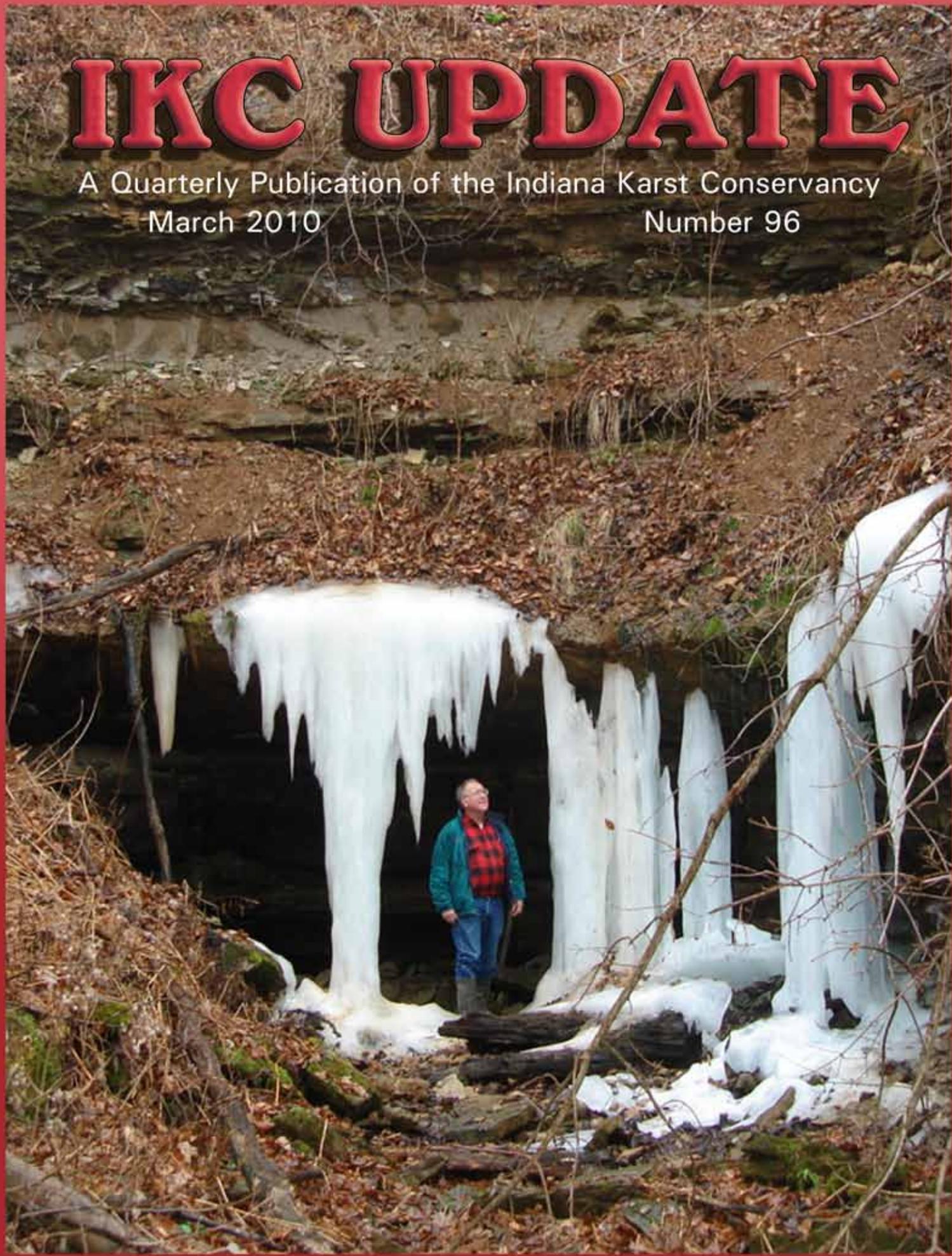


IKC UPDATE

A Quarterly Publication of the Indiana Karst Conservancy

March 2010

Number 96



INDIANA KARST CONSERVANCY, INC

PO Box 2401, Indianapolis, IN 46206-2401

ikc.caves.org

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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ANNUAL BUSINESS MEETING REMINDER
SATURDAY, MARCH 13th, 10:00 AM EDT
GREENWOOD, INDIANA
WHITE RIVER PUBLIC LIBRARY

The Annual Business meeting is for the purpose of Board elections. Annual reports from the IKC Cave Patrons and Property Managers are also presented. And as always, the meeting is for members and other interested persons to have an open forum for talking about cave and karst conservation and related topics. Past, present, and future IKC projects are discussed to solicit comments and input from our members and the caving community as a whole. The meeting is informal, and everyone is encouraged to attend and participate. The IKC Board wants your input.

Preliminary Agenda Items: Elections; Cave Patrons/Property Managers annual reports; Upcoming workday (Under-Earth Day) at the Robinson Ladder Cave Preserve; Indiana Cave Symposium; Buddha habitat improvement project; White-nose Syndrome update; IKC bat cave access policy for 2010; Financial reports; Land acquisition activities; I-69 Conservation Easement forest mitigation status; IKC liability waivers revisions; Grotto Liaison agreement revisions; and more....

Meeting directions: See page 17 (inside back cover) for map.

ACTIVITIES CALENDAR

March 13 – IKC Annual Meeting, White River Library, Greenwood (see above)

April 17– Under-Earth Day, Robinson Ladder Cave Preserve (see page 6)

April 17 – Indiana Cave Symposium, Crawford Co Fairgrounds (page 6)

May 1 – Take Pride in America workday

May/June – Weed control workdays at Buddha (see page 5)

June ?? – IKC Quarterly meeting (date and location to be determined)

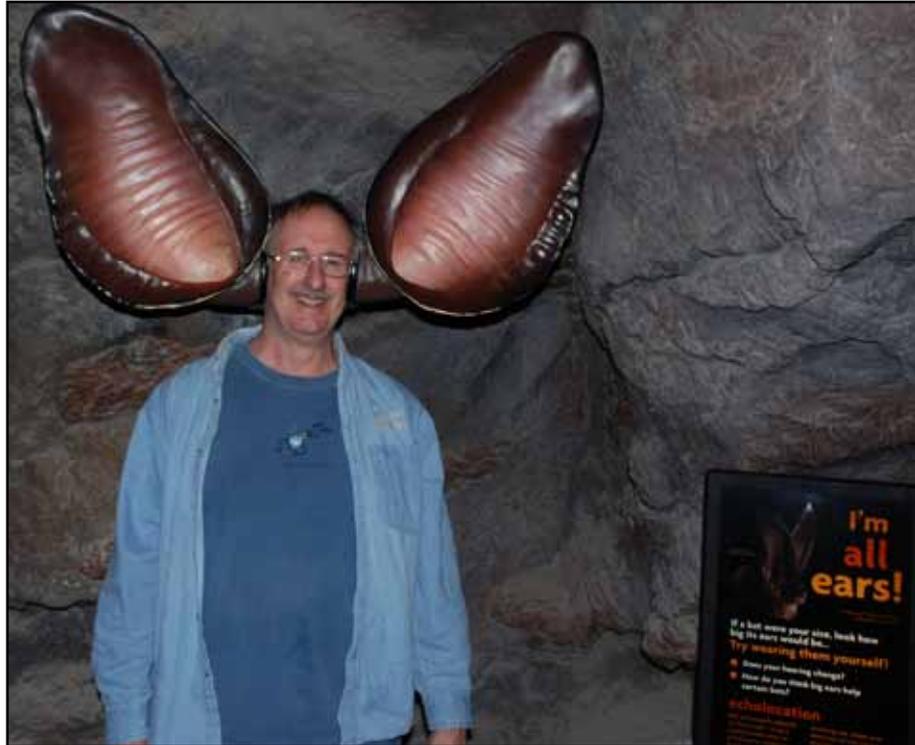
For more information on the Indiana Karst Conservancy, visit our website at ikc.caves.org or write to our PO box. Membership to the IKC is open to anyone or any organization interested in supporting cave and karst conservation. Annual dues are \$15. Please see inside the back cover for a membership application 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...

You're undoubtedly looking at the photo to the right and wondering, "What in the world was this fool doing?" My thoughts are on education and this photo is just a case in point. Usually people try to put their best foot forward in photos of themselves attached to articles like this. Maybe a nice photo wearing a hard hat, crawling through some slimy hole. Well, maybe next time. This is a photo taken in the artificial cave at the Arizona-Sonora Desert Museum in Tucson, Arizona. Some of you may remember it as being the banquet site for the NCKMS a few years back. I'm wearing some fancy ears that are part of an exhibit on the acuity of a bat's hearing. This was our family vacation and each of us took turns trying out the ears. Unfortunately for our children, the parents insist on educational vacations.



Opportunities to learn are all around us. Some of us seek them out and take their kids to places like a cave exhibit on vacation. I was about to say that "normal" people take their families to the beach on vacation, but then I think about showing the kids the crustaceans living in the sand interstices when they were four years old, digging a sand castle on the beach at Sanibel. So some of us are just incorrigible.

One of the roles of the IKC is to provide education about caves and karst. We have recently passed the torch to our new education coordinator, Don Ingle, and from where I'm looking, he appears to have hit the ground running. I'd like to direct everyone to the new IKC Facebook education and outreach page (<http://www.facebook.com/pages/Indiana-Karst-Conservancy-Education-Outreach-Committee/195227115939>).

Rambling onward, that brings us to everyone's least favorite topic: White Nose Syndrome (WNS). A day does not go by that doesn't bring dozens of e-mails to my mailbox about WNS.

Many of these e-mails are asking what I and/or the IKC is going to "do" about WNS. At this point, I'd like to direct readers to the article in the February 2010 *NSS News* by Tom Aley summarizing much of what is currently known, or not known, about WNS. I've known Tom for many years – among other things we're both on the board of the American Cave Conservation Association – and I value his opinions. A short excerpt:

"Based upon what we know today, there is a low to very low probability that human intervention can prevent the spread, or control the severity, of WNS. The rapid rate of spread of WNS and the high rate of mortality in bat hibernacula are among the very discouraging factors related to the potential for WNS control. The disease is apparently readily spread from bat to bat in nature (hence the high mortality rates in infected sites), and many bat species range widely after leaving hibernacula..."

One of Tom's cogent points is the need of agencies to feel like they are "doing something" about the WNS problem, and why that has become a problem in itself.

I have queried the IKC Board, other IKC members and many of my cave biologist buddies about what they think about what the IKC should "do". Frustration is almost universal. The futi-



ity of the situation was expressed by my friend Dr. Tom Barr in an e-mail. Tom said that, “*all we need to do is develop a nasal vaccine against WNS and deliver it to all bats*”.

I too am frustrated. The injury of WNS is compounded by the insult of it probably being yet another exotic (introduced) species. But that notwithstanding, as Tom Aley’s article emphasized the fungicide agents that are being explored for use in hibernacula are probably cures that are worse than the disease....it might (or might not) help the bats, but at the cost of poisoning the food web for the rest of the cave community. That would be if we had a fungicide that could be effective against the microbe and a way of treating the bats... which we don’t.

So... back to the IKC and education. I hear from our members and Board that the role of the IKC in the WNS crisis is to do things that are within our reach. Here are some of the things

that I’m hearing: educate people on the facts of WNS (the world is full of people who don’t even know WNS exists); attempt to control human access to the bat caves that we manage; and use our other caves as education tools for teaching “*clean caving*”. This last one is controversial because of the agency calls for people to stop going in caves. The observation has been that people are still frequenting caves. In a perfect world everyone would quit going in caves and all the bats would be saved. I’m hearing from our membership that it’s pretty clear that proclamations to close caves aren’t going to be very effective. If people are going to go in caves at least maybe we can educate them and help reduce the risks. In closing, the words of H.G. Wells come to mind: “*Human history becomes more and more a race between education and catastrophe.*”

Jerry Lewis

NEWS BRIEFS...

- ❑ In the last *IKC Update*, President Lewis indicated we had made a purchase offer on a cave property in Lawrence County. Unfortunately, while our offer was accepted by one of the owners who had originally solicited our interest, he was unable to convince his sister to sell (in the end, she bought out his interest in the property). This would have been a good acquisition, but it just wasn’t meant to be. So we will keep looking for cave properties that fit our acquisition criteria and in the mean time we will continue to enhance our existing preserves.
- ❑ Speaking of enhancing our preserves, as was mentioned in the last *IKC Update*, we are using a commercial tree contractor to plant 7200 trees (12 acres) at our Buddha Karst Nature Preserve this spring. Most of the costs for this project will be covered by a grant from the USFWS for wildlife habitat improvements. So as to not conflict with this activity, we will not be doing our traditional tree planting there this year using volunteers, but we will likely return in 2011, assuming there are still some unplanted areas left.

We will, however, be doing lots of weed control this year around the 5000 trees we have planted at Buddha over the past eight years. Most of this work will be done in May and June. The purpose of the weed control is primarily to kill back the fescue that stunts their growth. The work is done with backpack sprayers and is labor intensive, but this method allows application of the herbicide only where it is needed (a 2-3 foot diameter ring around each tree). We are using glyphosate (e.g. RoundUp) which has low toxicity and no run-off issues. If you would like to volunteer, contact Keith Dunlap (see page 2 for contact information).

- ❑ The IKC is still investigating the possibility of selling a conservation easement on our Wayne Cave Preserve which would count towards I-69 mitigation replacement. The theory is to permanently protect acreage at a three-to-one rate for woodlands that will be destroyed as a result of the highway construction. The “pluses” are that it would assure permanent protection of our property and would likely generate significant cash that would allow us to purchase an adjacent property and still have funds left over for future acquisitions. The “minuses” are that we give up some control over the property and we would surrender potential future income from selective timbering. If you have thoughts on this proposal, please share them with the Board.
- ❑ The IKC has gained three new members since the last *IKC Update*. Welcome Matt Selig (486), Gary Whitaker (487) and Jennifer Pelter (488). The IKC membership stands at 183.

INDIANA CAVE SYMPOSIUM 2010 PREVIEW

by Keith Dunlap

The 18th annual Indiana Cave Symposium, co-sponsored by the Indiana Karst Conservancy and Indiana Cave Survey, will be held on Saturday, April 17, in the Clover Room at the Crawford County Fairgrounds (south of Marengo on SR 66). The customary free cookout (burgers, brats, and other assorted meats and non-meat offerings) and pitch-in side dishes (please bring a cover dish or dessert to share) will start at 5 PM EDT. Presentations will begin at 7 PM. The tentative presentation titles and presenters (not in any particular order) include:

- Prosecuting Cave Vandalism – Patti Cummings
- Houghton Hole Cleanup – Brenda Shultheis
- Crawford County Biomass Incinerator – Cara Beth Jones
- Buckner Cave Graffiti Removal Project Update – Bill Baus
- Biology of Caves and Sinkholes on the Hoosier National Forest – Jerry & Salisa Lewis
- Indiana Cave Survey Cave Database Update and New On-line eLibrary – Keith Dunlap
- Binkley and Blowing Hole Caves Update – Dave Everton

There is still room for one or two more short presentations. For more information about the Symposium, contact Dave Everton (deverton@indiana.edu or evening phone 812-824-4380) or visit the Indiana Cave Survey website (www.caves.org/survey/ics).

UNDER-EARTH DAY & OPEN HOUSE ROBINSON LADDER CAVE PRESERVE

April 17, 2010

The Indiana Karst Conservancy will once again organize a workday in celebration of Earth Day. Also, we are taking the opportunity to invite and encourage our members to visit our largest preserve that will soon get even larger (see page 7 for details). The “work” part of the day will consist of several small projects, the most visible one being a surface cleanup of a trash pile on an adjacent property (we started this clean up two years ago). The success of this project will be somewhat dependent upon the number of volunteers we have who are willing to haul off the bagged trash, as there is not enough debris left to justify renting a dumpster. No special skills are required.

If cleaning up trash does not sound all that exciting, then just stop in and wander around and enjoy a spring day in the woods. The bats are still hibernating, so the cave can not be entered, but there's lots of other things to see above ground. This “open house” is the same day as the Indiana Cave Symposium (see above) just 15 minutes away, so you can take in both activities for the price of one (actually, both are free).

The property is located approximately 2.8 miles north of SR 64 (Milltown) on SR 66 or 4.2 miles south of US 150 if you are coming from the north. Watch for Baylor Road, heading to the west from SR 66. The access lane to the Robinson Ladder Cave Property is directly opposite Baylor Road, heading to the east. Take the lane 1/4 mile to the corner of the property.

Start time for the work activities is noon EDT, but wanderers can show up any time until 4 PM. For directions or question, contact Property Manager John Benton (JBenton@fullnet.com or 812-389-2248).

STATUS OF ROBINSON LADDER CAVE PRESERVE EXPANSION

by Keith Dunlap

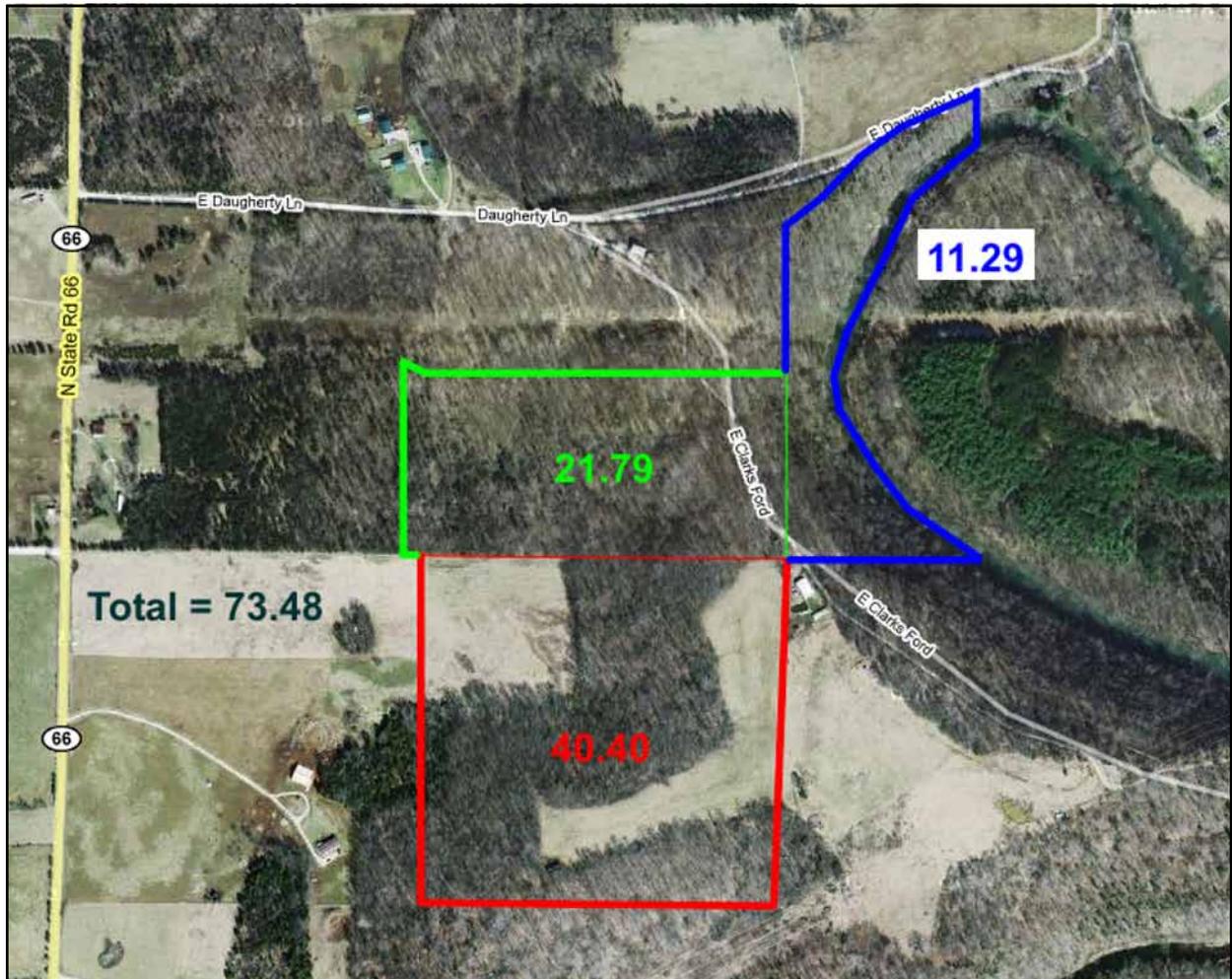
As announced in the December *IKC Update*, the IKC and The Nature Conservancy started a dialogue to transfer two tracts of land TNC owns to our organization. The tracts (one 21.79 acres and the other 11.29 acres) are adjacent to our 40.40 acre tract containing Robinson Ladder Cave. The two TNC tracts are fully wooded. The larger tract has an active swallowhole that drains much of that tract. This tract was timbered prior to TNC’s acquisition and could use some timber stand improvements (TSI), but otherwise is in decent shape. The other tract has mature timber and is very steeply sloped, dropping over 250 feet in elevation down to the Blue River which serves as the property’s eastern boundary. There are some rare plants identified on the smaller tract. The three tracts together form a 73-1/2 acre preserve with lots of wildlife habitat diversity and ideal for the Indiana bat.

So why does TNC want to transfer the property and why does the IKC want to accept it? Well, it

basically comes down to a matter of consolidating and optimizing management efforts. Rather than having two entities duplicate oversight of their respective properties, it seems logical that the IKC could be a good steward for all three tracts with only incrementally more effort. This will allow TNC to focus on other, bigger projects. In addition to transferring the deeds, TNC will provide a contribution to our stewardship endowment fund, and we likely will make a similar contribution to that restricted account to meet our funding target.

Most of the details have been worked out and the transfer is expected to be completed within the next few months. Once the IKC becomes the legal owner, all three tracts will be enrolled in the Classified Forest and Wildlands Program, providing a reduction in property taxes and potential access to other publicly-funded habitat improvement opportunities.

If you would like to check out the expanded Robinson Ladder Cave Preserve, see the “open house” initiation details on page 6.



IKC EDUCATION AND OUTREACH COMMITTEE REPORT

by Don Ingle

You may be wondering why Kriste isn't doing this Education/Outreach report for the IKC *Update* this time. Usually I'm the last link in the gossip chain, but apparently not this time. Not if you're scratching your head in puzzlement as you're reading this. The reason is there has been a bloodless coup d'état in the Education/Outreach Committee on January 1st and I have since been installed as Chairman. I'd like to say that I was lucky to be chosen as such, but that still remains to be seen. Kriste, after many years in the position has decided to cut back her schedule to a pace that mere mortals can handle, and after finding out that my primary responsibility as Chairman is to keep you all up to date on what Ed/Out has been up to, I figured "*Hey, I can do that.*" Actually, the main reason she cut back on cave and karst volunteer leadership was to tie in more with art efforts as they relate to conservation education. Or so I've been told. I'd thought about attempting to emulate her style and manner of presentation, but I figured you all knew what you were getting yourself into when you failed to put up a cry of alarm when my name first popped out of the hat. Give me more stuff to write about, and I promise I'll be serious. Really. But when I have to fill in too many blanks, I tend to write "off the cuff" and you'll notice I have a very odd tailor indeed.

First up to discuss is the 2010 Hoosier Association of Science Teachers, Inc (HASTI) Convention which was held at the Indianapolis Convention Center on February 3-5. Participants were Bob Vandeventer, Kriste Lindberg, and myself.

The first day was pretty much a non-event for us. The exhibit hall wasn't even open to general attendees, so Bob and I set up our booth, which took all of about two hours, and we were done for the day. Actually, if we were professional teachers, we'd have a lot of workshops and presentations to attend on a myriad of topics, but being only part time and non-licensed science "teachers" with an extremely limited range of interest, we both decided to pass on that. Bob went to a grotto meeting, and I got reacquainted with Indianapolis fast food and a cheap motel, in that order.

Day two was the busiest day, and it really started kicking in at about 10:30 AM. We had a laptop, with a rotating series of selected cave videos playing with a pair of amplified speakers to compete with the din of the crowd. Thank you, Bose. Also in play were our tri-fold display with its digital picture frame scrolling a litany of caving exploits and our new karst ground water model. Off to the side, but down in front was the Project Underground project "Salt Block Cave". I generally sat behind that and pounced whenever someone came close enough showing interest. Around noon on the second day Kriste arrived. She was there to do two presentations, one for Bloomington Parks and Recreation about the Citizen Scientist Certification Program, which includes Project Underground and related cave and karst education. The other one (presented on Saturday) was to cover the achievements in the past year in the IKC Education/Outreach Committee, centering on our expansion process, including the new regime change

and examples of how folks can get involved as well as how they can use our services now that we've developed the plan. Around two o'clock Kriste and Bob disappeared to do their thing with the presentation. Eventually, they came back, and we took turns minding the store while the others walked around to check out all the other booths. Refreshments were provided by our gracious hosts at the social beginning at 4:30, and caterers circled through the exhibit hall with trays of goodies. Very welcome indeed after a long, 12 hour day working a booth and display.

The last day was unfortunately



shortened by a snow storm that arrived about 9:30 AM and put somewhat of a damper on the proceedings. Up until about noon, it didn't seem to affect the business that much, but after that, people mostly cut their day off short while the getting was still good. Charles Flack, the exhibits director came by and suggested that we might as well pack up, as most of the teachers had already left and the only ones milling about were people from the other booths. Seeing the sense in that, we cleared out.

HASTI is such a good venue for the Ed/Out Committee because it puts us in direct contact with most of the very folks who need our services the most in one fell swoop. Science teachers all over the state are seeing their budgets cut and as a result have less money than ever to provide an innovative and challenging learning environment for their students. Knowing that we are out there and can help supplement their curriculums can only help us in the future.

Which leads us to our second topic to discuss. Last year at the Indiana Cave Symposium, two teachers from Elkhart, Indiana were introduced to the audience who had taken it upon themselves to develop their own cave and karst conservation based approach to teaching science. These teachers were Holly Yoder and Tamie Herr, of Pierre Moran Middle School. Educating themselves from many different sources, they soon cooked up a real winner. Called Cave Week, it introduced Elkhart eighth graders to a hands on immersion into several different facets of cave science. This year, stations were set up in the classroom where the students would learn how to do a bat count, clean graffiti off of a piece of limestone, create cave popcorn using an egg and vinegar (it works), and paint their own examples of primitive cave art. All playing against a backdrop of an oddly familiar video that will be referenced once again at the end of this article. But the centerpiece of their Cave Week as was last year, was an artificial cave they had set up in a small auditorium adjacent to their two classrooms. This was no small thing. It was elaborately done and with great attention to detail. Called Warrior Cave, they had a sound system set up so that dripping "cave water" was clearly audible throughout the room. The passages were of varying dimensions, and even had a walking dead end borehole passage. It fooled me. I had to double back to find the exit which was cleverly hidden, low, and right behind the entrance to the section. Throughout the cave were lettered



stations where biota and fossils to be observed, formations to be seen, and even an example of cave trash was present. The "cave" is probably some 250 feet long (best guess, I didn't bring any survey tape) and involved a fair amount of crawling and even some climbing. You would have to see it to appreciate it. Words do not adequately do it justice. Lots and lots of cardboard and duct tape with chairs and tables used as support. At the end was a little payoff with a small "stream" set up with aquarium equipment and critters on a rock. The students then had to write up their experiences after their trip through the "cave" and explain what they saw and how it made them feel. The fact that two teachers with little or no caving experience came up with this, went this far in depth with their representation of a cave experience, and still hit all the right notes on the conservation and educational component was truly mind-blowing. My hat is off to you ladies. And not only because the sign at the front door of the school said I had to. It only goes to show that even those of us who do this fairly often can still learn more than a little about cave education from what we might as cavers consider an unlikely source. Great minds think alike, I guess. Holly also said something that those of us who have presented our own inflatable cave at different events have also said, almost verbatim. You might even say it struck a chord. She said "If the students can't come to the cave, bring the cave to the students." Indeed. Spot on, Holly.

Finally, last but not least, our new Ed/Out southern director Bill Schulze presented to 144 students at North Harrison High School on January 22nd. Covering the topic of "Cave Ecosystems", the *Caves: Life Beneath the Forest* video was used and he answered questions posed by his audience afterwards following his presentation. I'd offer more details, but Bill was a man of few words, but I did want to see his efforts recognized.

FACTS, SUBSTANCE AND FORM: THE IDEM PUBLIC MEETING TO DISCUSS AIR PERMIT FOR THE MILLTOWN BIOMASS PLANT

by Jerry Lewis

First, the facts. On January 13, 2010 the Indiana Department of Environmental Management (IDEM) held a public meeting at the Crawford County fairgrounds. The purpose of the meeting was to provide an opportunity for citizens and IDEM staff to discuss the permit review process for the Liberty Green Renewables proposed biomass-fired generating plant at Milltown.

According to published information the company seeking the permit, Liberty Green Renewables LLC, estimates that the plant would emit 245 tons of nitrogen oxide and 226 tons of CO₂ each year. An additional 11 tons/year of other chemicals classified as hazardous air pollutants would be released. A separate permit has been requested to discharge over 200,000 gallons of cooling water per day from the plant.

The substance. The first thing the IDEM staff pointed out was that they were conducting a public meeting, not a public hearing. They explained that at a public hearing a legal record of the proceedings is made, whereas at a public meeting nothing is recorded other than the fact that the meeting itself happened. Thus, there was no substance.

That is not to say that substantive questions and comments were absent. Dr Shane Avery, a physician from Scottsburg, questioned the engineering of the stack height. From the response he received, it sounded like the design of the smokestack was inadequate. Forrest Lucas, owner of Lucas Oil Company questioned what was going to be burnt in the plant and seemed dubious of the inspection process. The permit addresses the burning of clean wood products, but that substance appeared not to be a precisely defined material. Likewise, permits to use other substances, like construction waste (e.g. shingles) or tires can be addressed at a later date (i.e., after the plant is

built and there is a shortage of clean feedstock).

So that leaves us with form, which was to me the most remarkable part of the evening. Looking at the IDEM staff one wondered if they cultivated the look of government regulators with their starched white shirts and black suits. A couple of hundred citizens came to the meeting, mostly dressed in jeans, caps and the occasional "No Biomass Incinerator" t-shirts.

The IDEM staff sat behind a table while the citizens stood in line to approach a microphone. One of the reasons that I don't have much to say about the meeting's substance is that the public address system rendered almost everything indecipherable. This in itself caused some shouting and frustrations from the crowd. Citizens voiced things like their concerns about public health, citing the proximity of the proposed plant to an elementary school.

The impassioned, sometimes tearful, pleas were addressed to regulators who stated over and over again that their only authority was to issue permits that conformed to state and federal laws. The location of the plant was under the jurisdiction of local zoning laws. Any concerns about aspects of the plant other than air discharge were outside the IDEM permit being discussed.

The general consensus was that two conclusions were to be had from the meeting. The first was that the IDEM regulators were acting within their perceptions of the letter of the law. If you don't like it, change the law, and that was precisely what some of the more influential attendees were working on doing. Reportedly the legislature was being lobbied for immediate changes in the laws governing biomass plants. The result of that remains to be seen. The other conclusion was that the next battleground was going to be the plant's proposed discharge of cooling water.



CITIZENS FIGHT BIOMASS INCINERATOR IN CRAWFORD COUNTY

by Linda Greene

They're clean! They're green! Or so the industry PR boasts about biomass power plants. If anything, the opposite is true.

Biomass is any substance that isn't a fossil fuel and is arguably organic. Wood waste is one of the primary fuels that biomass incinerators burn. Wood waste includes industrial wood waste (like shipping pallets and sawdust), which is often contaminated with toxic chemicals and plastics that form dioxin, the most potent carcinogen ever studied, when burned.

Biomass power plants aren't built in white, middle-class neighborhoods, but in urban neighborhoods populated with poor people of color. Other prime locations are poor, rural areas, such as Crawford County, in southwest Indiana.

Concerned Citizens of Crawford County formed 14 months ago to fight a proposed wood-burning biomass power plant near Milltown on the scenic Blue River. It would be the first biomass plant in Indiana and the first one constructed and operated by Liberty Green Renewables LLC.

The incinerator would cost about \$90 million, be up and running by late next year, and burn "clean" wood. Neither the Indiana Department of Environmental Management (IDEM), nor Liberty Green has defined "clean."

The biomass plant would burn 400,000 tons of wood per year – that's 1,096 tons per day. Where Liberty Green will obtain the wood to burn is an unanswered question. Local wood processors, such as sawmills, don't produce enough waste wood to satisfy the incinerator.

Nearby are the Hoosier National Forest and several state forests. The state is already logging public lands heavily, and Liberty Green claims it will "sweep" the forest floor after logging operations.

Environmental groups worry that Liberty Green might start cutting down trees to feed the biomass plant. Forests provide many benefits, not the least of which is the capacity to store carbon and thereby alleviate global climate change.

Ninety-eight chemicals, among them lead, mercury, formaldehyde chloroform, arsenic,

and two types of dioxin, will emerge from the smokestack, according to Liberty Green's air-permit application.

According to Dr William Sammons, MD, a pediatrician and biomass expert, biomass plants emit 1.5 times more air pollution than coal plants. According to the US Environmental Protection Agency (EPA), coal power is the single largest contributor to global-warming greenhouse gases on the planet.

Liberty Green doesn't have to report its carbon dioxide emissions because IDEM classifies the plant as a source of "renewable" energy and as a "minor" polluter. The company says it would release 249.9 tons of nitrogen oxide annually. What luck: if the number were 250, EPA would consider it a "major" source of nitrogen oxide and would require more-stringent regulations on the plant.

Trees may be renewable, but forests are not. Biomass burning can be devastating to forest.

— *Energy Justice Network*

Disposal of the toxic ash and wastewater from the incinerator and water usage are other issues. The contents of the ash residue aren't reported in the

air-emissions permit application, but the amount is stated – 50 tons per hour.

Liberty Green originally intended to use the ash to make concrete blocks but as of September 28 has requested an on-site ash dump. Because of the karst topography, an underground complex of limestone filled with sinkholes, caves and streams, the ash would inevitably leach into the groundwater.

The incinerator would require 700,000 gallons of water a day to operate. Liberty Green originally planned to obtain water from the relatively clean Blue River to run the plant and to dump the toxic wastewater back into the river. But the Indiana Department of Natural Resource's Blue River Commission passed a resolution vetoing the plan. The Blue River Water Co pumps only 200,000 gallons of groundwater a day from five wells.

Liberty Green now plans to obtain the water from Harrison County, which often experiences water shortages, and to dump the wastewater on the plant's grounds, where it will invade the karst, pollute the groundwater and be inaccessible for cleanup.

The incinerator would produce 67 million gallons of wastewater annually, or about 173,000 gallons a day.

Liberty Green claims the incinerator will bring jobs to Crawford County, but the company itself reported that the plant would have only 25 permanent job openings and require that its employees have five years biomass experience. According to Concerned Citizens, Crawford County has no residents with any experience working at a biomass plant.

Concerned Citizens fears the plant might put small farmers out of business. Farmers need sawdust as bedding for their animals, and it's already scarce and expensive. The biomass plant would burn all the available sawdust in the area.

The incinerator is located in a sensitive area. Not only do the nearby river, forests and caves attract tourists, but it's only a half mile from the Blue River, a mile from an elementary school, a mile from a home for the elderly and disabled and three miles from Marengo Cave. The young and the old are particularly vulnerable to the health effects of the particulate pollution the incinerator will produce.

Concerned citizens estimates that 50 trucks making 300 trips per day would cart wood waste to the incinerator over narrow, curvy, hilly State Road 66. Neither IDEM nor EPA requires Liberty Green to track or report the air pollution from those truck trips or to mitigate the damage such heavy equipment would cause to rural roadways.

Residents of Scottsburg are fighting a second proposed Liberty Green biomass plant. Thirty-five miles from Crawford County, the second plant would compete with the first one for fuel. Rumor has it that Liberty Green has its sights set on a third biomass plant, in Putnam County.

Cara Beth Jones, founder of Concerned Citizens said, "It's important to fight and not to let corporations run over you."

In formal public comments on the air permit submitted to IDEM's Air Quality Office, Tom Dodderidge, former superintendent of Crawford County schools, summed up the injustices of the biomass project:

"I strongly believe my rights, and the rights of all citizens affected by this proposed waste incinerator, are being violated. This permit is being considered using vague information, evolving assumptions and definitions, and calculations based upon outdated

data and inappropriate citations. If this permit is issued under these conditions, then my health, the health of my family members, and the health of all affected in the area will have been wrongfully compromised, simply because such words like 'renewable' and 'clean' energy are being liberally construed by developers to reap tax credits and other lucrative government program give-a-ways."

The fight against biomass is growing at the national level. On January 26 a national coalition of 48 citizen and environmental groups launched a nationwide campaign to end federal financing for biomass incinerators.

The groups launched the campaign with the delivery on Capitol Hill of a letter to Max Baucus (D-Mont.) and Charles Grassley (R-Iowa) in response to increased lobbying by the Biomass Power Association, timber, waste and energy companies seeking to create or extend lucrative tax credits for burning biomass (trash, tires, and anything else) to produce electric power. The groups say the biomass plants pose an undue risk to public health and the environment.

The letter notes that the 20,000-member Massachusetts Medical Society recently resolved to adopt a policy opposing biomass power plants on the grounds that they pose "an unacceptable health risk" and that the American Lung Association of New England and the Florida Medical Society have passed similar resolutions in response to a torrent of biomass power plant proposals in recent years.

"President Obama announced today a freeze on domestic spending for next year's budget," said attorney Margaret Sheehan and Dr. Sammons, spokespersons for the group. "There are 200 biomass plants lining up for grants in lieu of tax credits under the stimulus package, at a cost to taxpayers of at least a half a billion dollars. Ending subsidies for incinerators falsely claiming to be clean energy is a good place to start cleaning up the federal budget deficit."

Reprinted from the February 7, 2010 issue of the The Bloomington Alternative (www.bloomingtonalternative.com). Linda Greene can be reached at lgreene@bloomington.in.us.

Editor's note - The Robinson Ladder Cave Preserve is 2.4 miles "downwind" from the proposed site of this incinerator.

CAVE MURAL HELPS CHILDREN LEARN HOW TO LIVE RESPONSIBLY WITH NATURAL AND MAN-MADE UNDERGROUND DRAINAGE SYSTEMS

by Kriste Lindberg

In south central Indiana, NSS members Bob Vandeventer and Kriste Lindberg are working with Aurora Alternative High School and the Bloomington Environmental Commission to create a mural depicting drainage above and below ground – both natural (cave) and man-made (storm sewer) systems – and related education at Bloomington Parks and Recreation's Baneker Community Center.

On Monday, January 18, a little-used black-board area, 11 x 4 foot, was transformed into an educational painting complete with images of an inter-connected pathway of cave (sinkhole, cave, stalactites and stalagmites, northern cavefish, spring), storm sewer (storm drain inlet/outlet, curb, roadway), and stream.

To keep with the environmental theme, low VOC paint was utilized to create the image. The design (in cross-section and purposely over-simplified) was crafted to help children understand the connection between water resources and how to best co-exist with them in an environmentally-friendly manner.

The partners are in the process of following up with a comprehensive karst/groundwater education series, including a session on how students can design their very own, unique cave critter based upon adaptations to the underground environment and tour through the IKC's inflatable cave (both derived from Project Underground activities), showing of the *Caves: Life Beneath the Forest* documentary, demonstration of a karst/groundwater flow model and storm drain marking, and brainstorming on ways to best take care of our water resources.



Lindsay Smith, a senior at Aurora Alternative High School, details cave formations.

A grant from the City of Bloomington's Martin Luther King, Jr Day Commission was obtained to purchase paint and related supplies from locally-owned stores and the education portion is taking place during the subsequent 40 Days of Peace. Educational materials are compliments of the Bloomington Parks and Recreation Department, City of Bloomington Utilities Department, and Indiana Karst Conservancy (thanks, in part, to funds from a National Speleological Foundation grant). Water was donated by Walnut Grove Spring Water. A photo and caption were published in *The Herald-Times* newspaper on January 19, 2010.

Special thanks to individuals: Leslie Brinson, James Brosher, Steve Cotter, Barbara Curry, Barbara Dunbar, Jane Fleig, Greg Nettleton, Tim Pritchett, Karen Serfling, Duane Smith, Lindsay Smith, and Bob Vandeventer.



INDIANA KARST CONSERVANCY TREASURY REPORT

**Income/Expense Statement
From October 1, 2009 to December 31, 2009**

INCOME:

Dues Apportionment and Residuals	668.75	
Donations - General	450.10	
Donations - Land Acquisition Fund	1500.00	
USFWS grant for Buddha tree planting	3049.05	
Interest	<u>504.82</u>	
		\$6,172.72

EXPENSES:

IKC Update (printing, production, mailing)	320.68	
Education / Outreach	294.97	
Stewardship	3359.35	
Business (insurance, PO box, fees, etc)	780.64	
Transfers to/from restricted funds/other adjustments	<u>1733.63</u>	
		(\$6,489.27)

NET OPERATING EXCESS (DEFICIT) THIS PERIOD: (\$316.55)

**Balance Sheet
December 31, 2009**

ASSETS:

Cash in Checking / Saving Accounts / CDs	106780.09	
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>\$364,793.25</u></u>

LIABILITIES & OPERATING EXCESS:

Land Acquisition Restricted Fund	36293.59	
Deferred Dues Restricted Fund (179 members)	2696.25	
Stewardship Endowment Restricted Fund	30379.12	

Previous General Fund (total)	37740.84	
Net Excess (Deficit) This Period	<u>(316.55)</u>	
Current General Fund (unrestricted)		37424.29
Current General Fund (committed)	5800.00	
Real estate liquidity (basis value)	<u>258000.00</u>	

Total Liabilities & Operating Excess \$364,793.25

IKC QUARTERLY EXECUTIVE BOARD MEETING MINUTES

Saturday, December 12, 2009 – Bloomington, IN

BOARD MEMBERS PRESENT:

Jerry Lewis, President
 James Adams, Secretary
 Keith Dunlap, Treasurer
 Dave Haun
 Don Ingle
 Kriste Lindberg
 Steve Lockwood
 Bob Sergesketter
 Bruce Silvers
 Karen Silvers
 Tom Sollman
 Bob Vandeventer
 Richard Vernier
 Jamie Winner

BOARD MEMBERS ABSENT:

Bruce Bowman

The Executive Board Meeting was called to order at 10:00 AM at the Indiana University Geology Building, Bloomington, Indiana, IKC President Lewis, presiding. No proxies were accepted and one Board Member was absent. Minutes of the September 2009 meeting were accepted as published in the December 2009 issue of the *IKC Update*.

Record of E-mail Motion

Since the September meeting, there was one e-mail motion and vote as follows:

11/2/2009: Dunlap moved that the IKC make an offer of \$35k to acquire the Carcass Crypt Pit Cave property of 20 acres, more or less.

11/3/2009: Motion seconded by Haun. Lewis called for an e-vote.

11/5/2009: Motion passed, 15-0-0. Dunlap prepared a draft purchase agreement that was reviewed by the Board and sent to the property owners.

Treasurer's Report

Dunlap reported cash assets of \$106,341.78 plus land at \$258,000 for a total of \$364,341.78. Funds included Land Acquisition, \$34,793.59; Stewardship, \$30,145.49; Deferred Dues, \$3,285.00; General, \$38,117.70 of which approximately \$5,000 has been earmarked.

Membership stands at 178 members.

Election Preparation

The terms of four Board Members will expire in 2010. Lewis suggested that we not hold a February meeting to approve the slate for the 2010 elections; this can be done

by e-mail. Dunlap noted that everyone needs to proactively identify and promote potential incoming Board Members. The three Officers will also face election.

Education and Outreach Committee

Lindberg plans to transition out of the chair position and Ingle will be assuming the duties of the Chairman of the Education and Outreach Committee. She plans to continue her role with the NSS and Project Underground.

The annual meeting of the Hoosier Association of Science Teachers Inc (HASTI) is coming up. Funding is needed to have a booth at the event in early February. Ingle moved to fund the IKC's membership in HASTI for \$30. This will discount our booth space to \$70. \$50 is also suggested for miscellaneous expenses for a total of \$150. Vernier seconded. Motion approved, 14-0-0. (*Secretary's note: This was increased to \$250 by an e-mail motion and vote on 12/14-16/2009 that will be fully recorded in subsequent minutes.*)

Conservation Day is on January 26, 2010 at the Indiana State House. Ingle plans to attend to meet and talk with legislators regarding environmental issues. Vernier noted that this is an excellent networking opportunity with other similar organizations.

Regarding the change of leadership of the committee, Dunlap moved that Ingle be formally approved as Chairman as of January 1, 2010. Vernier seconded, Motion approved, 13-0-1.

The committee has established a Facebook page. Members are encouraged to visit the online site (www.facebook.com), then search for Indiana Karst Conservancy). Ingle will maintain the page on Facebook and the committee is also looking into putting up a website. It was suggested the committee work with Bowman to leverage our existing site and keep it updated.

A plaque was presented to Lindberg to acknowledge



her 10 years of service as the Education and Outreach Committee Chairman.

Robinson Ladder Cave Preserve

Recapping her article in the December *IKC Update*, Carla Winner noted that a fall burn at the property would be appropriate in 2010. \$2500 has already been approved (September 2009 meeting) for a spring burn. Dunlap moved that the previous motion be amended to a fall burn before the end of 2011. Vernier seconded. Motion approved, 14-0-0.

Lewis noted that the transfer of property at the Robinson Ladder Cave Preserve from The Nature Conservancy is in the works.

Wayne Cave Preserve

No report.

Sink of Indian Creek

Lewis would like to inspect the property at the same time as the property is re-surveyed.

Buddha Cave Preserve

Lewis reported that the IKC has secured a grant to finish the tree planting. The contractor will plant trees in April. Dunlap noted that we might need to fill in some "holes" in 2011 after the mass planting in areas that don't fit well into the contractor's work.

Sullivan Cave Preserve

Dunlap did a final mowing and everything is good. Vandevanter noted that visitation continues at the same rate as previous years. There is usually a peak of visitors in November. The "facilities" will be pumped out at the next dry period.

Suicide Cave

Our lease agreement has expired. The contact information was given to Bruce Bowman for a follow-up on a new lease agreement. No trips will be scheduled until a new lease can be executed.

Hoosier National Forest

Public input has been requested by the Hoosier National Forest: the forest is considering amending their policy to change prohibiting tree-cutting and other management activities from 200 feet of "sinkholes" to "caves". Lewis' research has indicated that habitats are much more rich with trees near the features than without nearby trees. Vernier and Lockwood will draft a letter before the January 20 deadline.

IKC Sponsorships

The HNF karst layer GIS project is considered completed and an invoice has been sent. Most of this work was performed by Indiana Cave Survey volunteers and thus, the ICS will receive the majority of the remunerations.

A grant request for natural gases (oxygen, CO₂, etc)

monitoring project in caves has been received. The individuals are looking for a total of \$1,500 to purchase equipment for this on-going study. Two NSS Grottos have already pledged funds. Dunlap moved to support the project with a pledge in the amount of \$250. Vandevanter seconded. Motion passed, 14-0-0

Land Acquisition

A purchase agreement for the Carcass Crypt Pit property has been sent to the property owners. We have not received any reports of the status of our offer.

At the March meeting, it was discussed that InDOT was planning to send out letters to property owners in the Garrison Chapel Valley area regarding an I-69 mitigation. This may include the Wayne Cave property. The IKC may be offered a conservation easement. According to InDOT, over 100 solicitation letters were mailed and approximately 30 landowners have responded they are interested and appraisals are expected soon. Winner, Sollman and others voiced concerns regarding the easement's restrictions on tree harvesting on the property. This will need to be reviewed when an offer is received.

The five-acres of property adjacent to the Buddha Karst Nature Preserve is for sale. The cost continues to drop and there was interest from the Board in acquiring the property if the price gets low enough. (*Secretary's note: The property sold in late December.*)

Items From The Floor

Lindberg brought up the proposed biomass incinerator near Milltown. No new information has been received. Lewis will send a follow-up on the status.

Ingle noted that property with a cave is reported on the market near Spencer. The MLS number appears to be invalid. Ingle will seek additional information.

There was some discussion regarding the TNC's wish list of cave property acquisitions.

Future Meetings

The Executive Board Meeting was set for February 6 in Bloomington at 1:00 PM at the Geology Building. This meeting may be cancelled if the election slate is approved electronically.

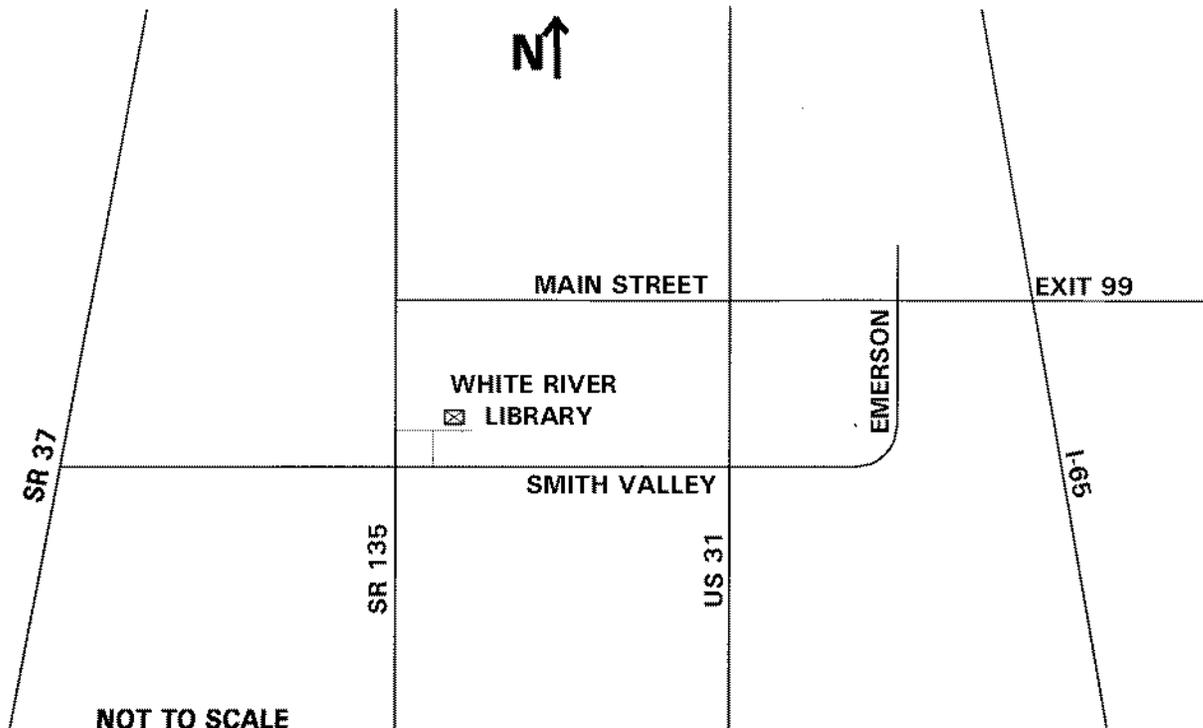
The Annual Meeting was set for Saturday, March 13, 2010 in Greenwood. Adams will check on room availability at the White River Branch of the Johnson County Public Library at 10:00 AM.

Meeting adjourned at 11:50 AM

Respectfully submitted, James Adams, Secretary



**IKC ANNUAL BUSINESS MEETING
 SATURDAY, MARCH 13th, 10 AM
 WHITE RIVER PUBLIC LIBRARY, GREENWOOD, INDIANA**



NOT TO SCALE

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.

