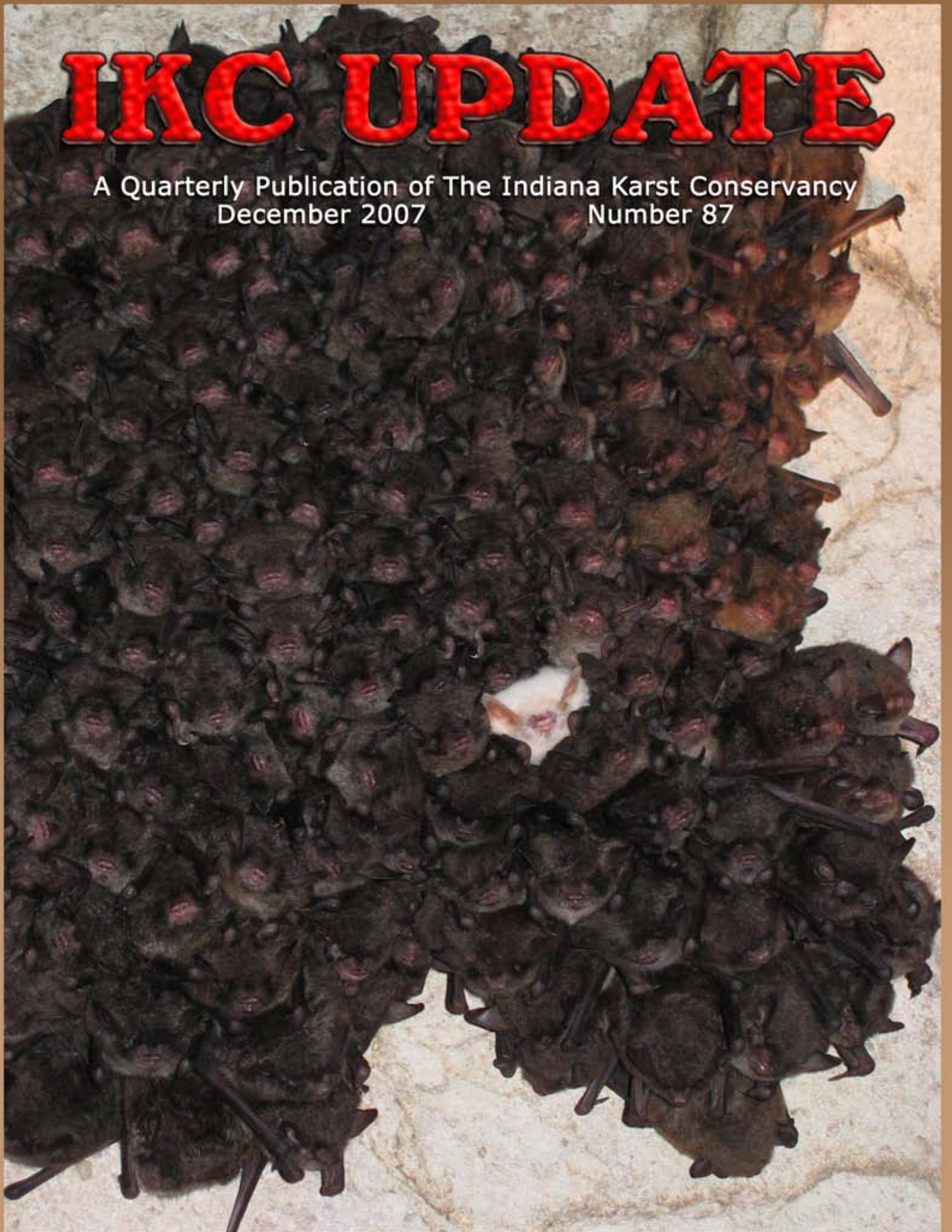


# **IKC UPDATE**

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<http://www.caves.org/conservancy/ikc>

*Affiliated with the National Speleological Society*



The Indiana Karst Conservancy 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: A rare albino Indiana bat. This one was photographed in 2005 by John Omer in a hibernaculum on the Daniel Boone National Forest, Kentucky.



**QUARTERLY MEETING REMINDER**  
**SATURDAY, DECEMBER 15th, 10:00 AM EST**  
**BLOOMINGTON, INDIANA**  
**IU GEOLOGY BUILDING, ROOM 143**  
**(SAME ROOM AS THE BIG MEETING)**

The quarterly meetings are for the elected Board to conduct business and for our members and other interested persons to have an open forum to talk about caves 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. The IKC Board wants your input.

Preliminary agenda items: Brief recap of the last quarter's activities (e.g., NCKMS and Washington DC Cave Conservation Cafe); Treasurer's report; Robinson Ladder fields restoration; Sullivan work activities; National Speleological Foundation grant status; Workday dates for 2008; 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 run across the IU campus. Park behind the building, parking permits are not enforced on weekends. Enter the building from the rear at the west end. The room is halfway down the hall on the right.

### **ACTIVITIES CALENDAR**

- December 8 – HNF/IKC Committee Meeting**
- December 15 – IKC Quarterly Meeting (see above)**
- February ?? – IKC Board Meeting (date and location TBD)**
- March ?? – IKC Annual Business Meeting (date and location TBD)**
- March 29 – Lost River Tour (Orleans)**
- April ?? – Tree Planting at Buddha Preserve (date TBD)**
- April ?? – Under-Earth Day (date TBD)**
- April ?? – Indiana Cave Symposium (date TBD)**

For more information on the Indiana Karst Conservancy, visit our website at <http://www.caves.org/conservancy/ikc> or write to our PO box. Membership to the IKC is open to anyone interested in cave and karst conservation. Annual dues are \$15. Please see inside the back cover for a membership application form or to make a much-appreciated donation. Donations can also be made by credit card using the donation button located on our website's home page.

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 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...

*“In the old days, it was not called the Holiday Season; the Christians called it ‘Christmas’ and went to church; the Jews called it ‘Hanukkah’ and went to synagogue; the atheists went to parties and drank. People passing each other on the street would say ‘Merry Christmas!’ or ‘Happy Hanukkah!’ or (to the atheists) ‘Look out for the wall!’”* – Dave Barry



More results from the video “*Caves: Life Beneath the Forest*” which the IKC co-sponsored along with the Hoosier National Forest, the NSS, and Ravenswood Media. The video was presented in Washington

DC at an event put on by the US Forest Service. Our own Dr Jerry Lewis was able to attend and participate in the panel discussion. An article on this is included in this issue.

Hopefully all of you received your copies of the DVD and enjoyed them and are using them to promote karst conservation. For myself, my wife and I plan to present it and a program about our personal experience with the production at a meeting of the Evansville Audubon Society in the coming year. We will also be inviting members of the local nature center organization. Other chapters of the Audubon Society exist in Terre Haute, Indianapolis, Bloomington, New Albany, South Bend, Fort Wayne, and elsewhere in surrounding states (see [www.audubon.org/states/index.php](http://www.audubon.org/states/index.php) for a complete listing and contact information). Many of these chapters have monthly meetings at which they present programs. You could contact them and your local nature/outdoors clubs and volunteer to run the show for them. Rotary Clubs and other civic organizations are also on the lookout for programs. Not much is required, the content is pretty much self-explanatory and you can fill in some of your own experiences, talk a little about the IKC and our mission, and answer questions (Is all of the cave underground?). You might even get a meal or a complimentary membership. The video is a valuable tool for cave conservation, let’s use it for all its worth.

Surface restoration work is progressing on the

Robinson Ladder Cave Preserve. We have signed an agreement with The Nature Conservancy whereby they will pick up most of the costs that the Indiana DNR does not. Jamie and Carla Winner are overseeing the work and report that the initial effort to eliminate the fescue monoculture has begun. It is hoped that we may be able to go to the next phase, a controlled burn, in the spring. This work promises to restore native plants to the two open fields on the property.

I recently stopped by the property and can report that the lane up to the old barn is holding up well after the grading work and crushed stone application done earlier this year.

On another subject, we are working with The Nature Conservancy and the Hoosier National Forest to see what can be done to extend an increased level of protection to more of the karst features of the Lost River area. Presently, the Hoosier National Forest is prevented from acquiring any land in the area because it lies outside of its Congressionally approved purchase boundary. Wesley Chapel Gulf was an exception to this rule but it took Congressional action to accomplish that. Initial discussions have been held with some of the congressional legislators involved to find out what it would take to alter the purchase boundary. You may recall from the last *Update* that Congressman Baron Hill had been escorted through a part of the Lost River system – that was part of this effort, though whether getting the Congressman wet and muddy will help or hinder remains to be seen.

I hate to bring up taxes but we are nearing the end of the year and would like to remind everyone that the IKC is a 501(c)(3) organization and as such your donations are tax deductible. Also on that subject, when you are filling out your Indiana tax forms, there is a little box with a bald eagle symbol – that is a checkoff for the Indiana Non-Game Fund. This fund pays for the monitoring and restoration work done on critters like the Indiana bat – and the bat is a large beneficiary. No other state tax dollars go into this valuable work, it is strictly voluntary on the part of Indiana’s citizens. You can elect to have some of your refund go into this fund; or if you don’t receive a refund, you can take the opportunity to make a donation. If you care about the bats and other threatened wildlife, please consider a contribution; without it, this program will fail.

*Richard Vernier*

## NEWS BRIEFS...

- ❑ In September, two tri-axle truck loads of top soil were used to construct a 60-foot long by 20-foot wide “terrace” in the camping clearing at Sullivan Cave property. Camping has always been problematic there, due to the sloping landscape leaving few level spots to pitch tents. This improvement should be greatly appreciated next year when the newly sowed grass fills in. A special thanks to Jamie Winner for the use of his tractor/grader which made quick work of the earth moving task.

- ❑ Other additions at the Sullivan Cave property are two memorial limestone benches near the cave’s entrance. The benches were erected in memory of second generation caver Eric Schneider who was tragically killed last December in a bicycling accident. The cut limestone slabs used were some that Eric had acquired and planned to use to build a patio. The benches were constructed by Adam Manship and Mark Sparks and installed on November 10th.



- ❑ One of the secondary benefits from the biennial bat census (see page 10 for an article on the census results) is the recovery of bat band information. For the 2007 census, 30 bands were observed along with one PIT tag detected. Ray’s Cave had 15 recoveries, Coon had 7, Grotto had 5, Wyandotte 3, and Jug Hole had one. Of the 31 bands/tag, 20 were identifiable. Eleven were originally banded near the Indianapolis airport, two came from Michigan and one from Tennessee. The rest were from various Indiana counties (Johnson, Warren, and Greene). Four bands had been previously recovered in 2005 or 2003. The oldest band was from July 2001.

- ❑ This issue’s cover features a rare “albino” bat observed during the 2005 bat census. Typically, only one or two full-white or partially-white bats are found during each census and often are never seen again (the exception was a string of sighting in Ray’s Cave over several consecutive counts). In 2007, a single white bat was observed in Coon Cave. The photo to the right was taken by Justin Boyles (ISU).



- ❑ The Lost River Conservation Association has already publicized their Lost River tour dates for 2008. Mark your calendars for March 29th, June 7th, and September 20th.

- ❑ Congratulations to IKC member Scott Fee who was the recipient of the William J Stephens Outstanding Service Award named at the Marengo NSS National Convention. Also, members Dave Everton, Jaime Fee, and Anmar Mirza were among the 28 cavers designated NSS Fellows.

- ❑ Over the past six months, a number of members and supporters have made general donations or restricted land acquisition fund donations. These include Robert Ankenbauer (with employer match), George Brutchen, Jim Clark, Keith Dunlap, Bill Fritz, Dan Lucas, Carl Nelson (with employer match), Gordon Smith, Bob Zatarski, Lilly Corporation (on behalf of Bruce Bowman), Greater Cincinnati Grotto, and The Robertson Association. Thanks to all!

- ❑ Two new members have joined the IKC in the past quarter. Welcome Jim Clark (468) and Doug Hanna (469). The IKC membership now stands at 189.

## CAVE CONSERVATION FRONT AND CENTER IN WASHINGTON

by Cindy Sandeno

Cave conservation transcends boundaries and requires the assistance of a variety of partners. On October 23, 2007, the US Forest Service joined forces with over thirty partners to present a one-of-a-kind event, the Cave Conservation Café. This event included a showing of the recently completed documentary *Caves: Life Beneath the Forest*, discussions on cave conservation nationally, as well as a panel of the nation's foremost cave specialists. *Caves: Life Beneath the Forest*, is a powerful conservation initiative geared at engaging children and adults in learning about the fragile web of life that exists in caves. And the video served as a centerpiece for the Café.

What began as a small luncheon discussion several months prior grew into a impressive endeavor. With the goal of bringing together an energetic group of stakeholders from various Federal agencies, policy makers, nonprofit organizations, and other organizations who will share a sustained common interest in conserving caves and karst resources, the Forest Service had a huge task to complete. A planning team consisting of Joseph Fagan (Karst Protection Specialist, Virginia Department of Conservation and Recreation), Val Hildreth-Werker (Conservation Chair of the National Speleological Society), Dave McGowan (Producer, Ravenswood Media), Cynthia Sandeno (Karst Coordinator, Hoosier National Forest), Jonathan Stephens (Congressional Designated Areas and Trails Program Manager, Forest Service), and Jerry Trout (National Coordinator for Cave Resources, Forest Service) was quickly put together. And the team used its shared vision for cave conservation to plan this remarkable event in less than two months.

Opening remarks were given by Jim Bedwell, National Director of Recreation for the Forest Service regarding the extent of cave resources in the United States. Guest speakers including Penny Boston, Associate Director of the National Cave and Karst Research Institute, began the program by speaking about the importance of cave resources and discussing current cave research that is being funded by both the Forest Service and NASA. These speakers set the stage for the showing of the film.

After the feature presentation of the cave life video, seven panel members made their way to the stage for a moderated question and answer session. The questions covered a wide breathe of expertise which was represented by the panelists who had been sent by the following organizations: Bureau of Land Management, Indiana Karst Conservancy, National Speleological Society, The Nature Conservancy, and the US Forest Service.

The event concluded with a lunch reception

which was provided by the Indiana Karst Conservancy, National Speleological Society, and The Nature Conservancy. Over sandwiches and salads, participants of the Café continued their discussions. Overall, this successful event resulted in a tremendous increase in cave conservation awareness and many new partnerships were developed. The Department of Interior has already requested another showing of our video (scheduled for late January). They would like to have a joint meeting with Bureau of Land Management, US Fish and Wildlife Service, and National Park Service.

Because of the amount of publicity and interest generated by the event, Jerry Trout, Val Hildreth-Werker, Jim Werker, and I were able to meet with the Directors of all branches in the Forest Service. We also had a chance to meet with the Deputy Chief, Joel Holtrop. These meetings and the Café have led to a shift in thinking for the Forest Service and has placed the cave and karst program at the forefront of many people's minds. Currently, caves fall under the purview of recreation at the national level. But now, the agency is discussing ways to incorporate cave management into all disciplines (such as hydrology, geology, wildlife, etc) since caves are really a shared resource. And, the agency is taking steps to provide better coordination and more support for this program across each region, as well as nationally.

Another result of these meetings includes the addition of caves and karst as a selection for the national database for volunteer hours. Currently, volunteer hours donated by cavers have been put under the heading "other" along with many other types of projects. Now caver hours can be listed and tracked separately. This will go a long way in keeping the agency informed about the incredible work that cavers do each year, and will go a long way in justifying funds for the cave and karst program.

Yet, this is only the beginning. All those involved in the organization of the Cave Conservation Café hope that this event will be a beginning, not an end. The foundation has been laid and momentum is building. This is a wonderful time for cave conservation across the United States. This event is a true testament to the fruits of partnerships. Special thanks to all of those who participated in this important event, especially Jonathan Stephens, Jim Bedwell, Penny Boston, Chris Carlson, Joey Fagan, Hal Hallett, Val Hildreth-Werker, Jerry Lewis, Jean Krejca, Dave McGowan, Hazel Medville, Allen Pursell, Jerry Trout, Sandy Trout, and Jim Werker. And, a special thanks to the Indiana Karst Conservancy for funding Jerry's travel. He was invaluable!



## IKC GOES TO WASHINGTON: CAVE CONSERVATION (PART 2)

by Jerry Lewis

The morning of Monday, October 22 found me at Standiford Field, in Louisville watching the sun come up. I was waiting for my morning flight to Washington DC for the Forest Service's Cave Conservation Café, an event that was shaped around the Hoosier National Forest / Indiana Karst Conservancy video *Caves: Life Beneath the Forest*.

The flight was uneventful – at Reagan National Airport I hopped on the Metrorail and made my way up to the Woodley Park / National Zoo station. Riding up the long escalator out of the subway I emerged into the familiar surroundings of Connecticut Avenue. I had been here many times before during trips to DC. It was a sunny, warm day and I had lunch at a sidewalk café, then walked the two blocks up to the Kalorama Guest House. I had chosen this bed and breakfast because by Washington standards it was “cheap”, at \$145/night (+ tax). I checked into my small room, then returned to the subway and headed downtown.

I exited at Smithsonian Station, emerging on the Mall only a block from the Department of Agriculture building. The building takes up two large city blocks and finding the Jefferson Auditorium was somewhat of an adventure in itself. Finally getting to an unlocked entry, I was encouraged by the sign on the wall pointing to the Jefferson Auditorium. But alas, the friendly and helpful guard informed me that “you can't get there from here”.

I walked to the far end of the building to try again and eventually talked the security force into letting me find the auditorium – escorted by an armed guard. After a modicum of success there, I walked over to the National Air and Space Museum to buy my kids the requisite t-shirts and then headed back to the B&B.

The next morning I was sitting in the breakfast room eating my waffle when I looked up and saw Alan Pursell of The Nature Conservancy of Indiana. Alan had the same experience that I did when looking for a motel room, finding that the average price was around \$300 a night. So he had checked around and someone told him where I was staying. We ate breakfast together, went back to our rooms to change into a coat and tie, and then walked back to the subway station for the ride downtown.

At the USDA building we went through the metal detectors and then were admitted to find our way to the Jefferson Auditorium. Cindy Sandeno was greeting people in the lobby of the theater, along with Dave McGowan, the cinematographer of the cave biota documentary. We chatted with various

people as the crowd gathered and then made our way to our seats in the front of the auditorium. At about 10:30 the audience was greeted by Jim Bedwell, the Director of Recreation for the US Forest Service, under whose purview falls the management of caves and karst. The format for the first part of the Cave Conservation Café was a series of talks lasting 6-8 minutes each.

First on the schedule was Jerry Trout, the National Coordinator for Cave Resources for the Forest Service. He presented Mr Bedwell with a copy of the new NSS book on cave conservation, then went on to speak on the topic of cave conservation and karst management. After Jerry, Val Hildreth-Werker, the Conservation Chair for the NSS, took the podium and presented *Caves: Earth's Archives for Natural*



Val Hildreth-Werker (left) and Cindy Sandeno at the podium during the Cave Conservation Café in the Jefferson Auditorium, Washington DC.

and Cultural Resources. Finally, Dr Penny Boston, the Director of Cave and Karst Studies at New Mexico Tech, gave a talk on her NASA and Forest Service sponsored research on Microbes, Mineral, and Mars – the search for extraterrestrial life using caves as laboratories in which to develop methodologies for space probes.

After about 40 minutes the featured program started, the showing of the cave biota video. The audience watched attentively and at the end, the

cave conservation panelists made their ways onto the stage, where we sat at a long table. Cindy Sandeno moderated this session and introduced each member sequentially: Alan Pursell, myself, Andy Tenney, Chris Carlson, Hazel Medville, Jerry Trout, and Jean Krejca. Each panelist spoke for a minute or two. I introduced myself as representing the Indiana Karst Conservancy and told a little about the partnership of the IKC and the HNF. I gave a few examples of the kinds of things that the IKC did on the forest, ranging from on-the-ground cave resource inventories to preparation of cave and karst management plans. I told them that in my work as a cave biologist I had visited over 100 caves in the HNF to sample the fauna, which was then incorporated into the IKC-written management plans, cave nomination forms to have the caves designated as significant features, and evaluations of rare animals for the Regional Forester's List of Sensitive Species.

After the introductions Cindy had a list of both prepared questions as well as a few queries from the audience. The questions ran the gamut of cave and karst management, embracing the expertise of the various members of the panel representing The Nature Conservancy, the Bureau of Land Management, the Forest Service and the NSS. For example, Cindy directed a question to me concerning the challenges involved in managing cave species that were known from only one or a few locations, some of which have only ever been seen once or twice. I answered this by comparing an amphipod we had discovered on the HNF, known from two specimens, with the Illinois Cave Amphipod, which is on the federal list of endangered species. In brief, it is impossible to even list an animal that is so rare it can't be predictably found and monitored. Thus, to save species like these it requires a broader plan to preserve the landscape and manage the people affecting it.

After the panel discussion the group adjourned and reconvened for lunch next door at the Forest Service headquarters next door in the Yates Build-

ing. A nice buffet lunch was provided which gave us all the opportunity to continue our discussions. After an hour or so of talking the luncheon was in the process of breaking up and folks were dispersing, so I excused myself and walked back down to the subway to head for my appointment with Congressman Baron Hill.

Arriving at the Capital Hill South station I re-emerged at the complex of Congressional office buildings. I went in the Cannon House Office Building and made my way through the ever present guard station and metal detector. A long hallway was lined with the offices of congressmen. I arrived a few minutes early to find that Congressman Hill had been called to the capital for a vote in the House. His legislative assistant, David Bond, met with me and I expressed to him our continued interest in the initiative concerning the boundary change of the HNF. The assistant knew of the Congressman's interest and the point of my visit was merely to stir the pot a bit.

I had made my plane flight out of DC the following day to allow time for any other meetings that might evolve out of the Cave Conservation Café. However, since nothing else seemed to need my attention I paid a visit to a colleague at the National Museum of Natural History (Smithsonian Institution) and spent the morning working in the Department of Invertebrate Zoology. The museum is the national repository for crustacean collections and there are so many vials of unidentified subterranean isopods there that I could literally spend the rest of my life working through them. So I took the opportunity to look at a few samples that represent loose ends on a variety of long-term projects.

That afternoon I made my way through a gentle rain back to the subway and took the trip back to National Airport. Unfortunately it seems that airplanes are unable to fly if they are wet, and my flight back to Louisville was delayed for several hours. I finally got back to Louisville, picked up my car in long term parking, and got back to Burns Hollow at 3:00 AM.



Alan Pursell, Jerry Lewis, and Dave McGowan (left to right) were among the attendees at the Cave Conservation Café.



## IKC EDUCATION AND OUTREACH COMMITTEE REPORT

by Kriste Lindberg

I am very pleased to announce that the IKC Education and Outreach Committee has received its very first grant. The grant was awarded by the National Speleological Foundation in the amount of \$1000 and will be used to fund various educational initiatives. This will include purchasing new computer software for designing professional-looking educational posters and other instructional materials, buying helmets and lights for use with the IKC's inflatable cave, and upgrading the IKC's free-standing display. The grant will help us grow with the varied educational demands of the organization, including the continued presentation of the video *Caves: Life Beneath the Forest*.

As part of our networking effort, I received a scholarship to attend National Cave and Karst Management Symposium which took place in St Louis, Missouri at the beginning of October. The Symposium is an outreach to federal, state, and private organizations that manage caves. Myself, along with Cindy Sandeno from the Hoosier National Forest, promoted *Caves: Life Beneath the Forest* which was a good prelude to a special showing of the video several weeks later in Washington DC (more on this elsewhere in this issue). While at the Symposium, I also attended a bat workshop presented by Jim Kennedy of Bat Conservation International (BCI).

As of late, bats have been coming to the forefront of our activities. Towards the middle of October, I received an urgent e-mail from a condo association board member stating that a colony of bats had been discovered in a condo attic. Quickly, a team of conservation-minded cavers were assembled in order to address the "situation". Within a couple of days, Laura Hohman of Bat World Sanctuary, Tim Deady of the Michigan Karst Conservancy, and myself were on duty collecting approximately 50 big brown bats for later release a few miles away. The condo association is now considering bat boxes and/or other forms of bat-friendly quarters so they will be welcome back.

In early November, Jim Kennedy and Chris Clark representing BCI, visited Indiana to inventory several caves for past and present bat usage. Others, including myself, assisted on their endeavor. Caves investigated included Buckner,

May, Shirley Springs, and Shiloh caves where scientific measurements and photos were taken at entrances and where there were signs of bats (past and present). There is more work to be done on this endeavor so stay tuned!

These bat endeavors did not go unnoticed by the Bloomington-area newspaper, *The Herald-Times*. They have an interest in bats, have sponsored educational projects on the Indiana bat, and are interested in doing more education and outreach on the subject, including caves, karst, and water quality in general. It is a good match with the IKC and the paper has been an invaluable partner in helping to get the word out on cave and karst education. As a matter of fact, a new section in the paper, "Down to Earth" has been launched and we have been asked to provide subject matter expertise where appropriate.

As part of our education and outreach efforts at a national level, I was invited to the Austin, Texas area to visit the Texas Cave Conservancy headquarters, attend their "Cave Day" activity, and network. Cave Day is a bi-annual event that consists of informational booths and tours of local caves in developments owned and/or managed by the TCC. The conservancy is one of the leading authorities in working with development when it comes to cave conservation. Our liaison with them continues to prove to be a win/win for all.

Closer to home, presentations of the *Caves: Life Beneath the Forest* video and other educational offerings, including Project Underground activities such as the inflatable cave, were given at Harmony School and the Indiana Master Naturalist Program sponsored by Monroe County. I also participated in a karst tour at McCormicks Creek State Park, including a "walk-through" of Wolf Cave, given to the Environmental Education Association of Indiana.

Upcoming events to look forward to include a Project Underground facilitator training to be hosted in Bloomington, the second annual education program for 6<sup>th</sup> graders at Bloomington Parks and Recreation's Leonard Springs Nature Park, and Leonard Springs Nature Days.

Special thanks this quarter to Chris Clark, Mary Cutler, Tim Deady, Keith Dunlap, Laura Hohman, Jim Kennedy, Anne Kibbler, Carol Kugler, Cindy Sandeno, and Mike Walsh.

# POPULATION TRENDS OF INDIANA BATS IN INDIANA

by Keith Dunlap

As part of the USFWS Recovery Plan for the federally endangered Indiana bat (*Myotis sodalis*), biennial population counts are conducted to assess the status of the species. In this article, as I have done in the past, I will present the cumulative data systematically collected over the past fourteen censuses (1981-2007), along with some historic data dating as far back as 1950. The majority of the contemporary data was collected under contract with the Indiana Department of Natural Resources under the direction of Dr Virgil Brack.

The table on the following page represents the summary of over 271 cave visits to 32 different caves documented to have had Indiana bats in recent years. In addition, another 46 caves have been visited one or more times over the past twenty-five years to look for Indiana bats without success (although four caves have historic records). It is interesting to note that most of the current active hibernacula have been “discovered” since 1981 as part of this census project. While most of these new caves only have small colonies that do not contribute much to the overall population, they are nevertheless potentially significant in the long-term recovery of the species. The table lists the caves in descending order of colony size based upon the most recent census. Studying the right-most column of the table, one can see that 95% of the state’s population is found in just six caves and 99% are in the top dozen hibernacula.

The Indiana bat was one of the first species to be protected under the Endangered Species Act (it was added to the list in 1967). The reason for the bat’s listing was the well-documented observations of population declines in the seven major hibernacula known at the time in Indiana, Kentucky, and Missouri. From 1965 to 2001, the population declined by almost 60% (883,300 to 376,900) and

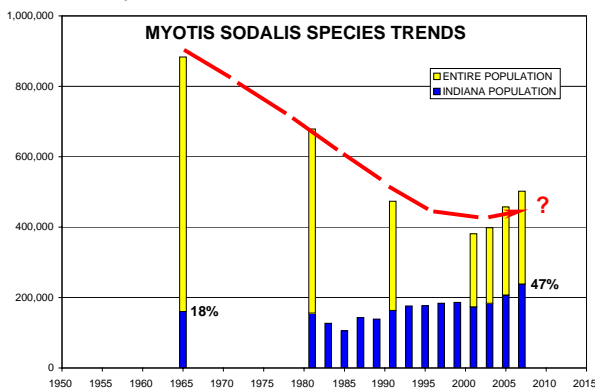


Figure 1

appeared to be on its way to extinction despite positive gains in Indiana and a few other states. Fortunately the last three counts have shown some respectable gains (see figure 1) which provides hope for the bat. In 2007, the population in Indiana is likely the highest it has been in over 100 years and is nearly twice what it was at its lowest point in 1985. Furthermore, Indiana now hosts nearly half of the wintering population compared to less than 20% of the population in 1965.

Looking at population trends in individual Indiana caves is interesting in that several caves have been showing consistently increasing trends, other caves have been generally decreasing, while the remainder have undeterminable trends or there has not been enough data collected to make a determination.

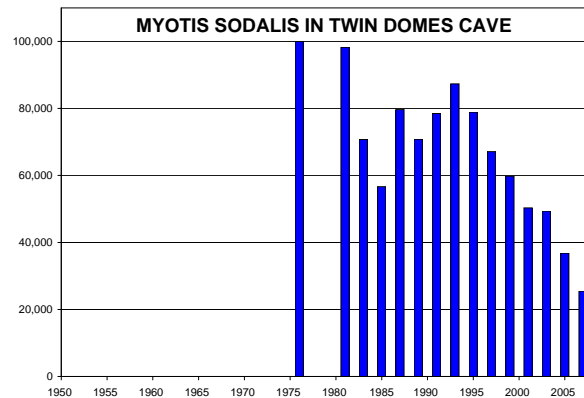


Figure 2

Indiana bat populations in Twin Domes cave (figure 2) have fluctuated up and down over the past thirty years, but has shown a definite decreasing trend during the past seven censuses. The 2007 population was the lowest recorded (only 25% of its 1975 estimate) and is obviously cause for concern. However, it is likely the Twin Domes population is merely re-locating to other caves, primarily Wyandotte and Jug Hole, as both have shown offsetting increases. Twin Domes has dropped from Indiana’s perennial largest to the fourth largest hibernacula in just six years.

Likewise, Batwing Cave (figure 3), Indiana’s other original Priority I hibernacula, has shown disconcerting population decreases since it was first documented in the mid-70s. The 2007 census was no exception with 4,388 bats, the lowest number to date (less than one-tenth of the 1977 estimate). Again, it is likely these bats are not really disappearing, rather they are ending up in other



**RECENT POPULATIONS OF MYOTIS SODALIS IN INDIANA CAVES**

CAVE NAME	1981	1982/83	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007
Ray's Cave (Greene)	12500	13475	16200	22990	28581	41854	38386	41157	51365	62464	48219	50941	54325	77687
Wyandotte (Crawford)	2152	4550	4627	6681	10344	12994	17304	23878	25424	26854	28584	31217	54913	49936
Jug Hole (Harrison)				5635	6424	7640	13924	12463	20741	11900	20151	19240	29430	46664
Twin Domes (Harrison) <sup>1</sup>	98250	70750	56650	79650	70800	78500	87350	78875	67100	59775	50325	49350	36800	25460
Coon Cave (Monroe)	1190	550	777	2950	2103	3696	4451	4455	4786	6341	6395	10675	9270	14099
Grotto Cave (Monroe)	3190	2692	4198	3778	2985	1996	1568	2018	2435	4361	5419	10338	9875	12807
Batwing Cave (Crawford)	29960	26650	14750	17450	14500	13150	9350	9300	7400	10125	9350	6900	6850	4388
Endless Cave (Washington)		2		1		134	335	450	404	403	800	863	958	1689
Wallier Cave (Harrison)						36	72	465	409	381	310	541	917	1339
Salt peter (Crawford)		352		427	295	508	375	647	577	800	849	681	907	830
Parker's Pit (Harrison) <sup>2</sup>		500		1803	1104	926	1045	1276	1139	987	989	447	298	767
Clyfy Cave (Greene)		66		198	412	357	307	299	369	379	469	457	575	611
Swinney Cave (Harrison) <sup>3</sup>									11	29	39	184	200	383
Panther/Neyman (Washington)								86	156	167	220	337	349	350
Robinson Ladder (Crawford) <sup>5</sup>				12	95	388	376	219	326	223	366	204	192	333
King Blair/Brinegar (Monroe) <sup>4</sup>							442	514	663	453	263	190	193	218
Gypsy Bill Allen											134	250	177	134
Sexton Spring Cave (Greene)						0	67	117	98	75	100	113	95	90
Salt peter (Monroe) <sup>6</sup>		83		19		221	245	175	136	40	24	96	88	83
Leonard Springs (Monroe)					135	112	92	82	92	81	25	138	109	82
Buckner Cave (Monroe)		488	301	336	24	51	25	41	15	6	1	40	12	49
Sullivan (Lawrence)														9
Storm Pit (Lawrence)							200							28
Nichols Cave (Orange) <sup>7</sup>														
Reeves (Monroe) <sup>8</sup>						9				31		34	17	
Mitchell Quarry (Lawrence)							20	28		3		38	3	
Achcraft Cave (Greene)						31	61	34	48	19	35	17	0	
Wildcat Cave (Crawford)		29		0		0							0	
Salamander Cave (Monroe)		74		0					1				0	
Binkley Cave (Harrison)									84		9			
River Cave (Washington)		104		5		1				2		2		
Bentz Cave (Crawford)		0			3						0			
<b>TOTAL (adjusted)<sup>9</sup></b>	<b>155800</b>	<b>127000</b>	<b>105500</b>	<b>143000</b>	<b>138900</b>	<b>163100</b>	<b>176000</b>	<b>176800</b>	<b>184000</b>	<b>186200</b>	<b>173300</b>	<b>183600</b>	<b>206900</b>	<b>238300</b>

1 Twin Domes and Batwing census conducted by Richard Clawson from 1981 to 2005.

2 Parker Pit census in 1983 conducted by Michele Wright. Partial census in 1999, 2003, 2005, and 2007.

3 Swinney partial census in 1997.

4 King Blair / Brinegar partial census in 1989.

5 Robinson Ladder partial census in 1989.

6 Salt peter partial census in 1983 and 1987.

7 Nichols census in 1992 conducted by Scott Johnson and Keith Dunlap.

8 Reeves census in 2003 conducted by Andy King, US Fish & Wildlife.

9 For the purpose of comparisons, populations for non-censused (or unknown) caves were estimated to give an adjusted total.



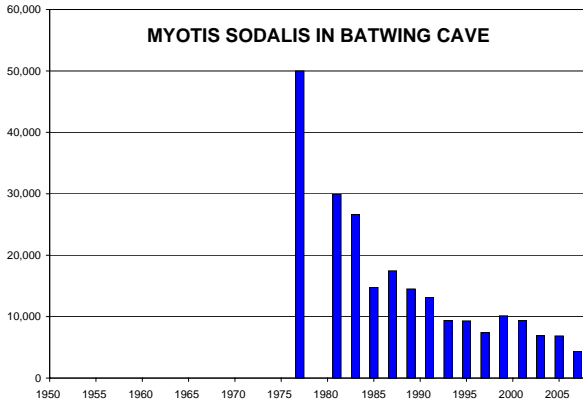


Figure 3

nearby caves. There has been much speculation why these Twin Domes and Batwing are not attracting bats like they once did. The current hypothesis is that both have been sub-optimum caves temperature-wise, but served as refuges when Wyandotte Cave was commercialized and made undesirable for the species. Now that Wyandotte is again “bat-friendly” with winter closure, the bats are “coming home to roost”.

Wyandotte Cave has always been an interesting contradiction in resource management. While it serves as an ever increasingly significant hibernacula, it is also a commercial tourist cave run by the Department of Natural Resources. Large populations of bats have been documented in this cave for over one hundred years (in fact, the *sodalis* was first classified as a separate *Myotis* species from this cave and thus the “Indiana” designation). Numerous gates have been placed on the

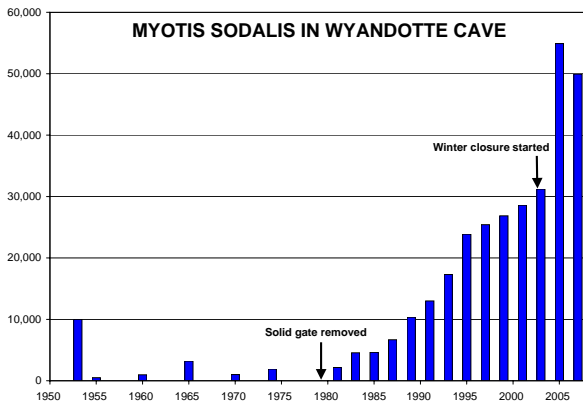


Figure 4

cave with different degrees of airflow restrictions. A 1953 report by Mumford estimated the population at 10,000 bats (see figure 4). However, just a few years later and after a solid stonewall gate was installed, the population was only one-tenth that size. The population fluctuated around 2,000 bats until the late 1970s when the original gate was replaced with a more open grate-type. It is presumed

that this partially restored the pre-gate airflow into the cave, providing a better winter habitat. Since 1981, the population has been steadily increasing, although the population in 2007 was down slightly compared to the 2005 census. Regardless, the decision by the DNR in 2003 to discontinue winter tours will likely prove to be a milestone in the recovery of the species.

Just a short distance north of Wyandotte Cave is Saltpeter Cave. While the number of bats hibernating there is small compared to its neighboring caves just discussed, it is nevertheless an important cave for Indiana bats and was probably a very significant hibernaculum historically (Merlin Tuttle, personal communication about the ceiling stains). Figure 5

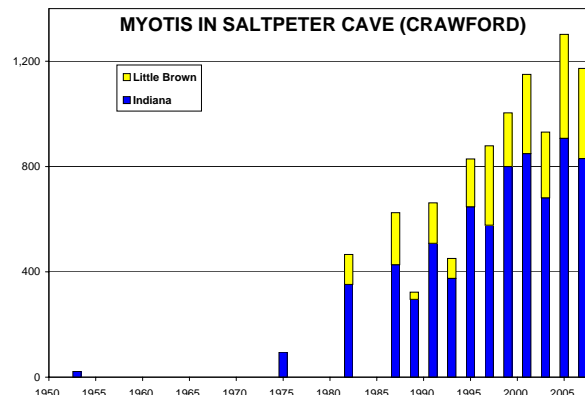


Figure 5

shows a general seesaw, but increasing trend that hopefully will continue. The 2007 census counted 830 Indiana bats and 343 little brown bats (*Myotis lucifugus*) both slightly down from 2005.

Of the other caves in the Harrison/Crawford area, Jug Hole is of the greatest importance, now with the third largest population in the State. First censused in 1987 with 5500 bats (see figure 6), the population has been on an impressive increase and in 2007 jumped 60% over 2005 to 46,664 bats. Unlike Wyandotte, there is no real explanation for the increases other than winter trips by cavers into the cave has probably decreased over the years as organized cavers have been educated about the cave being a significant hibernaculum.

Previous research supported the observation that Indiana bats are very habitual in using the same hibernacula year after year. But as suggested earlier, with the population increasing so fast at Wyandotte and Jug Hole while similar decreases are being experienced at nearby Batwing and Twin Domes, one can only speculate that at least some redistribution is occurring. To better quantify this, figure 7 shows the combined numbers from Wyandotte, Jug Hole, Twin Domes, Batwing, and



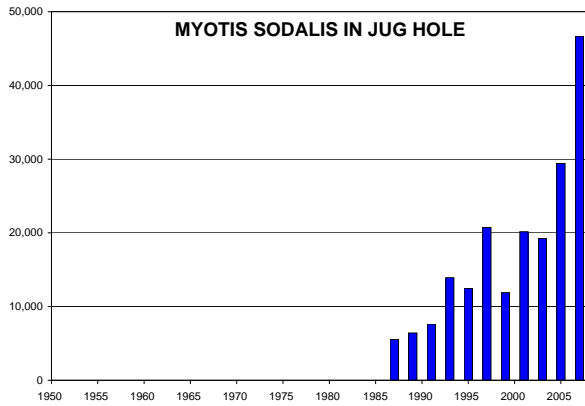


Figure 6

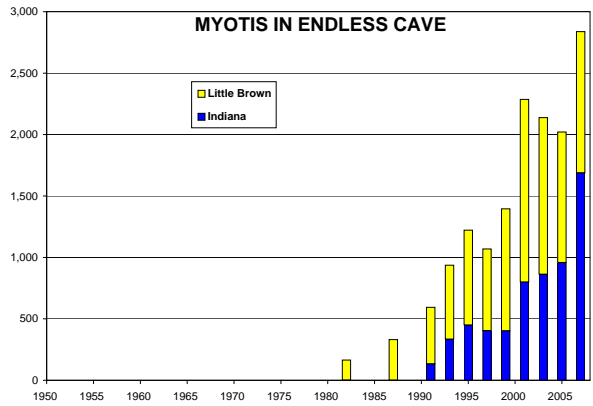


Figure 10

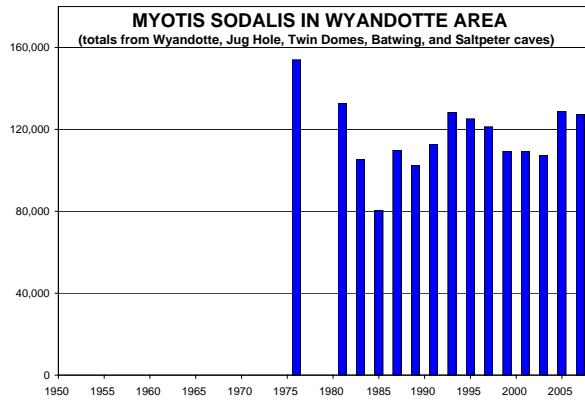


Figure 7

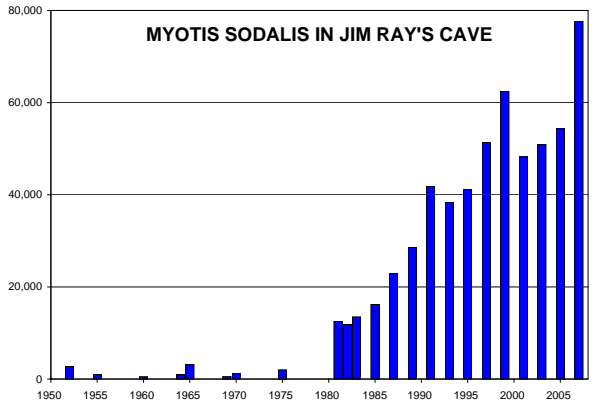


Figure 11

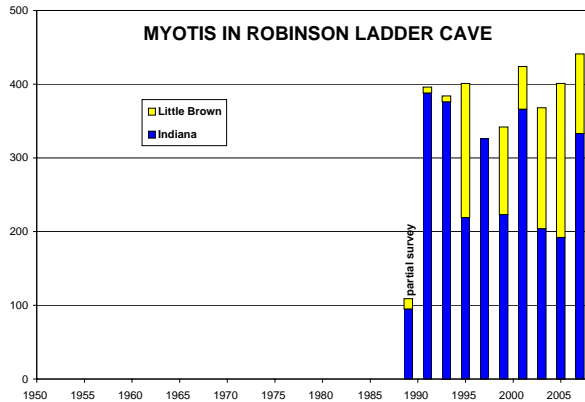


Figure 8

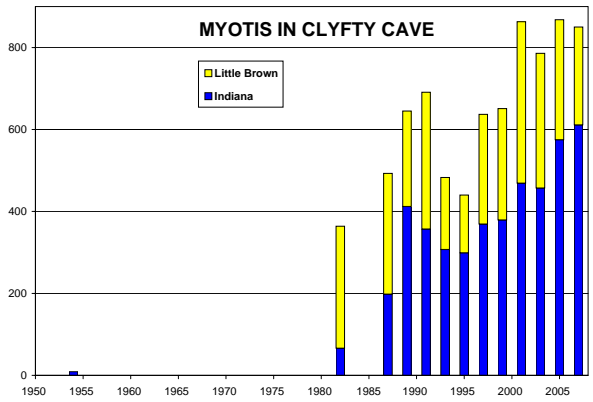


Figure 12

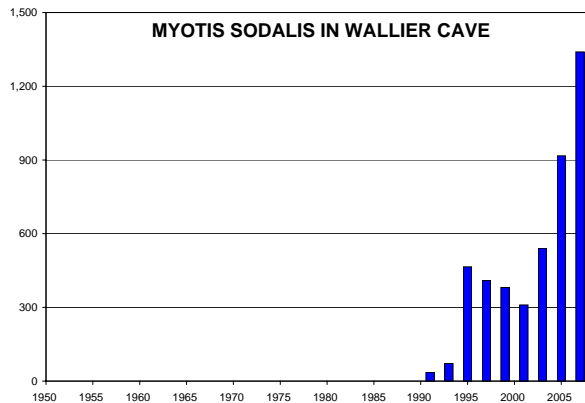


Figure 9

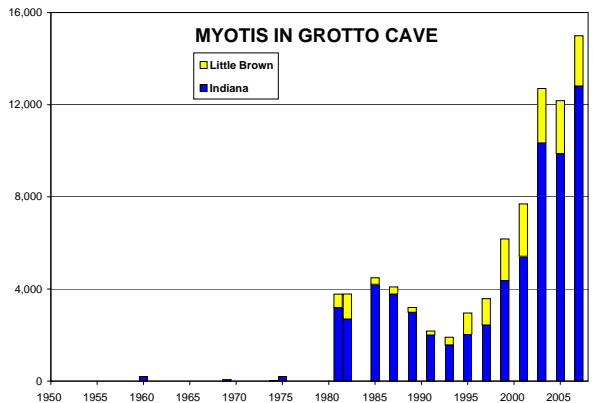


Figure 13

Saltpeper caves which accounts for approximately 50% of the total Indiana population. It can be observed that the population appears to be much more stable and indicates that the total number of bats within the region hasn't really changed that much over the past fourteen censuses.

Figure 8 shows recent censuses in Robinson Ladder Cave, now owned by the IKC. Since 1991, the combined populations of *Myotis* have been relatively stable. However, the *sodalis* and *lucifugus* species are always in mixed clusters, making it more difficult to distinguish between the two, thus the data shows more variation. For 2007, the combined population was 441, the largest to date.

The final cave in the Harrison/Crawford area to highlight is Wallier Cave, southeast of Laconia. The 1991 and 1993 census included 36 and 72 Indiana bats respectively (see figure 9). The 1995 through 2005 counts were 465, 409, 381, 310, 541, and 916 bats. The 2007 population jumped to 1,339 bats, the greatest number to date. It is unclear what is causing the significant jumps observed recently or where these additional bats came from; as there are no other known hibernacula even remotely close. It will be interesting to see what the future holds for this cave.

Moving north to Washington County is Endless Cave in Cave River Valley. Visits in 1982 and 1987 found only 2 and 1 Indiana bats, respectively (see figure 10). However, the last nine counts have shown an encouraging population increase of both Indiana and little brown bats. In 2007, 1,689 *sodalis* were counted, the greatest number to date (76% greater than in 2005). Likewise, the number of little brown bats this census were relatively high (third only to the 2001 and 2003 surveys). These numbers are impressive considering there are still a significant number of winter disturbances occurring in this cave. Cavers can do the bats a favor by avoiding this cave from September through April.

Jim Ray's Cave in Greene County has had remarkable population growth over the past 30 years (see figure 11). Historic records by Mumford and others showed the cave's population never exceeded 3,200 bats in nine visits between 1952 and 1975. Brack's visits in the early 1980s showed the population had already jumped to approximately 12,000 Indiana bats with several thousand little brown bats. In 1987, 1989, and 1991, the population exploded, topping out at almost 42,000 Indiana bats (making it the second largest hibernacula in Indiana). In 1993, the population decreased slightly, but rebounded slightly in 1995 and made

large jumps in 1997 and 1999 to over 62,000 bats. The 2001 and 2003 censuses showed a retreat, recovering slightly to 54,000 bats in 2005, but still enough to be on par with Wyandotte Cave. In 2007, the number of bats took another huge jump to 77,686, making it the largest known hibernaculum anywhere. The dramatic increase over the past twenty-five years has had no clear explanation, but two contributing factors may have played important roles. First it is known that a medical researcher from IU was illegally collecting perhaps thousands of bats each winter during the 1970s. This may have kept the population below some critical level to grow. Second, the "rear" entrance to the cave may have naturally enlarged itself, allowing more airflow to cool the cave, and thus making it a better hibernaculum. The DNR and IKC have been continually monitoring temperatures in this cave since 1993 to see if there is anything to make this a preferable cave for Indiana bats. Surprisingly, the temperatures are relatively unstable and occasionally dip below freezing which is thought to be undesirable.

Approximately five miles to the north of Ray's is Clyfty Cave. Figure 12 shows an Indiana bat population that appears to be gradually increasing over the past ten counts, while the population of little browns over that same time period appear to be relatively constant.

Moving to Monroe County, Grotto Cave has been another puzzling hibernaculum. Historic records showed very small populations in the 1960s and 1970s (see figure 13). However, in the early 1980s Brack reported significant numbers of Indiana and little brown bats. The cave peaked in 1985 with 4,200 Indiana bats and then decreased the next four census to a low of less than 1,600. However, in 1995 and 1997, the population rebounded slightly, and in 1999 and 2001, the numbers jump substantially. In 2003, the population nearly doubled compared to 2001. The 2005 count was down slightly, but it again took a sizable jump in 2007 to 12,807 *sodalis*. Furthermore, the 2001-2007 censuses recorded more than 2,000 little brown bats, the largest winter concentration known in any cave within Indiana.

The "sister" cave to Grotto is Coon Cave located less than one-half mile away on the same property. It too had historic records in the 1950s through 1970s of only a few hundred bats (see figure 14). Brack's observations in the early 1980s were around 1,000 bats. Since 1985 when only 777 bats were found, the population has increased





significantly to almost 6,400 Indiana bats in 2001. In 2003, like Grotto Cave, the population jumped substantially to over 10,000. In 2005, the count was down, but took a huge jump in 2007 with 14,099 bats counted. These two caves combined now host more than 5% of the entire winter population and the observed increases are primarily attributed to the efforts of the IKC in managing access to these caves since 1985.

The last cave in Monroe County for which there is long term data is Buckner Cave. Historically (1950-1980) Buckner has had a relative stable population of 300 to 500 bats in its entrance room (see figure 15), but since 1989 there has not

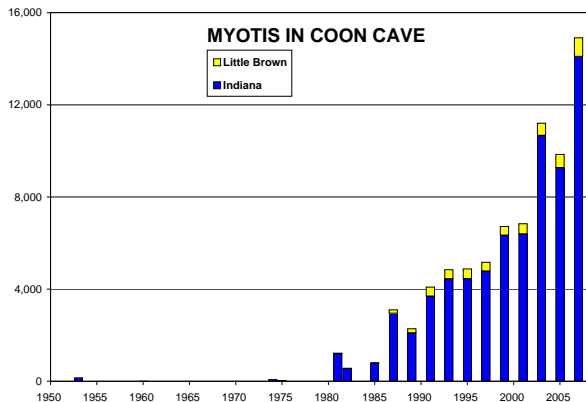


Figure 14

been more than 50 bats found. Obviously repeated disturbances could be blamed, but the sudden drop between 1987 and 1989 would be more indicative of a single-event, intentional or accidental eradi-

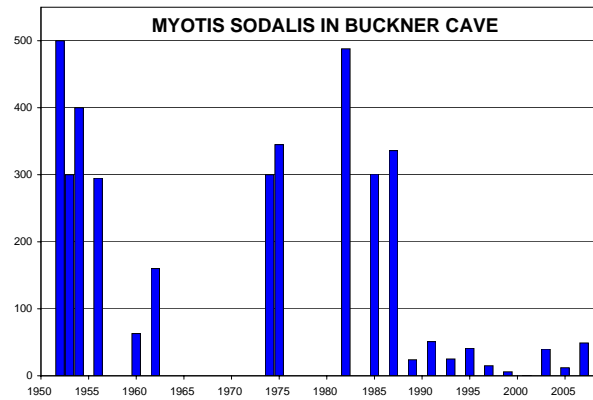


Figure 15

cation (e.g., shotgun or entrance room campfire). Only one Indiana bat was found in Buckner Cave in 2001 which pretty much tells the story. In 2003 the number jumped back to 40, but then dropped to only 12 bats in 2005. In 2007, 49 bats were found in January, but a quick check a month later after a long cold spell, did not find any. There is a strong potential that this cave could once again host a significant population, but it would require winter closure, something cavers may not want to support. The cave is now owned by the NSS so it will be interesting to see where the cave's management philosophy evolves.

IKC members who participated on the 2007 bat census were Keith Dunlap, Tom Sollman, Steve Collins, Robert Sollman, Dave Stahl, and Elliot Stahl. Scott Johnson (DNR) coordinated the project.

## Lost River a 'place to save'

Lost River represents Indiana on the Sierra Club, national list of the top 52 Places to Save in 10 years.

A description of the Lost River karst system was provided as part of the report that lists the 52 place.

The description reads: "The Lost River has been called an 'underground Grand Canyon' and 'three-dimensional river delta.' Without warning, the caves can quickly fill up with water. People are discouraged from going into the caves because they are too fragile and too dangerous."

The Sierra Club information further reports the caves are home to almost 24 extraordinary creatures, 19 of which are endangered or rare, and five, including the northern

cave fish, which can be found only in this region. In addition, the system ranks among the top 10 caves in the country for plant and wildlife richness.

The club reports relatively little is known about subterranean systems.

In addition, the club's information reads, "In order to preserve the cave's opportunities for research and discovery, it must be carefully protected." The possibility of allowing an increase in logging in the nearby Hoosier National Forest is one factor the Sierra Club reports jeopardizes the cave system and Lost River "with new roads and construction." Regarded as another significant threat are the septic tanks associated with the development of

new homes in the area, which the Sierra Club fears will "disrupt the delicate river system."

Lost River also is described by the Sierra Club as one of the most complex hydrological systems in the world." It is dotted, the club reports, with deep springs, caves, and sinkholes. The club's report reads, "Except for the period following heavy rains, a 22-mile section in the middle of the river is dry, while the water continues to flow underground, coming back to the surface in impressive springs called 'rises.' The waters flow underground at a depth of up to 150 feet."

Lost River's geological features are explored a number of times each year as part of tours arranged by the

## BAT RESCUE FROM BLOOMINGTON RESIDENCE

by Kriste Lindberg

The e-mail subject line read, “Please call ASAP” and the message was intriguing, stating, “I need your assistance if you happen to know someone named Laura Hohman.” I wasn’t sure what was going on, but was starting to think it might have something to do with bats, as Laura is one of our local bat experts and works with Bat World Sanctuary. I quickly picked up the phone and called Barbara Bunch, my friend, neighbor, and member of The Woodlands/Winding Brook Homeowners Association board.

She informed me that, yes, indeed, we had a bat situation – “close to 50 bats” had been found in the attic of a neighbor’s home and they were concerned. We were too, as the homeowners wanted the bats evicted as soon as possible.

While helping to connect Barbara and Laura, I thought it would be a good idea to contact other bat experts as well, in case we could not reach Laura on time and to provide additional info and thoughts. I gave Barbara the names and contact info of those I could think of just off the top of my head – Keith Dunlap (Indiana Karst Conservancy), Scott Johnson (Indiana Department of Natural Resources), Jim “Crash” Kennedy (Bat Conservation International), and John Whitaker (Indiana State University – Center for North American Bat Research and Conservation).

Shortly thereafter, Laura, Barbara, Dan Watson (Master Carpenter and home restoration specialist), Tim Deady (Michigan Karst Conservancy), and I went to check on the situation.

After meeting the homeowners and carefully climbing through the attic access door in an upstairs closet, we saw what indeed appeared to be close to 50 bats roosting in between ventilation slots on the roof gable and on a screen separating the outside from the inside of the building. Part of the screen had deteriorated and the bats were “getting lost” in the attic, occasionally finding their way into the home, below. They were reported to have been flying through the house and flapping sounds had been heard within the walls.

Laura, accompanied by Tim, took a screened carrying pouch to check on the bats. Dan brought up a step ladder and Tim took photos and assisted while Laura

carefully placed the bats into the pouch. In the meantime, I was busy talking with Dan and the homeowner about bat conservation and caves while Barbara was outside enlightening Dan’s daughter and neighborhood children about the furry, flying critters with her copy of *Stellaluna* (see photo).



A few minutes later, Laura and Tim came through the attic access door with a pouch full of bats, which they quickly released into a larger, screened carrying case. Sure enough, there were exactly 50 bats – big brown bats (*Eptesicus fuscus*) – to be relocated. Laura took them home with her, about five miles away, to be released. As I understand it, they will likely try to find their way back, but not before the screen was replaced on the gables.

For Laura and Barbara’s extraordinary efforts, the homeowner’s association is making a donation to Bat World Sanctuary. I’m following up with some National Speleological Society bat brochures. We’re also in the process of talking with others about setting up some bat houses in the development.

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...continued from page 15

Lost River Conservation Association. Bob Armstrong and Dee Slater of Indianapolis are partners in the venture.

Slater, said earlier this year she and Armstrong have been considering other options for educating the public about Lost River’s unique

features. She said, “I’m looking forward to continuing to try to educate the public about Lost River and its wonders and wonderfulness.”

The Sierra Club report announcing the 52 places to protect reads: “We’ve whittled down the hundreds of wild places that need to be saved

to a list of just 52 – one in each state as well as in Puerto Rico and the District of Columbia ... The Sierra Club is committed to saving all 52 of these places over the next 10 years. As our nation grows, so do the pressures to drill, log, and build these last remaining wild places.”

**INDIANA KARST CONSERVANCY TREASURY REPORT**

**Income/Expense Statement  
From July 1, 2007 to September 30, 2007**

**INCOME:**

Dues Apportionment and Residuals	708.75	
Donations - General	503.63	
Donations - Land Acquisition Fund	504.60	
SpeLogger Sales	2400.00	
Interest	<u>873.73</u>	
		\$4,990.71

**EXPENSES:**

IKC Update (printing, production, mailing)	233.36	
Stewardship/Conservation	1.47	
Education / Outreach	152.21	
SpeLogger expenses	1657.80	
Membership	4.05	
Business (website)	48.00	
Transfers to/from restricted funds/other adjustments	<u>830.80</u>	
		(\$2,927.69)

**NET OPERATING EXCESS (DEFICIT) THIS PERIOD:** \$2,063.02

**Balance Sheet  
September 30, 2007**

**ASSETS:**

Cash in Checking / Saving Accounts / CDs	88728.20	
Wayne Cave Preserve (20.00 acres)	75000.00	
Robinson Ladder Cave Preserve (40.40 acres)	75000.00	
Sullivan Cave Preserve (28.00 acres)	72000.00	
Buddha Karst Nature Preserve (36.84 acres)	29000.00	
Orangeville Rise Nature Preserve (3.01 acres)	7000.00	
Indian Creek Conservation Easement (valued at \$1/acre)	<u>13.16</u>	
		<u><u>\$346,741.36</u></u>

**LIABILITIES & OPERATING EXCESS:**

Land Acquisition Restricted Fund	30658.40
Deferred Dues Restricted Fund (181 members)	2887.50
Stewardship Endowment Restricted Fund <sup>1</sup>	28446.90

Previous Operating Excess	24685.54
Net Excess (Deficit) This Period	<u>2063.02</u>
Current Operating Excess (unrestricted funds)	26748.56
Real estate liquidity (basis value)	<u>258000.00</u>

**Total Liabilities & Operating Excess** \$346,741.36



# IKC AUTUMN QUARTERLY MEETING MINUTES

Saturday, September 15, 2007 – Borden, Indiana

## BOARD MEMBERS PRESENT

Richard Vernier, President  
 Keith Dunlap, Treasurer  
 Bob Sergesketter, Secretary  
 Jim Adams  
 Dave Haun (proxy by Brent Grist)  
 Jerry Lewis  
 Kriste Lindberg (proxy by Karen Silvers)  
 Steve Lockwood  
 Nick Noe  
 Bruce Silvers  
 Tom Sollman  
 Bob Vandeventer  
 Sue Vernier  
 Jamie Winner

## BOARD MEMBERS ABSENT:

Don Ingle

The meeting was called to order at 3:20 PM at the home of Jerry and Salisa Lewis near Borden, (New Providence), Indiana, President Richard Vernier presiding. Brent Grist was accepted as proxy for Dave Haun and Karen Silvers was accepted as proxy for Kriste Lindberg. The minutes from the previous meeting were approved as published in the June 2007 *IKC Update*.

### Treasurer's Report

Treasurer Dunlap reported total assets of \$345,664.82. Our land holdings are valued at \$258,000 and we have cash assets in the various funds totaling \$87,664.82. A detailed Treasury Report can be found in the *IKC Update*.

Dunlap reported that we have 179 paid up members. There are 9 that have yet to renew and he will be sending reminders to them soon. He said that a copy of the cave biota video, *Caves: Life Beneath the Forest*, has been sent to each IKC member and he has received many favorable comments. A few members immediately paid up their membership dues after receiving the DVD. The cost for packaging and mailing was about \$150.

### Education and Outreach Report

Lindberg was not present to give a report but she has a report published in the September 2007 *IKC Update*.

Vernier reported that Lindberg wants to apply for a grant from the National Speleological Foundation for \$1,000. The money will be used for instructional supplies, a publication software upgrade, and other materials used in Project Underground activities. She also wants to upgrade the IKC display and buy some helmets and lights to be used with the "inflatable cave".

Vernier said that Keith Dunlap has agreed to act as the grant administrator in order to provide documentation to the NSF as to how the money is spent.

Dunlap made a motion to approve the submission of the grant

request to the NSF, seconded by Sue Vernier. After a short discussion the vote was taken and the motion was approved with 12 for, 0 against, and 0 abstentions.

### 2007 NSS Convention

Vernier reported that he received an e-mail from Dave Haun, Convention Chairman, thanking the IKC for access to IKC controlled caves during the convention at Marengo. He also thanked the IKC for helping out before, during, and after the event. Dunlap said that Robinson Ladder Cave was heavily visited. There were trips to Sullivan Cave, Buddha Cave, and Shiloh Cave. The Orangeville Rise was featured on the Geology Field Trip. There were no trips to Wayne Cave. Vandeventer said that he heard several comments on what a great job Dunlap did in setting up the school. He also said that the school librarian had no complaints about how the library was reassembled.

At this time Board member Bruce Silvers and Karen Silvers (proxy for Board member Kriste Lindberg) arrived.

Vernier said that he was amazed at the response to the recycling effort. Carla Streigel-Winner said that about 1,300 pounds of glass was collected. She had no figures for the other stuff but it all got hauled off and recycled.

### Cave Biota Video

Vernier reported that the video received a lot of play at the Great Lakes Bat Festival in Terre Haute and the Hoosier National Forest is getting a lot of use out of it as well. The HNF has some big plans for it in Washington D.C. Cindy Sandeno of the HNF has been volunteered to organize a national cave conference to be held in Washington D.C. on October 23, 2007. The hope is to have a lot of legislators and agency heads present. Sandeno has asked if the IKC wants to have some involvement with this conference. Vernier said that we intend to contact our local Representatives and Senators and urge them or their aides to attend this presentation. He stressed that this will be much more than just the presentation of the video. They need to have a scientist, preferably one who was involved with the making of the video to be part of the program. Dr. Lewis would be able to attend and Vernier thought that it would be worth our while to consider sponsoring Lewis to go to this conference by defraying some of the cost of attending. Dunlap moved to support that effort up to \$500. Noe seconded the motion and immediately said he thought that \$500 was too low. He said that \$1,500 would be a more realistic figure when the costs of travel to and from Washington, at least one night in a motel, plus food and transportation around the city are added up. Vernier agreed that \$500 was too low and he wondered if we could find another source of funding to help out, possibly The Nature Conservancy.

Dunlap said that if Dr. Lewis attends, he will likely be on a panel discussing cave and karst related topics. He would not only be representing the IKC but cavers and cave science in general. He said that he thinks we should support this endeavor whether or not we can get some outside funding.



Vernier asked Cindy Sandeno what she envisions will result from this conference. She said the goal is to get as many people together as possible including policy makers and federal agencies that still get some funding as well as other conservation agencies and get them talking about why caves are important and the kinds of things that can be done to fund cave conservation and promote good karst management practices. She said that the video has already raised awareness of the importance of what's underground when considering a possible land acquisition by the Forest Service.

Sue Vernier stated that cave systems are under attack and that planners and developers often don't realize what their actions on the surface can cause to the underground environment. If we can get the various federal and state agencies that have a say in what developers do to understand the importance of cave systems, then we should support this event.

Sandeno said that another benefit may be in getting better communication between different agencies. She said that this is really just a beginning but it will get the ball rolling in making people aware of the importance of caves.

Dunlap said that the IKC helping with this event by funding Dr. Lewis sends a message that we are willing to spend some money so the Hoosier National Forest management can see the need to continue funding the cave projects in the HNF.

Sollman asked if it was too late to add a request for funding to the grant request that Lindberg was submitting to the National Speleological Foundation. Vernier said that it was too late. Sollman said that if we have no other ready source of funding, we should up the amount to \$1,000. Vernier agreed.

Noe said that there was a little help on the way. At the Old Timer's Reunion, his daughter, Cynthia, won \$375 playing games of chance during "casino night". The winnings, however, had to be donated to a worthwhile organization and she chose to donate it to the IKC.

Vernier said that the IKC may be asked to contribute a token amount for lunch for the participants at the conference.

After a little more discussion, Dunlap restated his motion, upping the amount from \$500 to \$1,000. This was agreed to by Noe, who had seconded the original motion, and the vote was taken. The motion passed, 13 for, 0 against, and 1 abstention.

Karen Silvers read a statement from Kriste Lindberg in which Lindberg requests funding for travel expenses to attend the National Cave and Karst Management Symposium at St. Louis. The symposium will be held October 8-12. She has received a scholarship which will cover her registration and lodging. She is asking for \$100 if she can share a ride to St. Louis or \$200 if she must make the trip alone.

Sollman suggested that Lindberg submit a request for reimbursement after the event since we aren't sure what the expenses will be.

Dunlap made a motion to cover Lindberg's out of pocket expenses for transportation and meals up to \$200 to attend the National Cave and Karst Management Symposium. The motion was seconded by Adams. The motion passed, 12 for, 2 against, and 0 abstentions.

### Promotion of GoodSearch as a fundraiser

Dunlap reported that all the information is in the *IKC Update*.

### Bat Festival

Vernier reported that he and Sue, Don Ingle, Keith Dunlap, and Cindy Sandeno were at the event which took place at Terre Haute and was very well attended by the public. The "inflatable cave" was setup as was the IKC display. The HNF had many showings of the cave biota video and it was well received. There were many talks and demonstrations by various bat experts.

### Robinson Ladder Cave Preserve

Vernier reported that TNC needs a signed copy of the Wildlife Habitat Improvement Plan for the Robinson Ladder property and John Benton, the Property Manager, has been unable to find it. There are copies of the plan around but the official copy, signed by the National Conservation Resource Service person, is missing. Vernier said that the next time that Benton is in the area he needs to go to the NCRS office and get a copy of the plan.

Winner reported that the guy that Allen Pursell recommended to do the spraying is ready to proceed and the cost will be \$400. He has given him the go ahead. Winner asked if each expenditure must be approved by the Board. Dunlap said that if the expenditure in question is a part of a project approved by the Board and a dollar amount has already been approved for that project, the expenditure can be made. Vernier said that the Treasurer needs to be kept informed of where and how the money is being spent. He also said that we will not be reimbursed from TNC until the restoration project is complete.

Silvers offered the use of a tractor mounted sprayer if we want to do the spraying ourselves. We could save some money that way but after discussing liability issues and the fact that we are going to be reimbursed for the expense anyway, we decided that having a licensed and certified professional do the spraying was the way to go.

Winner said that getting someone to do the burn is really proving to be a problem. He said that he has been unable to make contact with the guy who is the closest to our area. He hasn't responded to e-mails or phone messages. He will keep trying and there is another company that he knows of but they are farther away. The burn is scheduled to be done in the spring of 2008. Vernier clarified that the spraying will be done in the upper field only.

Sollman said that he has recently been studying a copy of the Draft Recovery Plan for the Indiana Bat and what he's been learning is that our plans for the property are pretty much on track as far as doing what's best for the bats. He said that the area around a hibernacula is an important feeding area because when the bats arrive, they do not go directly into hibernation but spend a period of time eating and storing up fat reserves to carry them through the hibernation period. The preferred feeding areas are the edges of forest clearings so it is important that we manage to keep a lot of forest edge and encourage the growth of plants that will support a large insect population. He went on to say that roost trees are extremely important to maintaining a desirable bat habitat. A roost tree

is described as a large diameter and very tall dead tree with a lot of peeling bark. He said that the roost trees are so important that in future management plans, we might want to specifically forbid the cutting down of dead trees and if there are no suitable dead trees, pick out a suitable tree and girdle it so that it dies and becomes a roost tree.

Sollman presented a lot of good information and he thinks that, from what he's found out, we are generally doing what's best for the bats at Robinson Ladder.

### **Orangeville Rise**

Lockwood reported that the plaque has been reattached to the base and it was done prior to the convention.

### **Wayne Cave Preserve**

Sollman said that his son Robert reports that everything at the Wayne Cave Preserve is going "swimmingly".

### **Shaft Pit**

Dunlap said that the fence around the pit has been repaired.

### **Grotto Cave**

Dunlap said that Grotto Cave is now closed for the bats until spring.

### **Buddha Cave Preserve**

Dunlap reported that he and George Cesnik have been working on multiflora rose eradication and they have killed about two thirds of it on the property.

He said that the trees that were planted in spring of 2007 have not done well. The drought took it's toll but about half of the white oak seedlings never leafed out at all and he thinks that some of them were dead on arrival.

Dunlap wants to do another planting in the spring of 2008. He said that we have a commitment from the Boy Scout troop that helped plant in April 2007 to help again in 2008 and so Dunlap moved to set up funding to purchase 800 trees, the cost not to exceed \$300. Lockwood seconded and the motion carried with 14 for, 0 against, and 0 abstentions.

Dunlap said that the reforestation at Buddha is progressing slowly. This is mostly due to the varieties of trees we've chosen to plant such as oaks.

### **Sullivan Cave Preserve**

Dunlap said that the outhouse project is still on his list of things to do but the campground area leveling project is going to get done first while the ground is so dry. Winner said that he can provide a tractor. Dunlap said that the Board has already approved the purchase of one load of dirt and he said that he will pay for a second load.

Lewis reported that the bio-inventory that he is conducting at Sullivan Cave is now underway. There will be buckets placed to collect drip water and pitfall traps at several locations and he asked that we get the word out to cave visitors to leave the buckets and traps alone. Dunlap said that he will send an e-mail to all the grotto liaisons about this project.

## **Land Acquisition Activities**

Dunlap reported that he is not aware of any land acquisition activities at this time.

## **Items From the Floor**

Vernier congratulated Karen and Bruce Silvers. They got married in May.

Lewis reported that he has been in contact with Ronnie Burns, Suicide Cave Patron. Burns told him that there were two trips in the cave in 2006 and no trips so far in 2007. The gate is fine but he had to replace the lock because the old one was rusted.

Dunlap reported that we need to get an annual inspection report for the Sinks of Indian Creek Conservation Easement turned in to TNC as soon as possible. Richard "Fig" Newton is the Property Manager and Vernier said that he will contact Newton to get the annual inspection done. Dunlap said that he has sent the proper forms to Newton some time ago.

Noe reported that he spent most of the morning of September 14 in Judge David Hamilton's Federal Court room listening to I-69 arguments between the plaintiffs, The Environmental Law and Policy Center and the Hoosier Environmental Council, and the defendants, The U.S. Fish and Wildlife Service and the Indiana Department of Transportation. When it was all over, the judge took the case under advisement and he will probably render a decision by the end of the year. Noe said that the judge has several options available. He can say that everything was done according to plan and that the final Environmental Impact Statement was not deficient, he can remand the EIS back to the USFWS and INDOT telling them that they need to look at a few more route segments, or he can remand it to them telling them that they must start from scratch on all thirteen routes. Noe said that we should hear something in a few months.

Dunlap reported that there have been some discussions between some Bloomington cavers and the owner of Truitt's Cave. The owner and his son think that people are using the cave for drug use and vandalism and they would like some assistance in gating the entrance. This situation has been going on for a long time. Dunlap said that about ten years ago an IKC member told the owner that the IKC might be able to help gate the cave. Over the years, the owner has interpreted that offer to help as meaning the IKC would fund the project. Dunlap said that he doesn't believe that we actually made a commitment to pay for a gate but we might be interested in helping. Several Bloomington cavers have said that they would be willing to kick in some money to help gate the cave. Dunlap is going to look at the entrance on September 23. He has told the owner that he will be making no commitments and will just be offering recommendations. He said that he doesn't know where this will be going but he just wanted to let the Board know that we have a request from a cave owner to install a gate and there seems to be justification for a gate as they are having problems. A gate is probably the only way to solve the problem.

Vernier asked about the access policy if the cave were to be gated. Dunlap said that the owner is generally friendly to true cavers and would probably grant permission if asked. He will be sure to stress that we will have to have some assurance that the cave will not be permanently closed if we install a gate.



Vernier asked if there was any consideration given to having the IKC become the cave manager. Dunlap said that it was talked about before but the owner lives very close and he can manage it as easily as we can. He said that we'll know a lot more about this at the December meeting and if we decide to go ahead with the project, it won't be a huge undertaking.

The next meeting will be Saturday, December 15, 2007, at

10:00 AM, EST in Room 143 of the IU Geology Building in Bloomington, IN.

The meeting was adjourned at 5:15 PM.

Thanks to Jerry and Salisa Lewis for hosting the meeting.

Respectfully submitted, Bob Sergesketter, Secretary.

## Marengo Cave To Be Featured In New Movie (a Marengo Cave Press Release)

Andrew Stevens Entertainment, a Beverly Hills-based film production company, will be filming several scenes in a new movie, *Fire From Below*, at Marengo Cave in southern Indiana on December 10 and 11. The movie, which stars Kevin Sorbo of Hercules fame, details the discovery of a new vital energy source and an unknown danger that the energy source presents.

This will be the only Hollywood-based feature film to be substantially shot in Indiana this year.

"When we saw Marengo Cave, we knew this would be the perfect location to shoot the cave scenes," said Andrew Stevens, producer of *Fire From Below*.

Marengo Cave National Landmark is Indiana's most-visited show cave and is open to the public 363 days a year. It has been awing visitors with its spectacular beauty for more than 120 years, since two school children discovered it in 1883.

Designated a National Natural Landmark in 1984, the cave is 4.6 miles long. It offers several tours of varying lengths and skill levels. The Crystal Palace tour takes visitors into an immense cave where they see Mirror Lake, a vast, still expanse of water that reflects the stalactites above perfectly. Another highlight is the Crystal Palace Room, where a light show accompanied by music is staged in a grand underground theater.

The last movie to be filmed inside Marengo Cave was *Madison* in 2001. That movie, starring Jim Caviezel, recounts the story of the river town's hosting the Gold Cup of hydroplane racing. It includes a short scene where Caviezel's character and his father explored a cave. The scene required nearly 12 hours of filming inside Marengo Cave.

Shooting at Marengo Cave for *Fire From Below* is expected to take approximately 22 hours for scenes that will comprise approximately 15

minutes of the finished film.

Bill Dever, associate producer of *Fire From Below* said, "Frankly, the caves will be featured so prominently that it really too bad there's not an Oscar for best location... Marengo would be a shoe-in."

"We're excited about the attention this is bringing to southern Indiana and the natural beauty of the cave," said Carol Groves, director of marketing for Marengo Cave and a board member of the Lincoln Hills Patoka Lake Recreation Region. "The cave temperature is 52 degrees year-round, so it's a great place to visit any time."

Over the years, the cave also has been featured in photo shoots and a music video by the group GS Megaphone.

Marengo Cave is located on State Road 64 in Southern Indiana approximately 115 miles from Indianapolis, 50 miles from Louisville and 85 miles from Evansville.

### 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.



