

# IKC Update

A photograph of a person wearing a red jumpsuit, a blue helmet, and a headlamp, standing in a cave. The person is looking up at a large, yellowish, textured rock formation that appears to be a large stalactite or a cave wall covered in mineral deposits. The cave is dimly lit, with the primary light source being the person's headlamp, which illuminates the rock formation and the person's face. The background shows more cave structures and stalactites hanging from the ceiling.

Number 30 – September 1993



**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 admires the flowstone mass that awaits those who negotiate the long water crawl in Clayton Conrad Cave (Orange County). This cave could be seriously impacted by the new highway across the Lost River area to French Lick (one of the proposed routes would destroy the entrance section of the cave). Photo by Scott Fee assisted by Dave Seng. Color printing donated by an anonymous member.



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

# QUARTERLY MEETING REMINDER

**SATURDAY, SEPTEMBER 25th, 5:00 PM**

**INDIANAPOLIS, INDIANA**

Home of Jaime & Scott Fee, 5471 North Fenmore Road

The quarterly meetings are 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 meetings are informal, and everyone is encouraged to attend and participate.

Preliminary Agenda Items: brief recaps of last quarter's activities; SR 37 4-laning project status; 1993 and 1995 National Cave Management Symposia and committee formation; Shiloh Cave status and management plan; temperature study at Ray's Cave; land acquisition committee report; and more....

Following the meeting (approximately 7:00), the IKC Board will host a cookout and slide-fest (bring your favorite slides). This will allow members and their families to become better acquainted with others that are interested in cave/karst conservation. The cookout will be held rain or shine; please bring lawn chairs. The IKC will supply the burgers, bratwursts, and hot dogs. Salads, vegetables, or desserts would be appreciated. **PLEASE RSVP** by noon on Saturday (317-291-7807) so we will have ample supplies. See the inside back cover for directions and a map.

*[Editor's note: As part of the after-meeting activities, there will be a "best brownie" contest with the winner awarded one of the new IKC T-shirts. Although the IKC President already has the winning recipe, those interested in attempting for second place may contact Jaime or Scott Fee for the contest rules. ]*

## EVENTS CALENDAR

- 25 SEP = LOST RIVER TOUR, Orange County (see page 4)
- 25 SEP = IKC QUARTERLY BUSINESS MEETING, Indianapolis (see above)
- ?? OCT = SHILOH GATE INSTALLATION, Bedford (see page 4)
- 09 OCT = LOST RIVER TOUR, Orange County
- 27-30 OCT = NATIONAL CAVE MANAGEMENT SYMPOSIUM, Carlsbad, NM
- 04 DEC = IKC QUARTERLY BUSINESS MEETING, Bloomington (tentative)
- 05 DEC = IKC/CIG WAYNE'S CAVE RESTORATION, Bloomington (see page 4)

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 reprint articles for publication is encouraged.

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## GUEST RAMBLINGS...

*[Editor's note: The following essay was reprinted from the Cave Conservationist, the newsletter of the NSS Cave Management and Conservation Section. It was written by Albert Krause, the NSS's Conservation Chairman. His thoughts were right on target and his words better crafted than what I could have done.]*

Cave conservation consists of a myriad of small actions taken every day.

When you avoid stomping mud over a formation, you're a conservationist. When you tell the kid next door how polluted streams kill crayfish deep underground, you're a conservationist. When you say "please" when you ask a landowner for permission to visit, then, too, you are acting as a conservationist.

Conservation means "wise use" (not "forbidden for use"). Good conservation practices involve far more than just isolating caves from human activity. The NSS exists because we appreciate caves and caving. Our conservation objective is not simply preservation of caves . . . it is also the preservation of caving as a human challenge -- a sport, a science and an art.

As advocates of cave conservation, we need to pursue good management as a primary objective. Some caves, because of their fauna, religious significance, delicacy, etc. should truly be preserved for their uniqueness and visited only rarely, if at all. Others may be more tolerant of visitation. Some have great educational or recreational value. Still others may have no overwhelming significance. The critical thing is to make sure we (and others) make wise distinctions.

Deciding how to conserve has to be a practical thing, for we're concerned with competing needs on both public and private lands. We can't possibly buy every cave. We can, however, try to assist public and private

cave owners in the management of their caves. We can also support legislation designed to promote prudent management of cave resources.

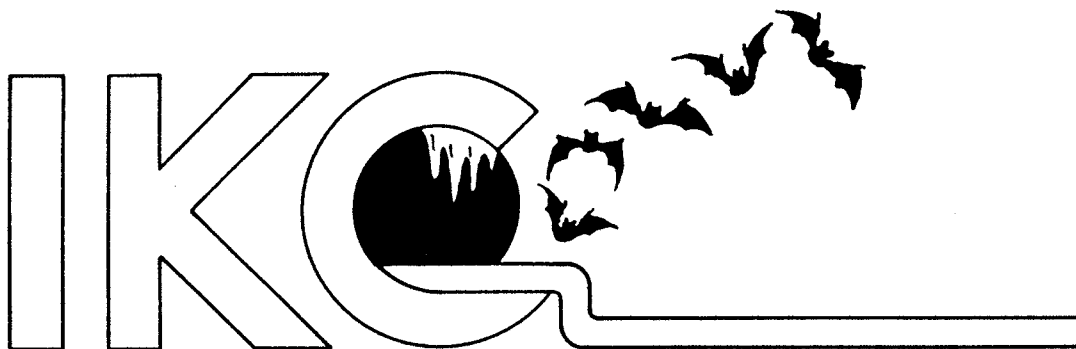
No public official or private landowner really wants to be destructive or obstructive; they do, however, face competing demands and difficult problems. Our best approach is to help find workable solutions (or viable alternatives). It is always better to be a problem-solver than a problem maker. When all else fails, though, we need to stand together in confronting threats to important cave resources.

We are a small group and need enlightened friends to help achieve our objectives. Public understanding and support will not come without a sound educational program. The NSS has achieved enormous good through National Geographic Society specials, publications, displays and direct person-to-person contacts. We need to do more. The more the public appreciates our activities, the better we will be able to preserve cave access and cave resources. So spread the message . . . talk to your friends, go to show-and-tell at schools, and show your slides at the local library and nature club meetings.

The era of "free caving" is rapidly closing. This may be the last decade in which we can appreciably influence the fate of caves and caving in North America. Population growth, development, resource demands, and a plethora of litigation are crowding in on caves everywhere.

We **must** make cave education, management, and conservation a major part of our caving lives. If we don't, we are going to find ourselves experiencing caves the way visitors experience animals at zoos . . . rarely and at a distance.

- Albert A. Krause



## NEWS BRIEFS...

- ❑ The plan was to have had the new gate installed on the Quarry Entrance of Shiloh Cave by now but the wet summer has caused the project to be postponed until at least October. Several attempts (the latest over Labor Day) to lower the water level between the two dams (as was done last year) have failed. The water must be lowered to facilitate installation just in front of the old gate which is inoperable. The new gate will allow limited visitation to the cave while still providing full protection to the cave. A new management plan has also been drafted and was reviewed at the June quarterly meeting. Final details of the plan are awaiting input from the owner. If you would like more information on this project, contact Jim Adams.
- ❑ Action involving the SR 37 highway construction project between Bedford and Mitchell has been pretty calm over the last three months. A productive meeting in mid-July between the Indiana Department of Transportation (INDOT), the Indiana Department of Natural Resources (IDNR), and the IKC/HEC/POW coalition focused strictly on erosion control issues. IDNR stepped up their pressure to get INDOT to correct noted deficiencies, especially those that were in violation of "Rule 5" water quality regulations.

Site visits in early August showed many of the erosion deficiencies had been addressed including improved median drain protection and the re-seeding of exposed soil (Rule 5 call for re-seeding to occur within seven days of disturbance -- some of these areas had been unprotected for 16 months!). Since that time, most of the major storms have missed the area so few new erosion control problems have surfaced. Hopefully most of the construction work on the project can be completed over the next three months so last winter's erosion problems will not reoccur.

- ❑ This winter the IKC will be experimenting with some new temperature recording devices in Ray Cave (Greene Co). The experiment will possibly provide insight into the airflow and temperature dynamics of the cave and the relationship that the two entrances play to cool the cave, making it an ideal Indiana bat (*Myotis sodalis*) hibernacula. Data will be collected in four locations: outside the cave, just inside both entrances, and at the primary cluster site. The single channel data loggers are small (2" x 2" x 1/2") solid state units that will take a reading every three hours for the entire winter (up to 240 days). Once the data recorders are removed from the cave, the information in them is downloaded into a PC and plotted. To our knowledge these relatively inexpensive devices (approximately \$120 a piece) have not been used in caves before. If our experience is positive, several agencies are interested in utilizing them as an alternative to the more expensive and bulkier units currently on the market. Funding for this project was provided by a member.
- ❑ The last two Lost River tours of the year will be on September 25th and October 9th, leaving the SE corner of the Square in Orleans at 8 AM. The tours will trace the head waters of the Lost River from Washington County to its disappearance, along its dry bed, and ultimately to its resurgence. Many geologic and cultural features will be visited and explained. These trips are well worth time and the best part -- they're all FREE. For more information, contact Bob Armstrong (317) 926-4266 or just show up in Orleans.
- ❑ The annual restoration trip to Wayne's Cave will be on Sunday, December 5th. The IKC and CIG are jointly sponsoring the trip to this very challenging cave. Most of the passages beyond Camp I are in good shape, but effort is still needed in the crawlway and old Wayne's. This trip is not for novices and you must have the proper equipment (e.g., helmet and helmet mounted light) to participate. Contact trip leader Dave Haun or Keith Dunlap for more details.
- ❑ The IDNR is finalizing details of funding a sixteen month study of the Northern Cavefish (*Amblyopsis spelaea*). The \$16,000 study will determine the current status of the fish compared to historic records and assess the species's risks of decline in the future. If a problem is found, the fish could be listed as federally threatened or endangered, giving

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it more protection. The research is to be performed by Dr. William Pearson (University of Louisville, Dept of Biology & Water Resource) who has been performing similar work in Kentucky. Assisting on the project will be Thomas Jones.

- On August 12, a workshop for obtaining grants was held in the North United Methodist Church, hosted by Cissy Bowman and the Center for Science in the Public Interest. In light of recent discussions regarding land acquisition for cave and karst protection, Director Bruce Bowman attended this session, representing the IKC. Organizational representatives were present for the Indiana Donors Alliance, The Campaign for Human Development, the Center for Science in the Public Interest, and the Office of the Commissioner of Agriculture. The meeting was also attended by a number of non-profit environmental and agricultural representatives. This workshop served as an overview of the kinds of organizations that provide grants and the decision-making process that such groups use to determine whether they wish to fund a given project. Remarkably enough, one of the most common reasons for rejecting a proposal was that the applicant did not request enough money! Hopefully, this will ultimately give us the wherewithal to obtain funding that will help us purchase cave properties. Future plans are in the works for a more hands-on workshop on how to actually write the proposal itself. The prototype for this workshop will be a feasibility study for escargot farming.
- On August 29, twenty-eight cavers from Indiana, Illinois, Michigan, and Ohio converged on Coon Cave for the eighth annual restoration workday. Most of the activities focused on mud-washing graffiti in the lower pit areas (see photos on page 16). Further experimenting with the IKC's mud sprayer resulted in the conclusion that a better means of filtering the mud slurry is needed, but the sprayer still shows promise. More trash was also recovered and several speleo-logs hauled out of the entrance pit. Participants included Joshua Abdulla, James Adams, Bruce Barnes, Bruce & Cissy Bowman, Chris Carpenter, Peter Chang, Bruce Devore, Keith Dunlap, Christopher Gilbert, Tom Hancock, Eric Higbie, Brenda & Clifford Harp, Grant Van Hemert, Mike Hood, Wally Jackson, Teresa Lutz, Jeff, Kelly & Zach McCammon, Ken Redeker, Bill & Robin Schulze, Tom Sollman, Bill Tozer, Bruce & Jacob Trotter.
- The surveying in Whistling Cave (Spring Mill State Park - Lawrence Co) continues with the total cave length currently at 7.76 miles. Most of the leads have now been surveyed with only a few potential climbs to be checked out. Of interest has been the cursory cavefish counts each time a trip is made into the cave. To date, observations of more than sixty fish have been made in the main stream passage.
- Another cave recently surveyed was Clyfty Cave in Greene County. This cave hosts a small colony (300-400) of Indiana bats which call the cave home during the winter. The length of the cave was found to be 1340', primarily a single stream passage filled with considerable breakdown. The resulting map will allow for better documentation of the location of the bats during the biennial bat counts. At the owner's request, the cave is closed.
- The IDNR Non-game Section is continuing to search for the state endangered Eastern Woodrat (*Neotoma floridana*) in Harrison and Crawford Counties. Their findings last year were that the populations were down or non-existent in many of the locations documented just ten years ago. This year's effort is focused on finding new habitat sites, primarily on cliff faces along the Ohio River and in caves. If you would like more information on this project, contact Scott Johnson at the Bloomington DNR office.
- The Indiana Department of Transportation (INDOT) has contracted with Tom Aley of the Ozark Underground Laboratory to evaluate the feasibility of constructing a road across the Lost River drainage basin between Mitchell and French Lick in Orange County. The road, if built, would cross significant karst and environmentally sensitive areas. Tom's role is to investigate the impacts that the various alternatives would have and recommend the route that would be least damaging. Tom is familiar with the area, having performed research in the area in the mid-70's. Tom enlisted the assistance of

Bob Armstrong, Scott Fee, Keith Dunlap, and others to gather recent information on the area. His recommendations will be presented in a formal report to INDOT in the near future.

- ☐ The Ohio Valley Region's official conservation project for the year was to assist the Boone National Forest and the Kentucky Fish & Wildlife Agency with the installation of a bat gate on Stillhouse Cave (Lee County) in early August. Stillhouse serves as a winter hibernaculum for approximately 40% (5000) of the known federally-endangered Virginia Big-eared bats (*Plecotus townsendii*) and approximately 1000 Indiana bats. It is also an important summer maternity cave for the Big-eared. The gate took five full days and seven tons of steel to construct. Logistics were hampered considerably because of several days of heavy rain and the flooding of the access road to the cave. Approximately fifteen agency people and twenty volunteer cavers (mostly from Kentucky and Ohio) worked on the project. Another nearby hibernacula will be gated next year.
- ☐ The IDNR is re-evaluating their rules and regulations pertaining to horse access on State lands (state parks, forests, and reservoirs). They solicited input from the IKC in the form of a lengthy survey which addressed items such as the compatibilities of horses and hikers, environmental issues, equitable compensation for use of state properties, and safety concerns. In general, cavers and horse riders do not seem to cross paths that often so most of the responses were relatively neutral. The IKC did express concerns on problems with trail erosion and manure pollution in karst areas (e.g., Horseman's Hide-away in Harrison-Crawford State Forest). Individual comments can be directed towards Ben Hubbard, Chairman of the Horse Use Task Force, at (317) 232-4114.
- ☐ One of the "peace dividends" related to defense reductions is the projected closing of the Jefferson Proving Grounds (JPG) in southeast Indiana. This 53,000 acre facility has been the target of millions of bombs and other munitions for the past forty years, with many of these weapons left unexploded. One of the proposed alternative uses for this acreage is to turn it into a National Wildlife Refuge. This proposal, formally submitted by the Hoosier Environmental Council, will be part of the Environmental Impact Statement currently being drafted to study the reuse and disposal of the facility by the Department of Defense. Despite the obvious environmental liabilities, the property has significant potential to be a biologically important haven for many threatened and endangered species, particularly neotropical migratory birds which require large, continuous tracts of land. The Proving Grounds has also been documented to be the summer habitat for Indiana bats.

Not highlighted in the EIS proposal is the existence of several known caves and potentially dozens of undocumented caves. The potential biological diversity in these caves (true of many caves in the eastern karst region of Indiana) could be significant. IKC member Ray Sheldon is currently pursuing means to obtain access to JPG for the purpose of properly documenting these caves.

- ☐ On the afternoon before the June IKC meeting, six members spent time in the Garrison Chapel area working on some of the IKC's leased properties. All the trails on the Hancock Property were walked, picking up trash. The entrances of Coon, Grotto, and Shaft were checked and the CCUS register was replaced in Grotto Cave. The gate on Wayne's Cave was checked and serviced (lock oiled, hinges greased). Being "good" neighbors, the ditches along Spicer and Gardener roads were walked and any litter found bagged and removed. Trash was also picked up at the entrance to Salamander (not on our leased land) and updated information (grotto locations and contacts, conservation and NSS brochures, etc.) was placed in the kiosk at Buckner Cave. Participants included Keith Dunlap, Hank Huffman, Grant Van Hemert, Ernie Payne, Tom Rea, and Tom Sollman.
- ☐ During last winter's hibernacula closure at Grotto, eight violations were logged by the electronic spelogger. One of these groups, a party of five, signed the in-cave register. They back-dated their entries to August 31, but from the spelogger information and other evidence, the actual date was February 20. Unfortunately, four of the five gave

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only partial names or addresses (all from Indianapolis) and the other one has not been tracked down. Their ages ranged from 16 to 31 and most indicating this was their first or second cave trip. Rodney Williams (age 16, first trip) commented that "This cave should be open to the public." It is doubtful that any legal action can be taken against the group because only circumstantial evidence exists.

- ☐ Two cave researchers in Illinois contacted the IKC to request information on Indiana's water quality regulations related to cave water. Board Member Eric Schmidt responded with the various IDEM regulations covering groundwater and surface/sub-surface streams. Of general interest in the regulations are recognition of special precautions that must be taken in the karst drainage systems of the Blue River and Lost River related to stormwater discharges and erosion control at construction sites.
- ☐ Each year at Cave Capers, the IKC collects aluminum cans, not so much for the money, but as an appropriate environmental statement to reduce solid wastes going to our landfills. The combined total of this year's and last year's cans were nearly 50 pounds. Additionally, *Myotis Press* contributed approximately 60 pounds of used aluminum print plates (four years of IKC and CIG printing). This netted a total of \$22 for the IKC.
- ☐ The Hoosier National Forest is currently soliciting public comments on management practices for the 13,500 acre HNF tract known as the Hemlock Cliff Opportunity Area (Tell City Ranger District - basically south of Paoli & French Lick). The majority of this area is sandstone rather than limestone, so management practices related to caves and karst are a minor concern. Of primary interest for recreationists are the management policies related to the use (rappelling and rock climbing) of several sandstone cliffs that are popular training spots. Unique biota on these cliffs need to be protected, but how and at what "costs" has yet to be determined. If you would like more information or have a management policy suggestion, please contact the HNF, 248 15th Street, Tell City, IN 47586 or call 812-547-7051.
- ☐ The Army Corps of Engineers are initiating their \$300,000 pork barrel project on re-studying the flooding problems in Orange County related to the Lost River. The Corps are soliciting input on this project (see the public notice on the next page) and it would be appropriate to write and suggest that they stop wasting our federal tax money by trying to solve the problems of people who insist on building in flood plains. Dams and levees don't work and, in fact, can make matters worse, as witnessed along the Mississippi River this past summer.
- ☐ With the IKC's interest in protecting Shiloh Cave, work has been done to research the history of the cave. One piece of the cave's history was a 1977 doctoral thesis that took place in the cave (remnants of which can still be noted in the cave). The study, conducted by David Weingartner, was entitled "Production and Trophic Ecology of Two Crayfish Species Cohabiting an Indiana Cave." The 323 page thesis documents observations made on two crayfish species, one a surface/cave variety, the other a cave-only dwelling species. Quoting from the abstract, the "major aims of the study, which was conducted primarily during 1969, were the delineations of the life histories, population parameters, productivities and ecology strategies of both species. The availability, procurement and utilization of energy were important themes of the investigation." While the thesis would not be of a general interest to most cavers, obtaining a copy for the IKC might be appropriate (to be discussed at the next quarterly meeting). If anyone else would like a copy, please contact Keith Dunlap (note a single copy costs approximately \$55).
- ☐ Two IKC members were awarded "Fellows of the NSS" at this year's convention in Pendleton, Oregon. They were Mike Hood and Steve Collins. Both have contributed significantly to the Society and Indiana caving. Congratulations.
- ☐ Five new members have joined since June including Betty Bunting, Steven Schuh, Bill Schulze, Bruce Trotter, and Stephen Watson. The current membership stands at 169.



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Planning Division  
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# PUBLIC NOTICE INITIATION OF A CORPS OF ENGINEERS FLOOD CONTROL INVESTIGATION FOR ORANGE COUNTY, INDIANA

**STUDY:** The U.S. Army Corps of Engineers, Louisville District, has recently initiated a study of flooding and related water resources issues for the Lost River drainage basin located in Orange County, Indiana. The focus of the study will be two-fold; first the development of possible flood control alternatives for the communities of French Lick, West Baden Springs, Paoli and Orleans, and second the study and inventory of the unique environmental resources of the Lost River basin. The study will be conducted under the authority contained in the Energy and Water Development Act of 1993 (Public Law 103-377.)

**BACKGROUND:** The areas of Orange County along the Lost River and its principal tributaries experience flooding on a frequent basis after periods of prolonged rains and/or sudden heavy thunderstorms common to the region. The floods of May and June 1990 caused extensive damage to the area and it is estimated that a recurrence of a 100-year flood event would result in damage of \$20,000,000 in the French Lick-West Baden Springs area alone. There are no current flood control works in place for the areas under study.

**PLANNING PROCESS:** This study will be conducted in two phases in accordance with the Water Resources Development Act of 1986 (PL 99-662). The reconnaissance, or initial phase, will be conducted over a 12 month period, beginning in June 1993 and is 100% Federally funded. The objectives of the reconnaissance phase are to identify one or more projects that meet Federal engineering, economic, and environmental criteria for continuation of studies, and to identify a local or non-Federal sponsor who is willing to cost share subsequent studies and project implementation. If these objectives are met, then the second stage, a cost shared feasibility study, will be conducted. This study would be used to recommend Congressional authorization of any projects determined to be in the Federal interest. Throughout this process, engineering, economic, and environmental criteria are evaluated, and public input is welcomed to guide the Federal/local sponsor partnership in developing an implementable solution to flood problems in the area.

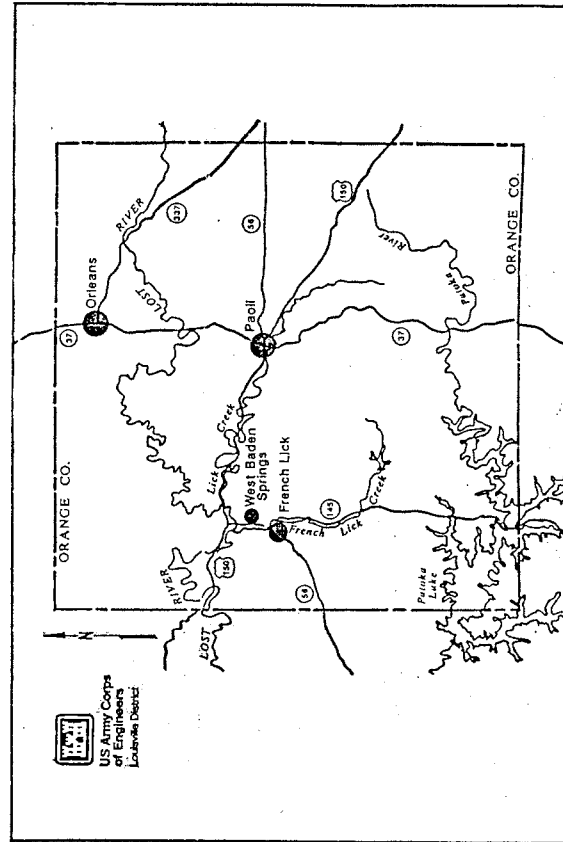
**YOUR INPUT IS NEEDED:** I encourage agency, state, and local officials and the general public to write or contact this office to express interest in reducing flood problems in the Orange County and to express any concerns relative to preferred solutions to those problems. Your specific concerns regarding the unique environmental features of

the area and any recommendations on how they should be addressed in our study are also requested. It should be noted that under Federal guidelines our study must focus on major overbank flooding from area streams and drainage ditches. Flooding problems associated with sewer overflows, underground storm sewers, and basement flooding from sewer backups are not within the scope of study.

Any questions or comments should be directed to David Owens at the address shown above, Attn: PD-F, or by telephone at 502/582-5796.

We welcome your comments and thoughts.

Herbert F. Harback  
Colonel, Corps of Engineers  
Commander and District Engineer



## 1995 NATIONAL CAVE MANAGEMENT SYMPOSIUM

by Keith Dunlap

The Indiana Karst Conservancy and the Hoosier National Forest have been selected to host the 12th biennial National Cave Management Symposium (NCMS) in October of 1995. The tentative site will be the Spring Mill Inn in Mitchell.

The intended purpose of the Symposium is to serve as a forum where people from diverse backgrounds, professions, and interests can assemble to discuss new techniques, common problems, and the success or failure of attempted solutions to appropriate cave resource management. The important contribution of the NCMS is made not only through the information exchange of the formal presentations, but also as a result of the opportunities for informal discussions between representatives of many and diverse interest groups, agencies, and cave managers.

Participants will include representatives and cave specialists from various federal agencies (National Forest Service, National Parks Service, Bureau of Land Management, Fish & Wildlife Service), state resource management agencies, private organizations (NSS, ACCA, The Nature Conservancy, the National Caves Association, the Cave Research Foundation, local grotto and conservation groups), academia, cavers, and the general public. Past attendance has been in the range of 100 to 150, although attendance in 1995 could reach 200 being centrally located in the US.

Recent Symposia have run Wednesday morning through Saturday noon, with a full day field trip on Thursday and a banquet Friday evening. Optional field/cave trips before or after the Symposium are also arranged.

The effort involved in hosting the NCMS is much less than a national NSS convention, but there are still a large number of tasks that must be assigned and completed. Foremost a chairperson needs to be selected who can delegate assignments and manage the staff. A Vice-chair is also needed to assist the Chair or take over if the Chair "bails out" over the next two years. Other staff positions will include a Treasurer who will manage the money (\$10-20,000) and assist with the

budgeting tasks; a Facilities Coordinator who will work with the Inn's staff in preparing the meeting facilities; the Housing Coordinator who will handle questions concerning room bookings and camping; the Banquet Organizer who will handle the Friday dinner and speaker selection; a Program Publication Editor who prepares and publishes the program listing activities; a Proceedings Publication Editor who has the task of compiling the abstracts and papers and publishing the Symposium Proceeds; Publicity Coordinator who prepares the pre-registration information and press releases; Registration Coordinator who handles pre-registration and on-site registration; Session Organizer who prepares the session schedule and recruits session moderators; and Field Trip Coordinator who arranges the details of the Thursday field trip.

Many of the logistics will be simplified by having the Symposium self-contained at the Spring Mill Inn. There are also many field trip opportunities to select from including features of the Lost River; Marengo, Blue Springs, Spring Mill, and Wyandotte caves; SR 37 highway construction and sinkhole treatments; and the Mill Creek water quality improvement demonstration projects.

Several IKC members have already volunteered for staff positions and most positions will not require significant time to complete.

At the September Board meeting, it would be nice to identify potential staff candidates, especially the Chairperson. We also need to approve the site location so reservations and room blocks can be arranged before October 1st.

The 1995 NCMS should be a very positive experience for everyone involved and the Spring Mill Inn is an excellent facility. If you would like to assist with the Symposium, please contact one of the E-Board members.

*[Editor's note: much of the information in this article was supplied by Janet Thorne, the NSS representative to the NCMS's Steering Committee.]*

## NEW NATURE PRESERVE PROTECTS BIG SPRING

by Hank Huffman

One of Indiana's newest state nature preserves protects the significant karst feature known as Big Spring. Located in southern Washington County, Big Spring is one of the numerous springs that are found within the drainage of the Blue River and is one of the larger springs found within the state.

In the spring of 1989, Mr Bill Smith, owner of the historic homestead and farm containing Big Spring, contacted the Division of Nature Preserves (IDNR) seeking advise and assistance to permanently protect this notable natural feature. Mr Smith was put in contact with the Indiana Chapter of The Nature Conservancy which operates a very successful voluntary protection program with private owners of natural areas. However, after talking with TNC, it soon became clear that Mr Smith wished to make a gift of Big Spring and the adjacent forested hillside. After much discussion, Mr Smith deeded nearly ten acres to the Division on Nature Preserves; Big Spring was subsequently dedicated as Indiana's 136th nature preserve in October of last year.

Big Spring is situated at the base of a steep spring alcove and represents an alluviated cave spring (one which has been previously covered with stream sediment). The rise pool is approximately fifteen feet in diameter and an estimate six to eight feet in depth. The water which supplies the spring originates from the sinkhole plain to the northeast. The minimum flow

of this spring has been recorded at 450 gallons/minute (650,000 gallons/day). For comparison, the Orangeville Rise (also a nature preserve) in Orange County flows about 2850 gallons/minute.

The adjacent hillside contains a relatively high quality old growth forest which forms a scenic backdrop to the spring. Sugar maple, white oak, beech, chinquapin oak, black oak, white ash, shagbark hickory, tulip poplar, black walnut, hackberry, and flowering dogwood are among the tree species present. One rare species is known to occur in the woods, a plant known as the heart-leaved noseburn!

The wooded area is also of interest to history buffs where the remnants of a very old stone wall is found. A short distance downstream from the spring is an old homestead which Mr Smith has expressed an interest in seeing restored and preserved. To the north of the preserve is Big Spring Church and its cemetery which contains many old tombstones dating back well into the previous century.

If you wish to visit Big Spring, please park in the church lot (avoid Sundays when church services are being held). You may walk to the spring down the old gravel lane located behind the church until a trail is established. As with all state nature preserves, everything is protected by law -- please treat this area as you would your favorite cave and disturb

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### BE THE FIRST!

Yes, be the first on your block to strut your stuff in a new IKC T-shirt. Initially available in two styles/colors: a pocketed T-shirt in ash (speckled gray) and a regular T-shirt in ecru (cream), both are heavy weight 50/50 blends. On the front of the shirts is a small "pocket" emblem of the IKC's original logo (see the back cover of this newsletter). On the back of the shirts is our redesigned logo (see page 3) with the text "Indiana Karst Conservancy; Protecting Through Active Conservation." The screening on both shirts are in jade (dark green).

Cost of the shirts are \$10, plus \$2 postage if mailed. Net proceeds (approximately \$2/shirt) will go to the IKC. They are immediately available in M, L, XL (also XXL special order at \$2 more). The original order consisted of only 48 shirts, so styles/colors and sizes are limited. However, assuming the response is positive, additional shirts will be ordered. Use the inserted order form or contact Scott Fee at (317) 291-7807.

## LAND ACQUISITION COMMITTEE REPORT

by Keith Dunlap

At the June quarterly meeting, a lengthy discussion was held on the merits of the IKC becoming a land holding organization. The general consensus was strong support to move towards the goal of owning land. To pursue that objective, a committee was formed to better prepare ourselves.

The committee consisted of Keith Dunlap, Hank Huffman, Larry Mullins, and Tom Rea. Hank works for the Division of Nature Preserves (DNR) and is on the Board of Directors for the Sycamore Land Trust.

Larry works for the Hoosier National Forest and has been involved with identifying potential properties to purchase, especially those with caves. Tom is active with the Michigan Karst Conservancy and has past experience in property easements before retiring from Indiana Bell.

The committee met in late August to develop topics that need to be addressed related to land acquisition and ownership. Hank, leveraging his experiences with Sycamore, led the discussion. Items presented included our 501(c)3 tax exempt status, advantages of joining the Land Trust Alliance, liability insurance (via LTA), land acceptance criteria, landowner contact program, prioritizing acquisition targets (developing a ranking system), acquisition means (gifts, bequests, and purchases), other protection strategies (conservation easements, leases), obtaining rights of first refusal, title searches, title insurance, property appraisals, property surveys, existing easements, deed restrictions, property tax exemption, land management guidelines, corporate dissolu-

tion and the disposition of assets, fundraising and grants, useful skills within the organization (realtor, surveyor, lawyer, accountant, public relations, fundraiser, natural resource specialists), and the cooperation and coordination with other conservation groups and agencies (TNC, Sycamore, DNR, HNF). The preceding list is extensive, but several of the items have already been taken care of (e.g., IRS

501(c)3 status) and others will not have to be addressed until we actually obtain property.

The primary action item to

come out of our first meeting was to solicit the membership on two topics:

- 1) Identify members with helpful skills related to land acquisition who would be willing to donate/discount their services (realtor, surveyor, lawyer, accountant, public relations, fundraiser, natural resource specialists).
- 2) Identify cave/karst properties which should be priorities to pursue. We would like significant input in this area so that the compiled priority list reflects the view of the membership. Simply list your top ten (or five, or twenty-five) caves/karst properties and send them in. Please add comments to support why each property should be a priority (biota, recreational values, need of protection, etc).

Mail your input to the IKC PO box or contact one of the committee members. This is an important step forward for the IKC and we need your support.

**Do you have an important skill?  
Does your favorite cave need permanent protection? Read this article to see how you can help.**

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nothing. Present management plans call for eventually replacing a small portion of the electric fence next to the spring with a split rail or wooden fence and possibly planting some native meadow wildflowers around the spring outlet to improve its appearance. A small foot trail is planned

to lead from the church parking lot through the woods down to the spring. IKC members will likely be invited to participate in the management and to help monitor this preserve. And if you should happen to see Mr Smith while visiting this site, please extend a big "thank you" to him for his devotion and contribution towards protecting our natural heritage.



## MAMMOTH CAVE RESTORATION FIELD CAMP

by Larry Reece

The 5th Annual NSS-NPS Mammoth Cave Restoration Field Camp was held on August 15-21, 1993. This is a week long event where volunteers from the caving community assist Mammoth Cave National Park with clean up and restoration projects in Mammoth and other caves within the park boundaries. These field camps along with three weekend cleanup trips each year allow the Park Service to accomplish projects that are on their wish list but have not been completed due to manpower and budget constraints.

Past projects have included the removal of wood from former trails, benches, stairs, and bridges that have been left in the caves which are often waterlogged or rotten. Stone that was piled up in the cave during the creation of the elevator entrance has been used to outline the tourist trail in Cleveland Avenue. Tourist trash including coins, combs, cameras, hats, and lots of other goodies has been removed from several pits in Mammoth. Creation and patching of the Discovery Trail (the self guided tour) was another project. Dismantling and removal of old boats in Cascade Hall was on last year's agenda. We have carried out metal bridge work and girders, light fixtures, and ballasts, tons of wood, toilet fixtures and lots more on these projects during the last five years.

This year's field camp began with a preliminary trip on Sunday carrying supplies and materials down the newly installed elevator to the Snowball dining room for use during the week. After that we took a quick trip in the Historic Entrance to Echo River

to survey the proposed activities in that part of the cave. Sunday evening we were given an overview of the projects by Bob Ward the Cultural Resources Specialist for the park. There were three projects planned for the coming week. The most significant was to start the cleaning and restoration of the ceiling in the Snowball Dining Room. We also were to locate and remove debris located behind the restrooms in Great Relief Hall and to continue the removal of wet wood in the water along Echo River Trail.

Monday the entire group reported to the Snowball Dining Room for training and instruction on the method to be used on the ceiling restoration. A study and report conducted by Ozark Underground Laboratory under contract from the National Park Service concluded that the material covering the ceiling was primarily a fungus. Their test results indicated it could be removed with a light spraying of common 5.25% household bleach under controlled conditions with very minimal impact on other cave resources.

Those who were spraying the ceiling wore full body suits of a Tyvek material as well as a full face respirator mask. When suited up they looked like actors in a 1950's movie, ready to battle the aliens. Following the guidelines in the Ozark report, the ceiling was sprayed with bleach and rinsed with water 24 hours later. The Tyvek suits leaked bleach at the seams and suits with sealed seams were obtained later in the week. Most of the people on this project

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### INDIANA BAT HIBERNACULA CLOSURES

Cavers are reminded that caves designated as significant habitats for the Indiana bat (*Myotis sodalis*) are closed September 1st through May 1st. Significant hibernacula include: Twin Domes (Harrison), Ray's (Greene), Batwing (Crawford), Jug Hole (Harrison), Coon (Monroe), Grotto (Monroe), Parker's Pit (Harrison), Saltpeter (Crawford), Robinson Ladder (Crawford), Clyfty Cave (Greene), Saltpeter (Monroe), Leonard Springs (Monroe), and Wildcat (Crawford). Each of these caves has been posted by the Indiana Department of Natural Resources. Other small hibernacula that are not posted, but should be avoided to protect the bats would include: Endless Cave (Washington), Sexton Spring Cave (Greene), and King Blair (Monroe). Note that some of the mentioned caves are closed year round by their owners. Questions about the closures may be directed to biologist Scott Johnson (812) 334-1137.

## MILL CREEK WATER QUALITY IMPROVEMENT PROJECT

by Keith Dunlap

Approximately a year ago the US Soil Conservation Service (SCS) initiated a three year conservation demonstration project to improve the water quality in Mill Creek in Lawrence and Orange counties. The principal area of focus is the drainage basin of approximately 10,000 acres southeast of Spring Mill State Park which drains through the Shawnee Cave System (Upper Twin, Lower Twin, Bronson, and Donaldson caves) and empties into the 33 acre lake at Spring Mill (downstream from the lake is Mill Creek). The current problem is best illustrated by the rate at which this lake is filling with silt (one to six inches per year) and the poor water quality in the lake (high nutrient levels that cause excessive algae growth) and high *E. coli* counts indicating human and animal waste from the watershed.

Quoting from the project's fact sheet, the main purpose of the project "will demonstrate conservation practices and Resource Management Systems that help to maintain or improve the quality of water in regions characterized by sinkholes, sinking or disappearing streams, and underground drainage systems. These conservation practices and management systems will be planned and installed on a limited number of farms to demonstrate their effectiveness."

Funding for the program, \$125,000, is provided by the Indiana Department of Environmental Management via a grant from the US Environmental Protection Agency (EPA). Approximately half of the funding will be used for cost-sharing the demonstration projects with private land-owners (the owners will pay 25%). About a third of the money will be for SCS technical assistance (developing plans, coordinating the projects, etc), and the remainder of the funding will be for educational materials (brochures, a slide show, and a video).

More specifically, the demonstration project plans to: compile existing data quantifying erosion rates and pollutant levels; develop a sociological profile of the watershed land users for use in preparing effective information programs; complete an inventory of current land use and future trends; organize a local steering

committee to sponsor the production and dissemination of the information and educational material; develop an informational slide presentation and a video; develop a list of appropriate conservation practices especially adapted to karst areas; encourage the development of a long-range monitoring plan; develop an effective cost-share program for the demonstration area; implement appropriate activities; and evaluate and document the effectiveness of the implemented projects.

On August 31st, a program status was presented to the Technical Advisory Committee (I serve on the committee). Several projects have been identified including several properties that will be converted from rowcrop to trees as part of the Conservation Reserve Program (CRP), a wetland reconstruction project, the construction of a multiple-sediment basin system to treat waste water runoff from the horse lot at the saddle barn in Spring Mill State Park, and three open sinkholes to be stabilized. The sinkhole stabilizations will consist of removing minimal dirt to clean up the sides of the sinkholes, then filling them with riprap to allow them to continue draining. Each sinkhole will also have a fifty foot "buffer" zone of grass to filter out silt and organic material.

A summary of land usage was also given with approximately 20% in crop land, essentially all of it conservation tilled or no-tilled (compared to just fifteen years ago when almost everything was mow board plowed), 20% in CRP, 18% in pasture/hay, 21% in woods, and 22% idle or residential. Within the watershed there are 316 dwellings, all with septic systems. The trend appears to be decreasing crop land and increasing residential use which translates into decreased soil erosion problems and increased pollution problems. There is an interest in addressing the septic system problems, but that is beyond the scope of this project.

At the last meeting, I had inquired if the demonstration project could fund trash removal from sinkholes as a means of water quality improvement. This falls into the same category as septic tanks, something that needs to be done, but can't be funded by this project.

Footage for the educational video is being shot at the various project sites. The final editing and production work will be done by Purdue University.

It was reported that similar karstland demonstration projects have been done in Pennsylvania and southern Ohio, and a new project is about to be started in Illinois.

Discussions on re-dredging the park's lake brought up the problem of disposing of the silt which could have high concentration of herbicides and other pollutants and possibly be inappropriate to spread back on crop land. To illustrate the average amount of silt entering the lake, it would equal a dump truck (10 cubic yards) load every day. It was also announced

that chemicals were being used to control the algae which seem to be getting worse each year.

On the whole, these demonstration projects seem to be a sincere attempt to educate farmers and gain experience in methods to reduce soil erosion in karst areas. I have concerns that the sinkhole "stabilizations" will not work (the risks have been acknowledged and demonstrating failures may be just as important as demonstrating success), but the sinkholes to be selected already have serious erosion problems and thus anything will be an improvement.

For more information, you may contact Jerry Lish of the SCS at (812) 275-4365.

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up with minor bleach burns before it was over, but a lot of valuable information was obtained during the process and best of all, it appears the process will be successful in obtaining the desired results.

On the other projects, the debris behind Great Relief Hall was located and removed. Wood in the water along Echo River Trail was also bagged and removed from the cave; however, there is still a lot of wood in the water and this project will continue for many years before it is all removed.

On Thursday we normally take the afternoon off and visit a section of Mammoth that is not on the current tourist route or visit one of the other caves in the park. This year, part of the group chose to go to Floyd's Lost Passage in Crystal Cave. During this trip one of the party had a foot-hold give way and

he fell about four feet and dislocated his shoulder. Due to the location and nature of the accident a rescue operation was initiated. A doctor was able to reset the shoulder at the accident site and the injured party exited the cave (with assistance) primarily under his own power. There were a large number of people and resources involved in the rescue. A more complete report on the rescue will be published in the October CIG Newsletter.

Overall this year's field camp was successful in accomplishing the projects that were planned and those attending had a good time. The rescue and associated activities prevented total completion of all we had expected to do but what we had completed prior to the accident was still sufficient to call it a successful week. Activities such as this will continue in Mammoth Cave for a long time as there are still a lot of projects on the park service wish list.

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## Semi overturns, spilling fuel

Bedford - A fuel spill from an overturned semi about two miles south of Bedford on Ind. 37 took police about four hours to clean Thursday afternoon.

The driver of the truck, Clifford S. Martin, of Lexington, KY, was north-bound on Ind. 37 about 4:40 p.m. and was unable to come to a stop in time when a car in front of him stopped, police said.

He swerved west to avoid hitting the car, went across the median and hit the new highway parallel to Ind. 37 that is under construction. The truck overturned, police said. Martin was not injured.

The trailer belongs to the J.B. Hunt company, police said.

Police spent all afternoon cleaning up the fuel, which had spilled over the area where the wreck occurred.

*Reprinted from the Times-Mail (Bedford) June 25, 1993.*

*[Editor's note: Approximately 150 gallons of diesel fuel spilled from the over turned truck. However, none of the fuel reached any of the sinkholes. Accidents like this one are the reasons the IKC/HEC/POW have pushed for catch basins and other protective measures for new highway construction in karst regions. Had the fuel reached a sinkhole, there would have been very little that could have been done and it most certainly would have seriously impacted/killed the cavefish and other biota living below.]*

## BAT CITY --

**Airport authority will spend up to \$8 million on a sanctuary to protect the Indiana bat.**

by George Stuteville

Washington - Think of it this way: At the Indianapolis International Airport, the U.S. Postal Service is getting its huge air hub, United Airlines is getting its billion-dollar maintenance hub, and the Indiana bat is getting its hub, too.

About \$3 million has been spent, and as much as \$8 million eventually could be expended to provide a pristine sanctuary for bats that may be displaced by airport construction projects. The money to protect these endangered creatures is coming from the Federal Aviation Administration's improvement trust fund, the Indianapolis Airport Authority and taxes on passenger tickets.

While some conservationists have lauded the efforts of the airport authority as exceeding federal environmental guidelines, others say the expenditures seem out of proportion - especially because not one of the tiny Indiana bats ever has been observed near the airport.

But other species of bats were observed just last week, setting up for the summer in some of the 1,500 specifically designed "apartments" being created for the tiny flying mammals on about 400 acres of farmland a few miles southwest of the airport.

Bats moving into that area will have a wide choice of accommodations:

- o More than 300 boxes of varying sizes set up at varying heights on trees and poles.

- o If the bats want, they also may move in behind any of the 500 garlands of cedar shake shingles put up on the trees.

- o Or if they prefer, the bats can settle into one of at least 15 trees relocated to the refuge after they were cut from airport land thought to be the former range area of the bats.

- o And if they prefer a natural abode, they will have to wait for newly planted tree seedlings to

grow into a forest of about 700 mature trees.

The bat boxes, cedar garlands and relocated trees are just interim. The long-term plan is for creation of a woody wetlands area the bats will naturally consider home.

Elaine Roberts, deputy director of the airport authority, said the massive construction at the airport for the past two years may have caused some environmental disturbances but has created windfall benefits for the natural ecology -- particularly the Indiana bat.

Nearly two years ago, when airport planners were assessing expansion needs, they attempted to determine if the Indiana bat, a species on the federal endangered list, would be affected by projected growth on the northwest side of the property, Roberts said.

Because federal funds were involved, special plans had to be made if endangered species were found.

In August 1991, biologists draped nets in the trees around the area to capture bats. They found about 55 of the furry insect-eating creatures, but no Indiana bats. Those already may have migrated back to the Ohio River Valley, where they spend winters hibernating in limestone caves, experts say.

Within the next two months, the airport landed huge construction contracts for the postal hub and the United Airlines facilities.

The contract for the United facilities called for an accelerated timetable. If the site wasn't ready for construction by August 1992, the authority could have been liable for penalties of \$200,000 a day, Roberts said.

But there was no way to prove whether bats lived there without waiting until June 1992 and taking a survey.

However, the U. S. Fish and Wildlife Service said no trees could be cut from the land between April 15 and Sept. 15 because of the stress it would place on the estimated two colonies of Indiana bats that were thought to have occupied the area.

"By then, it was December (1991). We had to cut trees but couldn't afford the wait because that would have automatically put us into default with United and

could have cost as much as \$36 million if we had to wait until after September 15. We made the decision that the bat mitigation program was less expensive," Roberts said.

Without ever actually determining whether the Indiana bat lived in the zone, the authority assumed the fragile creature lived there and designed the plan to compensate for the loss of its habitat and the destruction of 90 acres of wetlands.

"We had a situation where we couldn't prove the bat lived there but couldn't prove it didn't live there, and balancing that whole question was an \$800 million construction program, 6,300 new jobs and huge penalties if we couldn't uphold our end of the contract," Roberts said.

For the damage to the wetlands, the authority has purchased about 400 acres of farm and lightly forested lands on the southwest side of the airport to create new wetlands. In about a generation, newly planted trees will provide shelter for the bats.

"The airport authority's bat program is a great example of a proactive vision," said Dr. Karen Tyrell, a biologist who has been a consultant on the project.

She said the bat program is unique and has scientific merit for researchers studying whether animals can adapt to artificial habitats.

"This has required some creative approaches. It was broad enough and required a fresh perspective. There is no precedence for this, so we had to come up with creative ways to address the needs," she said.

Mike Wells, president of the airport board, was less enthusiastic. "This is the law, but I really don't like it. It has taken hundreds of hours of staff time, and we have yet to see one Indiana bat," he said.

Other naturalists, while supportive, are interested in the effectiveness of the program.

Said Scott Johnson, mammal expert of the Indiana Department of Natural Resources: "From what I understand, the structures were used last year by bats and this year we have found one bat. It is hard to say long-term what will happen. Time will tell if it was effective. No one has ever



tried to provide alternative roost structures."

Whether effective or not, Scott Pruitt, a biologist for the Fish and Wildlife Service, said the sanctuary provided for the bats meets the federal standards.

"We will have an interest in this in perpetuity. The bat's needs have been accounted for. And its land, whether too much or too little, will never be taken out again."

*Reprinted from The Indianapolis Star, 1993.*

*[Editor's note: This article is very misleading in that it implies millions are being spent on bats, when actually only a small percent is being used for that purpose. The vast majority of the money is focused on wetlands mitigation.]*

## Road debate getting hotter than July heat

With the Hoosier Environmental Council's new strategy to target transportation in Indiana, the debate about the Indianapolis-to-Evansville highway is likely to become much livelier.

For years, environmentalists have been complaining to elected officials about how sensitive underground cave systems in southwestern Indiana would be disrupted if a new highway were built. But this is the first move toward an organized public campaign.

Watch for tidbits like this to be bandied about:

An internal federal highway administration memo says that

driving from Indianapolis on I-70 west to U.S. 41 and south the Evansville - the quickest existing route - would take only eight minutes longer than a trip along a proposed southern extension of I-69.

The memo writer added that "given the political nature of this project, no discussion is expected" on that eight-minute time differential in the upcoming environmental impact statement.

That review probably won't be released for several months. After that, public hearings will begin.

One thing is for sure: Environmental activists and planners are likely to clash on all aspects of this project.

*Reprinted from the Indianapolis Star, July 11, 1993.*

Before and after photos from the Coon Cave restoration workday in August. Mike Hood uses a brush to apply a mud slurry over graffiti. When the mud dries, it looks surprisingly natural.



*photos by Bill Tozer*

**INDIANA KARST CONSERVANCY TREASURY REPORT****Income Statement****From April 01, 1993 to June 30, 1993****INCOME:**

First Quarter Dues (155 Members @ 25%)	\$581.25	
Donations	\$35.00	
Publication Sales	\$60.00	
Interest	\$28.10	
		<u>\$704.35</u>

**EXPENSES:**

IKC Update (Printing/Production):	\$134.05	
IKC Update Paper	\$76.45	
Mud Sprayer	\$70.00	
Secretary Paper/Phone/Postage	\$50.84	
HEC Membership	\$38.75	
Indiana Cave Symposium	\$36.64	
Cave Capers Doorprizes	\$31.36	
Postcard Mailing & Stock	\$30.45	
IKC Update Indexes	\$24.00	
Misc. Publisher Postage	\$19.65	
Bulk Postage Permit	\$12.00	
Treasurer Supplies	\$8.22	
Brochure Paper	\$8.18	
Total Expenses:		<u>(\$540.59)</u>
Current Operating Excess (Deficit)		<u>\$163.76</u>

**Balance Sheet  
June 30, 1993****ASSETS:**

Cash in Bank	\$4,388.08	
Total Assets		<u>\$4,388.08</u>

**LIABILITIES & OPERATING EXCESS:**

Hancock Fund	\$219.49	
DNR Non-Game Fund	\$270.00	
Deferred 1993: 155 Members @ 75%	\$1,743.75	
Dues 1994: 2 Members	\$30.00	
Previous Operating Excess	\$1,961.08	
Net Excess (Deficit) This Period	\$163.76	
Current Operating Excess	\$2,124.84	
Total Liabilities & Operating Excess		<u>\$4,388.08</u>

# IKC QUARTERLY BUSINESS MEETING MINUTES

Saturday, June 26, 1993

Bloomington, Indiana

## BOARD MEMBERS PRESENT:

James Adams	Bruce Bowman
Jeff Cody	Bruce Devore
Keith Dunlap	Scott Fee
Hank Huffman	Scott Johnson
Larry Mullins	Ernie Payne
Tom Rea	Eric Schmidt
Tom Sollman	Bill Tozer

## BOARD MEMBERS ABSENT:

Dave Haun

The June meeting was called to order at 7:07 PM by IKC President Keith Dunlap at the Indiana University Geology Building in Bloomington. Introductions were made.

The March minutes were approved as published.

Treasurer Scott Fee reported that we have approximately \$4500.00. Deposits and expenses are offsetting each other and our bank balance is remaining stable.

Keith Dunlap reported that the DNR is pushing to get the SR 37 question wrapped up soon. Erosion control continues to remain a problem. There was an "on-site" meeting in May. Three weeks went by with no corrective measures being implemented. Keith wrote another letter and some improvements were made shortly thereafter.

Directors received a first draft of a management proposal for Shiloh Cave. There was much discussion on several aspects of the plan. Of great concern was the access policy and number of visitations allowed per year. The design of the gate was also questioned. Some members felt that a more "bat friendly" gate might be needed. Keith will re-design the door portion of the gate. It was agreed to accept this first draft which will need to be discussed with the landowner. A more complete proposal will be available at the September meeting.

Work days are tentatively scheduled for July 3rd and July 10th at Shiloh. The weather will play an important role in our scheduling.

Our HEC membership renewal is due. It will cost approximately \$41.25 (25¢ per member). Motion to renew passed. Secretary James Adams will send a membership list to Treasurer Scott Fee.

Does the IKC want to buy a second mud sprayer? The sprayer seemed to work well at the recent clean-up at Sullivan Cave, however it was agreed to test it further before making a second purchase.

Keith Dunlap suggested the possibility of purchasing a temperature sensing device which could be used for a cursory temperature study in caves. This might be helpful in studying fluctuating bat populations in Grotto Cave. Keith is going to purchase one for himself. He will evaluate and report his findings.

The IKC had an ad in the recent CIG Cave Capers guidebook. We donated \$31.36 in door prizes. Approval of this expense was moved and approved. It was also approved to give a \$15.00 door prize in exchange for an ad in the Karst Encounters guidebook.

Keith described his vision of the IKC taking on the responsibility of owning land with caves and/or karst features. Everyone seemed to agree that this was a logical step. A land acquisition committee was appointed consisting of Keith Dunlap, Hank Huffman, Larry Mullins and Tom Rea. They will study some of the details and report back in September.

The Army Corps of Engineers is studying flood control in the Lost River area in Orange County. This includes a dam which could flood the Orangeville Rise and the True Rise of the Lost River.

An Opportunity Analysis is in progress on the Hemlock Cliffs area which includes

about 13,000 acres of Forest Service property. The HNF is looking for comments. Keith Dunlap has more information for anyone who has an interest.

A study has been funded for gathering information on Blind Cave Fish in Indiana. The IDNR is trying to get the species listed as a Federal Endangered species.

Suicide Cave - Contact with the new landowner has still not been made.

Ashcraft Cave - The DNR has finalized their ownership.

Rays Cave - IDNR had been negotiating with the new landowner to gate the cave. It has the second largest known Indiana bat colony in the state. This has fallen through. The landowner has backed out.

A road is scheduled to be built through a quarry at the SR 46 underpass at SR 37 near Bloomington. The quarry is also a hazardous waste site. The IKC supports the necessity of doing an Environmental Impact Statement.

Membership is at 177 with approximately 20 non-renewals from 1992. Total current members: 157.

Indiana Karst Symposium - The IKC contributed \$36 towards food for the event. "It was great."

The most recent session of the Indiana State Legislature was an environmental disaster. The HEC is trying to get \$10 million to go to the Heritage Trust.

The next IKC meeting will be in Indianapolis at the home of Scott Fee (5471 N Fenmore Road, 317-291-7807) at 7:00 PM on September 25.

There was one issue from the floor: Scott Fee suggested that the IKC produce and sell a T-shirt with an IKC conservation message. Everyone seemed to favor the idea and Scott will investigate.

The meeting was adjourned at 9:10 PM.

Submitted by James Adams, Secretary

## Huge crowds attend Cave Museum grand opening

Nearly 1000 people attended the grand opening of the American Museum of Caves and Karstlands Saturday in Horse Cave.

In 1867, the naturalist John Muir visited Horse Cave on his 1000 mile walk to the Gulf of Mexico and commented that "In hot weather crowds of people sit about it (the cave) in the shade of the trees that guard it." Muir would have been right at home with the open house as crowds of people wandered through the museum and down either the elevator or the stairs to Hidden River, 150 feet inside Muir's "noble gateway to the birthplace of springs and fountains."

In fact the old gentleman was reincarnated Saturday to furnish part of the dedicatory program, recalling his visit. "It's pleasant to be back," he said. "I was struck by the cool air and the ferns and flowers such as I haven't seen since I left Canada... It's a splendid, special place you've got here."

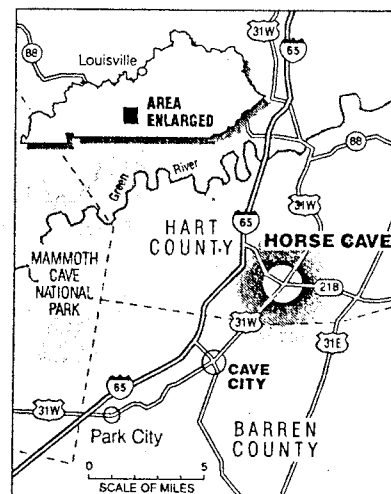
Mayor Sandra Wilson greeted those assembled for the program. "It's a fantastic place. Horse Cave is coming alive and this (museum) is a part of it." Recalling the days when the cave had a definite odor and people wondered what was buried in it, she said, "we've found out what was buried here -- it's a treasure, and historical and educational treasure. You can help us share it with the world."

David Rome of the Kentucky Division of Water spoke briefly about the educational aspect of the museum and cave. His department was a partner in producing the groundwater exhibit of the museum. "Pollution (of the groundwater) is caused by the carelessness of people. This museum will help raise the awareness of the general public."

The museum is open seven days a week from 9:00 a.m. until 7:00 p.m. David Foster is the executive director. The museum is the joint project of the City of

Horse Cave and the American Cave Conservation Association which has its national headquarters in Horse Cave.

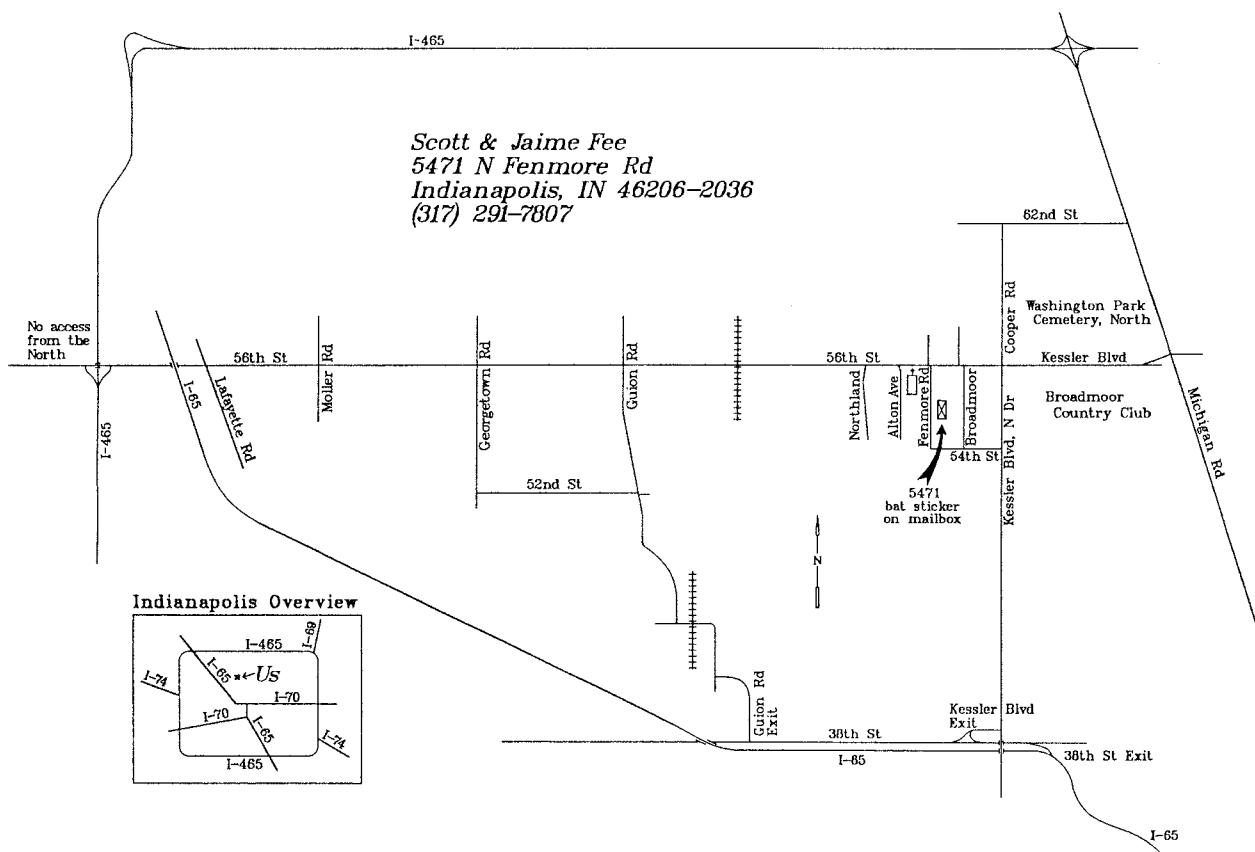
*Reprinted from the Hart County News-Herald July 13, 1993.*





## DIRECTIONS TO THE IKC QUARTERLY MEETING / COOKOUT

SATURDAY SEPTEMBER 25th, 5:00 PM



Please RSVP. Bring your lawn chairs and a salad or dessert.

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:

\$\_\_\_\_\_ for IKC membership dues at \$15 per year (dues expire March 31st of each year, please pro-rate @ \$1.25/month).

\$\_\_\_\_\_ donation to the general IKC fund.

\$\_\_\_\_\_ donation restricted to a specific IKC project. Please specify: \_\_\_\_\_

\_\_\_\_\_ I know of an area worthy of protection. Please contact me.

\_\_\_\_\_ I would like to volunteer to help. Please contact me.

NAME \_\_\_\_\_

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CITY/STATE/ZIP \_\_\_\_\_

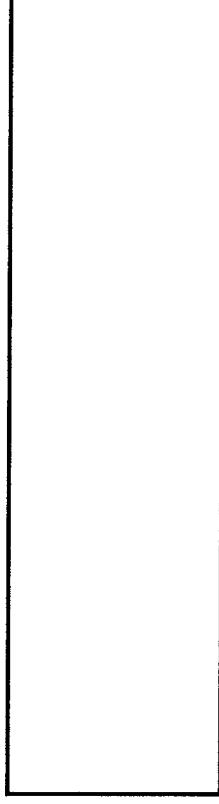
PHONE # \_\_\_\_\_

Make checks payable to the Indiana Karst Conservancy, Inc. and mail to the IKC Treasurer, c/o Indiana Karst Conservancy, PO Box 2401, Indianapolis, IN 46206-2401. The IKC is an IRS recognized 501(c)(3) non-profit organization with membership dues and donations fully tax deductible.

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