# IIIC GIPDAGIR No. 23 - December 1991

### 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 photo by Paul De Bie (from Speleo-Projects)

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

Myotis Press

### QUARTERLY MEETING REMINDER

### SATURDAY, DECEMBER 7th, 7:00 PM

### BLOOMINGTON, INDIANA IU GEOLOGY BUILDING, ROOM 143

(SAME ROOM AS BIG MEETING)

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; summary of 1991 Cave Management Symposium; further discussion of the FRCPA implementation workshop during the 1992 Convention; status of cave projects (Freeman, Salamander, Shiloh, Ray's); HNF Karst inventory plans; discussion of the direction to pursue on the Lost River highway project; initial nomination for elections; IKC slide show; and more!

Meeting directions: The Geology Building is located at 10th and Walnut Grove. 10th Street runs east / west and is one of the major streets that cross the IU Campus. Park behind the building, parking permits are not enforced at night. Enter the building from the rear at the west end. The room is halfway down the hall on the right.

### - EVENTS CALENDAR ----

07 DEC = IKC QUARTERLY MEETING, Bloomington (see above)

08 DEC = IKC/CIG WAYNE'S RESTORATION TRIP (see page 6)

28 DEC = HNF KARST WORKDAY, Bedford, 9:30 AM

11-12 JAN = MARENGO CAVE RESTORATION CAMP (Contact Gary Roberson)

?? FEB = IKC DIRECTOR'S MEETING, Indianapolis (location & date TBA)

?? MAR = IKC ANNUAL BUSINESS MEETING, Indianpolis (location & date TBA)

?? APR = UNDER EARTH DAY III, Sullivan's Cave (on Earth Day)

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.

The *IKC Update*, distributed for free, is published quarterly for members and other interested parties. The purpose of this newsletter is to keep the membership informed, and to document past, report on current, and announce future IKC activities and business. Submission of articles for publication pertaining to the IKC or any other related conservation subjects are encouraged. Forward material to the *IKC Update*, PO Box 2401, Indianapolis, IN 46206.

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### RAMBLINGS FROM THE PRESIDENT...

Over the past several months I have been following the developments of a proposal to construct a new highway across the Lost River Drainage Basin. While the proposal is not new, for the first time it appears it could be a reality if the IKC does not take a leadership role in fighting this issue. While it may first seem narrow-minded of us to fight this proposal "just to save a few caves", upon deeper examination, it is justified that we as environmentalist, citizens, and tax payers fight this because of the way it is being implemented.

Let's examine a few facts and some background material. Several years ago the state of Indiana spent over \$100,000 to fund a feasibility study to examine the cost effectiveness (initial construction cost versus the economic development from the improved infrastructure) of three potential routes for the proposed "Indianapolis to Evansville" highway. The consulting firm commissioned to perform the analysis, Donnehue & Associates, is one of the counties largest and most respected. Their findings? -- none of the three proposals were economically justifiable!

This was just a minor setback for Governor Bayh who had made political promises to build the road. He immediately launched the INDOT into the design phase of this billion dollar project, selecting the proposed route from Bloomington to Newberry to Petersburg to I-164. He then hired an Evansville consulting firm and an Indianapolis firm (neither of which would be biased) to independently restudy the economic feasibility of the project. And guess what? Both firms confirmed what Governor Bayh already knew, that the road should be built to help the economy of Indiana (obviously Donnehue did not understand what the conclusions were supposed to be).

Meanwhile, the proponents of the other two potential routes felt screwed, so they too declared the Donnehue study to be in error and the roads should be built. Both have politically pushed INDOT to approve their routes. Now the taxpayers of Indiana are having to build not one, but all three of the proposed routes, none of which should be built when proper judgment criteria are applied.

So how did the "Lost River" corridor get approved? To put it simply, political blackmail! Last year, INDOT published its long range list of major highway projects. The upgrading of SR 37 south of Mitchell to Paoli and/or French Lick had been dropped from that list because of its low priority. Well, State Representative Jerry Denbo of French Lick, who also serves as the Vice Chairman of the Transportation Committee, let INDOT know what he thought of their action and in no uncertain words threatened to cut their funding unless "his" project was reinstated and elevated to the proper status. Amazingly, less than two weeks later, INDOT revised their list of projects and planning work soon began.

It would seem logical to a layman that the cheapest way to improve the roads in that area would be to upgrade the existing SR's 37 & 145. But Denbo's agenda has been very clear; he wants to build a new road from Mitchell to French Lick, cutting across the Lost River and bypassing Orleans and Paoli. In his own words, "We want a new route all the way through. I want to make it clear to the people that we won't settle for anything other than a top notch road." To make sure that INDOT selects "his" route, he formed a "committee" to "engineer" the road for INDOT.

Denbo also organized several "public" hearing meetings for citizens to voice their support for the project to INDOT officials. I attended one such meeting. He freely allowed anyone in favor of the road to speak, but quickly cut off anyone who spoke against it. One such person was Bob Klawitter (see his article on page 5). Denbo immediately interrupted Bob and said that the purpose of the meeting was not to debate whether the road should be built or not, because that had already been decided, and that Bob's comments were not appreciated and did not represent those trying to build a "better" community in which to live. I expressed the IKC's concern about building across the Lost River area. Jay Marks, the INDOT official from Program Development, responded to my comments by saying "several engineers have said if I had to pick the worst place to build a road this was probably it." To the displeasure of Denbo, several other and I recommended that upgrading the existing SR's 37 & 145 would minimize the environmental and social impacts. Marks stated that they were looking at all the alternatives and the upgrading option would certainly be strongly considered. He said a decision would not be made until all the facts were known pertaining to costs and environmental concerns.

Less than six weeks later, it appears that INDOT has made their decision to build a new road across the "Lost River" rather than upgrade the existing road. This was announced by Deputy Commissioner, Kathy Lyon (see newspaper reprint below). It is interesting to note her comment that the start of construction will be delayed "because of the environmental problems associated with the caves and karst topography that the road **must** cross." (emphasis added)

Proponents of the highway are aware of our presence and the environmental destruction involved with these projects. One even stated that their "big challenge ahead is to block attempts by environmental groups to stop the projects."

The IKC does not stand alone, but we need to take the lead. The HEC is aware of the problem (see their Resolution on page 5), and other groups need to be pulled into the battle. More letters need to be written (several already have been sent), economic justification demonstrated, and an Environmental Impact Statement required which looks at all the alternatives.

- Keith Dunlap

### Highway 37 upgrading to begin next year

The proposed new highway linking Highway 37 and I-64 should be under construction by 1998, a Department of Transportation official said last Tuesday.

Kathy Lyon, Deputy Commissioner in charge of highway development, outlined the time schedule at a dinner meeting Tuesday evening of the Indiana 37/145 committee at the Villager Restaurant in French Lick.

The first segment scheduled for construction, she said, will be 4.5 miles of four-lane highway from the US 50 intersection south of Bedford to 1.4 miles north of SR 60 at Mitchell. Work will begin on that stretch next summer. Construction cost will be \$14 million.

The second section, also four-lanes, will be 2.8 more miles to 1.4 miles south of SR 60 at Mitchell with construction starting in 1993. The cost will be \$7 million.

This portion of the highway was originally going to be in one segment, Lyon pointed out. But because of the environmental problem the highway is being re-routed and additional time is needed to purchase new right-of-way.

The third section of the highway will be a "super two" from the end of the four-lane 17.1 miles southwest to SR 145 south of French Lick. Construction of this section is estimated to cost \$30 million and the project start is

Lyon said the lengthy delay in the start of this section is because of the environmental problems associated with the caves and karst topography that the road must cross.

While technological improvements have made it easier to deal with these kind of problems, she said, it still takes longer to get to the construction stage.

The SR 37 to I-64 highway will follow the present SR 145 from this point to SR 64. This section was upgraded to a "super two" highway when Patoka Lake was constructed.

From SR 64 a new highway will be built straight south 3.4 miles to I-64. This will also be a "super two" highway. Construction is scheduled to start in 1996 and is estimated to cost \$11.5 million.

During a period of questioning, Robert Burton of Mitchell asked what the possibilities are that the road would be made into a four-lane highway to I-64 rather than a "super two." Burton said the road won't have any major economic significance for the area unless it is a four-lane highway.

Lyon said that during the preliminary engineering the costs between construction of a "super two" and a four-lane highway will be examined. She added that at this point she "couldn't commit to a four-lane highway."

She told the group that a strong sales pitch is no longer needed. "We're going ahead with these projects," she vowed, adding that they aren't competing with any other projects for funds.

The big challenge ahead, the group was advised by several state legislators present, is to block attempts by environmental groups to stop the projects.

The legislators and Lyons praised

the Indiana 37/145 Association for uniting Lawrence, Orange, Crawford, and Perry counties to speak with one voice for this highway project. "It makes the job a whole lot easier," Lyon noted, "when a region can get together."

Lyon told the group that as of October 31 about eleven and one half million dollars in infrastructure grants was announced by the state and that almost eight million dollars will go south of US 40.

She was accompanied on a trip prior to the meeting down highway 37 last Tuesday by two representatives of highway 37/145 and she that the state is very aware of the urgent need for improvement of roads in this end of the state. Lyon said "I got a strong, well-articulated message that this highway project is needed."

Dignitaries attending the meeting included Representative Jerry L. Denbo, Representative Frank Newkirk, Jr., Senator Lindel Hume, Senator Richard Young, and Representative Dennis Heeke as well as business leaders and community leaders from throughout the area.

Each of the politicians spoke about the road projects and praised the Highway 37/145 group for their efforts and dedication in making the road a reality.

[Reprinted from The Progress Examiner (Orleans, IN), November 6, 1991]

### Highway to hell

by Bob Klawitter

If you had 55 million dollars to spend on improving life in Orange and Crawford Counties, what would you do with it? The State of Indiana wants to spend it on rerouting Highway 37. The new route from Mitchell south will bypass Orleans and Paoli somewhere on the west, and push through Eckerty Y to I-64. A less likely alternate continues south from the west side of Paoli to I-64. Whatever the final route, hundreds of acres of private land will be condemned, National Forest destroyed, and underground karst drainages damaged.

But the biggest impact of this highway will be from the economic development it is supposed to bring with it. Highway supporters expect industry will move here looking for cheap land and labor and easier to get pollution permits. More people will travel down the new highway to escape the foul air, nasty water, crime, noise, traffic, pollution, taxes, and high cost of living in the metropolitan areas.

Rural Southern Indiana doesn't need to be saved by conversion to suburb. People who prefer life in metropolitan areas will move there. People who want to live in the country love it for its wild and rural character. If new highways and rural development are forced upon us, many of us will lose our land and health. Most of us will lose our rural ways of life. Few of us will be any richer. New people will come in to take the best jobs, and if we do get a little more money we will need it because living here will be more expensive. And it will all be done for

"our own good" by developers and speculators who claim to be horrified by rural poverty and low population densities. Actually, they will be coming to take over our communities because it is cheaper to move their messes here than to clean them up in the cities they are leaving.

But we don't have to let this abomination happen. Write letters or send postcards to Governor Bayh and Congressman McCloskey. Tell them to stop using our tax money to destroy a rural way of life which also hurts urban dwellers. Citizens are organizing to resist major rural highway construction in Greene, Dubois, and Orange counties. If we all work together, using our American rights of free speech, petition, and assembly, we can prevail.

[Reprinted from Protect Our Woods]

## HEC RESOLUTION ON THE REROUTING OF SR 37 / PROTECTION THE LOST RIVER WATERSHED AND KARST SYSTEM

WHEREAS, the Indiana Department of Transportation is proposing the rerouting of State Road 37 from Mitchell south to Interstate 64;

AND WHEREAS, the preferred new route for SR 37 extends southwest from Mitchell to French Lick, crossing the Lost River watershed and related karst system, follows SR 145 south from French Lick, past Tillery Hill State Recreation Area, to State Road 64, and from there, proceeds south along a new corridor through Hoosier National Forest lands, rejoining the existing SR 37 at its intersection with Interstate 64;

AND WHEREAS, the Lost River karst system is internationally recognized for its geological significance and uniqueness, its hydrologic complexity and dynamics, and its value as habitat for rare and endangered aquatic species, which has resulted in three specific karst features being designated as National Natural Landmarks;

AND WHEREAS, the Lost River karst system is known to be extremely sensitive and vulnerable to alternations in topography, to the existing hydrologic characteristics, and to degradation as a result of point and non-point source water pollution;

AND WHEREAS, the Hoosier National Forest represents nearly half of Indiana's public forest land and its ecological value is greatly diminished by development activities that fragment the forest canopy, and construction of a major highway corridor is destructive and permanent non-forest use;

AND WHEREAS, the preferred new route for State Road 37 would fragment one of the last unfragmented rural landscapes lefts in the state of Indiana;

AND WHEREAS, no net economic benefit has been demonstrated for the State Road 37 rerouting;

NOW, THEREFORE, BE IT RESOLVED, by the Hoosier Environmental Council Board of Directors on this day of October, 1991 that:

- 1) The Council opposes the rerouting of State Road 37 from its existing corridor south of Mitchell to the Ohio River.
- 2) In order to permanently protect the Lost River watershed and karst system from such highway construction or other destructive public works projects, the Council calls for the establishment of a Lost River Karst National Natural Monument, utilizing innovative and voluntary public / private agreements to protect the viability and functioning of the karst system in perpetuity, and providing for the construction of an interpretive center, open to the public, on an existing state highway near the Lost River.

Attested to by Albert Tinsley, Secretary, this day of October, 1991.

### LOOTING IN PAVEY CAVE

### by Ruth Brinker

Caves sometimes contain cultural resources, evidence of past human use of the cave. Most cavers know this and are sensitive to the delicate nature of these deposits.

The Hoosier National Forest has one cave with cultural deposits which is being impacted by looters. This is Pavey Cave in the Hemlock Cliffs area.

A citizen reported the looting in the spring of this year. In June, some volunteers and I were on a special project "Passport in Time", surveying for rockshelters in the area and also looking for the cave. We found the cave and recovered two flashlights very recently placed near the entrance. We mapped the entrance area and recovered prehistoric material remains (flakes and animal bone) from a very disturbed context. The entire cave floor was either breakdown or disturbed dirt. Everywhere were dug holes or backdirt piles.

One of the volunteers on the project agreed to monitor the area. He reported to me in September that the looters had been back and were digging under some large breakdown rocks and creating what appears to be a dangerous situation.

The Forest requests the assistance of cavers in monitoring and reporting any such activities on Forest lands to the Forest Office. Write us at Wayne-Hoosier National Forest, 811 Constitution, Bedford, IN 47421; or call us at (812) 275-5987. Ask to speak with Larry Mullins, Ruth Brinker, or Henry Sixkiller. Get descriptions and license numbers if possible, but do not place your safety in jeopardy. We thank you for your assistance in this conservation effort.

# IKC/CIG CLEANUP TRIP - WAYNE'S CAVE DECEMBER 8th

The IKC and the Central Indiana Grotto are co-sponsoring the sixth annual cleanup trip into Wayne's Cave on Sunday, December 8th. Our intention is to have a little fun while performing some much needed conservation/restoration work.

For those unfamiliar with Wayne's Cave, it is Monroe County's second longest with 4.25 miles of mapped passage. Wayne's is notorious for its 1250 foot crawlway connecting "Old Wayne's" and the rest of the cave. This cave is very demanding and is <u>not</u> for the first time caver, but if you are in good physical shape, have been caving enough to know what you are doing, and have the proper equipment (especially a good set of knee pads), this could be the cave for you.

The cleanup effort this year will concentrate on the crawlway, but we will probably also make a quick trip to Camp II. Haul bags will be provided by the IKC, but only minimal trash still exists because of our past efforts. There will be wire brushes available for graffiti removal, and we will continue to do some "brown-washing" where wire brushing is ineffective or impractical. We will also direct our efforts on spent carbide collection.

If you have not been in Wayne's since the IKC started this restoration project, you may be pleasently surprised at the progress. The most encouraging part of expending effort in this cave is that it remains clean due to the regulated access policy the IKC has imposed.

**NOTE**: As with any IKC sponsored cave trip, you must have a helmet and three sources of reliable light. If you are new to caving or have not been to Wayne's before, <u>please</u> contact Keith Dunlap prior to the trip.

### **NEWS BRIEFS...**

	Because of excessive visitation and inconsiderate cavers, Freeman's Pit (Owen County) should be considered <b>CLOSED</b> until further notice. The owner has become fed up with people on his property at all hours of the night, and the arrogance of some "guests" on his property. There are plans to meet with the owner to see what can be done to improve the situation and perhaps re-establish some limited access. As the old saying goes, "One landowner crossed up, one cave crossed off."
	A similar situation of inconsiderate cavers has tainted the good cave owner relationship that had been established with the owner of Devil's Graveyard Cave (Harrison County). He asked that only a few simple rules be followed, but over the course of the Karst Encounters weekend, every one of them was broken. The access policy is as follows: All visitors to the cave must get permission (and the key to the gate) from the tenant (Larry Brooks, who lives in the house just north of the cave) before entering the cave or property. Access will be granted <b>only</b> during daylight hours and the key <b>must</b> be returned before dark. Finally, Devil's Drapery Well (the pit just above Devil's Graveyard) is <b>CLOSED</b> , no exceptions! To make arrangements, you may write Larry at 4190 Dixie Road, Corydon, IN 47112.
	The Hoosier National Forest Karst Inventorying Project kicked off its second year with a work weekend on November 2-3 at Spring Valley Recreation Area (Tucker Lake). Ridgewalking was the main order of activity during both days, while Larry Mullins hosted a chili-fest and wood burning contest Saturday night (it got down to below 20 degrees). The next workday will be December 28th, with more days scheduled thru April. Contact Larry (812-275-5987 / 824-2192) if you would like more information on these activities.
	Several months ago, someone destroyed our information sign at the entrance of Wayne's Cave. The sign was the last of the original painted ones (installed six years ago) and was scheduled for replacement anyway as the paint was chipping off. Thanks to the quick work of member Tim McLain, a new sign was routed, painted, and installed in less than a month.
٦	In the March issue of the <i>Update</i> , there was a "news brief" pertaining to the plans to prosecute three individuals who had entered Grotto Cave during the hibernaculum closure (violating the State's Endangered Species Act). Since that time, the Law Enforcement Division of the DNR has filed charges three different times with the Monroe County Prosecutor's Office, each time with no apparent action taken. Attempts are now underway to withdraw the current charges, and re-file then in Federal Court under violations of the Federal Endangered Species Act.
	The Hoosier Environmental Council (HEC) Congress was held on November 2nd with the IKC participating by having our literature and display set up at a booth. Several IKC members including Lynn Miller, Bruce Bowman, and Kevin Strunk attended; with the theme this year being solid waste management.
	Keith Dunlap served as the IKC delegate to the HEC Annual Business Meeting on November 3rd. The main responsibilities of the delegates are to elect new Directors to the HEC Board, and to vote on the various Action Plan proposals that will direct the HEC towards its short and long term goals.
	More information pertaining to the Tillery Hill development project was reported in the HEC's <i>Boardwatch</i> . It stated that the Corps of Engineers suspended further work on the proposal because of the obvious deficiencies in the Environmental Impact Statement. It is estimated that the IDNR is going to spend an additional \$50-100 thousand to correct the EIS, despite the fact that the public comments have been very strong against the proposal.
۵	On September 14th, Keith Dunlap participated in a public meeting sponsored by the IDNR's Fish & Wildlife Division. The purpose of the meeting was to solicit comments on the Division's 41 draft Strategic Plans which cover topics from endangered mammals to game fishing to the Division's human resource needs. The Fish & Wildlife Division is leading the rest of the IDNR in efforts to have public involvement in their actions.

The remaining two "southern" alternatives are not without some impact to caves; alternative "C" lists two caves impacted, while alignment "D" lists one. The actual caves and degrees of impact are unknown. Furthermore, Reeve's Cave is within a quarter mile of proposal "C" which means that its increased accessibility could have negative impacts if the cave is not protected.

Hopefully after all this preliminary studying is done and the actual construction funding question arises, the taxpayers of Indiana will revolt at its estimated \$1 billion price tag.

- ☐ The Chicago Field Museum of Natural History has officially opened its new major exhibit entitled "Into the Wild: Animals, Trails, and Tales". Their press release asks visitors to "Journey with them into the wild...Enjoy 'Nature Walk,' a stroll through animal habitats and changing seasons; Step into our life-sized 'Field Guide to North American Birds'; Meet creatures both strange and familiar in the 'World of Mammals.'" You may recall that the IKC, along with the Windy City Grotto, donated to the bat display, so if you are in Chicago, drop in and see your educational investment.
- Scott Johnson's preliminary observations on the status of the Eastern Woodrat is not favorable. Many of the habitat sites that were reported ten years ago are no longer active. The site at Potato Run Cave (Crawford County) is still active, and he has not yet checked the status at Rat or Big Mouth caves (Harrison County). Scott reports that IKC member Dave Black has supplied him with several new cave habitat locations that have not previously been documented.
- ☐ The IKC Profile written by Jane Miller appeared in the latest issue of *American Caves*, the ACCA's quarterly newsletter. This article gave the IKC some positive national exposure. Our thanks to Jane and Dan Opel (ACCA's editor).
- ☐ The NSS/ACCA co-sponsored workday at the entrance to Hidden River Cave (Horse Cave, KY) in September accomplished several goals including archeological surveying, trash pickup, and the removal of the vertical water pipe from the entrance. Approximately a dozen NSS and ACCA members participated.
- On a related matter, several IKC members participated in and contributed to the development of an Environmental Analysis for the Hidden River entrance area. The subsequent report includes identifying the resources in need of protection, then developing issues, concerns, opportunities, alternatives, and recommendations. This systematic approach, if done correctly, provides the best means of developing the entrance area of the cave with the least amount of impact. The analysis team consisted of Larry Mullins, Ruth Brinker, Mark Laing, Bob Armstrong, and Keith Dunlap.

The IDNR Nongame / Endangered Species Cave Poster is supposed to be finished and ready for distribution by early December. If this holds true, the IKC will mail out our three poster educational series soon after the Christmas mail rush.
The editor would like to apologize to Larry Mullins for over-editing his articles in the last issue pertaining to the HNF Management Plan and subsequent appeals that could modify the cave management policies. By attempting to add some background material and split his single long article into two shorter ones, I unintentionally changed some of his deliberate wording that should not have been changed. Furthermore, I <i>added</i> several grammatical errors that should have reflected poorly on the editor, not Larry.
The IKC received the NSS Non-photographic Graphics Art Medal for its September 1990 newsletter cover. Our thanks to Linda Heslop for supplying the artwork. The June 1990 issue also received an honorable mention in the photographic category. Our thanks to those who have supplied cover material in the past. Contact the editor if you have artwork or a photo that you would like to see grace our cover.
Wyandotte Caves and the Lost River Conservation Association both purchased multiple copies of the Blatchley reprint to resell. These sales further offset the initial costs of this educational / membership program. A limited number of reprints are still available directly from the IKC, so order those stocking stuffers now.
The IKC Cookout was incentive enough to have the business meeting start and <u>end</u> on time. A respectable attendance provided a good variety of food and fellowship. Our thanks to the Miller's for hosting and being the chefs.
Welcome new members Tim Dunfee, Gary Trilling, Douglas Winburn.

### WHISTLING CAVE RECEIVES PROTECTION

by Steve Collins

Whistling Cave, located in Indiana's Spring Mill State Park, was gated the weekend of July 13th. The installation was performed by cavers and overseen by the Indiana Department of Natural Resources.

Whistling Cave is flood prone and the entrance area can remain impassable for several days after a two-inch rainfall. The cave has areas that are decorated with delicate formations that are easily accessible, and prone to accidental, as well as, intentional damage or destruction, Whistling is also home to both blind cave fish and albino crayfish.

To preserve these treasures for cavers and scientists and to help reduce the chance of entrapment or fatality, controlled access was chosen. A Management Plan has been drafted and is currently under review. Although final details of the future access policy are still subject to change, it appears that a permit system will allow access to cavers and should encourage scientific studies within the cave. At present, access is limited to survey parties, but these survey trips are relatively easy to get on to. In a few months the Management Plan should be completed and implemented. This should allow access to cavers with interest other than surveying. The most important thing to remember is that the cave was gated to control entry, not to prevent it. Once the management plan is released, copies of it will be made available to interested parties.

[Editor's note - the gate was funded by grants from the NSS, IKC, and CIG.]

### 1991 NATIONAL CAVE MANAGEMENT SYMPOSIUM

by Keith Dunlap

Would I be bored? Disappointed? Enlightened? I was not sure what to expect from attending my first National Cave Management Symposium. Originally I was not excited about spending three days of vacation to attend; but being within driving distance and feeling "obligated" since the IKC had signed on as a co-sponsor, I decided to make the best of it and see what the Symposium was all about.

Having attended, I must say that I was glad I went. While I did not return with any revelations in cave management that will solve all the world's problems, I did come away a little more inspired because there are so many others who share the same concerns the IKC has about conserving our karst resources.

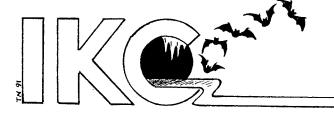
The Symposium, held in Bowling Green, ran from Wednesday morning, Oct 23rd, through the following Saturday noon. Basically, two and one-half days were dedicated to the presentation of approximately fifty papers, presented concurrently in two adjoining rooms. A sampling of papers that I found of particular interest included: Management Considerations for Clay Vermiculations (I have seen clay vermiculations in caves but did not know what they were or how they form; now I have a new-found appreciation); Development of a Flow-Through Filter Fluorometer for Quantitative Dye Tracing (this is a quantum leap in dye tracing technology and the information that can be obtained); Management of the Karst Areas within the Ketchikan Areas of the Tongass National Forest, SE Alaska (this presentation would make any environmentalist cry to see how logging in Alaska has totally screwed up vast karst areas because of unchecked logging practices); Hydrologic Flownet Mapping and Karst Conduct Detection Using the Natural Electric Field (this is an effective way of locating cave passages from the surface); and Design Improvements for Gating Bat Caves (Wyandotte's gate was presented as the state-of-the-art design). The proceedings of all the papers will be published and available for sale within the next six months.

All day Thursday was spent on a field trip visiting numerous locations including: the Lost River under Bowling Green (Dr. Nick Crawford presented the overwhelming urban pollution problem facing this karst region); several stops about the Mammoth Cave Drainage Basin (Dr. Jim Quinlan served as our guide); the ACCA's Karst Center / Hidden River Cave (Bill Austin discussed some of the history of the cave); and Mammoth Cave (a special night trip in the Frozen Niagara section).

Other highlights included the Friday evening banquet with Roger Brucker as the main speaker, and a special "wild" tour in Mammoth on Saturday afternoon.

Attendees at the Symposium could best be grouped into three categories. First were those who represented the private sector (the NSS, TNC, IKC, and individual cavers). Next there were the "cave specialists" from various state and federal agencies (the Ron Kerbo's and Jim Neiland's). Then there were those that were supposed to be in charge of managing caves on public lands, but really didn't have the foggiest idea of what they were supposed to be doing. It was this last group that the Symposium is directed towards, and the group that the other two groups target to exchange their points of view (sometimes the first and second groups are in conflict with each other over management philosophy).

The next Symposium will be held in October of 1993 at Carlsbad (Indiana's bid to host was shot down again). While two years in the future is a long way away, I recommend that you start planning now to coordinate the Symposium with a caving trip to the Guads. Both are worth a trip to New Mexico.



# POPULATION TRENDS OF MYOTIS SODALIS IN INDIANA 1991 UPDATE

by Keith Dunlap

As part of the "recovery" plan for the federally endangered Indiana bat (*Myotis sodalis*), a winter hibernacula census is conducted every two years. This census provides an accurate means of monitoring the population trends of this species, and to evaluate the effectiveness of the actions being taken to protect and reverse the drastic population declines witnessed over the past several decades.

A US Fish & Wildlife sponsored "Indiana Bat Federal Recovery Team" is responsible for making recommendations and coordinating activities related to the Indiana bat. The Recovery Team has classified hibernacula into three sizes: Priority I - which contains (or contained) more than 30,000 bats, Priority II - which has between 30,000 and 1000 bats, and Priority III - which has less than 1000 bats. There are only eight caves (three in Indiana, three in Kentucky, and two in Missouri) classified as Priority I of which only four still have populations above 30,000. These caves are censused by Richard Clawson of the Recovery Team. The Priority II and Priority III caves are censused by the individual states, but are still coordinated by the federal team. In Indiana, this census is funded by the IDNR Nongame / Endangered Species Section, and since 1981 has been performed by Dr. Virgil Brack, a bat specialist from Cincinnati.

This year's Indiana census was conducted in early February taking seven days to visit 23 caves. The principal participants included Dr. Brack, Dr. Karen Tyrell (also a bat specialist), Scott Johnson (IDNR nongame mammal specialist), and me (the token caver). Since visitation during the census can awaken the bats, the goal is to get in and out of the caves with the least amount of disturbance. Smaller groups of bats are counted individually while larger clusters are estimated by assuming 300 bats per square foot. Indiana bats are very "loyal" to their hibernaculum, returning to the same cave and even the same spot within the cave every year. Thus locations of the bats within the caves and temperature data are recorded to document any long term changes that may be occurring.

The results of this years Indiana census as well as previous year's data are summarized on the following page, and trends of the Priority I & II caves are plotted on page 13. As you can see, the total population within Indiana appears to be on the increase (unfortunately populations in other states such as Missouri are still dropping significantly). The total number of bats in Indiana appears to be the highest since 1981 when systematic counting was implemented, and over 50% higher than just six years ago when the adjusted population hit its minimum. While this population increase may be just a short term trend, it is at least more encouraging than the prolong population declines of the 1960's, 1970's, and early 1980's, and will provide some much needed time to study the Indiana bat in their summer habitat and formulate recommendations for their protection and recovery.

The bright spots in Indiana were significant increases recorded at Wyandotte and Ray's caves. Wyandotte's increase is thought to be the result of removing the stone wall gate in the late 1970's (see *Update #22*) that has allowed more cold airflow into the cave. The increase at Ray's was originally thought to be the natural recovery from illegal "harvesting" that was occurring by a medical professor at IU during the late 1970's (he has since moved to Missouri). However, the dramatic increase the past two census is now speculated to be related to the natural enlargement of the "rear" entrance to the cave which is lowering the cave's temperature, making it a better hibernacula. The obvious question for both of these caves would be: Are these observed population changes a true increase due to better hibernation conditions and winter survival rates at these caves; or are the increases actually from the relocation of existing bats from other hibernacula? Probably the answer is some of both. In Wyandotte's case, the population of nearby Batwing has been dropping since the early 1980's at approximately at same rate that Wyandotte has been increasing. Ray's increase on the other hand, would have to be from an unknown hibernacula as there are no other caves nearby that could explain the increase.

Other caves that have been showing long term increases include Jug Hole, Coon, and Saltpeter (Crawford); while Parker's, River, Buckner, and Grotto have shown decreases. Buckner is interesting in that a small population (approximately 50) has been able to survive despite the amount of visitation and abuse the cave gets. Grotto Cave is another interesting puzzle. Its population peaked in 1985 and has steadily decreased the last three census. This timing coincides with the installation of the fence around the entrance. While similar fences have been successful elsewhere, it seems more than coincidental. However, another interesting observation that may have more to do with the decline has been that the cave seems to be warming (at least on the days the census were performed). Since 1985, each census has recorded increased temperatures from the previous years. Nothing obvious has changed at the entrance over the past six years and the fence can not be blamed for restricting airflow. The bats in Grotto are probably relocating to Coon, as its population has been steadily increasing at approximately the same rate of decline as Grotto (although the total number in both caves are higher than the early 1980's). Thus Coon has become a significant hibernacula that will require the IKC continued protection during the winter.

Two new hibernacula (Wallier & Mitchell Crushed Stone Quarry Cave) were documented this census, both of which were originally reported by cavers. Indiana bats are characteristically identified by clustering during hibernation. Should you see what you think could be Indiana bats, please report the cave to me or Scott Johnson (812-334-1137).

[Editor's note - The complete report (approximately 50 pages) covering this years census is available to IKC members from Keith Dunlap. The IKC also distributes this report to the private cave owners whose caves are involved in the census.]

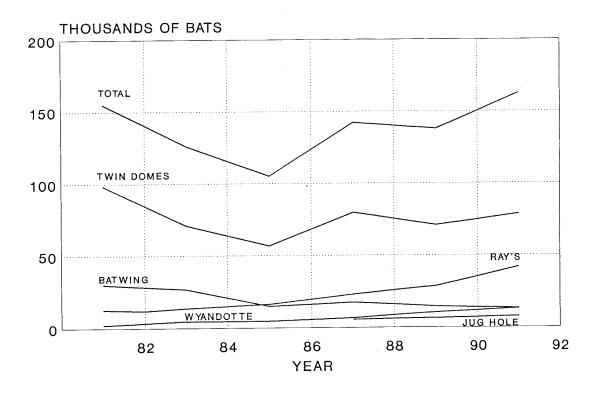
### RECENT POPULATIONS OF MYOTIS SODALIS IN INDIANA CAVES

CAVES	1981	1982/83	1985	1987	1989	1991
Twin Domes (Harrison)*	98250	70750	56650	79650	70800	78500
Ray's Cave (Greene)*	12500	13475	16200	22990	28581	41854
Batwing Cave (Crawford) *	29950	26650	14750	17450	14500	13150
Wyandotte (Crawford)	2152	4550	4627	6681	10344	12994
Jug Hole (Harrison)				5535	6424	7640
Coon Cave (Monroe)	1190	550	777	2950	2103	3696
Grotto Cave (Monroe)	3190	2692	4198	3778	2985	1996
Parker's Pit (Harrison)		450		1803	1104	926
Saltpeter (Crawford)		352		427	295	508
Robinson Ladder (Crawford)					95	388
Clyfty Cave (Greene)		66		198	412	357
Saltpeter (Monroe)		83		19		221
Endless Cave (Washington)		2		1		134
Leonard Springs (Monroe)					135	112
Buckner Cave (Monroe)		480	301	336	24	51
Wallier Cave (Harrison)						36
Wildcat Cave (Crawford)		29		0		31
Brinegar (Monroe)				12		
Mitchell Quarry (Lawrence)						9
Bentz Cave (Crawford)					3	
River Cave (Washington)		104		5		1
Salamander Cave (Monroe)		74		0		0
TOTAL (approximate) **	155000	126000	105000	142100	137875	162604

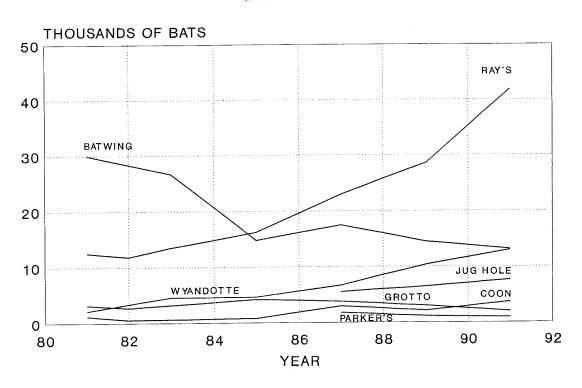
<sup>\*</sup> Classified as a Priority I hibernacula by the USFWS.

<sup>\*\*</sup> For the purpose of comparison among years, populations for caves not census were estimated based upon individual trends.

# POPULATION TRENDS OF MYOTIS SODALIS TOP FIVE HIBERNACULA



# POPULATION TRENDS OF MYOTIS SODALIS IN SELECTED INDIANA CAVES (EXPANDED SCALE)



### RAMBLINGS...PART II

As a follow up to last issue's Ramblings pertaining to low pay for IDNR employees, someone sent in this article from the *South Bend Tribune* (September 1, 1991) that typifies their condition and the lack of concern by their leadership. A side bar to the article (not reprinted) claims that Indiana's biologists are the lowest paid in the country with a starting salary of only \$15,730 and an overall average of \$24,157 compared to the national average of \$32,454. Just across the state line to the north, Michigan pays on average \$44,551 (over \$20,000 more). In fact, Michigan's minimum starting salary of \$23,587 is just slightly less than Indiana's average. If this situation isn't corrected, Indiana will lose all of its experienced biologist and only be able to attract "marginal" new-graduates that couldn't find a job anywhere else.

### Another state biologist resigns, airs pay gripes

by Louie Stout

When Dr. Dave Caithamer joined the Indiana Department of Natural Resources as a waterfowl research biologist, he was told to not worry about the low pay. Things would get better.

That was in March 1989. He was hired at \$20,150. Today, his takehome pay is less than the day he started, thanks to token raises and a new policy that required employees to pay \$80 per month for a benefits package with less coverage.

That's just one of several reasons Caithamer tendered his resignation last week, joining a long list of disgruntled Fish and Wildlife biologists who are fleeing Indiana at an alarming rate.

Dave Whittlesey, district wildlife biologist, resigned last month, and you can expect more resignations in the near future.

Don't expect a replacement soon. Indiana has operated without an official wildlife chief since January and several other vacancies have yet to be filled.

Caithamer will join the US Fish and Wildlife Service in Laurel, Md. as a waterfowl staff specialist. The move will increase his pay some 70 percent.

"I spent 11 years in college and got a Ph.D," he said. "When I first came here, there were 800 million surplus dollars in the state fund, but Gov. Bayh elected to give state employees small raises. The old-timers say it's always been that away."

But the problems run deeper than state pockets, says Caithamer.

"Natural resources is a low priority in Indiana Government," he said.
"Despite what some administrators say, we've made no progress in wetland development, and waterfowl management is very low on the list. There's no money to do the job and there's a lack of manpower. It's sad. Real sad."

As an example, Indiana spent \$13,000 to develop a map of the Cedar Marsh wetland project in Lake County, noting where to build dams to flood the basin.

"Not a shovel of dirt has been turned." Caithamer said. "Fortunately, a couple of beavers built dams that flooded some of the area for us. But guess what? We get a call from Indianapolis to demolish the dams because a farmer complained that he wanted the water to irrigate his land."

Budget cuts have been brutal, he added. Travel pay to important meetings of the Migratory Bird Flyway Council have been questioned, and in one case, Ducks Unlimited picked up his expenses to attend an International Goose Symposium in Wisconsin. It's not unusual for Indiana biologists to pay their own way to meetings because of travel restrictions.

"Those meetings are critical to our work," he said. "It's the only way we can learn management techniques used in other states."

Like Whittlesey, Caithamer blames the Indiana people for having low expectations for resource management. Unless people exert political pressure on the governor, he said, it's not likely to change. "Morale is terrible throughout the Fish and Wildlife," he said. "We get the feeling that the DNR Director (Pat Ralston, appointed by Governor Bayh) doesn't want to see Fish and Wildlife in the news, and the DNR administration is afraid to take the leadership role to overcome the problems.

"If I were one of the sportsmen, I'd be asking a lot of questions," he continued. "I'd want to know why my license money can't be spent on fish and wildlife projects. I'd want to know what happens to the interest on surplus license money. I'd want to know why Fish and Wildlife is forced to cater to special-interest groups that don't contribute to the cost of managing resources. And I'd think twice before I'd swallow another license increase."

Despite his frustration, Caithamer has no regrets about working in Indiana. He said he learned a lot and hopes he was able to help manage the resources.

"It takes a biologist a couple of years to learn the issues and resource before he can contribute substantially to wildlife management," he said. "By the time that happens, he's discouraged with the politics and low pay, so he moves on. There are still a lot of good people in the DNR, but many are staying because of family connections or they're close to retirement.

"I hope that, by airing the problems and concerns shared by others in the DNR, conditions will improve. But it's not likely to happen until the public starts putting pressure on the top."

### INDIANA KARST CONSERVANCY, INC.

Statement of Receipts, Expenditures, and Changes in Fund Balance for the Quarter Ending 09/30/91

### GENERAL FUND

RECE	IPTS	
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DUES 121.25
DONATIONS 25.77
PUBLICATION SALES 99.00
INTEREST 26.09

TOTAL RECEIPTS 272.11

**EXPENDITURES** 

UPDATE 102.21
POSTAGE, GENERAL 38.24
RUBBER STAMPS 3.95
SPRING MILL GRANT 100.00
BLATCHLEY POSTAGE 33.48

TOTAL EXPENDITURES 277.88

EXCESS TO FUND BALANCE -5.77

FUND BALANCE 06-30-91 2293.88 FUND BALANCE 09-30-91 2288.11

HANCOCK PROPERTY

FUND BALANCE 06-30-91 336.52 FUND BALANCE 09-30-91 336.52

TOTAL ALL FUNDS 09-30-91 2624.63

### IKC DIRECTORS NOMINATION

As the end of the year approaches, it is time once again to be thinking about nominations for Executive Board positions (President, Secretary, Treasurer, Directors) to be elected in March. All members are eligible, with the only qualification being the willingness to be involved and attend meetings. Self-nominations are encouraged. Please contact Keith Dunlap of other Board members for self-nominations, suggested nominations, or more information.

### See blind fish and bats on mystery river trip

by Corky Richmond

Bedford, IN - For a novel adventure, try a visit to Bluespring Caverns about 5 miles southwest of here and take a trip on Myst'ry River, billed as "America's longest navigable underground river."

From the cavern entrance, guides direct visitors' attention to the hill they just walked down - but it isn't a hill.

They're actually standing at the bottom of a sinkhole. The "hill" is the rim of a pond which vanished through it in the early 1940s, revealing the present entrance to the caverns. The adventure has already begun.

While the earliest recorded exploration of caverns was in 1884, commercial exploration wan not begun until the early 1970s.

Trips along the 1 1/4 mile river are aboard flat-bottom, aluminum boats powered by electric outboard motors.

The trip doesn't exactly qualify as spectacular because the primary rock formations are found only in the area immediately inside the caverns. That's because of the way the caverns were formed following the Ice Age. Most of the walls and cavern ceiling are relatively flat.

Nonetheless, the experience is unusual because there is no permanent lighting installed other than at the underground pier where you board the boat.

All lighting comes from batterypowered lights along the boat's hull and a hand-held spotlight used by the guide.

When the guide turns out the lights, the darkness is absolute, and even the slightest noise will echo throughout the caverns for a very long time. It is fascinating - rather than being spooky, as I'd anticipated it would be.

Most of the trip is at a depth of 78 feet below the surface. The constant temperature of both the air and water is 52 degrees. (Take along a light jacket. It can feel chilly.)

Denizens of the caverns include bats, frogs, eyeless fish and crayfish.

Recent research has determined that the tiny fish never roam more than 50 feet from where they are born - and live to be 80-90 years old.

Although one bat and several frogs

were sighted on a recent trip, no fish or crayfish were seen.

That was attributed to the fact that recent rains had made the water murky and because the critters are naturally shy, retiring instinctively to cracks and crevasses at the approach of visitors.

The river flows at the rate of only about 1 cubic foot per second.

Its stillness results in a startling mirrored effect which makes the cave seem to have stunning depth and clarity of water at some points along the route.

In reality, they are only reflections of the walls and ceiling.

The depth of the water varies from 6 inches to about 12 feet - the depth of the mud on the bottom ranges from 20 to 25 feet.

Time during the trip passes surprisingly quickly - this would be a good fun-and-education trip for youngsters with an interest in science and nature.

The total cavern system is nearly 21 miles long, making it the longest in the state

Although spelunking is not allowed, there is an "overnight adventure" program for scout and youth groups.

Groups explore parts of the cavern not seen by visitors on the boat trips, then sleep in an underground canyon.

Programs begin at 8 p.m. Fridays.

River trips run hourly between 9 a.m. and 6 p.m. from May 1 to Sept. 30, after which it is open weekends only.

Area rainfall affects the water level in the cavern about 12 hours after the rain, and trips are subject to cancellation. Call ahead to determine the status.

The path down the slope to the entrance is relatively steep, and persons with any kind of walking disability should probably not risk it.

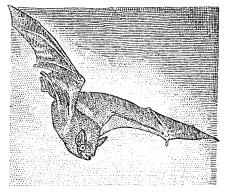
Three boats are used to ferry visitors, and groups of up to 55 can be accommodated at the same time.

Getting there: About a 70-mile drive from Indianapolis: Take Ind. 37 to U.S. 50 about 5 miles from Bedford. Take U.S. 50 west for about 5 miles. Watch for green-and-white state direction signs for the Bluespring Cavern turn-off. There will be a billboard about 1/2 mile from it. Turn right and

drive about 1 1/2 miles. The entrance is clearly marked on the right side of the road.

For information: Write to Bluespring Caverns Park, R. R. 11, Box 988, Bedford, IN, 47421; (812) 279-9471.

[Reprinted fom the Indianapolis Star,]



Brown Bat

### Bat barrier

by Fred Cavinder

Kentucky is going to bat for the Indiana bat by closing a cave this fall. Linefork Water Cave at Kingdom Come State Park is a favorite roosting place for the Indiana bat, but the Harlan County cavern is also a favorite of spelunkers and adventurers.

A steel gate is being installed across the cave entrance, to be locked from September through April. The bats are hibernating during that period, and disturbances then are very perilous to the tiny creatures, officials said. The gate key will be given only to experienced spelunkers.

Kentucky is a winter home to about 80,000 of the endangered Indiana bats. Indiana has about 100,000 and an unknown number roost in Missouri, officials said.

"It's not going to lock spelunkers out completely," a park official said. "It's just going to protect the bats."

[Reprinted from Indianapolis Star]

### IKC QUARTERLY MEETING MINUTES

Saturday, September 21, 1991 Indianapolis, Indiana

### **BOARD MEMBERS PRESENT:**

### **BOARD MEMBERS ABSENT:**

Keith Dunlap Jane Miller
Glenn Lemasters Lynn Miller
Ernie Payne Eric Schmidt Keith Dunlap Tom Rea

Jane Miller

Mike Miessen Bill Tozer Jeff Cody

The meeting was called to order at 5 pm. Introductions were made. Fourteen members and four visitors present.

ACCA Article - A profile of the IKC has been submitted for publication in the American Caves magazine.

Wayne's Sign - Was destroyed this summer. Tim McLain is in process of routing a new sign

Graphics Art Award - IKC received a 1990 award for issue #18 of the *Update*, and an honorable mention for #17.

HEC Congress - Solid Waste is the theme of this annual congress. November 2 & 3. Need an IKC representative to the Congress and the Business Meeting; also need IKC booth at Congress. Motion passed to spend \$45 for Congress registration and booth rental.

Ray's Cave - Second largest hibernacula of Indiana bats in Indiana. This Priority I cave is on private land and is the only Priority I cave without a gate. The heirs are showing some interest in protection efforts. Motion to discuss entering into an agreement with whoever to cooperatively manage Ray's passed.

Grant Request - IKC received a grant request for \$100 from the Spring Mill Project for the gating of Whistling Cave. A management plan has been drafted to accompany the gate. Motion to approve grant request passed.

Shiloh Cave - We currently hold the lease on the spring entrance. It is now possible for us to approach the owner about renewing access to the church entrance. Lynn Miller will contact the owner.

Salamander Cave - Keith has talked with the owner to ask him to consider IKC management of the property. More traffic on Hancock property since church posted no parking signs. Keith will pursue.

Wood Rat Survey - Scott Johnson, IDNR, is doing a wood rat survey. Contact Scott is you know of any potential sites.

1993 Cave Management Symposium Bid - Janet Thorne & Larry Mullins attended this meeting to encourage the IKC (& HNF) to submit a bid to sponsor the '93 symposium in Indiana. Keith's motion to that effect was seconded and passed. The symposium will run three days, of continuous, not concurrent sessions, and field trips; usually less than 100 participants.

National Cave Resources Protection Act - There will be a seminar at the '92 convention. Larry is looking for a committee to work this into convention plans. Motion that the IKC be a co-sponsor of this session was seconded and passed.

NSS/ACCA Project - September 28 at Horse Cave. Stream bed to sinkhole clean-up. Archaeological surface survey.

Mammoth Cave Restoration Project - October 5 & 6. CIG has a number of spots available on the restoration project. Contact Scott Fee.

**Evansville to Indy Highway** - All plans have been determined to be economically unfeasible. However, Phase I (Bedford to Mitchell) construction is to start in the spring. Blue Springs could be impacted. Phase II (Mitchell to French Lick) to be constructed in '96 would impact Lost River. Keith will send a letter to INDOT expressing our concern. Hank is looking for input for DNR.

Wayne's Cave Clean-Up - Trip co-sponsored with the CIG scheduled for Sunday, December 8.

**Next Meeting** - Saturday December 7, 7:00 pm; Room 143 Geology Building, Tenth Street, Bloomington, IN.

The meeting was adjourned to enjoy burgers and brats.

Submitted,

Jane E. Miller Acting Secretary

### **NEW MEMBERS**

(as of November 24th)

Timothy A. Dunfee 733 S. O'Brien Lot 214 Seymour, IN 47274 Gary O. Trilling P. O. Box 133 Taylorsville, IN 47280

Douglas M. Winburn 189 Harrison Street #4 Cicero, IN 46034

I would like to h	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.		
\$	onation 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	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		
CITY/STATE/Z	organization with membership dues and donations fully tax deductible. A		
PHONE #(s)	canceled check is considered an acceptable receipt, but if you wish a separate receipt, please check here \(\sigma\).		

Indiana Karst Conservancy PO Box 2401 Indianapolis, IN 46206-2401

FORWARD & ADDRESS CORRECTION

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# PROTECTING CAVES THROUGH ACTIVE CONSERVATION