bowman was appointed Chairman of the event. Later, there was some criticism, not of Bruce, but of the process for selecting the Chairman. Bruce felt that it would be best for the Symposium if he stepped aside. Nominations for Chairman are again being accepted, however, Bruce has asked not to be re-nominated so that he may pursue other opportunities within the IKC. After some discussion, Keith Dunlap was appointed as Chairman of the event.

Bruce Bowman summarized the events at the 1993 National Cave Management Symposium which he recently attended along with other IKC members. Papers were presented on various aspects of cave management from Bat Conservation International, Tom Aley, Carlsbad Caverns, Bureau of Land Management and the National Parks Service, Forest Service, and the Cave Research Foundation. There were several field trips. In short, it was everything that Bruce expected the Symposium to be.

The IKC Land Acquisition Committee is trying to identify members who have skills that may be useful in pursuing land for acquisition. So far, this has not been productive. No one has yet come forward to volunteer to assist with their particular skill. The committee is also hoping to receive ideas from the membership on possible acquisition targets. Send in your list. There will be a meeting of the committee later in December to assemble and review the list of properties.

The Hoosier National Forest has acquired Gory

Hole (Lawrence County). Cavers are urged to stay away for awhile until a management plan can be put into place. Also from the HNF, the K.A.R.S.T. project will continue. Volunteers are always needed.

Scott Fee reported that 80 IKC T-shirts were produced and the sale of the shirts has realized a \$140 profit for the Conservancy. A motion was made to donate two shirts as door prizes at Cave Capers and one shirt as a door prize at Karst Encounters. Passed. Jim Adams will take care of the details.

The IDNR Cave Fish Study is continuing.

The HEC Annual Business Meeting is scheduled for December 11th. Keith Dunlap will represent the IKC.

Keith updated the membership on the State Road 37 construction. He reported that sod has finally been added to some critical areas. Some areas have also been seeded.

The annual IKC/CIG Waynes Cave cleanup trip is scheduled for tomorrow (December 5). The rain may cut into attendance.

IKC elections are coming up in March. Nominations are being accepted for the three Officers and six Directors. The annual IKC Business Meeting will be on Saturday, March 26th at the Indiana World War Memorial at 7:00 PM. [Editor's note -- the meeting date was later switched to March 19th]

There will be an Executive Board Meeting at Keith Dunlap's on Saturday, February 12th at 7:00 PM.

The Indiana Cave Symposium is scheduled for Saturday, April 23 at Spring Mill State Park. The program will be held in the Donaldson Parking Lot Shelter. Camping will be available in the Group Camp. On Sunday, the annual Sullivan Cave Under Earth Day cleanup will be held. Also, Bob Armstrong may have a Lost River tour on Sunday. Scott Fee asked that the members urge their grottos to pledge money to support the symposium. The Indiana Cave Survey and the IKC have both pledged up to \$50 for this year's event.

Meeting adjourned to Denny's for dessert.

Submitted by James Adams, Secretary.

IKC EXECUTIVE BOARD MEETING MINUTES

Saturday, February 12, 1994
Greenwood, Indiana

BOARD MEMBERS PRESENT:

James Adams	Bruce Bowman
Jeff Cody	Keith Dunlap
Scott Fee	Dave Haun
Hank Huffman	Tom Rea
Eric Schmidt	Tom Sollman
Bill Tozer	

BOARD MEMBERS ABSENT:

Bruce Devore	Scott Johnson
Larry Mullins	Ernie Payne

OTHER MEMBERS/GUESTS:

Jaime Fee	Jonathan Schwer
Dave Seng	

The meeting was called to order at 7:23 PM by IKC President, Keith Dunlap, at the Greenwood home of the President.

Jim Adams reported that nominations have been accepted from Mike Hood, Larry Bundy, Floyd Waldrop, and Tom Rea for Director; Bruce Bowman for President; Jim Adams for Secretary; and Keith Dunlap for Treasurer. At the meeting nominations were received from Bill Tozer, Hank Huffman, and Eric Schmidt, all for Director positions. The Nomination Committee will continue to solicit candidates and will send a full list by Wednesday (2/16) to Keith Dunlap for the election ballot which must be prepared by February 17th.

continued . . .

In addition to the election ballot, a membership renewal letter will also be sent. It was decided to send a self-addressed envelope to each member to encourage early renewal.

The Land Acquisition Committee met in December to prioritize a list of possible cave and karst areas that might be good investments for the IKC.

Keith noted that the time might be right for working on another in our series of "classic" reprints from caving literature. Most recently the IKC distributed *Gleanings From Nature*, a chapter on Indiana caves by W.S. Blatchley, originally published in 1899. If anyone has any ideas, tell Keith.

The Big Springs Nature Preserve project has been confirmed as the Ohio Valley Region of the NSS conservation project for 1994. This will take place on July 9th.

Keith reported that not much has happened recently on the SR 37 construction dilemma. The lawyers seem to be talking a bit more concerning the possible signing of a consent degree.

There will be a Sinkhole Design & Stabilization Workshop sponsored by the Mill Creek Water Quality Project on Wednesday (2/16). Keith Dunlap will attend. The project has received some criticism.

The signage at Rays Cave has been completed. The cost to the IKC was about \$10.

In 1993, the IKC distributed *Bats of the Eastern United States* to its members. We ran short after the overwhelming response to our membership drive. In December, more books were received at no cost to the IKC and everyone who was entitled to a book has received one. Additional books are still on hand. These may be distributed to new members until the supply is exhausted and/or given to interested individuals and organizations.

Larry Mullins could not attend the meeting to give an update on 1994 Hoosier National Forest projects. Keith mentioned that the HNF has produced a schedule. There will be an IKC-sponsored HNF ridge walk on March 20th.

The Annual Business Meeting will be on

March 19 (this is a change), beginning at 7:00 PM at the Indiana World War Memorial.

Tom Sollman reported that he has purchased copies of the two crayfish studies that were done in Shiloh Cave several years ago.

Hank Huffman reported that he participated in an environmental review of the sewer system in Corydon, Indiana. He urged the planners not to dig below the level of the present sewer since a portion of Binkley's Cave is nearby.

Also from Hank, the new Director of IDNR Fish and Wildlife Division is Gary Doxtater.

Finally, Hank gets calls from time-to-time from people who want to go caving. He asked advice on who to refer them to. Scott Fee said that, in the Indianapolis, the contact should be the Vice-Chairman of the Central Indiana Grotto. Other contacts were mentioned in the Bloomington area.

INDOT has contracted with Tom Aley to do a study of road construction across the Lost River. His report is expected to recommend using existing highways.

J.L. Walters in Bloomington has been contacted by Tem Hornaday and they now seem receptive to the idea of not selling the Doug Love's *Spelunkers Guide* series if they had some other caving books to replace it. Do we want to buy out their supply? It was suggested that the NSS publication *Caving Basics* might be a good volume for them to carry. A motion was made and Tom Rea agreed to visit them and perhaps make a buy-out deal for their existing stock of the *Spelunkers Guide* series if they agree not to purchase more. Passed.

It was also noted that Howard's Books may also be selling the Doug Love books.

Dave Haun noted that a couple of lumber companies are at work near Silverville. Jeff Cody also mentioned that the area around King Leo Cave and Hell Hole has recently been logged.

Meeting adjourned at 8:53 PM to reconvene as an informal meeting of the Land Acquisition Committee and then to celebrate Keith's birthday.

Submitted by James Adams, Secretary.

INDIVIDUAL MEMBERS

James	Adams	5311 N Crittenden Avenue	Indianapolis	IN 46220-3440	(317) 251-7743
John	Ahlberg	19054 Sherman Street	Lansing	IL 60438	(312) 895-0514
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D A	Burden	3410 South Rural Street	Indianapolis	IN 46237	(317) 781-0701
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Jean	Hock	607 Georgian Drive	Columbus	OH 43228	(614) 276-8838
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Henry	Huffman	8358 N Mt Tabor Road	Ellettsville	IN 47429-9545	(812) 876-9645
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Scott	Nordhoff	5839 Ralston Avenue	Indianapolis	IN 46220		
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Frank	Norton	Box 801, Cranbrook Kingswood	Bloomfield Hill	MI 48303-0801		
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Harrison-Crawford	Grotto c/o D Black	6917 Dalby Road	Georgetown	IN 47122-9335	
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Windy City	Grotto c/o G Gibula	810 North Center Street	Naperville	IL 60563-3143	(708) 524-1215

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Bill Stringfellow	NSS Treasurer	PO Box 76873	Atlanta	GA 30358-1873	
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Ray Hardcastle	NSS Exchange	701 Hillside Terrace #4	Vista	CA 92084-5173	
John Tichenor	NSS Grant Committee	PO Box 8234	Richmond	VA 23226	
Pat Kambesis	NSS Speleo-Digest	1026 S Candler Street	Decatur	GA 30030	
Bloomingt n Indiana	Grotto	PO Box 5283	Bloomington	IN 47407-5283	
Michigan Interlake	Grotto	Box 218	Union Lake	MI 48387	
Detroit Urban	Grotto c/o D Crowl	1025 Crestwood Glade	Hancock	MI 49930-1154	
Dogwood City	Grotto c/o J Stembel	2457 Drew Valley Road	Atlanta	GA 30319	
Eastern Indiana	Grotto c/o B Leavell	1627 South M Street	Elwood	IN 46036	
Fort Knox	Grotto c/o S Gray	263 Forest Trace	Radcliff	KY 40160	
Greater Cincinnati	Grotto c/o J Wisher	7427 Thompson	Cincinnati	OH 45239	
Louisville	Grotto c/o A Hicks	4806 Lacarem Drive	Louisville	KY 40279-1019	
Wittenburg U Spel Society	c/o HH Hobbs	Biology Dept, PO Box 720	Springfield	OH 45501	
ACCA	c/o D Foster	PO Box 409	Horse Cave	KY 42749	
Cave Conservationist	c/o J Jordan	1518 Devon Circle	Dallas	TX 75217	(214) 398-9272
Ohio Valley Caver	c/o J Kessel	426 N Park Place	Yellow Springs	OH 45387	
NSS Library		Cave Avenue	Huntsville	AL 35810	
Michigan Karst Conservancy		2805 Gladstone Avenue	Ann Arbor	MI 48104	
Bat Conservation International		PO Box 162603	Austin	TX 78716	
Hoosier National Forest	c/o B Slover	608 W Commerce Street	Brownstown	IN 47220	
Hoosier National Forest	c/o L Mullins	811 Constitution Avenue	Bedford	IN 47421	
US Fish & Wildlife Serv	c/o D Hudak	620 S Walker Street	Bloomington	IN 47403-2101	
US Fish & Wildlife Serv	c/o R Ressenider	Federal Bldg, Ft Snelling	Twin Cities	MN 55111	

INDIANA KARST CONSERVANCY, PO BOX 2401, INDIANAPOLIS, IN 46206-2401

I would like to help the IKC protect Indiana's unique caves and other karst features. Enclosed is:

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_____ I know of an area worthy of protection. Please contact me.

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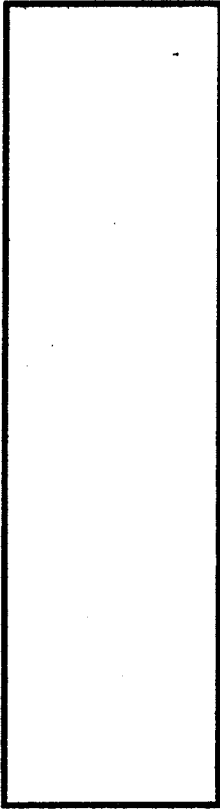
CITY/STATE/ZIP _____

PHONE # _____

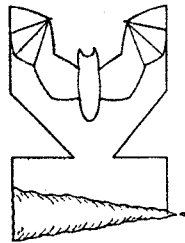
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PROTECTING CAVES THROUGH ACTIVE CONSERVATION



IKC UPDATE -- 1993

Volumes 28 - 31

SUBJECTS:

A Letter to the Editor	28-5
Bat City	30-15
BCI Bat House Research Project	31-13
Conservation Education	28-13
Eagles S.O.A.R. in a Cave	29-18
Events Calendar	28-2, 29-2, 30-2, 31-2
FCRPA Significant Caves -- A Call for Nominations	31-9
First Annual Indiana Cave Symposium	28-5
Guest Ramblings	30-3
Hoosiers allied on environment forming fund for legal Defense	28-10
Huge crowds attend Cave Museum grand opening	30-19
IDEM want county to close landfill quickly	29-7
IKC Membership Drive	28-9
IKC Membership List	28-21
Land Acquisition Committee Report	30-11
Letter - Cavefish study	31-6
Lost River compared to a 'subtle' Grand Canyon	29-22
Lost River Tours	29-12
Mammoth Cave Restoration Field Camp	28-6, 30-12
Meeting Minutes	28-18, 28-20, 29-20, 30-18, 31-16
Mill Creek Water Quality Improvement Project	30-13
New Nature Preserve Protects Big Spring	30-10
News Briefs	28-7, 29-4, 30-4, 31-4
Public Notice: Flood Control Investigation, Orange County	30-8
Queen Blair Clean-Up	31-12
Ramblings From The President	28-3, 29-3, 31-3
Road debate getting hotter than July heat	30-16
Roads and the environment	29-10
Semi overturns spilling fuel	30-14
SR 37 Highway Update	28-10, 29-9, 31-8
The First Indiana Cave Symposium	29-11
Treasurers Report	28-17, 29-19, 30-17, 31-15
Under Earth Day IV, April 25th	28-4
Wyandotte Cave Restoration Weekend	29-8
1993 Indiana Bat Census	28-15
1993 Indiana Bat Census Results	29-13
1993 Legislative Issues	28-14
1993 Marengo Cave Restoration Weekend	28-11
1993 National Cave Management Symposium	31-11
1994 HNF Karst Field Season	31-7
1995 National Cave Management Symposium	30-9

AUTHORS:

Abdulla, Joshua	28-13
Adams, James.....	28-18, 28-20, 29-11, 29-20, 30-18, 31-16
Black, Dave	28-5
Boston, Chuck.....	31-6
Cody, Jeff.....	31-12
DeVore, Bruce	29-8
Dunlap, Keith	28-3, 28-4, 28-9, 28-10, 28-14, 28-15, 29-2, 29-9, 29-13
.....	30-9, 30-11, 30-13, 31-3, 31-8, 31-11, 31-13
Hart County News-Herald.....	30-19
Higgs, Steven (Bloomington Herald-Times).....	29-10, 29-22
Huffman, Hank.....	30-10
Johnson, Mary G, (Bedford Times-Mail).....	29-7
Indianapolis Star.....	30-15, 30-16
Krause, Albert A. (the Cave Conservationist)	30-3
McFall, D. Marc.....	29-18
Miller, Jane	28-17, 29-19, 30-17, 31-15
Mullins, Larry	31-7, 31-9
Niederpruem, Kyle (Indianapolis Star)	28-10
Reece, Larry	28-6, 28-11, 29-12, 30-12
Tozer, Bill	30-16, 31-18
Stuteville, George (the Indianapolis Star)	30-15
Times-Mail (Bedford, IN).....	29-7, 30-14
Webb, Scott David	28-5

ART:28-14, 30-3, 31-7, 31-13, 31-14

PHOTOS:28-0, 28-12, 28-16, 29-C, 30-C, 30-16, 31-C, 31-3, 31-8, 31-18

MAPS:

Flood Control Study Area, Orange Co, IN	30-8
Horse Cave Area, Hart Co, KY	30-19
IKC Meeting/Cookout location.....	30-20

COVERS:

Scott Fee	28-C, 30-C
Christine Gerace	31-C
Linda Heslop	29-C