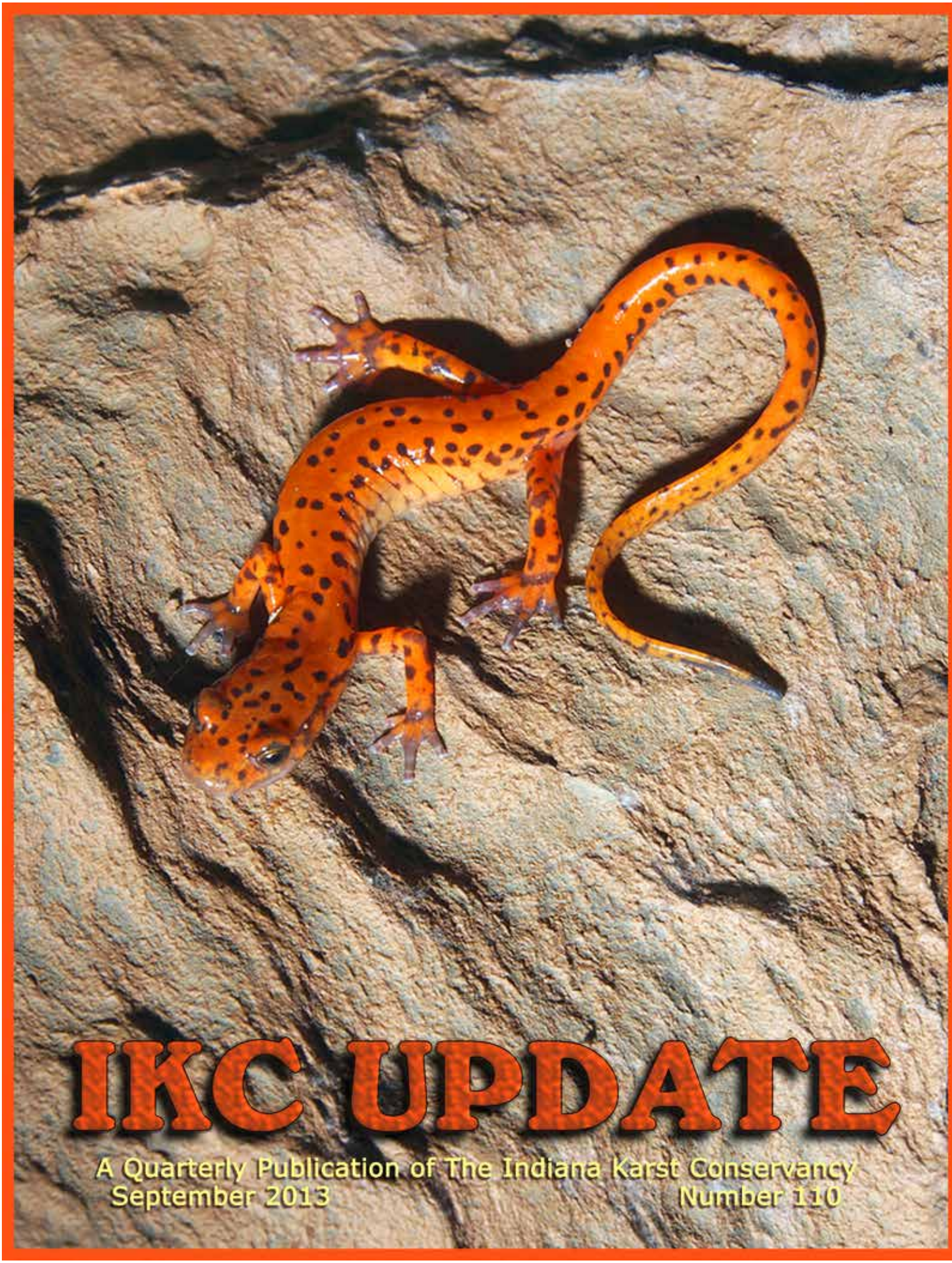


IKC UPDATE

A Quarterly Publication of The Indiana Karst Conservancy
September 2013 Number 110

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.

Cover: The ubiquitous Cave salamander (*Eurycea lucifuga*). This one photographed in West Virginia by Dave Black.

Myotis Press

IKC QUARTERLY MEETING REMINDER

SATURDAY, SEPTEMBER 21st, 4:00 PM EDT

BORDEN, INDIANA

HOME OF SALISA & JERRY LEWIS

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: All things about the our various preserves; White-nose Syndrome/DNR cave access update; Wyandotte Cave gate; Financial reports; Land acquisition activities; and more....

Following the quarterly meeting (around 6 PM) will be the annual pitch-in cook-out. The main entree this year will be self-roasted wieners over a campfire. Please bring a salad, dessert, and/or other covered dish to share. If there are enough entries, we will also have a dessert contest (otherwise Keith Dunlap will just claim victory by default). Please bring a lawn chair if you want to sit.

Meeting directions: Contact Jerry Lewis (see page 2) or see page 15 of *IKC Update* #102.

ACTIVITIES CALENDAR

Sept 21 – IKC quarterly meeting & cookout (see above)

Sept 21/22 – Hoosier Outdoor Experience (*www.in.gov/dnr/5009.htm*)

Oct 5 – 39th Annual Hoot, Ferdinand State Forest (see page 5)

Oct ?? – Workday at the Shawnee Karst Preserve (date TBD)

Oct ?? – Invasive Weed Control Buddha Karst Preserve (after first frost)

Dec ?? – IKC Quarterly meeting (date & location to be determined)

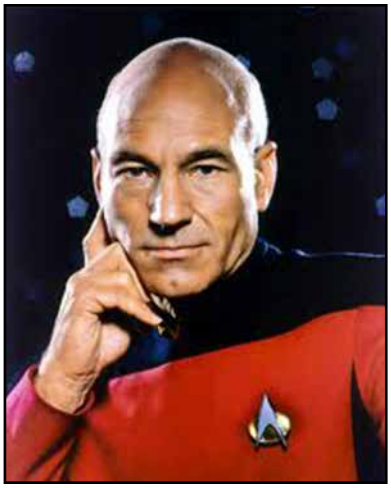
For more information on the Indiana Karst Conservancy, visit our website at ikc.caves.org or write to our PO box. Membership to the IKC is open to anyone or any organization interested in supporting cave and karst conservation. Annual dues are $15. Please see inside the back cover for a membership application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

RAMBLINGS FROM THE PRESIDENT...

In April I led a group of twenty or so cavers from the Cleveland Grotto into Binkley Cave. Although advertised as a biology trip, we hoped to look at about a mile of the passage downstream from the main entrance, and see whatever animals might present themselves along the way. In the 1990's Tom Sollman and I conducted a biological inventory of this part of Binkley, visiting once or twice a month for a year, so I know the route through this part of the cave well and have a good idea of where to find various kinds of animals.

Over the years that I've been going in Binkley the cave itself has not really changed a lot. The biggest changes I've seen were the result of a ten inch rain that brought down some trees in the entrance sinkhole and flooded the Mountain Room almost to the top of the breakdown, carrying away years of carbide dumps left from a bygone era of caving. For the most part the cave seems pretty much unchanged over the relatively short period of time that I've visited it. That has not proved to be the case with the animals living in the cave, which is the subject of my rambling this time.



In the bottom of a large sinkhole behind the owner's chicken farm lies the main entrance to the cave. An impressive opening, the floor of the entrance room is breakdown that slopes downward about 200 feet to the emergence of the cave stream and Binkley River Trail. The path downward is briefly interrupted at the base of the entrance room by a crawlway through the breakdown. Beyond the crawlway the passage opens up to a walking height passage with the ceiling peppered with dozens of bats. The numbers varied from year to year, but historically it's been a mixture of pips, little brown, and Indiana bats.

A big change in the biological landscape in Binkley has now occurred in the wake of White-nose syndrome (WNS) in bats. About two years ago I was in the cave with Kevin Smith and we had the "privilege" of finding the first bats with WNS in Harrison County in a couple of little brown bats there in the entrance passage of Binkley. At that time Kevin took a picture that to me became the poster photo for how WNS seems to spread… a cluster of about seven little brown bats with the center bat modeling a prominent white muzzle.

Now in the spring of 2013 the ravages of WNS that have occurred in the intervening time are quite apparent. Dead, mummifying bats were common along the walls and ceiling of the passage. A few carcasses have fallen to the floor. It's apparent that the effects of the disease continue to progress, with some of the bats having died recently and others still alive but with the prominent signs of white-nose. Sad as this might be, it's not a problem that is limited to Binkley.

In the last issue of the *IKC Update* I wrote a short article about the work that I've been conducting on the genetics of subterranean isopods in Indiana. I needed a freshly collected sample of the isopod species that occurs in caves across the south-central Indiana karst (*Caecidotea stygia*) and decided that I would demonstrate the technique for preserving DNA for the group from the Cleveland Grotto. In itself the technique is simple… just put a few isopods in a small plastic vial containing a liquid preservative called RNAlater that instantly fixes any and all chromosomal material in the specimens. The easiest place to find isopods in Binkley has been the place where Binkley River emerges from the breakdown at the base of the entrance passage. At the same place a well pipe extends from the ceiling to a pool in the stream. For many years this well had been the source of the landowner's water for his chicken farm. I sat down on a rock near the well, got my collecting stuff laid out where it would be handy, gathered the group around me in a circle and started to turn over rocks to collect half a dozen or so isopods. I expected this would take only a minute or two… the isopods have always been abundant under the slabs of breakdown.

Not that day. I turned over a rock, no isopods. Next rock, no isopods. And on and on, no isopods. After a few minutes of this my audience started looking around at other things and it became obvious that something very wrong was happening in the stream in Binkley. I rubbed my finger on the undersides of the rocks, feeling a slippery coating of slime instead of the clean, rough surface that should have been present. The underside of the

▸▸

rock was covered with brown filaments of bacteria that are typical of polluted cave streams. As time progresses this biofilm typically gets thicker and thicker, carpeting the rocks and eliminating the preferred habitat of animals like the cave isopods.

That day in April we continued to the Mountain Room and beyond, until finally reaching a point where a few of the folks on the trip were getting cold and wet enough that it was time to turn around. Beyond where we turned around, in the North Section of the cave, lies the most polluted area that Tom Sollman and I had found during our 1998 study of the cave. In the stream is where early explorers reported that cavefish were common. We found no fish, but instead a fecal coliform count exceeding 8000, indicating significant septic pollution entering the cave stream. Since that time there have been other indications of the decline in water quality. Even the chickens would no longer drink the water from the cave and the owner had to quit using the water from the well in the cave.

I continued to look for isopods in the main stream passage without luck, finally deciding to look in a side passage stream that I suspected had cleaner water. Happily that hunch was correct and I managed to find five isopods for my DNA sample. Along the way I chatted with some of the cavers and related the turn for the worse that the cave stream was taking. One of them came to the obvious conclusion, saying "That's too bad". I had to agree…."Yes, it's a real shame."

Driving home from the cave that conversation started to bother me. Binkley is by far the most extensive cave in Indiana and, not surprisingly, also has the largest troglobitic community in the state as well. So "that's too bad" just isn't good enough as a response. At the expense of a Star Trek reference, it reminds me of Captain Jean Luc Picard's feelings about the invasion of Borg (from the movie *First Contact*).

PICARD: *"…I will not sacrifice [Binkley Cave]… We've made too many compromises already. Too many retreats. They [the Borg] invade our space and we fall back. They assimilate entire worlds, and we fall back. Not again! The line must be drawn here,…this far, no further!"*

Each day the demise of Binkley Cave progresses a little further. I am at a loss of how to draw a line and fight back, but clearly the line needs to be drawn. No further.

Jerry Lewis

NEWS BRIEFS..

- Part of the process to access IKC managed caves require each participant to execution a specific liability waiver. These waivers are revised occasionally, so we ask that cavers don't "stockpile" forms as they can become obsolete, rather to download them "on demand". Waivers are available on the IKC website here: ***ikc.caves.org/waivers.htm***.

- After four years of progressing through the process, the Hoosier National Forest finally adopted Amendment #1 to their 2006 Land and Resource Management Plan in late July. The amendment rolls back some of the karst protection in the original plan by allowing timber management and prescriptive burning in and around sinkholes and other karst features. The original management policy stated, "*Prohibit timber harvesting and prescribed burning within 200 feet of cave entrances; direct drainage input, such as sinkholes, swallow holes, and any streams flowing into a known cave, except for research purposes.*" The new language was simplified to say, "*Prohibit timber harvesting and prescribed burning within 200 feet of caves."* However, in the final version adopted, they did add the following, "*Avoid new road construction within 125 feet of a cave or karst feature.*" While this degradation of protection is unlikely to cause significant impacts to the karst ecosystems under the Hoosier, it does demonstrates that there is still a major disconnect in understanding that the subterranean environment is far more than just "caves".

- Interested in learning how to read a topo map better? Ever wondered how the old-time cavers located caves? Want to learn to orient in the woods, in case civilization collapses and technology fails? Or at least if you can't get a signal for your GPS or other devices out in the boonies? Then the 39th annual Society of Honorable Indiana Troglodytes (SHIT) Hoot is for you. The annual event was started by Paul Ash and others years ago to help develop skills needed when out in the woods attempting to locate caves, or to let others know where the great cave just discovered can be found. The orienteering course competition, complete with prizes and a dinner afterwards, provides an opportunity to hone those map-reading

Continued on page 11...

INDIANA CAVERNS - INDIANA'S NEWEST COMMERCIAL CAVE

by Keith Dunlap

With just over a year in development, the Big Bone Mountain section of Binkley Cave, now called Indiana Caverns, opened for tourist on June 15th. What is even more remarkable was that this section of the cave was not even known prior to February 11, 2012. The development process was amazing and captured in great detail for all to follow on the commercial cave's Facebook page (***www.facebook.com/IndianaCaverns***).

Indiana Caverns includes the typical walking passages as well as a short boat ride. Numerous pre-historic bones are featured and the 37+ mile long cave system also boosts one of the greatest cave life diversity in Indiana (see Jerry Lewis's article on page 4).

While some commercial caves in the past have seemed in conflict with cave conservation, Indiana Caverns is an excellent example of interpreting the subterranean natural resources and promoting a positive educational experience for all age groups. The more the general public understands and is aware of caves, the more likely they will appreciate and want to protect caves and karst.

Indiana Caverns joins the four other commercial caves in Indiana: Marengo Cave, Bluespring Caverns, Squire Boone Caverns, and Twin Caves (in Spring Mill State Park). Links and further information to these caves can be found at ***ikc.caves.org/caves.shtml***.

Indiana Caverns visitor center (left) is located just south of Corydon west of SR 135. Developer and partner Gary Roberson (below) cutting the ribbon during the June 28th official Grand Opening at Indiana Caverns.

Photos courtesy of Dave Black

IKC Director Carla Striegel-Winner (left) represented the IKC at the Indiana Caverns Grand Opening event. Carla supervised the "caver crawl" activity as well as handed out IKC brochures and newsletters. The owners were pleased with the turnout of over 200 people, and thankful to have several members of the IKC attending and participating.

Photo courtesy of Indiana Caverns

WYANDOTTE CAVE GATE RELOCATION

by Keith Dunlap

As was mentioned in the June *IKC Update*, over the past few years there have been discussions about relocating the bat gate in Wyandotte Cave by constructing a new gate located closer to the entrance, then removing the old gate. The rational was that over time, more and more bats have been hibernating in the entrance room exterior to the gate installed in 1991. For the last three bat counts, approximately 20% of the population (up to 10,000 bats) were roosting outside the gate making them vulnerable to disturbance or worse.

In early 2013, the new gate got the green light when BP Wind Energy agreed to finance the project as part of their mitigation plan for operating wind turbines in northern Indiana. BP contracted with Bat Conservation International to manage the gate project and BCI subsequently contracted with the IKC to perform the design and construction work of the new gate.

In early May, representatives from BP, BCI, USFWS, IDNR, and IKC met on site to discuss the project and to select the exact location for the gate. The original thought was to place the gate very close to the drip line, but after some lobbying by BCI and IKC, it was agreed to move the gate seventy feet into the cave. This location provides a much larger cross section, thus improving airflow and opportunities for bat passage. It also should reduce predication and preserve the aesthetics of the entrance. The other topic of the on site meeting was the schedule. Before the gate construction could begin, an archeological study had to be performed and a number of state and federal agency approvals obtained. This process typically takes at least three months. With that said, USFWS mandated that the gate had to be finished no later than July 31st, which realistically would leave a very narrow window to get the project completed.

The actual work on the gate started on May 11th when Keith Dunlap, Seth Gower, Jerry Lewis, and Tom Sollman spent the day on site taking measurements such that a very detailed cross-section of the cave could be generated. This information allowed a virtual 3D gate to be designed and sent to BCI and the agencies for review and approval. The simulated gate also allows an exact list of materials to be quoted and procured, and the off-site fabrication of the large door assembly to proceed.

Thanks to Scott Johnson (IDNR), the archeological approval process was fast-tracked and the sampling by the archeologist found nothing of significance at the site, allowing formal approval to be granted. So on July 15th, Keith Dunlap, Jerry Lewis, Bob Sergesketter, Bruce Trotter, and Jerry Walker worked to prepare the foundation trench for the gate. To get to the level required, up to three feet of burden needed to be moved. On the south side of the concrete walk way, the trenching was mostly soil and loose breakdown and the task was not too difficult. On the north side however, there were several large unmovable breakdown slabs that required drilling, splitting, and sledging to create the proper trench. After six hours we were successful in preparing the two foot wide by forty-three foot long trench. The last task for the day was to erect the scaffolding at the left and

▸▸

The finished Wyandotte Cave gate constructed by the IKC in July.

right walls so we could jump right into the construction work on the 19th.

On July 16th, five tons of structural steel was delivered to the property. Fortunately, the flatbed truck was able to back down the access road all the way to the cave entrance, eliminating having to manually haul the steel a long way (as was required at Endless Cave and most other gate sites). Further, the IDNR had arranged to supply a Department of Corrections work crew to unload the steel from the truck, so other than Keith Dunlap there were no other IKC volunteers needed.

On July 19th, we got an early start in getting the welding and torch equipment set up. While we had two gas-powered welders, we only had enough welding leads to set one welder up (the other was a backup). The plans for the day was to get the three vertical columns in place and get the door assembly positioned. Since these tasks were critical for the rest of the project, we spent a significant amount of time getting everything positioned correctly and square. For each column, working off of the scaffolding, we drilled the ceiling six inches deep and hammered in a one-inch round steel pin. We then lifted the fourteen foot long angle iron column in place and welded the top of the column to the pin. We then did the final leveling and anchored the bottom of the column to the floor. We did the two outer columns first, then the center column, making sure all three were in the same vertical plane. After lunch we used eight volunteers to haul the 600 pound door assembly into the cave and down the steps, then tipped the door up into position against the center column. We spent a long time getting it level and square since the door determines the positioning for all the other horizontal bars. Once the door was secured, we located and welded the nineteen angle "hangers" on the center vertical column that would eventually support all the horizontal bars. Once the center column was set, we could use levels to position and attach the hangers on the left and right columns. We were ahead of schedule, so we got three bars on the left and one bar on the right positioned before calling it a day.

On the 20th, we got started early concentrating on the north side. For each bar, we would measure the distance from the center of the center column to the left wall. We used a special fixture that assisted with the measurement, capturing the front, top, and rear lengths. These measurements were then communicated out to the "torch crew" who would cut the bar to the proper length. Four volunteers would then haul the bar into the cave and it was lifted in place and secured. We would then move up to the next bar and repeat the process. Our "cycle time" for each bar was a remarkable fifteen minutes. As we got higher, we once again used scaffolding to work safely. The goal for the day two was to get the north side of the gate completed. However, we far surpassed that and also got all but four bars on the left side installed.

On the 21st, we quickly got the four remaining bars in place. We had a small crew working on the door lock, while the rest of the volunteers started hauling out equipment and repositions the scaffolding for painting. Before breaking for a late lunch, we had ten volunteers wiping down the gate with mineral spirits.

After lunch, we started the painting process by applying the aluminum-based primer. We used brushes and small rollers to complete the task. With six painters, it took about three hours to finish. The primer required at least twelve hours before the top-coat could be applied, so most of the volunteers were headed home by mid-afternoon.

Volunteers over the three day construction phase included Terry Clark, Keith Dunlap, Scott Johnson, Jerry Lewis, Michael Routon, Bob Sergesketter, Jon Sheldon, Ray Sheldon, Tom Sollman, Carla Striegel-Winner, Bruce Trotter, Richard Vernier, Sue Vernier, Steve Weinzapfel, Brian Welp, Wayne Werner, Jamie Winner, and Bob Zatarsk.

On July 22nd, it was just Keith Dunlap and Jerry Lewis applying the first top-coat. It took the two of them nine hours. On the 23rd, Cassie Hudson, Scott Johnson, and Tim Shier applied the second top coat, while Keith Dunlap and Jerry Lewis disassembled and carried out the scaffolding, fin-

▶▶

ishing the project.

The primer and black top-coat paint were special moisture-curring urethanes that list for over $300/gallon. We used nine gallons in total for the three coats.

As projects go, this one went about as flawlessly as could be imagined thanks to the great volunteer turnout and the skill level our volunteers have. It took over 500 man-hours of planning, designing, and direct labor to build the gate. Best of all, the compensation for our efforts beyond the material expenses will be used for future cave acquisitions, stewardship, and educational projects.

The new gate should provide greater protection for the bats using Wyandotte Cave. Thermal, infrared, and visual cameras will be used this fall and winter to monitor bat acceptance and if all goes as planned, the old gate will be removed next spring.

Construction of the Wyandotte Cave gate – installing the pre-fabricated door assembly (top); volunteers setting one of the horizontal bars (left); priming the finished gate (below).

Photos courtesy of Scott Johnson and Richard Vernier

HOW DAVE EVERTON RUINED MY SUMMER VACATION

by Jerry Lewis

All my problems began on the IKC workday on April 20, 2013 at the Shawnee Karst Preserve (SKP). A group of about twenty willing (and one unwilling) volunteers gathered at the preserve to plant 400 trees in an area that had been used as pasture. It was apparent to everyone that the unwilling "volunteer", Dave Everton, was present under duress and was heard to say (by several reputable witnesses) that he was going to sneak off to go hunt for mushrooms at the first opportunity.

Among the members of the caving community Dave has a reputation as being a slacker and miscreant. So no one was surprised when he started whispering a threat… "*Jerry made me come plant these stupid trees and now I'm going to put ticks on one of them so they'll bite him when he comes back to spray herbicide*".

Dave Everton pointing at the tree where he was about to plant the "killer" ticks.

Skipping forward to July, I found myself back at SKP with a backpack sprayer, performing weed control around the trees planted in April. I had the misfortune to brush against the tree with Dave's evil ticks and when I got home, several of them had bitten me. My wife, Salisa was with me, and Dave's ticks got her, too. Several days later I experienced the first symptom: a bizarre episode of the kind of tunnel vision and visual disturbances… blinding patterns of flashes of light… usually associated with migraines. I laid down for a while and after an hour or so it resolved.

The next morning I arose to go to a scuba session with our local dive club. Salisa had planned to go as well, but she reported that she was having something like a migraine. So I drove out to the quarry outside of Louisville to join the group – I wanted to check out our equipment before our dive trip to the Florida Keys. Although I felt fine when I arrived, I started feeling clammy and nauseous. I went to sit in my car to see if it would pass, and within a few minutes I was soaked with sweat and sick as a dog. One of the dive instructors loaded my gear back in the car for me and I began the arduous drive home. I had to pull over multiple times for fear that I would pass out.

On Monday, we went to our family physician. The first surprise was my blood pressure, which has been on the high side for several years but easily controlled with medication. A nurse took my BP and was frowning as she took it… apparently she was unhappy with the result. The doctor then came in and took it and looked equally perplexed. He switched to my other arm and tried again. The problem was that my BP was under 100… which accounted for why I had been passing out for the last three days. He drew a number of blood tests, but in the absence of any rashes, did not start any treatment.

The following day I was very surprised when the doctor called me at home. I had been going to this guy for 27 years and he had *never* called me. The first of the lab results had returned and indicated a profound bloodstream infection. He wanted to see both of us at 7:00 AM the next morning… he was coming in early to see us before the day's appointments. By the next day he had spent some time studying the diagnosis of a relatively short list of diseases caused by tick bites and believed that Erlichiosis was at the top of the list of possibilities. To skip ahead, the test specific for the detection of the Erlichiosis antibodies returned positive and confirmed the diagnosis.

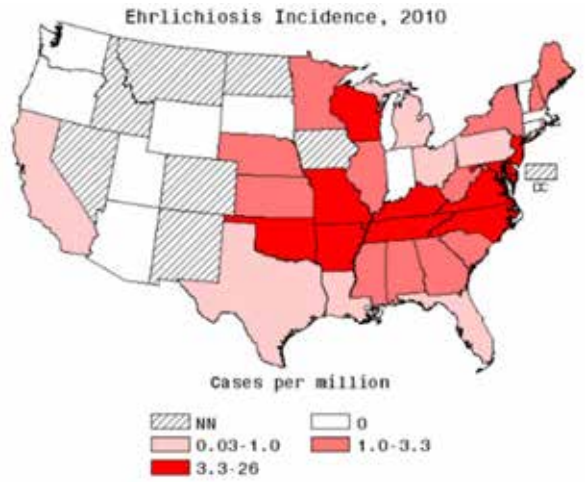
According to information abstracted from the website of the Center for Disease Control:

> *"Ehrlichiosis was first recognized as a disease in the United States in the late 1980's, but did not become a reportable disease until 1999. Both Ehrlichia chaffeensis and E. ewingii are causes of human illness in the United States, although the majority of reported cases are due to E. chaffeensis. The number of ehrlichiosis cases due to E. chaffeensis that have been reported to*

▸▸

CDC has increased steadily since the disease became reportable, from 200 cases in 2000, to 961 cases in 2008. Since becoming a reportable disease, the annual case fatality rate (i.e. the proportion of ehrlichiosis patients that died as a result of their infections) has declined."

The map of reported cases illustrates that the disease occurs across the eastern US, with the exception of Indiana! This will probably not change when our cases are reported, since our physician practices in Louisville, Kentucky. The disease is prevalent in the summer months, when the Lone star ticks that carry it are most active. And for some reason, a person over 60 is four times as likely to be infected as someone under 35… I celebrated my 60th birthday by attempting remain conscious. July is also the most infecious month.



Now, six weeks later, the worst of the disease is over. We did have to cancel our dive trip… somehow jumping off the back of a boat and sinking to the bottom of the ocean just didn't seem like a good plan for a sick person. The good news was the Erlichia bacteria are susceptible to the antibiotic doxycycline and after six days of treatment my fever finally broke. At this point my stamina remains markedly decreased, I still become nauseous when eating, and continue to experience joint pain. My physician assures me that I will eventually make a complete recovery, but he told me to stay clear of Dave Everton…

To learn more about Erlichia and other tick-borne diseases, go to ***www.cdc.gov/ticks***

Continued from page 5...

skills, woods craft, and the ability to outwit one's competition. It is the perfect way to spend a weekend in the best season of the year. The course will be held in Paul Ash's neck of the woods (Ferdinand State Forest) on October 5. Sadly, Paul passed away earlier this year, and will be sorely missed by all who knew and loved him. But in order to honor his memory and legacy, we are hoping to get a larger turnout, and hope to pass along the joy of hiking in the woods with friends, camping with cavers, and enjoying a cold drink and some music after the day's activities. Please, consider joining us this year! For more information contact Soozie Strickland by September 30th (***davesoozie@sbcglobal.net***, or 317-253-5395).

- ❑ The IKC has gained three new members in the last quarter. Welcome Kent Koster (541), Brian Clague (542) and Thomas Campbell (543). The IKC membership currently stands at 184.

50,000-year-old skeleton found inside cave in southern Indiana

INDIANAPOLIS - Researchers say they've found a nearly complete skeleton of a 50,000-year-old pig-like mammal inside a cave in southern Indiana's Crawford County.

Indiana State Museum crews have been digging in the cave for more than 25 years and found the skeleton this week.

Museum vice president Tina Sullivan said it is the most complete skeleton its researchers have found there. The museum isn't saying exactly where the excavation site is in the county bordering the Ohio River that's dotted with numerous caves.

The skeleton found is that of a flat-headed peccary – a medium-sized animal that resembles a pig.

Research curator Ron Richards says the findings included two back legs with their knee caps, a backbone, a head, ribs, hips and the digits of the feet.

"For more than 25 years, we have unearthed a mixture of flat-headed peccary and dire wolf remains from this cave, but nothing this complete," Richards said in a news release. "Every summer, we spend two weeks at this site digging several feet below the surface of the clay, hoping to find something like this."

The Indiana State Museum said the remains come from the late Pleistocene period, which spans from 2.6 million to 11,700 years ago. Large land mammals, such as the mammoth and mastodon, also lived during that period.

Published by various sources on August 15, 2013

BREEDING BIRD SURVEY AT SHAWNEE KARST PRESERVE

by Jerry Lewis

Beyond my personal interest in birding as a hobby, the purpose for conducting a breeding bird survey at the Shawnee Karst Preserve was to gather data for insights into the condition and management of the preserve. Birds are just one group of a myriad of living things on the preserve, any of which can tell us something about the condition of its ecosystem. As the name implies, the survey should be done at the peak of the time when birds are nesting – in this area generally the second half of May or June. During that time of year the spring migration has ended so only those birds that are summer residents should be present, eliminating those that are only transient migrants through the area. The birds are also the easiest to identify as they are in their bright breeding plumages and singing constantly. The fly in this ointment was that I could not conduct the bird survey until July, but it still provides a good indication of what bird species are prevalent at SKP during the breeding season.

Similar to the winter bird survey in the March 2013 *IKC Update*, I established 20 stations along the SKP loop trails (about 1.6 miles in length) and stopped at each station for 3 minutes to watch and listen for birds. More birds were identified by song than actually visualized. A total of 26 bird species were noted, with the most common being cardinals and towhees. No birds of any rarity or particular significance were present, but all were native to the area. No non-native birds like starlings or house sparrows were seen, consistent with the rural character of the area. Surprisingly, cowbirds were also not seen. These birds are nest parasites, laying their eggs in the nests of other birds, and can be problematic in disturbed forests like that in SKP. Not all species showed themselves during the survey, like the pair of Brown thrashers that were seen shortly after completing the loop, but this year's survey is a good place to start.

Shawnee Karst Preserve Winter Bird Survey

Surveyors: Jerry Lewis, 11 July 2013 (8:00 - 11:00 AM)

General conditions: Mostly clear skies, 64 - 78 degrees

Station	Turkey vulture	Wild turkey	Mourning dove	Red-headed woodpecker	Red-bellied Woodpecker	Northern flicker	Eastern wood pewee	White-eyed vireo	Red-eyed vireo	Blue Jay	American Crow	White-breasted nuthatch	Carolina chickadee	Blue-gray gnatcatcher	American Robin	Wood thrush	Gray catbird	Carolina wren	Prairie warbler	Common yellowthroat	Yellow-breasted chat	Northern Cardinal	Eastern Towhee	Indigo bunting	Field sparrow	Song Sparrow	Total
1					1		1			1	1							1				2		1			8
2				1		1										1		1			1	1			1		7
3																						1	1				2
4				1	1								1					1				1	1				6
5				1			1			1													1				4
6			1	1					1	1		1		1	1			1		1			2				11
7					1					1	1									1	1	1					6
8															1							1	1	1			4
9	1	1					1									1						3					7
10			1		1											1						1					4
11								1											1					1	1		4
12								1				1	1			1						1					5
13							1	1				1					1					2	1				7
14			1									1											1	1			4
15								1														1	1	1	1		5
16			1	1				1											1	1		1	1				7
17								1											1			1			1		4
18				2						1								1				1	1			1	7
19								1		2	1							1				1					6
20							1				1											2	1				5
2013:	1	1	4	7	4	1	5	7	1	7	4	4	2	1	2	4	1	6	3	3	2	21	12	5	4	1	113

INDIANA KARST CONSERVANCY TREASURY REPORT

Income/Expense Statement
From April 1, 2013 to June 30, 2013

INCOME:		
Dues Apportionment and Residuals	678.75	
Donations - General	472.50	
Donations - Land Acquisition Fund	757.00	
Grant - Ind Acad of Science	2,094.00	
Wyandotte Gate Advance Payment	20,000.00	
Interest	235.79	
		$24,238.04
EXPENSES:		
IKC Update (printing, production, mailing)	198.43	
Education / Outreach	86.20	
Stewardship/Conservation	55.98	
Property Taxes	30.00	
Business (security box, misc fees)	113.44	
Grant - Ind Acad of Science	41.80	
Wyandotte Gate	7,464.87	
Transfers to/from restricted funds/other adjustments	15,476.63	
		($23,467.35)
NET OPERATING EXCESS (DEFICIT) THIS PERIOD:		$770.69

Balance Sheet
June 30, 2013

ASSETS:			
Cash in Checking / Saving Accounts / CDs		122,833.94	
Robinson Ladder Cave Preserve	(73.48 acres)	162,000.00	
Shawnee Karst Preserve	(50.31 acres)	105,000.00	
Wayne Cave Preserve	(20.00 acres)	75,000.00	
Sullivan Cave Preserve	(28.00 acres)	72,000.00	
Buddha Karst Nature Preserve	(36.84 acres)	29,000.00	
Orangeville Rise Nature Preserve	(3.01 acres)	7,000.00	
Indian Creek Conservation Easement (valued at $1/acre)		13.16	
			$572,847.10
FUNDS & OPERATING EXCESS:			
Land Acquisition Restricted Fund		27,765.95	
Deferred Dues Restricted Fund (192 members)		3,622.50	
Indiana Acad of Science		2,052.20	
Wyandotte Gate Project		12,535.13	
Stewardship Endowment Restricted Fund		53,052.93	
Previous General Fund (total)	23,047.70		
Net Excess (Deficit) This Period	770.69		
Current General Fund (unrestricted)		23,818.39	
Current General Fund (committed)	500.00		
Real estate liquidity (basis value)		450,000.00	
Total Liabilities & Operating Excess			$572,847.10

IKC EXECUTIVE BOARD MEETING MINUTES

Saturday, June 15th, 2013 – Shawnee Karst Preserve, Mitchell, Indiana

Board Members Present:

Jerry Lewis, President
Kevin Smith, Secretary
Keith Dunlap, Treasurer
Bruce Bowman
Christopher Dick
Dave Haun (proxy by Salisa Lewis)
Everett Pulliam
Bob Sergesketter
Bruce Silvers
Karen Silvers
Tom Sollman
Carla Striegel-Winner
Bob Vandeventer
Richard Vernier
Jamie Winner

Board Members Absent:

none

The quarterly meeting was called to order at 3:00 PM at the Shawnee Karst Preserve. IKC President Lewis presiding.

Minutes of the Annual Business Meeting were accepted as published in the June 2013 *IKC Update*.

E-Mail Motions

1) IKC sponsorship of proposed DNR Interim Cave Access Program:

Keith Dunlap reports that he and others have been working with John Davis, Deputy Director in charge of DNR lands, on current access policies related to state-owned caves as they relate to White-nose Syndrome. This effort led to a draft proposal to reopen a limited number of DNR caves under controlled conditions for recreational trips.

Dunlap states that John Davis has indicated he would prefer to associate the proposal with a caving entity and his preference would be the IKC. Feedback regarding IKC sponsorship of this proposal was solicited from the IKC Board members for future discussions. No formal vote was taken since the proposal is still speculative, but the Board indicated tentative support and will vote when, and if, a formal proposal is presented.

2) IKC Sponsorship of Wyandotte Cave Gate Relocation Project:

After much pre-motion discussion on the gate project, Lewis accepted the following e-mail motion made by Keith Dunlap on 28 April 2013:

"*The IKC will pursue participation in the gate relocation project at Wyandotte Cave.*"

The motion was seconded by Dave Haun and Lewis called for the vote on 28 April 2013. Lewis declared the motion passed with the vote 14 in favor and 1 against on 30 April 2013.

Treasurer's Report

Treasurer Dunlap reported cash assets totaling $109,653.24 and land assets totaling $450,000, for total assets of $559,653.24. Funds include Stewardship: $52,920.63; Deferred Dues: $3,810.00; Land Acquisition: $27,562.95; and General fund: $25,359.66.

Property Taxes and Classified Forests: Six properties owned by the IKC have a "Classified Forest" designation. Property taxes on these properties total $30 per year. We are still claiming an exemption on the Robinson Ladder Cave Preserve property because of the barn. The Orangeville Rise property is too small to be designated a "Classified Forest".

Dunlap also reports that the SKP fund-raising effort now stands at 102.3% of goal. All excess funds received will go to the restricted Cave Acquisition fund for the next property purchase.

Education and Outreach Report

Indiana Caverns has requested to borrow the inflatable cave. Discussions are on-going and final arrangements have yet to be made.

DNR Limited Access Program

Keith Dunlap reports that draft proposals regarding an interim cave access program for specific caves located on DNR property has been sent to USFWS and IDNR F&W, as well as Spring Mill State Park and Harrison-Crawford State Forest which contain the ten caves initially proposed for the special access program. It was noted that Wyandotte Cave is no longer included on the proposed list of caves per the DNR's request. Dunlap reports that feedback on the proposal has yet to be received. Dunlap also reports that proposed changes will need to be made at the next National Resource Commission meeting since the current closure would be a policy change needing NRC approval.

Wyandotte Cave Gate Relocation Project

The IKC was awarded the contract to relocate the Wyandotte Cave. It is estimated that $10,000 worth of material would be needed to complete the project. The remainder of the bid represents compensation to the IKC for the considerable volunteer skilled labor required to complete the project. Construction dates are slated for July 19, 20, and 21. The new gate installation must be completed by July 31st, however removal of the old gate will happen at a later date. The new gate is approximately 70 feet beyond the drip line. There was

▶▶

some discussion regarding the availability of electrical power inside the cave and near the cave entrance.

Shawnee Karst Preserve

The tree planting work day on April 20th was a success with over 20 people volunteering their time to plant over 400 trees in the fescue pasture on the east side of the property. After the trees were planted the crew was able to clean out the majority of the trash and debris from a sinkhole near the tree planting area.

On June 12th, Bob Vandeventer, Keith Dunlap, and Jerry Lewis hauled the scrap metal to Bedford for which they received $146.

On June 15th, Jerry Lewis, Salisa Lewis, Keith Dunlap, Seth Gower, Everett Pulliam, Kevin Romanak, Tom Sollman, Carla Winner, and Jamie Winner worked on trail maintenance and also cleaned out another small dump they found. Another breached wildlife dam was also found and repair work was started. Both loop trails were mowed. An additional $56 was made from recycled materials.

On May 2nd, Seth Gower, Jerry Lewis, and Keith Dunlap report they performed chemical weed control around the new trees and worked on other invasive removal.

The access road leading up to the camp sites is showing some signs of erosion. The north side of the road will likely need additional rock to bring the level high enough to keep runoff confined to the adjacent drainage trench.

Indian Creek Conservation Easement

Jamie Winner and Jerry Lewis are planning to conduct the annual inspection sometime in July.

Buddha Cave Preserve

Keith Dunlap reports that the trails and parking area were mowed in mid May and he was planning on mowing it again. A week prior to this quarterly meeting, Keith sprayed around some of the newer trees on the property. Keith stressed the need to eradicate the fescue grass growing around the trees which could stifle their growth.

Sullivan Cave Preserve

Keith Dunlap reports that he had mowed the grass around the camping area previously and was planning on mowing again. Keith also sprayed some Japanese honeysuckle vines on the property. A gate lock problem was reported by a recent CIG trip. Bob Vandeventer reported that Anthony Owens is working on the lock problem and is also working to improve visitation-related communications.

Wayne Cave Preserve

Keith Dunlap reports that he has been working on eradicating some of the invasive species on the property.

Robinson Ladder Cave Preserve

Reports have been received that there are downed trees and/or limbs in the path leading up the hill going towards the barn.

Land Acquisition Activities

The Shawnee Karst Preserve is now fully funded by the IKC!

There was some discussion on a property containing Panther Cave in Orange County. The mostly wooded 50 acre property was sold recently for $125,000 and boasts a 1000 ft. long cave with a very nice entrance. Keith Dunlap also mentioned that Gordon Smith had given him a lead on a property with 2 caves.

Items From the Floor

Jerry Lewis reports he and Keith Dunlap will be attending a DNR meeting in the following week to discuss and identify karst-related conservation targets.

Next Meeting

The next quarterly meeting was scheduled for September 21st at the home of Jerry Lewis in Borden, Indiana. The meeting will start at 4 PM.

Meeting adjourned at 4:00 PM.

Respectfully submitted, Kevin Smith, IKC Secretary.

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.