
IKC Update

NUMBER 31

DECEMBER 1993



INDIANA KARST CONSERVANCY

INDIANA KARST CONSERVANCY, INC.**PO Box 2401, Indianapolis, IN 46206-2401***Affiliated with the National Speleological Society.*

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

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Cover -The Indiana bat (*Myotis sodalis*) by Indiana artist and caver
 Christine Gerace, copyright 1990. Used with her permission.



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

QUARTERLY MEETING REMINDER

SATURDAY, DECEMBER 4th, 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; SR 37 4-laning project status; 1993 and 1995 National Cave Management Symposia; Shiloh Cave gate postponement/management plan and activities; land acquisition committee report; OVR conservation project; Hoosier National Forest cave activities; IDNR activities; Wayne's cleanup; and more....

Meeting directions: The Geology Building is located at 10th and Walnut Grove. Tenth Street runs east / west and is one of the major streets that cut across 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

- 04 DEC = IKC QUARTERLY BUSINESS MEETING, Bloomington
- 05 DEC = IKC/CIG WAYNE'S CAVE RESTORATION, Bloomington (see page 10)
- ?? FEB = IKC E-BOARD MEETING, Indianapolis
- ?? MAR = IKC ANNUAL BUSINESS MEETING, Indianapolis
- 01-03 APR = WYANDOTTE CAVE RESTORATION, Corydon (see page 4)
- ?? APR = INDIANA CAVE SYMPOSIUM (date and location TBA)
- 24 APR = UNDER EARTH-DAY V, Sullivan Cave

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

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

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RAMBLINGS FROM THE PRESIDENT...

Over the past several months I have had occasion to talk to a number of cavers and non-cavers outside of Indiana who seem to know quite a bit about the IKC. It appears the IKC is getting a very positive national reputation for being an active organization in cave conservation, environmental karst protection, land management issues, and government agency interaction.

Two such examples occurred at the National Cave Management Symposium. In the Opening Remarks by Jeanne Gurnee (NSS President), she used the IKC as an example of the type of active organization that will be needed in the 21st century to combat the various environmental and human impacts that caves will face. Also during the NCMS banquet speech, Tom Aley praised our diligence in challenging the Indiana Department of Transportation on the SR 37 project. He feels the resulting outcome of our efforts will be to advance the national standards for road construction techniques in karst areas. A third example was at the last IKC meeting where we had the NSS Executive Committee as special guests. Wayne Marshall, Administrative VP, complimented the IKC for its progressiveness in cave and karst related issues.

While some of this praise may be overrated, the IKC really is accomplishing tasks that are of national significance and we are raising the standards for other cave conservation organizations to match. Of course our

peer group which includes such organizations as the Richmond Speleological Society, the Texas Cave Management Association, the Missouri Speleological Society, and the Michigan Karst Conservancy are not standing idly by, but are pushing the bounds of cave and karst conservation too. This healthy climate for active conservationism will help everyone as we all can learn and leverage from each others experiences. It is truly an exciting time for cave conservation.

While it is important to continue the things that we are currently doing well, there is one area where the IKC has not yet dared to explore but needs to -- land ownership. I have broached this topic several times before in this column, but I am now convinced that it is the best place to expend our energy and resources and is a means to grow the organization to the next level. We have a strong membership base and potential support from other organizations.

If you look back over the past three years, we have missed several opportunities to buy caves just because we weren't prepared and hadn't made personal contacts with owners before their properties went on the open market. By then it is usually too late. Destiny is in our hands on this one! If the NSS can do it, and even the much smaller MKC can do it, there is no reason why the IKC can't buy and own caves.

-Keith Dunlap



Director Tom Sollman
in action at the IKC
Cookout/September
Quarterly meeting.

NEWS BRIEFS...

- ❑ Both Marengo and Wyandotte commercial caves are planning restoration weekends projects early next year. Marengo's weekend is scheduled for late February or early March (the exact date has not been set). Wyandotte's project is Easter weekend. Because these work projects are popular with cavers and available spots are limited, you must call for reservations. For Marengo, contact Gary Roberson at (812) 365-2705. For Wyandotte, contact Roger Gleitz at (812) 738-2782.
- ❑ As reported in the last *IKC Update*, the Indiana Department of Natural Resources is funding a project to determine the status of the Northern cavefish (*Amblyopsis spelaea*). The cavefish, primarily found in Indiana and Kentucky, is currently listed as a state endangered species in Indiana and is a candidate species for federal listing. Performing the research are Dr. Bill Pearson and Research Assistant Chuck Boston. For further details, see their letter on page 6.
- ❑ The gate replacement on the Quarry Entrance to Shiloh cave was again postponed due to high water flow. Our next attempt will not be until late spring or next summer, depending upon the cooperation of the weather. In the meantime, IKC member Tom Sollman is performing crayfish population counts in the cave to serve as a baseline for monitoring any impact that might occur as a result of future visitation after the gate installation is complete. Contact Tom if you would like more information on this study.
- ❑ In the last *Update*, the Land Acquisition Committee solicited the membership for suggestions of caves that you would like to see the IKC investigate the feasibility of owning someday. Well, the response was less than spectacular. But you still have time to contribute to the initial list. Just jot down the cave names and any details of the resources or the reasons for their need of protection and send to Keith Dunlap.
- ❑ The IDNR Non-game and Endangered Wildlife Program published their annual report on approximately 50 projects they have worked on during the last twelve months. Projects of interest to cavers include the Indiana bat winter census, visitation observations in bat hibernacula using speloggers, a karst appreciation field trip hosted by Bob Armstrong for the benefit of DNR and INDOT personnel, summer habitat model for Indiana bats, over-winter weight loss effects of bats due to human disturbance, consultation activities with INDOT over the SR 37 highway project involving impact to cavefish. The Non-game Program is staffed by six biologists and is funded almost completely by the donation check-off on your state income tax form. For more information on these projects or for a copy of their annual report, contact Scott Johnson at (812) 334-1137.
- ❑ Missouri has expanded its organized cave protection activities by forming the Missouri Caves and Karst Conservancy. Directly affiliated with the Missouri Speleological Survey, the MCKC's function is to own and manage caves for the MSS. Like the IKC, the MCKC is a membership organization and will initiate volunteer activities including restoration and protection activities. For more information, contact: *Friends of the Conservancy*, Route 2, Box 234, Eldon, MO 65026.
- ❑ The Hoosier Environmental Council will hold their annual business meeting on Saturday, December 11th, starting at 8:30 AM. The meeting will be at Bradford Woods near Martinsville. The meeting will review HEC's past year's progress and focus on its future strategic plans. Following the meeting (6 PM) will be their awards banquet with reflection on HEC's first ten years. For more information on attending this meeting, contact Denise Baker at (317) 685-8800.
- ❑ Start planning now for the 2nd annual Indiana Cave Symposium co-sponsored by the IKC and the Indiana Cave Survey. The symposium is a gathering of cavers interested in hearing about the various research and surveying projects that are going on in Indiana (or out of state projects by Indiana cavers). Dave Black organized the initial Symposium and will probably due likewise this year. The location and date have not been finalized, but it probably will be in conjunction with the Sullivan's (Under-Earth Day) clean-up.

continued on next page . . .

- ☐ Inserted in your newsletter should be a leaflet entitled "Important Bat Facts." We ask that you read the leaflet and then pass it along to friends and co-workers who might be interested in learning more about bats. Additional leaflets are available for \$5 per 100 from Bat Conservation International.
- ☐ A reminder to members that the IKC has a cave conservation slide show available for loan. The educational program is directed towards the conservation-minded general public (e.g., Audubon meetings) and discusses karst, springs, and caves; and the potential impacts that they face. For more information, contact Jim Adams.
- ☐ The IKC T-shirt offer was a success with approximately 80 shirts sold, netting around \$140 for the IKC. More importantly though, the shirts will promote cave conservation within the caving community and spark curiosity outside the caver's circle with those wondering -- *What is karst and why does it need conserving?* Thanks should go to Scott Fee for heading up this project. (Note: if you have not received your order by December 1st, contact Scott.)
- ☐ As part of Karst Encounter's, the host organization, the Eastern Indiana Grotto, held a raffle with part of the proceeds donated to the IKC. Thanks to the EIG for this support.
- ☐ It is also appropriate to recognize several of our members (specifically Dave Haun and Bob Vandeventer) who volunteer their time to work with youth groups that are interested in going caving. While many organized cavers frown upon groups such as Boy Scouts going caving, if done with the proper instruction and supervision, these trips can be very effective in educating non-cavers of the various factors that can impact caves while providing a unique recreational opportunity that will stick with them for the rest of their lives. The following are excerpts from a letter sent by Steve Warren, Scoutmaster for Troop 97:

"Bob Vandeventer took our troop on their first real caving experience through Trapdoor and Buckner caves... He came to a troop meeting the week before to show the boys what kind of equipment is used and showed some slides to show what they would be getting into. The boys that participated in the outing were well prepared as a result and had a *great* time! They wanted to do a good turn for Bob so they picked up four bags full of trash at the parking lot. Bob would not receive payment for his tours so he suggested... a donation from our troop [to the IKC] to help preserve Indiana caves."
- ☐ As part of last year's membership drive, the IKC distributed the booklet *Bats of the Eastern United States* published by the USFWS. While all members who joined before the deadline received the book, approximately 25 members who joined after the deadline missed out because the book was no longer available and the USFWS had funding problems for a second printing. A recent inquiry found that the book is now scheduled to be printed by the end of the year and the IKC has requested enough to distribute to those remaining members who joined during the membership drive. The booklets will be mailed out as soon as they are received.
- ☐ The last *Update* announced that IKC members Steve Collins and Mike Hood were awarded "Fellows of the NSS" at this year's convention. It has since been pointed out that IKC Director Ernie Payne also received this designation. Congratulations once again and the editor's apology to Ernie for leaving his name off the list.
- ☐ IKC meetings are not always all work. At the September meeting, a little friendly competition was supposed to resolve a long standing debate, but only added fuel to the fire to what is now being referred to as "Brownie-gate." Quoting Bruce Devore in *The Michiana Caver*, "It will be sometime until the dust settles on this one, as Keith [Dunlap] was chosen to be the best, only to be stripped of his title minutes later." After "re-adjusting" the scoring system, Loui Lord placed first, Jaime Fee was awarded second place, and Dave Black (with his store-bought brownies) was given third. [*editor's note - just wait until next year!*].

- ☐ The *IKC Update* was also honored at the NSS Convention by winning the Medal in the Photographic category of the Graphic Arts Salon (a medal is presented in both a photographic and non-photographic category). This is the third year in a row the *Update* has won one of these top awards. The medal winner was cover #25 with a photo by Nick Decker. Covers #26 (pen and ink by Linda Heslop) and #27 (pen and ink by Christine Gerace) received Honorable Mention ribbons. Our final cover for 1992 (#24, a pen and ink by Linda Heslop) was Accepted for Display.

Anyone with original cave related artwork or a high contrast photo (color or black & white) who would like to see it incorporated into a cover, please contact the editor.

- ☐ By now you have probably noticed this issue was not printed on the unbleached recycled paper that we have been using for the last several years. It seems our supplier, Earth Care Paper Products, is having problems with their paper mill that was making the paper for them, so the paper is currently unavailable. Hopefully by the next issue we will have found another supplier for quality recycled paper at a reasonable price.
- ☐ Five new members have joined the IKC since September including the Cunningham Family, Roy Logan, Tony Mulbrecht, Lynn Poole, and Mark Woods. The current membership stands at 169 individual members and 7 organizational members.

UNIVERSITY of LOUISVILLE

10/7/93

Chuck Boston
Research Associate
Water Resources Laboratory
University of Louisville
Louisville, Kentucky 40292

Cavers of Indiana and Kentucky,

The University of Louisville Water Resources Laboratory and the Indiana Department of Natural Resources have teamed up to save the Northern Cavefish *Amblyopsis spelaea* and we need your help.

The northern cavefish is only found in the karst regions of southern Indiana and Northern Kentucky. The fish is listed as a rare and endangered species in both states, and is a strong candidate for federal listing. To preserve this rare and unique species for future generations to enjoy we must first determine its current distribution, assess its numbers, make some preliminary judgements concerning the effects of human activities on its habitat; and then develop plans for 1) restoring habitats and populations, and 2) monitoring populations on a continuing basis.

Before we can determine any of the above factors we first have to know where the fish are, and this is where your help is needed most. There are few books or publications which list caves and their fish populations. Therefore, we are hoping to tap into the memory of the experienced cavers of this area. Enclosed you will find a form which asks you to list any caves where you have seen the blind fish or any caves which had a fish population in the past. We are planning to visit as many sites as possible, and will probably need guide services at future dates.

The success of our study relies on our ability to locate as many different recent locations as possible. All cave locations will be confidential and reported only as site reference numbers. Thank you for your help in us reaching our goal. For further information you can contact myself or Dr. Bill Pearson at (502) 588-6731.

Thank You for Your Help,

Chuck Boston
Chuck Boston

1994 HNF KARST FIELD SEASON

by Larry Mullins

You can expect a number of significant changes to the Hoosier National Forest Karst Analysis, Research, and Survey Team (HNF KARST) project this season:

KARST WEEKEND - KARST field work *days* will become KARST *weekends*. Instead of meeting at the Bedford HNF Office, we will establish a field camp that will serve as a rendezvous point, campground, and field office for the KARST program. The upcoming year's KARST *weekends* will occur monthly January through May, then startup again September through November. The specific weekend each month will be scheduled to minimize conflicts with other caving events or to be coordinated with grotto trips of participating grottos. The dates will be announced three months ahead in the IKC, CIG, WCG, NIG, KARST, and other appropriate newsletters.

KARST FIELD CAMPS - will feature Saturday night campfire gatherings where caver socializing, music, and wild cave adventure stories will prevail. KARST volunteers and any caver in the area are always welcome.

KARST PROJECTS - HNF projects will include the traditional ridgewalking, but will be supplemented with: dye tracing; cave location and verification; cave mapping; cave values inventory; cave conservation projects; karst feature verification; planning meetings (including input into cave management plans); and geological, hydrological, biological, paleontological, and archeological support projects.

Projects will be both on and off HNF lands and will include work in support of the Corps of Engineers Lost River environmental studies. Projects could include

some work days during the week and/or evenings to assist with documentation and data compilation, including cartographic mapping.

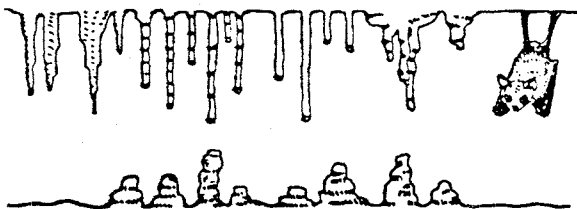
WORKSHOPS - two weekend workshops will be held this year:

NAVIGATION IN THE WOODS - cavers will be taught orienteering, topographic map reading, aerial photo interpretation, Geographical Positioning System (GPS) operation, and other skills for precisely determining locations in the field, including their own. In addition, a panel of the most successful cave discoverers will present tips and instructions on how to find new caves.

PARA-SCIENCE TRAINING - experts will be brought in to teach a weekend seminar to volunteer KARST inventory teams who will learn biology, paleontology, archeology, geology, hydrology, and other skills for use as para-scientific specialists to identify significant values, potential threats, and management actions using a team survey approach to inventory the caves on HNF lands.

OUT-REACH KARST TEAM TRAINING AND RALLIES - seven evening program/workshops will be presented, one each in the home towns of the Indiana grottos, plus the Windy City Grotto. Grottos will be encouraged to host and support this effort. The HNF KARST program, ridgewalking techniques, and other information basic to the HNF cave management program will be taught. Seminar "graduates" will have the opportunity to select HNF karst areas to become their project area. They will receive packets and equipment needed to investigate the area they select. Project area teams will then go into the field to conduct their survey at their leisure as field time is available.

For more information on any of the above activities, contact Larry Mullins M-F days at (812) 358-2675.



SR 37 HIGHWAY STATUS

by Keith Dunlap

Now entering month twenty of construction and pretty much halted by recent heavy rain until next spring, the SR 37 four-laning project has not been without its problems since the last status report in September.

In early October, an on-site visit revealed that INDOT was once again becoming very lax in erosion control measures. The primary violations were related to INDOT not re-seeding bare ditch grades and other areas after disturbance (Indiana Department of Environmental Management regulations require re-seeding within seven days -- some areas on this project have been exposed and unprotected since the summer of 1992!). Another letter was sent by the IKC to INDOT and cc'ed to other responsible agencies to once again report the observed problems.

Also brought to INDOT's attention was their failure to complete the drop structure at a critical sinkhole (#9) in a timely matter. This was something both the IKC and the IDNR had stressed was essential before INDOT started on the structure in July. Their apathetic work habits allowed the culvert to be installed, but INDOT then delayed the work to finish the culvert's protective drop structure. This left the adjacent sinkhole unnecessarily exposed for over a month allowing several heavy rains to flush tons of silt into the sinkhole's drainage system. This sinkhole was the location where the cavefish were found in May of 1992, and INDOT's previous lack of erosion control here was the primary reason they were found in violation of the Indiana Endangered Species Act last year.

A third observation that was cause for concern was evidence of recent overflowing of the truck wash basin at the concrete batch plant. The basin was constructed to contain contaminated wash water. The basin was to be kept pumped down to prevent the water from entering the nearby sinkholes. The catch basin was originally agreed to and constructed as part of a compromise last spring with INDOT so that they would not have to move their wash area to a less sensitive location.

A fourth concern reported to INDOT was the "failure" of one of their sinkhole filters. Rather than the storm water passing through the filter system as designed, the water had cut a hole about eight inches in diameter at the edge of the filter system and was finding its way directly into the karst system below, by-passing any filtration.

The final complaint covered in the most recent letter to INDOT concerned their dumping of construction debris in one of the "borrow pits" adjacent to the concrete batch plant (see photo). This activity is illegal and was reported to IDEM. An inspector later visited the site and ordered INDOT's contractor to clean up its mess or face a fine.

On a positive note, the most recent visit to the project found much of the bare soil finally seeded, although probably too late in the year for proper protection. Also the drop structure at sinkhole #9 had been completed and work was partially done to install one of the four peat filters that are planned to control water quality.

The IKC will continue to monitor the erosion protection over the winter and report deficiencies to INDOT as they are observed.



Illegal dump related to the SR 37 highway construction project. *photo by Keith Dunlap*

FCRPA SIGNIFICANT CAVES -- A CALL FOR NOMINATIONS

by Larry Mullins

After over four years of waiting, the Regulations for implementing the Federal Cave Resource Protection Act of 1988 are finally complete. The Department of Interior (National Park Service and BLM) released their regulations on October 1st and the Department of Agriculture (Forest Service) is scheduled to publish their identical regulations by mid-December. I have been personally involved in the writing of the Regulations, and even from an insiders perspective, I find it difficult to comprehend why it has taken so long; but the wait is almost over.

What does this mean to you as a cave conservationist? The Act really does not add a whole lot more legal protection to caves on federal lands compared to what existed before the Act. The most important component the Act provides is a mandate for land managers of the NPS, BLM, FS, and USFWS agencies to consider caves when planning uses on the public lands they are charged to manage. They are also obligated to involve cavers.

The Act is based on two guiding principles: "To secure, protect, and preserve significant caves on federal lands for perpetual use, enjoyment, and benefit of all people;" and "To foster increased cooperation and exchange of information between governmental authorities and those who utilize caves located on federal lands for scientific, educational, and recreational purposes."

There are two clinchers, however; "It is the policy of the United States that federal lands be managed in a manner which protects and maintain, (clinker #1) *to the extent practical*, (clinker #2) *significant caves*."

What this means in practice is that the pool of significant caves to be managed are not "the best of the best," but are instead **all** true caves with some identified value (this definition excludes mines, rock shelters etc...). These caves are to be identified on a list (ie, designated *significant*) and must be "considered" during analysis of possible environmental impacts along with all other environmental values when planning future projects. The caves cannot be

ignored, however the *significant* designation does not automatically mean the Authorized Officer cannot decide to permit the cave to be impacted or even destroyed in the execution of a project. For example, even a *significant* cave could be flooded by a reservoir or quarried for road fill.

SIGNIFICANT CAVES -- NOMINATIONS AND DESIGNATION. You can't protect what you don't know about, and people protect things that are identified as valuable. So land managers must know where the caves are and what values they possess before they can be protected. To this end, the Act provides for a listing (inventory) of caves.

NOMINATION - There are two stages for identifying caves for potential designation as significant -- the *initial list* which must be compiled within one year after the regulations are released by "consultation with appropriate private sector interests, including cavers"; and the *updated list* which is an ongoing collection of newly nominated or discovered caves. The updating process will be very similar to the initial listing process, but will be localized in scope.

Caves may be nominated by anyone. Nominations for the initial listing shall be sent to a national clearing house and then distributed to "Interagency Regional Review Teams." For Indiana, that is the NE Region (New England, PA, MI, WI, WV, MD, IL, IN, MO, IA, ME, DE, RI) with the team composed of Team Leader Larry Mullins (HNF), Patrick Lynch (Shenandoah NP), Jim Simpson (Ozark NP), and Linda Martin (Mark Twain NF).

The regional teams will evaluate the nominated cave applications for completeness, and determine if it contains one or more of the following values (criteria): biota, cultural, geological/mineralogical/paleontological, hydrological, educational, recreational, or scientific (if it does not contain one of these values, it will not qualify as a significant cave). The regional team then forwards the nominations to the local Authorized Officer who is responsible for the land on which the cave is located. For

the HNF, that person is the Forest Supervisor, Frank Voytas.

Five months will be allowed for the submittal of nominations for the initial cave listing, beginning approximately January 15th.

AUTHORIZED OFFICE DECISION - When the Authorized Officer receives the nominations from the regional teams, he/she will further check the applications for accuracy of location, verify questionable data, and make final determinations. The Officer has three options: designate the cave as significant, choose not to list the cave as significant and return the nomination to the applicant, or seek additional information.

All caves determined to be significant will be added to a list to be appended to the appropriate Management Plan and

must be considered in all management decisions that have the potential to harm the cave resource.

CONFIDENTIALITY - The Act requires that significant caves and nominated caves locations must be maintained confidential throughout the entire process. Significant cave locations will be retained by the Authorized Officer's office under the following precautions: all information is to be under lock and key; an individual is to be appointed as keeper of the information with all access requests to be channeled through that individual; and the public contact person will be properly trained and instructed to not accidentally give out locations.

The FCRPA requires that only the Authorized Officer has the authority to ap-

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IKC/CIG WAYNE'S CLEANUP TRIP - DEC 5th

The IKC and the Central Indiana Grotto are once again co-sponsoring the annual cleanup trip into Wayne's Cave on Sunday, December 5th. Our intentions are 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 not 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 some of the group will probably 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 "mud-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 in 1987, you may be pleasantly 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, please contact Dave Haun prior to the trip.

We will be meeting at the Bloomington westside McDonalds and leaving by 9:15 AM. Because parking is limited we must carpool to the cave and will be leaving cars in the K-mart parking lot.

1993 NATIONAL CAVE MANAGEMENT SYMPOSIUM

by Keith Dunlap

The eleventh biennial National Cave Management Symposium was held October 27-30 in Carlsbad, New Mexico. Approximately 150 participants registered. IKC members attending were Bruce & Cissy Bowman, Keith Dunlap, Cheryl Early, Dick Maxie, Larry Mullins, and Gordon Smith (Roger Gleitz from Wyandotte Cave was also there).

This year's Symposium, being in the west and co-hosted by the National Park Service, the US Forest Service, and the Bureau of Land Management, definitely had a slant towards cave management on federal lands.

The Symposium's timing couldn't have been better as the long awaited regulations for the Federal Cave Resource Protection Act were finally published. Del Price (BLM) led a presentation on the revisions made to the final Regulations compared to the draft Regs of a few years ago. Paramount was the redefinition of the meaning of "significance" which originally focused on unique or special features a cave must possess before it would be considered for protection. Now, the criteria for being a "significant cave" is much broader, allowing almost any legitimate cave to be considered for protection.

Of the three and one-half days of the Symposium, one full day and two partial days was dedicated to the presentation of papers. Each author has approximately twenty minutes for their talk, plus five minutes for questions and answers. Because of the number of papers available (42 in all), two concurrent sessions were held which required the audience to choose between the papers being presented. Topics included: cave restoration and

monitoring, volunteers, hydrology, biology, archeology/paleontology, caver safety, management of caves and karst areas, and bats. Of the twenty or so presentations I attended, two were particularly noteworthy, both dealing with problems in central Texas. The first focused on water quantity and quality issues related to the Edward's Aquifer and the steps that state and federal agencies are taking to protect this significant resource. The second paper dealt with cave protection problems caused by urban development and the effective use of the Endangered Species Act as a mitigation tool.

One full day of the Symposium was dedicated to field trips. Four trips were offered including: Cottonwood Cave (USFS) focusing on wild cave management and permit systems, and restoration techniques; McKittrick Hill caves (BLM) again focusing on wild cave management, and monitoring impact; Carlsbad Caverns (NPS) emphasizing show cave management and protection, monitoring impact, interpretive staff considerations, and the educational roles show caves can play to protect caves; and a trip to the Dark Canyon oil fields and the problems related with drilling in karst areas.

One of the morning sessions had two panel discussions that allowed lively dialogue and comments from the participants and the audience. The topics were "Undeveloped caves: permitting and tours" and "Use of caves in environmental education."

The Friday evening banquet had noted karst hydrologist Tom Aley as the guest speaker. Tom reminisced about many of

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IKC EXECUTIVE BOARD NOMINATIONS

As the end of the year approaches, it is time to start thinking about the upcoming March elections. The three officer (President, Secretary, and Treasurer) and six of the twelve Director positions are up for grabs. All members are eligible, with the only requirements being the willingness to be involved and to attend the five meetings each year (the four Quarterly meetings plus the February Board meeting). Officer positions are single year terms while the Director terms are two years in duration. Contact Keith Dunlap for more information, to nominate yourself, or to suggest other IKC members who might be interested.

QUEEN BLAIR CLEAN-UP

by Jeff Cody

Last summer while searching the Buckner area for lost cavers, Larry Bundy, Scott Cummings, and myself were assigned to search Queen Blair Cave. While on our trip, we did not find the lost cavers (they were later found in Triple J), we did however, find a small amount of trash in cave. At that time, we made this cave a target of the next Mid-Hoosier Grotto clean-up trip.

Sundays are when most of us get together, so we set a date of November 7th for the trip. Scott Cummings Brent Fountain, Arron Howell, myself, and a few Franklin College students made up our crew. Each year we take a group of college students from the Environmental Awareness class on a trip; we thought this was a good chance for the students to learn cave conservation.

The morning was a cold one, but it did not dampen our spirits. We arrived at the entrance at 10 AM and were in the cave not long after. On the way in through the entrance passage, we pulled trash and placed

it in the middle of the passage to pick up on the way out. Once we entered the main passage, we pulled out our haul bags and began the search for trash. We found only a few used batteries, some beer bottles, and some carbide dump spots, which we dug up. Not much was found in the large main passage, but it was searched all the way back to the stoop walk and breakdown chambers. Arriving at this point, we started back and rested at the junction.

On the way back out, we collected most of the trash. We also found several more bottles, a pack, several cans, and other miscellaneous items. We did not find any graffiti on the walls. I think we were able to remove most of the visible trash. Once out, I picked up some discarded clothing and a small amount of trash near the entrance.

We collected two full trash bags of litter. I feel our trip was a success. All participants had fun and the students gained a positive experience on their first trip to clean a cave.

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prove requests from the public for disclosure of such information and then only if such disclosure "would further the purpose of the Act and would not create a substantial risk or harm, theft, or destruction of such cave."

Once the public call for nominations is

issued, specific forms will be made available. Direct any questions or concerns you may have to Larry Mullins at 812-358-2675.

[Editor's note -- copies of the Department of Interior's regulations are available from Keith Dunlap or can be downloaded from the H.O.M.E. BBS (317-539-6579).]

continued from page 11 . . .

his unique consulting assignments in karst areas. Although his stories were entertaining, many had seriously impacted caves and karst by the time he was called in to investigate and make suggestions to fix the problems.

One of the many highlights during the week was a special presentation by Dr. Merlin Tuttle, Founder and Executive Director of Bat Conservation International. His presentation's focus was towards the public land managers present and actions

they can take to protect bats in caves and mines (abandoned mines are getting considerable recent attention because of new federal mandates to seal entrances). As always, Dr. Tuttle's slides were incredible.

With the next Symposium being held in Indiana and co-hosted by the IKC, numerous pages of notes were taken on things that were good and worked well, and things that were not so good and should be avoided. Our facilities will definitely be better and our field trip opportunities will be more diverse.

BCI BAT HOUSE RESEARCH PROJECT

adapted by Keith Dunlap

Bat Conservation International has launched a major bat house research project and they need your help. They are interested in finding volunteers who will construct/purchase, install, monitor, and document their observations of bat house usage (or lack of usage). Many cavers have already put up bat houses so most of the work is already done. Others may want to use the upcoming winter months to build houses for installation next spring.

Interest in artificial bat roosts has steadily increased over the past ten years primarily because of the commercial availability of houses through several sources [note: *Wild-birds Unlimited* (317-251-5904) in Indianapolis has a large selection of models to choose from, starting at about \$30]. Until last year, the success rate of attracting bats to these houses were at best a guess and was thought to be relatively low. It was also not known what factors influenced the occupancy rates or how to improve your changes of attracting bats.

In 1992, BCI conducted a preliminary survey of 420 people who had installed bat houses. Of these, 267 houses had been monitored sufficiently to have their observations included in an extensive summary looking statistically at several dozen parameters.

Perhaps most surprising was the high occupancy rate, averaging 52%, with larger houses (71%) seeming to have an edge over smaller houses (32%). Long, tall houses seemed to be the most effective. The number of bats per house ranged from zero to approximately 250. It was found that most houses (70%) were occupied within the first season and the house should be moved to a different location if not occupied by the second season.

A number of observations were made concerning locations. Houses in urban areas did surprisingly well with a 48% occupancy rate. Houses located near orchards

had the highest rate at 88%. It was also found being near water (a stream or pond) was an important factor for success. At latitudes similar to Indiana, it was found that houses need to be exposed to direct sun light at least four hours a day and should be painted (outside only) a dark color to absorb solar radiation.

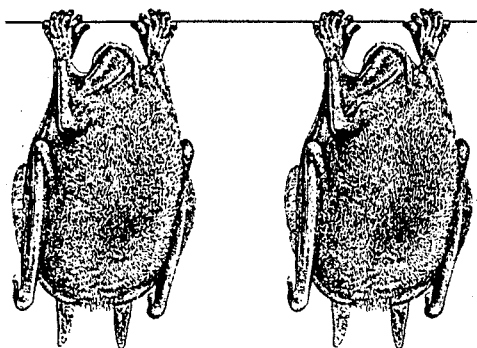
Construction materials did not seem to be a major factor other than houses made of old wood seemed to be occupied sooner than those made of new wood. Houses treated with a solution of water and guano also seemed to be occupied sooner, but did not seem to be a factor for long term occupancy.

The amount of information derived from this initial study was encouraging and prompted BCI to significantly expand the investigation by forming the *North American Bat House Research Project*.

The goal is to involve as many people as possible to become volunteer "research associates" who will monitor their bat houses and report observations. They are also strongly encouraging participants to design and perform controlled experiments using multiple houses (e.g. -- dark paint vs light paint; direct sun light vs indirect light).

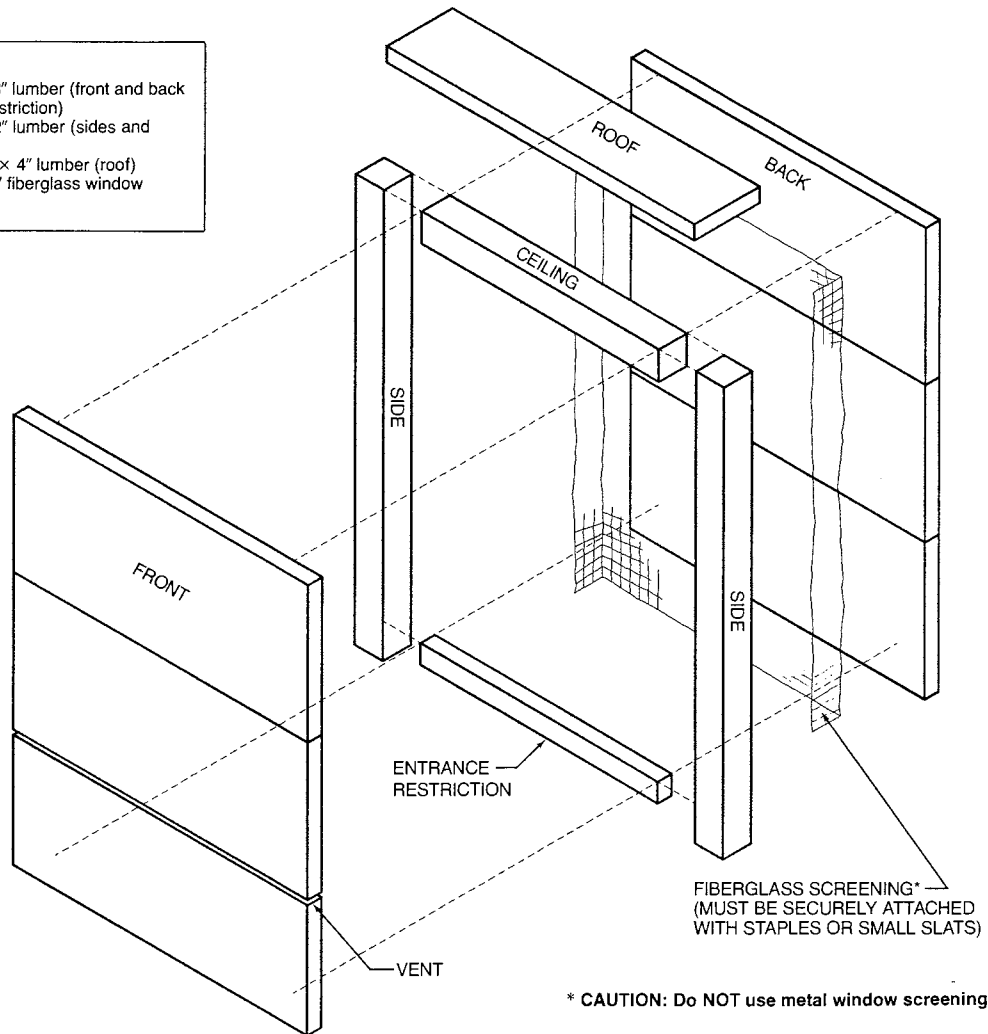
To participate in the Project, you must complete the inserted application form and mail to BCI. There is a \$15 charge (\$10 for BCI members) to help fund the project which includes twice-a-year progress reports, the 36 page *Bat House Builder's Handbook*, and other instructional material. The *Handbook* contains considerably expanded explanations of the results presented in this article along with numerous photos, charts, and plans for three different bat house designs, one of which is illustrated on the opposite page.

The IKC strongly encourages participation in this project and would be interested in hearing about successful experiences with bat houses.

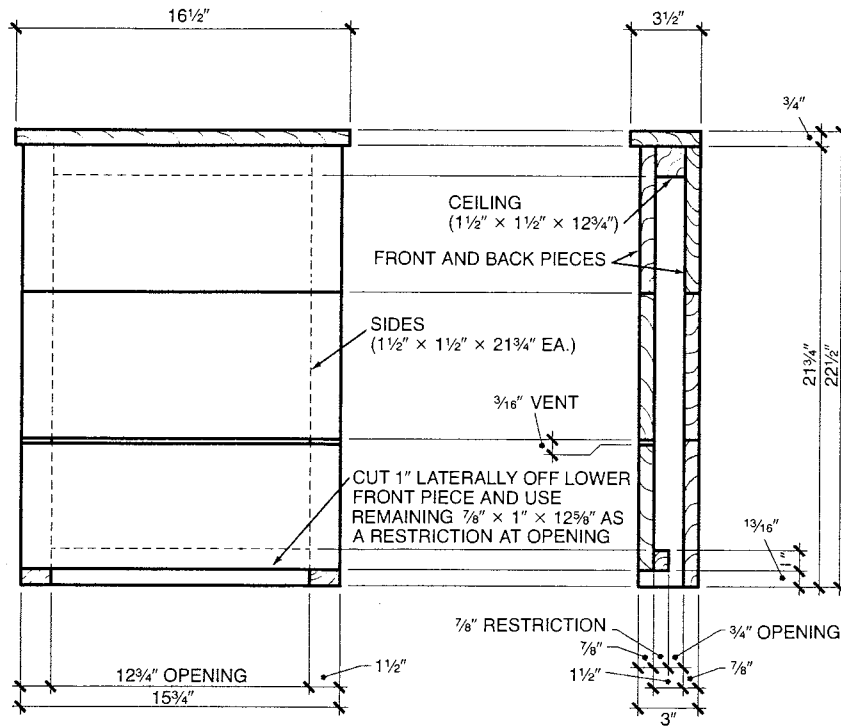


Materials needed:

- One 8' piece of 1" x 8" lumber (front and back pieces, and entry restriction)
- One 5' piece of 2" x 2" lumber (sides and ceiling)
- One 16½" piece of 1" x 4" lumber (roof)
- One piece 15½" x 23" fiberglass window screening*



* CAUTION: Do NOT use metal window screening



Reprinted with permission from *The Bat House Builder's Handbook*, by Merlin Tuttle and Donna Hensley. Copyright 1993 - Bat Conservation International.

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

First Quarter Dues	\$63.75	
Second Quarter Dues	\$650.00	
Donations	\$32.00	
Recycling (Cans & Myotis Press Plates)	\$22.00	
Interest	\$21.03	
T-Shirt Sales & Postage	\$396.00	
		<u>\$1,184.78</u>

EXPENSES:

T-Shirt Cost & Postage	\$286.34	
IKC Update (Printing/Production/Mailing):	\$121.42	
Cave Management Symposium Fee (Bowman)	\$100.00	
Annual Cookout (Fall Meeting)	\$79.59	
Film & Processing (SR37)	\$57.04	
IKC Update Mailing Envelopes	\$45.05	
Postcard Mailing & Stock	\$29.07	
Ray's Cave Singage	\$25.00	
Grant Writing Workshop (Bowman)	\$25.00	
Secretary Paper/Phone/Postage	\$18.43	
Misc. Publisher Postage	\$18.02	
IKC Update Cover Prints	\$18.00	
Karst Encounters Doorprize	\$15.00	
Cave Management Symposium Expenses	\$4.00	
Lease Renewals	\$1.00	
Total Expenses:		<u>(\$842.96)</u>
Current Operating Excess (Deficit)		<u>\$341.82</u>

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

Shirt Inventory (10)	\$67.80	
Cash in Bank	\$4,462.35	
Total Assets		<u>\$4,530.15</u>

LIABILITIES & OPERATING EXCESS:

Hancock Fund	\$219.49
DNR Non-Game Fund	\$270.00
T-Shirt Orders & Postage	\$224.00
Deferred Dues:	
1993: 176 Members @ 50%	\$1,320.00
1994: 2 Members	\$30.00

Previous Operating Excess	\$2,124.84
Net Excess (Deficit) This Period	<u>\$341.82</u>

Current Operating Excess	\$2,466.66
Total Liabilities & Operating Excess	<u>\$4,530.15</u>

IKC QUARTERLY BUSINESS MEETING MINUTES

Saturday, September 25, 1993

Indianapolis, Indiana

BOARD MEMBERS PRESENT:

James Adams	Bruce Bowman
Bruce Devore	Keith Dunlap
Scott Fee	Dave Haun
Hank Huffman	Scott Johnson
Larry Mullins	Tom Rea
Eric Schmidt	Tom Sollman
Bill Tozer	

BOARD MEMBERS ABSENT:

Jeff Cody	Ernie Payne
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The September meeting was called to order at 5:09 P.M. by IKC President Keith Dunlap at the home of Scott Fee in Indianapolis.

Introductions were made. In attendance were several special guests including members of the NSS Executive Committee: Jeanne Gurnee, NSS President; Wayne Marshall, NSS Administrative Vice president; IKC member Dave Luckins, NSS Executive Vice President; and Bill Stringfellow, NSS Secretary. Also present were Russ Gurnee and many other local friends of the IKC.

The June minutes were approved as published.

Treasurer Scott Fee reported that we have approximately \$4000.00. A detailed quarterly report was included in the most recent *IKC Update*.

The IKC and the Hoosier National Forest will host the 1995 National Cave Management Symposium. Bruce Bowman was confirmed as Chairman of the event. Tom Rea will publish the program and the proceedings after the event. Bruce Devore expressed an interest in taking care of registration. About 12 people are needed to work on the event.

A motion was made and passed for Spring Mill State Park to be the site of the Sym-

posium. The IKC will block all 75 rooms at the inn. Up to two hundred people are expected to attend.

Several IKC members will be attending the 1993 Cave Management Symposium in Carlsbad, NM in October. A motion was made and passed to pay for Bruce Bowman's registration fee of \$100.00. Also attending will be Larry Mullins and Keith Dunlap.

Jim Adams reported on progress at Shiloh Cave. Because of the rain this summer, there has not been much activity. The work day scheduled for tomorrow (9/26/93) will also have to be canceled because of the rain. Another attempt will be made on October 3rd.

Tom Sollman has been in contact with biologist Horton Hobbs III. Tom suggested and agreed to follow-up on a basic cave crayfish population study. Since the cave has been closed for almost 10 years, Hobbs agreed with Tom's idea that keeping crayfish counts could be useful in determining the caver impact on the population after the cave begins to see more traffic.

The IKC now has two styles of T-shirts available. The shirts feature two IKC logos on the front and back. The cost of the shirt is \$10.00 and the IKC will make at least \$2.00 on each shirt. Sweatshirts are also available and will be ordered if there is enough interest. See Scott Fee to make a purchase.

Bruce Bowman recently attended a fund raising workshop. A motion was moved and passed to reimburse him for the \$25.00 registration fee. It is hoped that Bruce will bring the knowledge that he picked up at this workshop and future workshops to the IKC to assist in the organization's land acquisition.

A report was published in the September *IKC Update* from the Land Acquisition

continued on next page . . .

Committee. The committee is trying to locate members with "useful" skills in land acquisition and management. Keith also asked everyone to please submit a list of caves and karst features that might be likely candidates for IKC ownership. It would also be helpful if each member would try to give reasons why the acquisition should be considered.

Keith Dunlap will attend the HEC Annual Business meeting as the IKC's representative.

The *Ohio Valley Region* of the NSS would like to support a conservation project in Indiana in 1994. There was some discussion on possible projects but the issue was deferred until the December meeting. All members should give some thought to appropriate conservation projects.

Scott Johnson of the DNR and Keith Dunlap are conducting a cursory temperature study in Ray's Cave with new temperature loggers that Keith recently purchased. There was a brief discussion about the possibility of reimbursing Keith for the cost of the four loggers. No motion.

The IKC has installed "No Trespassing" signs on the trail to Ray's Cave with the landowner's permission. A motion was made and passed to reimburse Keith for the \$25.00 spent on the signs.

Since the IKC is currently working at Shiloh Cave, it was suggested that we purchase a reprint of a thesis that was done on the cave's crayfish population in the seventies for \$55.00. Although the membership agreed that this would be a good document to have on file, it was felt that a less expensive copy might be available.

Keith reported that things have been fairly quiet on the SR 37 issue over the past few months. Progress has been made on erosion control. Larry Mullins also reported that dye traces have recently shown that the drainage basin of Blue Springs is much larger than previously thought.

The IDNR is conducting a \$16,000 program in an effort to have the cave fish list-

ed on the Federal Endangered Species list. Dave Black is reported to have a list of 88 caves that he knows of which may contain cave fish populations.

The Army Corps of Engineers is studying the Lost River. About \$80,000 has been designated for environmental issues. Larry Mullins reported that some of the activities should include diving and surveying the True Rise and the Orangeville Rise in Orangeville, continued dye tracing, biological surveys and locating springs in the bed of the Lost River. Larry urged everyone to pass along any cave locations that might have a good assortment of "critters".

Larry also added that the HNF is still looking for opinions concerning the Hemlock Cliffs area. How do you use this area? What are your concerns?

The Suicide Cave property is posted. Contact with the landowner has been made. He does not want anyone on his property. Grant Van Hemert is following up with a letter explaining the IKC and our interest in the cave.

For the third year in a row the *IKC Update* has won awards in the NSS Graphic Arts Salon. 1992 covers received a Medal, two Honorable Mentions and the fourth cover was accepted for the show. The Medal (June 1992) will be sent to the photographer in Missouri.

An IKC/CIG sponsored cleanup trip to Wayne's Cave will be held on Sunday December 5th. Dave Haun is the trip leader.

The next regular meeting will be in Bloomington on December 4th at 7:00 P.M.

At this time, the meeting was opened for issues from the floor. Jim Adams asked if we should approve money for the 1994 Indiana Cave Symposium co-sponsored by the Indiana Cave Survey. Their next quarterly meeting will be held before the next IKC meeting. It was moved and approved to contribute up to \$50 to the event. Jim noted that the Secretary and Treasurer of the IKC will pass this along to the Secretary and Treasurer of the ICS.

NSS Administrative Vice President Wayne Marshall commented that the *IKC Update* is one of the best publications that he receives from the many groups around the country. He complimented the organization for our efforts.

It was noted that although IKC members Steve Collins and Mike Hood were noted in the recent *IKC Update* as having been made Fellows of the Society at the 1993 NSS Convention, Ernie Payne was not recognized in the publication. He also received his Fellow designation. Congratulations Ernie!

It was moved and unanimously passed to publicly thank the anonymous donor who provided the color cover of the September *IKC Update*.

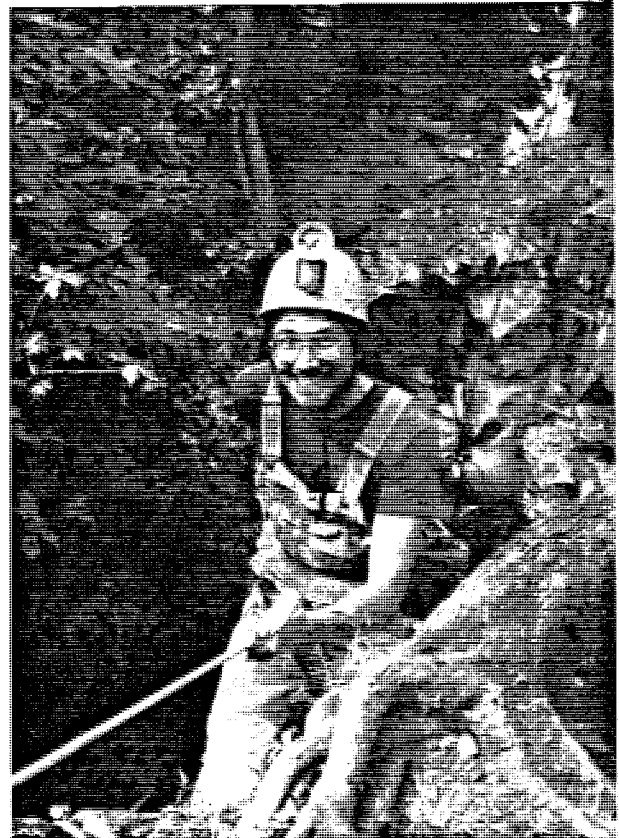
The meeting was adjourned at 6:47 P.M. After the business meeting everyone adjourned to the shelter of the Fee's garage for a pitch-in dinner. Jane Miller played chef at the Fee's new grill.

There were seven entries in the well-publicized Brownie Bake-Off. Loui Lord

took first place for her sugar filled delights and took home a new IKC T-shirt as her reward. Second place went to one of the two recipes submitted by Jaime Fee and third place was filled by Dave Black.

After everyone had gotten their sugar fix, Scott and Jaime showed some slides of their recent Western vacation and Arizona caving adventures.

Submitted by James Adams, Secretary



Director Bruce Bowman rappelling into Coon Cave. *photo by Bill Tozer*

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.

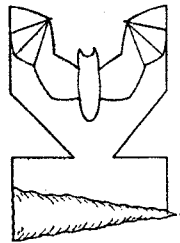
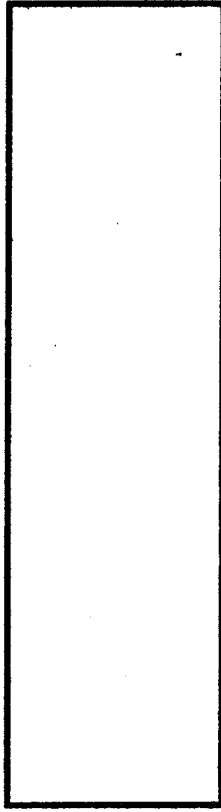
NAME _____
 ADDRESS _____
 CITY/STATE/ZIP _____
 PHONE # _____

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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