

IKC UPDATE

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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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IKC QUARTERLY MEETING REMINDER
SATURDAY, JUNE 13th, 11:00 AM EDT
3918 SR 60 E, MITCHELL, INDIANA
(PROPERTY ADJACENT TO THE SHAWNEE KARST PRESERVE)

The quarterly meetings are for the Executive 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: Recap of recent work projects and the promotion of upcoming projects at our various preserves; Financial reports; Membership renewals; Investment Committee discussion; Lowry Karst Preserve stewardship and fund-raising wrap-up; Wayne Cave EQIP funding contract update; Mid-State Corridor Highway project; Cave/land acquisition activities (in particular the Shawnee Karst Preserve adjacent property); and more....

Directions: From SR 37 in Mitchell, travel 4.0 miles east on SR 60 to the driveway on the south side of the road marked “3918” (green address sign). The driveway is 0.6 miles east of the entrance road to Spring Mill State Park and the first driveway west of the access driveway to the Shawnee Karst Preserve.

Property Preview: Since there will be an agenda item on pursuing the acquisition of the host property, Board members are encouraged to arrive early (e.g., 10 AM) to walk the property under consideration. Also note there is a small cave on the property, should anyone wish to explore.

Meeting Contingencies: Due to coronavirus considerations, this meeting will be held outdoors with proper social distancing protocols followed. If the weather is forecasted to be questionable or other conditions change, the meeting will be switched to a virtual meeting. Please verify the meeting status with Jerry Lewis (LewisBioConsult@gmail.com) prior to attending.

ACTIVITIES CALENDAR

June 13 – IKC Quarterly E-Board meeting (see above)

Sept ?? – IKC Quarterly E-Board meeting (date & location TBD)

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. Memberships and donations can also be made by credit card using our on-line services on our website (see the Join Us! tab in the menu).

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...

I'm fairly sure this ramble will be the first of its kind in the history of the IKC... written amidst a pandemic. For the first time, the IKC cancelled its Annual Business meeting in March. That was one of the more difficult decisions I've made during my tenure as President, with a lot of hand-wringing and e-mail exchanges with the Board. In the end, the decision was simplified when the Monroe County Public Library in Bloomington cancelled all of their meeting room reservations. On the heels of our Board meeting succumbing to COVID-19, we then had to cancel the annual Indiana Cave Symposium, sponsored each year by the IKC and the Indiana Cave Survey. That decision was largely made due to recommendations from the Center for Disease Control (CDC) about safe group sizes that were allowable, with the state finally embracing sheltering in-place orders and social distancing practices when dealing with other people. Not exactly something that would work with the cave symposium format.

Thanks to COVID-19, I've discovered that I have a job tailor-made for working while doing social distancing during a pandemic: cave biologist. Unlike a lot of folks with more mainstream occupations who have been put out of work, I've been able to continue working. Yesterday I spent the day surveying the fauna of a sinkhole (that's been swallowing a road) and never saw another person. Today, Salisa and I were working in some caves near Bloomington, and it was just the two of us.

Not everyone is so lucky to have a job where they get to work by themselves in the solitude of a cave, perfect "social distancing" (not sure where this now ubiquitous expression came from, but it's apparently some new vocabulary coined for COVID-19). Lots of people have had a tough time during the pandemic, so I'm going to tell a "motivational" story. Usually these stories are told at conventions after a dinner banquet, so imagine you've just eaten some baked chicken, mashed potatoes, and maybe asparagus or broccoli. The

speaker is supposed to be someone like Neil Armstrong, who would tell us about how he grew up in a little town in Ohio that no one has heard of, but went on to become the first person to walk on the moon. That would be great, but you just get me instead, so ratchet down your expectations.

My origins as a cave biologist were strongly influenced by Dr John Holsinger, who I first encountered when he was a post-doctoral fellow at the Smithsonian Institution, in the National Museum of Natural History in the nation's capital. John identified my first cave amphipods for me and I still have his personal letter with the information on my specimens from Missouri caves (e-mail was still decades in the future). That was the beginning of a life-long friendship, based on equal parts of respect, admiration, and hero-worship. I went on to become

John's graduate student at Old Dominion University in Virginia, and during that time, he introduced me to Dr Tom Bowman, a curator at the Smithsonian who taught me much of what I know about cave isopods. I was spending more and more time in Washington, learning from Tom, and working with the vast collections of the Smithsonian Institution.

My goal became attaining a position at the Smithsonian after I completed my doctoral work on cave isopods at the University of Louisville. I had married not long after starting at U of L and the plan was to start our family to coincide with me completing my degree and getting a real job, presumably at the National Museum. That changed when my wife delivered identical twin sons eight weeks prematurely who started out their lives on ventilators. After a five-week stint in a neonatal intensive care unit at Children's Hospital in Louisville, they were discharged from the hospital. Without belaboring the unpleasant part of this story, the result was our marriage went off the rails, my wife left, and I found myself a single parent with two infant boys. I knew next to nothing about raising a child (let alone two), so I abandoned my Smithsonian



dreams and found a job working at the Louisville medical center, which allowed me to lean on the twins' grandparents for help with their care.

So, that pretty much sucked. In any of these stories the hero always craters at some point. For Neil Armstrong, that was the NASA Apollo moon program coming to a screeching halt when Gus Grissom (born in Mitchell, IN) and fellow astronauts died in a fire during a training session. We all know that the program was resurrected, and Neil went on to become famous for taking a single step that bridged two worlds. For me, it was rising from the ashes of a wrecked marriage and a career in academia that was no longer in sight, with no apparent path to a way to continue working with cave animals.

In the early 1990s, I purchased my first microscope and started accumulating the paraphernalia needed for working with cave bugs. I started applying for and receiving small grants and contracts from state agencies, and then almost simultaneously two big breaks occurred. I contracted to work on a massive cave bioinventory project for The Nature Conservancy, where I sampled nearly 200 caves in the Blue River area... and I met my soul mate, Salisa, who was a nutritionist at the Louisville medical center. My consulting business was formally incorporated, and a few years later I married my caving companion. I continued building the cave biology consulting business and eventually had projects going in multiple states. I wanted to do cave biology, so I found a way. Never say never.

In the midst of this, I rekindled my work at the Smithsonian and started making more and more visits to work there. Eventually I quit the job at the medical center and started doing cave biology full time. I've been working a lot on an endangered species project in Virginia caves and springs, and this has once again led me back to the National Museum, where I spent five weeks in residence two years ago. On my most recent work trip to the museum in December, 2019, it was suggested that I apply for a research position. Last week I received the notice from that I had been awarded an academic research affiliation with the Department of Invertebrate Zoology, National Museum of Natural History, Smithsonian Institution. It took over forty years, but I finally achieved a lifetime ambition. I've kept an eye on the research positions over the years and there's not a lot of change in them, so I suspect it isn't something the Smithsonian readily hands out. My hunch is that I'm receiving the slot that

John Holsinger held for decades. John died last year and it would be fitting, if serendipitous, for me to step into his role at the museum.

No, we won't be moving to Washington, but when we're there, it will allow me simpler access to work at the museum. Instead of arranging for visits as a guest, I'll have a staff ID and can come and go as I please when I'm there. A major perk is that I'll have access to publishing in the Smithsonian in-house journals, which is great since I have a 200-page manuscript on cave isopods sitting here on my computer awaiting a place to publish it. And minutia like access to the Smithsonian's scanning electron microscopes. It's a great deal for me, and I plan on using it to full advantage.

So, there's my motivational story. Not exactly taking one giant leap for mankind, but there are a couple relevant points. First, don't give up, and never say never. Almost any reasonable goal can be attained with perseverance and patience. The path to the goal may not be the one envisioned, and when the goal is attained, it might not look like it did when the journey started. In the 1970s, the curatorial staff and collections of the National Museum of Natural History had their offices in the building that tourists visit on the National Mall (the large area between the Washington Monument and the Capitol). Many offices remain there, but the collections have been transferred to the new, secure Smithsonian Museum Support Center in Suitland, Maryland (it's a twenty-minute ride on the staff shuttle from the downtown museum). The move was made because of space limitations downtown, and putting it out of downtown DC does place the national treasures a bit further from ground zero.

Back to here and now, with COVID-19 wreaking havoc in lives, businesses, and organizations like the IKC. Currently, the problem is on how to make the June Board meeting work. It's scheduled to be at the property next to our Shawnee Karst Preserve that is under consideration for acquisition. Having the meeting outdoors is probably the safest way to gather together fifteen or so people with a minimal chance of anyone getting infected from someone else. It's not a contained space, and we can easily have people sit six or more feet apart. The downside of that is still a relatively large gathering, and I have to consider that some of our Board members are at particular risk for a poor outcome should they become infected. Another issue is weather – always a problem for any outdoor meetings. Our plan was to move into the



garage on the property if it rained, but proper distancing isn't really possible in the garage. Despite push-back from the self-proclaimed luddite contingent on the Board (you know who you are), I'm going to have to plan to have the meeting through a virtual means, if the weather is bad.

It's important to remember that all of this is temporary. The IKC will survive just fine (unlike some other non-profits with paid staffs and their means to fund-raise significantly impacted).

We're still continuing to have multiple work days at our preserves with social distancing not being a big issue. Like everything else, patience and perseverance are well worth cultivating. And there's a bright side to everything. We've often talked about exploring our ability to have our Board meetings through a virtual path, and now both the motivation and the technology are available.

Jerry Lewis

IKC PRESERVE INVASIVE WORKDAYS

With the summer months upon us, now is the time to aggressively tackle the invasive plants on our seven preserves. All of our Property Managers are busy cutting and treating the invasives to keep them under control. Because of group-size restrictions and social distancing protocols, the Property Managers are electing to not schedule specific workdays this year, but most are still looking for volunteers to work individually or in small groups with proper separations. In particular, if we are successful in receiving our second EQIP grant for our Wayne Cave Preserve property, there will be much to do. Please reach out and contact the Property Managers listed on page 2 if you would like to volunteer.

NEWS BRIEFS...

- ❑ While the March 21st Annual Business meeting was cancelled, the annual elections were still completed since the voting is all done by mail-in ballots. The results are as follows: Jerry Lewis, Marc Milne, and Keith Dunlap were re-elected for one-year terms as President, Secretary, and Treasurer, respectively. Matt Selig, Bob Sergesketter, and Richard Vernier were re-elected, and Scott Frosch was newly elected as Directors (three year terms). Our sincere gratitude to out-going Director Bruce Bowman who declined re-nomination. Bruce was first elected as a Director in 1993 and with the exception of a two year sabbatical (2006, 2007), he has served continuously on the Board (24 years), including seven years as President. Bruce continues our webmaster and valuable member.
- ❑ The fund-raising for the Lowry Karst Preserve acquisition is now complete. A total of \$46,573 was raised towards the goal of \$36,000. The final list of donors for this project can be found on the IKC website (ikc.caves.org/lowry-donation-list) and will eventually be displayed on an on-site kiosk display. All excess funds from this acquisition project will be roll-overed and used towards the next acquisition.
- ❑ The IKC is excited to announce that we have re-signed/extended our access agreement with the owners of Suicide Cave, first negotiated in 1993. The new agreement runs through March 31, 2030. Kevin Smith continues to be the Cave Patron for this cave.
- ❑ The IKC has also renewed our access agreement with Spring Mill State Park for two more years. This agreement covers Upper Twin, Shawnee (Donaldson/Bronson), River, and Endless caves. Each cave has specific "windows" for visitation. Dave Everton continues to be the Access Coordinator and the liaison with Spring Mill.
- ❑ Unfortunately, the 28th annual Indiana Cave Symposium in April was postponed due to precautions with the coronavirus. It may be rescheduled for the fall, or it may be cancelled until sometime next year.
- ❑ The IKC has gained six new members in the last quarter. Welcome Jared Secrest, Luke Baker, Jeff Meadows, Gretchen Anderson, Lisa Heidenrich, and Dave McGowen. The IKC membership currently stands at 232.

63 POUNDS OF INVASIVE PLANTS TACKLED BY VOLUNTEERS AT THE ORANGEVILLE RISE GARLIC MUSTARD PULL

by Carla Striegel-Winner

In late spring of 2019, I was freaking out about how much invasive garlic mustard was crowding itself into the three acre Orangeville Rise Nature Preserve property. In my mind, I could see the IKC being responsible for hundreds of thousands of garlic mustard seeds working their way downstream during the next flood. I just could not pull it all myself! And so I planned a volunteer event for this spring. Little did I know that a global pandemic would sweep the world and mess up my little plans! So, although the event was promoted in the March *IKC Update*, no more mention of it was made until the week before, when our Governor allowed physically distanced gatherings of up to ten people. Well there ya go! A quick e-mail to the Board and we had several volunteers ready to get outside! It certainly did not hurt that in addition to being the first weekend we were actually allowed to travel, May 2nd was forecast to be a drop dead gorgeous day at the Rise.

Our volunteers were super awesome, and didn't seem to mind that there was actually not much garlic mustard to pull... Turns out it's cyclic and some years you might just have the first year plants! Huh, go figure. There were thousands of the first year rosettes, so *don't worry*, there will be plenty to pull in 2021! All six of us enjoyed walking around



Danyele Green grins with her bag of garlic mustard as ants from trashed beer cans crawl over her arms.

the Rise and managed to pull 38 pounds of garlic mustard, 13 pounds of winter creeper (thank you Laura!), and I dug up the roots of 12 poison hemlock plants. We also picked up a pound or so of trash. It feels great to know that the seeds of these invasive plants will not be carried by the massive flow of water on our property to downstream areas, and that by removing these, we open the nature preserve up for more of the amazing native plants that already populate the banks of the Rise.

Since it was a gorgeous day at a magical spot in southern Indiana, I thought rather than describing our day myself, I would let our volunteers have a word:

- **Krista Reeves**, member: *First time there and absolutely loved it. Loved the sound of the water. Loved the green. Was neat learning about the different plants. And always good when ya have good company.*
- **Danyelle Green**, Director: *I personally enjoyed getting out on a beautiful day with a small number of people so we could keep a good distance apart and **kill things**. It was great to see poison hemlock in the flesh and blood as I had never seen it before in person. I'll definitely be able to ID it in the future. Okay, being honest, my **favorite** part of the day was*



A digging spade worked wonders to help uproot this invasive and toxic poison hemlock at the Orangeville Rise.

Continued on page 10...

ORCHARD RIDGE AREA CONSERVATION PROJECTS

by Danyele Green

The Orchard Ridge Caves group is a collection of folks who have spent years surveying the caves in the Orchard Ridge area in northwest Harrison County, including and around King Leo Cave and Hell's Hole, and those who want to stay involved in some aspect of the projects going on there. I joined the group in early 2016 because of my love for King Leo and was enamored with the *huge* map of the entire area that Mike Van-Note brought with him to Bloomington in May of 2019. Upon seeing the vastness of the systems (and knowing my lack of love for surveying while lying in wet passage), I figured my time would best be put to use pushing some drier leads and working on landowner relations. This is what started my involvement in organizing the fencing/cleanups that are and will be occurring at specific caves in the area.

Mike and many others have made some fantastic contacts and friendships with the cave owners in the area. Because of my particular interest in King Leo, I decided to start with the caves on that property first. The landowner, Mr Churchill, and at the time I became involved, a hunting lessee were very interested in the fencing of the two pits to keep people and animals safe. Other projects we will work on in that area will include sinkhole cleanups and trash cleanups, which will hopefully lead to better water quality and increased access to other area caves, once residents see we aren't scary people who only like to go in dark holes.

I met with Mike in mid-2019 to discuss the fencing requirements and we came up with a good plan... Now we just needed equipment, materials, and labor to get it done. A few failed grant attempts ensued through the fall of last year. Bud Dillon had given me a list of items he had from previous projects that we could

use, but before I could pick them up, he sadly and suddenly passed away in October 2019. I worked up the nerve to contact his wife, Luann, to ask about the materials and she was more than happy to honor Bud's agreement to donate them for the fencing projects. We received a small grant from the Bloomington Indiana Grotto in January of this year, and as soon as the grant comes in, we will purchase the remaining need-

ed materials and donate back the unused portion of the grant to Luann for being so gracious. See Jeff Cody's accompanying article on more specific details of the fencing project.

The landowner for the property containing King Leo and Hell's Hole caves is very friendly and has expressed his desire to continue allowing caver access, but only to those that are part of the survey and projects teams. Hopefully, people can abide by that and keep the caves open. I have recently learned that the hunting lease is no longer active, but

there is now a logging contract which I am not privy to the details, other than now is the time to protect the entrances! Spending a few hours working on protecting and keeping access to this area I love so much is a small price to pay, and I gladly and willingly do what I can.

Next up for the Orchard Ridge projects – continue the survey in Hell's Hole, finish up the tiny bit on the fence at King Leo Cave, starting and completing the fence at Hell's Hole, and sinkhole cleanups at Hat's Dome entrance and at Heavenly Hole. The cleanups will require some major coordination with the landowners and dumpster placement, etc. If you are interested in being a part of this group either in surveying or fencing/cleanups, please email Danyele at iluvlabs2006@yahoo.com, if you are not already part of the OrchardRidge email list.



LET THE FENCING BEGIN!

by Jeff Cody

Orchard Ridge is a cave area in northwestern Harrison County on private property. The two most well known caves are King Leo Cave and Hell's Hole. Both are vertical caves with pit entrances. King Leo has a 47-foot pit entrance with over 3000 feet of passage, much of this being nice trunk passage after a tight spot at the end of the entrance passage. Hell's Hole has two pit entrances with the main one being close to 100 feet deep with over 2.8 miles of passage according to Mike VanNote's 2019 map. The distance between King Leo's entrance pit and the main entrance pit to Hell's Hole is about 1200 feet "as the crow flies". The map shows the caves appear to overlap at one point in the area of the King Leo trunk passage, but no connection has been made.

Hat Dome had been a dome in the far reaches of the cave from the main entrance. With the aid of radio location, excavation in a sinkhole above this dome proved successful. I remember reading the details of this dig project with the initial drop into this pit being scary after digging it open. This entrance is a little shorter (70 feet) than the main pit entrance. VanNote was involved in early exploration of Hell's Hole prior to moving out of state. But he was able to establish good relations with the landowner of King Leo and Hell's Hole. I also remember CIG caver Tony Akers doing some exploration in Hell's Hole around five years ago. I have fond memories of many trips to these pits in the 1990s, in particular; also some not so fond memories of the crawls in Hell's Hole.

In recent years, the landowner had been leasing the property to hunters, and also logging is being planned as well. Despite living out of state, VanNote still maintains communication with the owner. It's had been years since I have been to the area and was not really aware of the particulars on access. The landowner had requested help from cavers in fencing both pits as the hunters reportedly had concerns of these open shafts on land they pay to hunt on. In an effort to maintain landowner relations VanNote relayed this info to area cavers. Last winter, the Bloomington Indiana Grotto (BIG) caver and fellow IKC Director, Danyele Green, put out a post on the BIG Facebook page of a fence project for King Leo. This was originally scheduled for April. The date was the same day as the Indiana Cave Symposium with the project to be used as a pre-symposium activity. I quickly reserved my

spot. Coronavirus came along and both events were postponed. The fencing was rescheduled for Saturday, May 15 and again I quickly signed up again to assist. I, like everyone else, had been stuck at home for several weeks due to coronavirus and was excited to get back out in cave country with fellow cavers. As the date approached, I maintained contact with Danyele to let her know I was still interested.

May 15th came along and I woke early and fixed breakfast at home and left in plenty of time to meet the group at 10:30 near the site. We were fearful of the predicted rain, but close radar inspection appeared that it may miss us, so we were still a "go". We all met on time. In addition to myself, was Danyele and her husband Tymme, Bill Baus, and fellow IKC Director Laura Demarest. Also in attendance was a young couple new to caving, Eric and Michelle Green (no relation to Danyele). Danyele and Tymme had their trailer with posts and chain link fence material donated by the late Bud Dillon, who passed away last year. Eric is a firefighter in Columbus and had fencing tools and experience, and turned out to be a huge asset. We shuttled posts, fence, and tools down to the King Leo entrance from the park spot, about a quarter of a mile along a logging road. The parking area was soggy from recent rain, so we pulled off the road as best as we could without getting into the mud in the four vehicles on site. After getting gear to the site, we began to map out post spots and



set posts. We were not sure if we had enough fence material. We used Tymme's gas-powered post hole digger and made short work of digging holes for the larger wood posts, and drove in the smaller metal T-posts manually with ease, due to soft ground at the time. This went fast. After

the posts were in, we began to string the chain link fence around the poles using the sections we had. We stretched the fence with a come-along and secured in place. Laura and I then began to attach the chain link to the tension wire that ran above the chain link. We followed those who



were stringing and stretching the fence until we ran out of fence material; maybe thirty feet shy of what we needed. It was around 2:30 by this time. We hauled the tools back to the cars and chatted a bit. Danyeale found a few ticks on Tymme, and I found one on me even after spraying myself and clothing. Danyeale and Tymme left to go home like myself, while Laura and Bill went over to drop Hell's Hole as Eric and Michelle watched.

Some fence material was also staged at Hell's Hole for that upcoming project.

A future date will be planned to complete the King Leo fence, and also to start on the Hell's Hole's fence. The landowner for the Hat Dome entrance and nearby Heavenly Hole will be contacted to see if we can clean up those sinkholes. Danyeale told me the hunting lease on the Hell's Hole/King Leo property is no longer active, but we still feel a fence is needed at both pits to discourage the loggers from leaving fallen tree tops over and or around these pits. Also the fences were requested by the landowner. I appreciate the efforts of Danyeale to spearhead these conservation projects. She, like myself, hold sentimental value of this area. Also, none of this would be possible without the continued efforts of Mike Van-Note maintaining positive contact with these landowners. Landowner relations appear to be somewhat fragile in this area compared to what it once was, so these efforts are critical to maintain any kind of caver access. It was nice to see three IKC Directors (Danyeale, Laura, and myself) assist with this. This participation gave me the motivation to write this report for the *IKC Update*. I would also like to recognize Danyeale for updating me on the current landowner status since I had not been to these caves in a number of years. It was a fun day and nice to finally get out and do something productive.

...Continued from page 7

not finding any ticks on me even though I walked through waist high grass for over an hour."

- **Scott Frosch**, Director: *The highlight for me: sunshine!! It was great to be a part of such a wonderful group of people working outdoors together with common purpose to protect and maintain an important resource.*
- **Laura Demarest**, Director: *I really enjoyed just being outside on such a gorgeous day and seeing so many wildflowers – and a promising (hopefully!) lack of other nasty invasives on this site. It was also nice to get familiar with the IKC property boundaries as I've only ever driven by the Rise, but not really walked around that area much. I would definitely love to do another workday like this in the future.*

For me, it was just great to see everyone enjoying the property. I did love

finding the rogue honeybee hive in the building wall next to the property line, and finally ID'ing anise root, which is flowering white at the same time as the garlic mustard. Look for another garlic mustard pull to be planned for next spring. In the meantime, drive by to check out this beautiful little gem of a property.



Volunteers (physically distanced by household) removed 38 pounds of garlic mustard, 13 pounds of winter creeper, and 12 pounds of poison hemlock. Photo by Property Manager Carla Striegel-Winner (not shown).

PROPOSED MID-STATE CORRIDOR HIGHWAY UPDATE

by Keith Dunlap

Since the previous article in the March *IKC Update* (see page 9 of that issue), several developments have occurred in broadening the opposition to the proposed Mid-State Corridor Highway project, and in particular the concerns over the environmental impacts of the two “northeastern” routes, Route O and Route M, that are new-terrain routes that would cross significant karst topography in the Orange/Lawrence county areas.

The biggest development has been both grass-root and organizational public push-back of both Routes O and M. In particular, there has been the formation of the “Orangeville Rise”, a group of residents primarily from Orange County. The group has energized both citizens and local businesses to oppose the proposed highway from both an environmental and economical perspective. Their primary focus is on Route O, which would by-pass Paoli, thus negatively impacting local businesses there that depend on regional traffic for economic viability.

Also of recent significance was a fifteen-page letter sent to the Governor, InDOT, and the Lochmueller Group, the project manager for this corridor study. The letter was fact-based with significant citations from past studies that detailed the impacts, particularly to the karst regions, and also questioned the justification of the entire project from an economic standpoint. The letter was authored by a collation of environmental groups including the Hoosier Environmental Council, the Indiana Forest Alliance, the Environmental Law and Policy Center, and others. The IKC reviewed the draft letter and contributed some input and support information related to the karst concerns, but the IKC Board elected to be not be a signatory on the letter as the scope of the letter extended beyond our area of expertise, primarily how it related to the overall project being economically feasible and justifiable. The public release of the letter subsequently generated much print and television media coverage (see the *Paoli News* article on page 12 as an example).

Also in March, the Indiana Cave Survey entered into a data sharing Memorandum of Understanding agreement with the Lochmueller Group related to confidentially sharing known caves and karst feature information in the ICS database. The Lochmueller Group provided spatial information (PLSS sections) for each of



the proposed routes and the ICS extracted location information and other meta-data (name, type of feature, ownership categories, cave length, existence of maps, etc) within those requested sections. For Route O, the ICS extracted 260 features. For Route M, it was 163 features. For the other four routes that do not cross the karst terrain, there were only a few sandstone shelters or springs contained in the database. The spatial requests from Lochmueller were “super-sets” of the areas covered by the proposed corridors (i.e., if a portion of a section intersected the corridor boundaries, anything within that section was shared), but the numbers are still a viable indication of the significance of the potential karst impact. It should be further emphasized that the ICS database may just be the “tip of the iceberg” when it comes to non-cave karst features hidden below the surface that would likely not be discovered until construction was underway.

With the recently announced state budget cuts due to revenue shortfalls from the coronavirus impact, perhaps this will be one project that will get sidelined or completely axed. If nothing else, it is hoped that Routes O and M are judged to be too risky from an environmental impact standpoint and/or too costly compared to the original US 231 route or the other two western alternative routes.

Coalition Shares Concerns About Mid-States Highway

By Tim Thone

Paoli News-Republican (4/15/2020)

The Mid-States Corridor highway project is an important issue for Orange County due to the potential impact it could have to the area. Of the five possible routes remaining, Route O would leave US 231 north of Jasper and roughly follow State Road 56 toward Springs Valley. Once in Orange County, it would stay south of the existing highway, passing just north of French Lick Municipal Airport, before crossing State Road 145 and making a gradual turn to the north and past the eastern edges of French Lick and West Baden Springs. The route would then cross US 150/SR 56 and continue heading to the north to pass well to the west of Orleans on its way to connect with SR 37 at Mitchell.

Advocates for the project argue it would be an economic boon for the region, but a coalition of local businesses and environmental groups cast doubt on the projections and are concerned about the negative impacts the project could have on Orange County and the area.

Opponents have submitted a letter to Indiana Department of Transportation (IndOT) and the Mid-States Corridor Project listing their concerns.

The letter has more than 70 signatories, including more than 50 businesses in Orange County and several local and statewide environmental groups.

The coalition sent the letter April 14 to IndOT Commissioner Joe McGuinness and the Mid-States Corridor Project Manager Jason DuPont and called for the state to suspend all planning for the proposed highway. A news release from the Indiana Forest Alliance (IFA) about the letter states time and resources would be better spent helping Hoosiers deal with and recover from the medical and economic fallout from the COVID-19 pandemic instead of taking on a project that could multiply their hardships through the

possible loss of homes or farms and the displacement of locally owned businesses that are already struggling due to efforts to reduce the spread of the virus.

The letter questions the ability for public review and input as citizens are restricted in their movements. And the letter urges IndOT to consider non-highway alternatives and reject the northeast corridor options, which opponents worry would have the most negative environmental impacts.

Luke Baker of Orangeville Rise, a group of like-minded individuals concerned about the impact of Routes O and M, explained that he wants people to be more aware of the project and its possible impact on the area.

Baker said one of his concerns is actual economic impact for Orange County. Baker explained the numbers given also include the benefits to Jasper and Dubois County, which are the project's biggest backers. Also, with the economic turmoil caused by COVID-19, Baker questions if the projects are even accurate anymore.

Greg Noble, president of Infrastructures Systems Inc of Orleans, said that he and many of his fellow business people in Orleans are concerned about what will happen economically to their town and Paoli. Noble pointed out that he remembers Oolitic being a bustling town much like Orleans before a four-lane State Road 37 bypassed it.

Noble said Orleans has two restaurants scheduled to open, and people have been coming up from the French Lick Resort to check out the town and its stores while getting a bite to eat. If a highway like Route O came in and allowed traffic to get to the resort without having to pass through Orleans, the town "might die a slow death." Noble said those might be strong words, but there is already a lot of business occurring from tourists stopping as they pass through to the resort. If that business disappears, it could ripple out

towards the other local businesses as less money is being spent in town. It could make it harder for the local grocery store, hardware store or even insurance agencies.

Noble said it absolutely will have an effect on the town. "There's no way it can't. There's 10,000 cars a day that go through Orleans."

Sharing the same concern is Rachel Minton, who owns a beauty salon and the Shakeburger drive-in restaurant in Paoli.

"The restaurant is the kind of place that people just happen upon when they pass through town, and that won't happen if they reroute traffic away from here," said Minton. "Then there's the environmental damage that road construction could cause by disrupting the underground karst cave system and wreaking havoc on existing drainage patterns."

Noble explained that he's not against progress. He's in the construction business, so he believes in it. But the projects need to make sense and not be built just to be built. Even if there is a benefit, he is concerned about the cost to Orange County. Noble said a new highway through Orange County would destroy areas that are truly unique.

The IFA's news release states a new highway cutting through the Hoosier National Forest and Martin State Forest would cause the loss of carbon-sequestering trees, destroy the habitat for several endangered species and fracture thousands of acres of family farms. It would also mean the loss of wilderness used for hiking and recreation and disturb Indiana's most expansive cave system and the underground Lost River.

Keith Dunlap, a caver since 1975, explained that there is the Lost River Cave System west of Orleans located between Wesley Chapel Gulf and the True Rise of the Lost River. Dunlap made clear that while cavers have mapped 22 miles of caverns in the area, there are still more areas undiscovered. According to the Indiana Karst Conservan-

cy, the Lost River Cave System is the second largest cave in Indiana. Dunlap said some of the passages are 50 feet wide and 40 feet high. Dunlap expressed concern about placing a highway in the area and some of those passages collapsing and would be “a real mess” during the construction phase.

“You never know what you’re going to get into until you start doing it,” said Dunlap. “Even if you do the best possible analysis, you’re going to hit things.” Dunlap pointed out it happened during Interstate-69’s Section 4.

InDOT has already had trouble with the area’s karst features when it expanded State Road 37 to four lanes between Bedford and Mitchell during the 1990s. “They hit a lot of stuff they weren’t expecting to hit,” said Dunlap. He said at that time, every time they hit a hole, they put the highway drainage into it, which goes into the karst system and can impact cave life and drinking water and wells in the area.

Since then, practices have changed and catch basins are now used, but the possibility remains of spills and chemicals getting into the karst system. Once underground, chemicals can travel miles quickly. Dunlap pointed out that the water in the karst is different from other groundwater which might only flow a few feet per year. In the Lost River karst, water travels in miles per hour.

“Something that was accidentally spilled in Orleans could be in Orangeville Rise in a day or two,” said Dunlap.

Baker stated that even people outside by the proposed routes may feel the environmental impact due to how interconnected the Lost River watershed is. A little bit of contamination in one sinkhole could affect the water supply of many Orange County residents.

The impact on the world-class cave system and the forests of the area are also concerns for many opponents.

“The highway could cut through and demolish much of the most scenic forest and cave country Indiana

has to offer,” said Jeff Stant, executive director of IFA. “It would be an aggressive assault on nature with absolutely no compelling justification.”

Stant pointed out that Indiana has not even completed I-69, which he said caused considerable effects on Greene County’s forests and farmland and cost billions more than proponents forecasted. Stant said Hoosiers have not even felt the impact of I-69 and the state is already talking about a new highway 20 miles east of it, which he said will have many of the same problems.

“Many endangered animals occupy habitats along the Mid-States highway routes, from insect-eating bats, meadow-loving owls and other birds, some of the rarest cave dwelling invertebrates known, to the blind cavefish named after its native state,” added Tim Maloney, senior policy director and land use director for the Hoosier Environmental Council. “In particular, impacts to the cave and karst system of the Lost River and its endangered species cannot be mitigated – this area would be damaged forever by a new terrain highway.”

Dunlap stated that a lot of the life in underground caves is very small, and there are still new species being discovered that might only exist in that region. There is a lot of unknown biological life without a lot of research in the area. A spill could wipe out an entire species.

Another argument against the project is that it is an unwarranted cost. Noble pointed out that his company recently helped move all of the water lines between Mitchell and Paoli for the expansion of State Road 37. There were traffic studies conducted then that did not see a need to upgrade State Road 37 into a four-lane highway. Noble pointed out that nothing has significantly changed since that time.

“Indiana Department of Transportation typically claims that when an area is growing, the state should build a highway. But here InDOT argues that because an area is declining, the state should build a highway,” said Kevin Brubaker,

deputy director of the Environmental Policy & Law Center. “By this logic, Indiana should be building highways literally everywhere – a politician that would quickly bankrupt the state and destroy the environment.” The letter argues these population changes away from rural areas and into urban areas are part of a broader cultural shift that a new highway is unlikely to reverse.

The coalition letter to InDOT states, “Even if a highway alternative is ultimately chosen, the best way to move people and goods from the Ohio River to the urban areas around Indianapolis is to direct traffic onto existing I-69 as soon as reasonably possible.”

Noble pointed out that US 231 is a direct line corridor from the beginning of the proposed Mid-States Corridor to I-69. The coalition letter states that any of the northeast routes, such as Route O or M “would require the greatest amount of new right-of-way and the least use of existing infrastructure.” Stant pointed out that improvements to US 231 would not only have less impact on the environment than new highway construction but also make an existing roadway safer. Similar improvements could be considered for highways already passing through Orange County. Stant said there are a million different smaller steps that can be taken instead that could benefit Orange County without turning it “into a geography of nowhere.”

“It’s time to leave the 1950s behind and think about what we really need in the 21st century to keep Indiana a liveable place and maintain its heritage,” said Stant.

Due to COVID-19, the Mid-States Corridor Project Office is temporarily closed to the public. The IFA news release states that plans still call for a preferred route to be selected by fall and the Federal Highway Administration weighing in by the summer of 2021. The public can still share their thoughts on the project with transportation officials by submitting comments at midstatescorridor.com/comments-and-questions/.

A LOOK BACK AT INDIANA KARST

by John M Benton

State Road 135 in Harrison County was totally reconstructed in 1972 from Corydon, south all the way to the Mauckport bridge (erected in 1966 to replace the previous ferry) that crossed the Ohio River into Brandenburg Kentucky. Ruby Construction Company was the primary contractor for the highway project. Along the way, several sinkholes were encountered and excavated, or other wise dealt with. The entire fifteen mile route was in a karst area, with much of it through the drainage basin of the Binkley Cave system, which today, totals over 44 miles in surveyed length. This article takes a look at some of the sinkholes encountered:

1) **Binkley for A Day Cave** – This was a sinkhole that was opened up during State Road 135 construction just south of the Indian Creek Bridge. Indiana Speleological Study (ISS) cavers Terry Crayden and Gary Roberson peered into the hole that day in 1972, but did not enter and it was closed and sealed up within days. Today, there is a slumped area in the dirt bank just on the eastern edge of the highway where this cave is believed to be. The area of the entrance is noted on the John Turner's topo overlay sketch from December 1972 published in the CIG Newsletter 16#11. A recent story that only came to light about 4½ years ago came from Corydon residents Jan and Larry Ashabranner. Jan now works at Indiana Caverns as Office Manager and her husband Larry was on the Indian Creek bridge crew working on SR 135 in 1972, just a few hundred feet away from where Binkley For A Day Cave was found. Hearing about the hole from construction workers, Larry and a co-worker took a sixty-foot ladder from the bridge up to the cave to have a look. Only Larry proceeded into the cave that he estimated went 900 feet to the east in walking passage that was damp, but had no active stream. There was a passage to the west that he did not enter. Being solo in the cave, he did not stay long. It is believed that he was the only person to enter the cave before it was sealed. Whether or not this is part of Binkley system is unknown, but it sits smack in the middle of Binkley drainage.

2) **Manhole Cave** – This cave, also known as Shiloh (Church) Pit, is located on the east side



photo by Kevin Smith

of SR 135, near Shiloh Church. The cave can be entered today via a 37-foot deep vertical concrete culvert (above), installed during construction for drainage. It is very near the Strike Section in Binkley Cave, but a physical connection has never been made. The cave consists of approximately 200 feet of passage. Numerous recreational/dig/biological studies cave trips have been done in this cave.

3) **Manhole Cave II** – Just northwest of Manhole Cave on the west side of SR 135 is Manhole Cave II (below). This cave has a 25 foot vertical culvert that connects to a short section of passage and one small room.



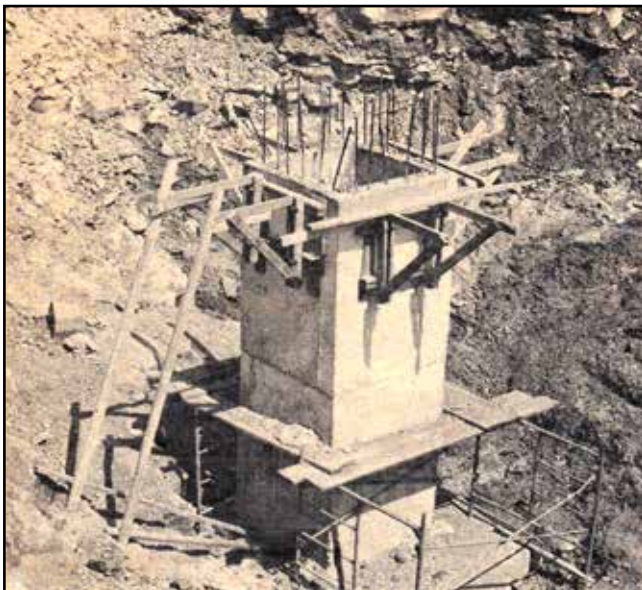
photo by Kevin Smith

4) **Euclid Cave** – During the construction of SR 135, a full-sized Euclid construction dump truck fell into a sinkhole. Gary Roberson has several photos of this accident that were taken by Corydon resident Sam Eckart, when he worked on the state engineering crew that summer. Eckart went on to a long career with a Corydon bank and recently retired in 2016. Amazingly, no one was injured. Eventually

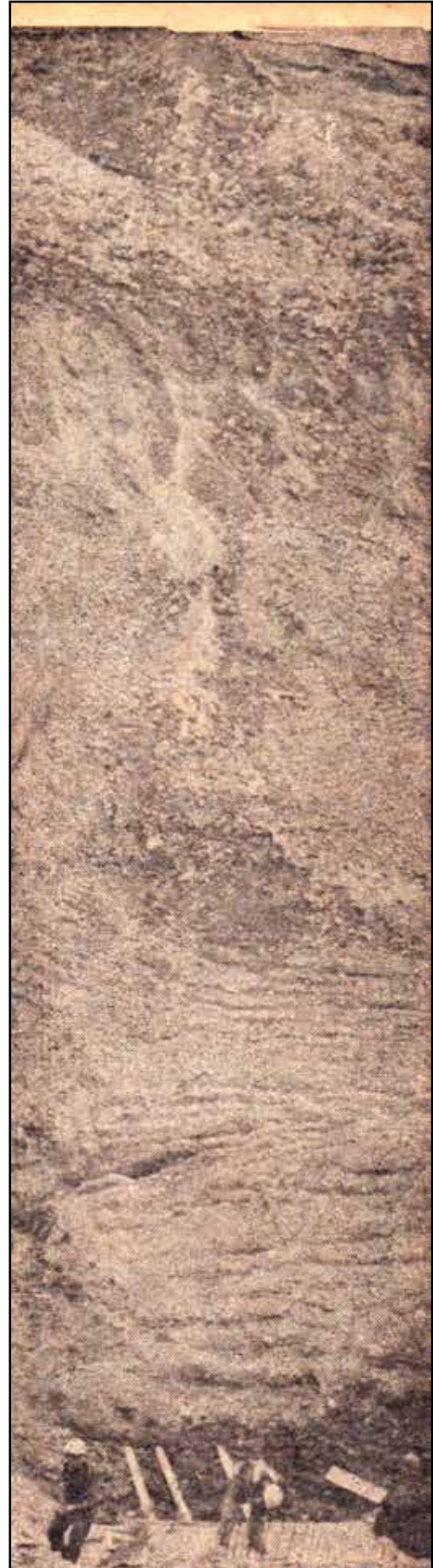


with a large crane, the truck was removed. This sinkhole was along the highway in section 13, just west of the now abandoned Mathes Stone Quarry.

- 5) **Another Capped “Cave”** – A 1972 article in the Corydon Democrat shows a square vertical culvert/structure being constructed in the bottom of a large sinkhole (below). Several of these were built during the highway construction. While the article description says the sinkhole was 100 feet deep, that is likely an exaggeration. The actual site location has not been determined, but it is probably further south of Corydon, closer to Central. This is definitely not Manhole Cave or Manhole Cave II as both of these have circular vertical culverts.



- 6) **What A Hole!** – Another open sinkhole photo (right) from the Corydon Democrat showing workers in the bottom on a concrete foundation of what will be another vertical “chimney”. The article said the sinkhole was 54 feet deep. Unsure of the location along SR 135.



ANNUAL CAVE PATRON / PROPERTY MANAGER REPORTS

Each year at the Annual Business meeting, the IKC Cave Patrons and Property Managers are asked to present a verbal summary (which did not happen due to the meeting being cancelled) and submit a written report describing the prior calendar year's activities and incidents, and to make any future recommendations needing implementing. The following is a compilation of their reports for 2019:

Buddha Cave Patron Report (Jeff Cody)

2019 saw at least five trips into the cave. I say at least five because in May, the NCRC used the cave for its weeklong training and I understand they may have used the cave more than once. I got an impressive stack of waivers from the NCRC group signed by cavers from all over The USA. I'm not sure if all who signed waivers actually went into the cave.

Two trips including NCRC were arranged through myself, two were arranged through Dave Everton (BIG Liaison) and one trip where Keith Dunlap and Jerry Lewis took the Executive Director of the Indiana Land Protection Alliance to the property including a visit to the entrance room. This year we had less visits than the previous. I assume this may be due to the need for a ladder to get into the majority of the cave. I did get a couple calls requesting permission, but the caller was not aware of the need for a ladder and went elsewhere. Also of note, a couple trips were done without vertical gear as the climb down before the drop was used to access the lower level. This may be seasonal as there is a low-air spot to negotiate in order to access the lower cave this way. I didn't go into the cave this year, but was at the property a couple times when in the area just to check on things and see if I noticed anything out of the usual. Thanks go out to Keith Dunlap, as I know he keeps the trail to the entrance mowed. I always ask anyone arranging trips through me to report back to me if they see any graffiti or anything out of the ordinary and no one reported anything to me this year.

Reported Buddha Cave Trips for 2019:

- April 16 – Keith Dunlap party of three
- May 11 to May 18 – Many cavers used the cave for NCRC Weeklong training
- June 1 – Dave Everton party of five

- July 20 – Mitch Vaughn party of four
- October 20 – Noah Kuczmanski party of five from the Purdue Outing Club

Buddha Property Report (Keith Dunlap)

This was the IKC's 18th year of ownership and we continue our long-term stewardship projects, but otherwise we are in "maintenance mode".

The parking area and perimeter trail were mowed three times.

Some invasive spraying (two backpack tanks) was performed along the trail (mostly focusing on Japanese honeysuckle). Also the property was walked looking for olive autumn and bush honeysuckle, cutting and stump treating with Tordon.

A day was spent cutting grapevines, mostly on the mature trees on the perimeter of the property.

The area where we culled the over-crowded oaks in 2018 looked really good. There are some other areas that need thinning as the trees get larger.

The property had its third Classified Forest re-inspection. The District Forester, Janet Eger, seemed pleased with the progression of the property compared to when it was a solid fescue pasture when acquired in 2003.

There were no major management problems or concerns encountered during 2019.

2020 activities I hope to accomplish:

- Continue mowing the trails.
- Continue working on the grapevines (still a few acres to go).
- Plan for the removal of the dying Ash tree by the parking lot gate.

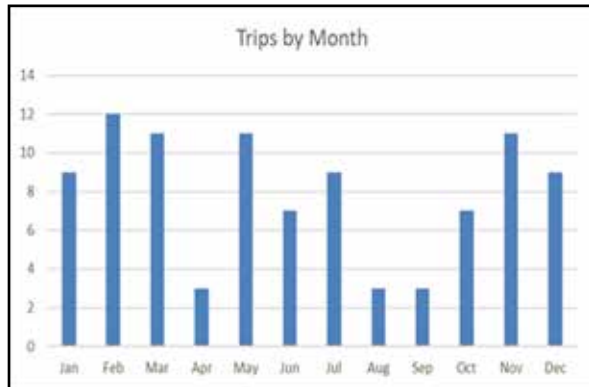
Sullivan Cave Patron Report (Paul Uglum)

This report covers the activity and visitation for the 2019. As in past years, people and groups with a wide range of caving experience and expectations have requested visits to Sullivan's cave. Groups experience levels range from very experienced cavers traveling upstream to the Rise, to various youth groups with limited or no wild cave experience making trips to the Mountain Room and back with an experienced caver as a guide. The ability to scale trips based on the experience level of the cavers makes Sul-



livan Cave ideal for groups with varied experience levels and larger groups.

For 2019 there were 95 trips with a total of 852 participants. Most trips were arranged through the IKC and BIG. The number of trips increased by 18% from last year and the total number of participants increased by 60% over the prior year. This was in part due to the NCRC level 1, 2 and 3 training held at the cave in May. Group sizes range widely, from 3 to 37 participants, with the average of 9 participants per trip. More experienced groups tended to be smaller and led youth groups larger with the NCRC being the largest groups. There were an additional seven trips that were scheduled through the IKC and did not take place due to weather, too many participants backing out, car trouble, or because Sullivan's was the back-up plan and was not needed.



Eight of the trips included camping on the site, an increase from five last year. Camping trips are required to have at least one member who is an IKC member.

There were 44 additional inquiries, up from 20 last year, that did not result in a trip. These were generally non-cavers who did not respond to replies after I explained that Sullivan was a wild cave and what the IKC rules are. These groups included several that wanted next or same day visits and gave the impression they thought Sullivan was operated like commercial cave with regular tours. Some requestors had visited the cave decades ago and wanted to visit again. One of the more unusual was a request from the Defense Advanced Research Projects Agency (DARPA) for their subterranean challenge which was rejected since we do not meet their criteria (apparently this was sent to all IKC Cave Patrons with contact information mined from our website). Other requests for 2020 visitation included possible outings from the geol-

ogy department of IU Southeastern and a possible article for the Scouting magazine, Boys Life. Formal rejections were for the most part for same or next day visitation (later alternatives were offered) or in one case due to past failure to return waivers and to an individual who is no longer allowed to lead trips.

I led four trips to Sullivan's including a CIG beginner's trip again this year and two REI Introduction to Caving trips. In general the cave is in good condition considering the level of visitation. Some additional damage appears to be occurring despite efforts to educate users about leave no trace caving. I received specific reports of some apparently new pink spray paint in Bardangis Hole and near the end of the Backbreaker. It would be good to set up some efforts to remove graffiti in backbreaker and remove any trash that has accumulated in the Mountain Room. Continued emphasis on "leave no trace" remains important.

There was one incident with the cave being unlocked during a trip for fear of being locked in. This was despite specific instructions to lock the cave behind them. This was discussed with the leader and will not be repeated by him.

Most trips were requested via e-mail and keys mailed to the trip leader and returned by mail. All keys were returned in a timely manner this year. I encourage anyone wanting to visit Sullivan Cave to plan ahead.

Locks have been replaced as needed, and the SF series remained the same throughout the year. One replacement was due to a key broken off in the lock.

Opportunities:

As was suggested last year, an in-cave cleanup/restoration project would be a good idea. There are parts of the backbreaker that have far too much graffiti in some locations – this tends to encourage more damage in my estimation. It would also be good to have a general clean up. Some help has been offered with the pink spray paint (which may not be that recent).

There are more beginners who would be interested in visiting the cave if they could find someone to lead them. I generally direct them to the local grottos and the CIG introduction to caving class at REI. I do not have a good solution, but the interest is there if anyone has a workable solution. It would be useful to create

a list of those who are willing to lead an occasional trip with a youth group.

A more detailed map of the cave would also be useful. Looking at the new Buckner's map having a similar one of the south parts of Sullivan would be nice.

Sullivan Property Report (Keith Dunlap)

This was the IKC's 21st full year of ownership and we continue our long-term stewardship projects, but otherwise we are in "maintenance mode".

The "camping" area and the area out by the highway were mowed three times last year. Twice during the growing season and once after all the leaves were down to mulch the leaf cover.

The lane/parking areas are now in good shape. During 2019, Jaime Winner cleaned a section of the drainage ditch along the lane with his backhoe and unplugged the culvert closest to the parking area. I also had three tri-axle loads of "road-pack" stone spread and then graded on the lane. To facilitate the rock spreading, overhanging limbs were trimmed along the lane.

Several members and a few youth groups took advantage of the camping area and firewood over the past year. Paul Uglum, the Cave Patron, generally manages permission for camping. Locks are also serviced by Paul.

The port-a-john was serviced once last year.

In the ridge-top area on the property, a rather large, free-standing deer stand was discovered. This was obviously erected at some point by one of the "neighbors" to the west of the property. The neighbors are now gone and the stand will be removed at some point.

There were no major management problems or concerns encountered during 2019.

2020 activities I hope to accomplish:

- Replace the existing port-a-john with a newer/nicer unit (donated by A1 Porta Potty)
- Systematically walk the woods to remove grapevines, per the suggestion of the DNR District Forester.
- Perhaps spray the camping area again in August to control the Stiltgrass infestation (up the dosage).
- Over-seed the camping area in the fall with tall

fescue that will be more hardy.

- Put a new roof on the "wood shed".
- Remove the unauthorized deer stand.

On the adjacent property to the east (owned by me), Jaime Winner pulled the mobile home anchors with his tractor which will allow easier mowing in that area. Overflow parking is available there and I have been keeping an area mowed for alternative parking and camping.

On the adjacent property to the west (now also owned by me), the two different tenants houses have been vacated and most of the structures on that property will be removed in the near future. I plan to do some tree planting and enroll the property in Classified Forest.

Wayne Cave Patron Report (Dave Everton)

The Patron approved eight trips during the year with a total of 39 cavers (some repeat offenders).

There were two Liaison-arranged trips (both Central Indiana Grotto) for a total of 15 cavers. Therefore, the total number of visitors was 54. There were no issues reported to the Patron during the year.

2019 was another great year of IKC cave visitation, especially since there was nothing to fix. The Patron continues to appreciate the IKC's ongoing commitment to keep their caves open to visitation.

Wayne Property Report (Danyele Green)

For 2019:

- The IKC received an Environmental Quality Incentives Program (EQIP) grant from the National Resources Conservation Service (NRCS) for a conservation plan for a portion of the Wayne Cave property. Specifically, our 'Tract 1' which consists of the northern 15 acres. Year 1 of the contract was very successful in manual and chemical treatment of: Autumn Olive, Burning Bush, Multi-flora Rose, small amounts of Japanese Barberry, and non-native Honeysuckle.
- Work days consisted of mowing and invasive removal. All volunteers signed the new IKC Volunteer Waiver form which was created and completed in early 2019.
- Work days occurred April 13, 14, May 3, June 7, 29, July 13, 28, and Aug 10

- May/June – An updated version of the Wayne Cave Management Plan was worked on, reviewed, and approved by the Board.
- June 3 – Keith Dunlap and Danyele Green met with the project coordinator of NRCS to review the grant requirements for invasive eradication on Tract 1.
- Sept 5 – Keith Dunlap and Danyele Green met with the NRCS inspector to review Year 1 work completed on Tract 1 (the 15 northern acres). We passed with flying colors and were told the grant check will be in the mail soon. It was received not terribly long after the inspection.
- September 22, 2019 – EQIP application was submitted for the southern 20 acres, known as Tract 3.
- Several requests to camp and check out the other pits on the property were requested, but no camping came to fruition. I learned of some non-requested camping happening and informed the person that permission was required. A few individuals checked out the other karst features/caves on the property, but it was reported that nothing was big or safe enough to push very far. Waivers were obtained for those checking out the ‘incidental’ areas on the property.

Future Projects:

- 2020 will be Year 2 of Invasive Eradication contract with NRCS on Tract 1 of the property. This will involve treating invasive plants we missed in Year 1, along with cutting out sections on the grapevines.
- Continued trash pickup focusing also on the front/northern 15 acres of the property.
- Hope still is high that we are able to get the NRCS grant for Tract 3 of the property. If awarded, 2020 will be Year 1 of the contract for this section.
- Re-planning some areas of the trail which were previously laid out in high erosion areas.
- Grading and trail work with the goal to be completed in 2020. If we obtain the grant from NRCS for the southern 20 acres for invasive eradication, the goal is to complete the eastern part of the trail that goes down to the that section of acreage.

Robinson Ladder Property (John Benton)

April 29, 2019: Property Manager John Benton lubed the road gate entry lock; cut weeds by road gate. Replaced the emergency sign (provided by Danyele Green) on info sign post. Cut some vines around barn in upper field, and picked up miscellaneous trash.

Saturday May 11, 2019: Keith and Bambi Dunlap spent over four hours at property:

- Identified non-surviving trees, all species (from previous planting) and replanted with hybrid chestnut trees provided by Glenn Kotnik (TACF), approximately 20-25 trees.
- Hand-weeded around the living trees, re-flagged most trees to make easier to mow around, and did some low level pruning to facilitate herbicide treatment.
- Herbicide (glyphosate) treatment around each tree. Three foot diameter circles to help with later mowing. Three and a half tanks of spray for 215 trees.
- Sprayed perimeter of fence (one tank).
- Sprayed some multi-flora rose and other invasives out by the road gate. Noted the lower mowed field looks good and noted some low hanging limbs along access road that will need future removal.
- Dunlap also noted a few of the chestnuts (some were the larger ones) had died; upon later inspection, it was noted drill holes into the stems indicating some type of insect damage, but not sure what insect did this.

Saturday May 11, 2019: Jamie Winner mowed the lanes, camping areas, and part of upper field. He also trimmed some low branches/limbs along the access road.

Sunday May 26, 2019: Keith and Bambi Dunlap mowed (with walk-behind mower) the chestnut planting. The herbicide treatment a few weeks before had burned down the weeds around the seedlings making mowing easier. Going forward, mowing the rows may not be necessary as trees are becoming bigger. One turtle was “freed” from inside the fence. Most of the chestnuts are looking good. Bambi made a mower pass up and back along the access lane against the fence where Jamie could not reach. The pond (re-worked few years ago) had adequate water, perhaps 25 feet

across and 6 inches deep in middle. Rainfall has been above normal.

Wednesday August 14, 2019: John Benton stopped by the week after Cave Capers, throwing some branches/limbs (from access lane) that Jamie Winner had cut, into the woods.

Future: Continue mowing upper/lower fields every other year. Ease off tree care but not eliminate. Watch wildlife pond for water retention. Mowing of lanes, drive and camping areas, couple of times a year, trim branches over access lanes as needed. Treat autumn-olive as needed and other invasives. Jamie and Carla have mentioned that the field mowing may be too intense for his level of equipment, that should be considered/discussed.

Thanks to all volunteers especially Jamie Winner, Carla-Striegel-Winner, Keith and Bambi Dunlap for using their own equipment at RLC. It is appreciated!

RL Cave Patron Report (John Benton)

Trips included:

- June 7, 2019: Trip led by Charlie Veters of Greenfield, 4 people, IN and OH cavers.
- August 3, 2019: Trip led by Sean Moir of Mitchell, Cave Capers trip, 9 people, IN and IL cavers.
- January 25, 2020: Tim Shier (IDNR), and 2 other DNR staff with Keith Dunlap, conducted the biennial bat count in Robinson Ladder Cave; 3 pips and 2 big browns were seen.

Robinson Ladder Cave continues to be one of least visited caves of the IKC.

Upper Twin Cave Patron Report (Dave Everton)

Overall there were four trips during the year; three of them had a total of 29 cavers. One was a critter collection trip with three cavers. The Patron visited the cave on November before the IDNR section closed, with four members of the Cleveland Grotto. There were no issues reported to or observed by me during my visit.

Shawnee Karst Preserve Report (Jerry Lewis)

In 2019 we broke ground (and a backhoe) for construction of a new information kiosk. A site was selected in the circle at the end of the gravel lane that allows access to the property, which is also the parking area for the hiking trails and the path to the

entrance of Upper Twin Cave. The area was cleared of trees and brush by Tom Sollman, Keith Dunlap, and Jerry Lewis, so that Jamie Winner could then dig the holes for the post foundations with his backhoe. That was complicated by an encounter with a large stump of an oak tree that had been buried at the place chosen for the kiosk. The stump was so tough that a hinge pin on the backhoe broke. A second trip was then necessary after repairs to remove the stump, and finally the holes were excavated for pouring the concreted. Winter weather closed in and construction will resume in 2020.

Routine trail maintenance and invasives control were done by Keith Dunlap and Bambi Dunlap.

I met with Janet Eger (IDNR) for the Classified Forest inspection of the property in November. The tour of the property went well with no major problems were noted. The Indian Grass meadow was discussed at some length and Janet supported the idea of managing the area as a prairie. She recommended that Mark Bennett (IDNR) be contacted for further information on management of the area with a prescribed burn. In part of the west side of the preserve along the trail Janet suggested that beeches be thinned to allow better growth of other tree species.

The adjacent property of 17.5 acres was purchased by Keith Dunlap in 2019. Two houses and some other buildings in various states of abandonment were present on the property. Keith has now completed demolition of the buildings and we hope to acquire the property for the IKC in 2020-2021. Partial funding for the purchase is already in place thanks to a member bequest. In addition to the native grassland and several large sinkholes, a small cave is present on this property that sits atop the passage in Upper Twin Cave. This cave is being viewed with the possibility of opening a new entrance to the system, given the repeated collapse of the entrance to Upper Twin Cave on the Shawnee Karst Preserve.

Lowry Cave Patron Report (Ray Sheldon)

The Lowry Karst Preserve is a six and a half-acre property located just off of Highway 3 in southwestern Jennings County. With the help of Keith Dunlap, the Lowry Cave property was surveyed, then purchased/transferred to the IKC in August of 2019. Jerry Litaker and a crew of cave surveyors from the Eastern Indiana Grotto surveyed Lowry Cave in 1997. The spring entrance is seven feet

high by forty feet wide. A large column of limestone divides the entrance with a cascading stream flowing out to a ten-foot waterfall, which drops into Graham Creek. The ten-foot wide passage proceeds in a northerly direction with an average ceiling height of five feet. Three quarters of the way into the cave an upper level and a couple side leads are encountered. Within the 1970 feet of surveyed passage, several formations and an abundance of cave species can be observed. In 2019, five visits were recorded with a total of 22 cavers. There are several unexplored sinkholes elsewhere on the Preserve that need cleaned out, pushed, and possibly surveyed. If you would like to visit the cave, IKC liability release forms are required in advance of the visit. During property workdays an assumption of risk liability form is required.

Lowry Karst Property Report (Ray Sheldon)

As with any new property that the IKC acquires, there are lots of tasks needing attention to bring the preserve “up to standards” and to facilitate visitation. The Lowry Karst Preserve is no exception. The unimproved county road, which provides access to the property, is an on-going challenge. The grading didn’t start until late fall and the wet winter hasn’t helped. The interior lane is not finished mostly due to a large tree causing an obstruction for dump truck access. Vehicular traffic has been restricted past where the gravel ends. As soon as the ground dries out a couple more loads of stone will be spread towards and around the proposed cul-de-sac. Currently we are granting access/visitation to the cave for small groups (preferably just one or two vehicles due to limited parking). Once we get the road/lane hardened such that visitors can park beyond the lane gate, we will be ready for larger groups. Other projects in 2019 included marking the property boundary, picking up trash, cutting saplings and trees on and along the drives, fencing an area above the cave, installing the emergency information sign, improving the existing gate, cutting and treating invasive species and roping off the trail access. Over a five-month period in 2019 there were 10 improvement visits. Several other visits were made to check the access situation. Volunteers in 2019 include Bambi Dunlap, Keith Dunlap, Beth and Ray Sheldon, Richard Snyder, Bruce Trotter, and Jerry Walker. Upcoming projects will improve the road and interior lane accesses, clean trash out of several sinkholes, installing a new lane gate, developing a recreational area, and con-

tinue removing the invasive foliage. Hopefully this summer, the preserve will be fully functional.

Shiloh Patron Report (James Adams)

The Indiana Karst Conservancy has continued, with the permission of the landowner, to permit up to six recreational trips per calendar year into Shiloh Cave for the general caving community. Each trip is limited to ten participants with three vehicles on the property. During 2019, all six of these trips were taken into the cave.

The six trips in 2019 allowed 46 cavers to visit Shiloh Cave. Most trips were not filled to capacity.

Suicide Cave Patron Report (Kevin Smith)

2019 had five documented trips totaling 28 cavers: two groups representing the Bloomington Indiana Grotto (BIG), and one trip each by the Central Indiana Grotto (CIG), Eastern Indiana Grotto (EIG), and the Windy City Grotto (WCG). Unfortunately there was one trip arranged by Robert Plumb who did not follow through on his agreement to provide waivers or return the key after the trip. The cave gate lock was promptly replaced after his trip. The August trip led by Jonathan Annonson reported difficulty in operating the lock, but was able to gain access to the cave. Upon return of the key, it was found to be bent. On the following trip in September, which was led by myself and Laura Demarest, we found the lock to be extremely difficult to work as it was full of mud. The lock was replaced during that trip. Both times the gate lock was replaced, the new key was deposited in the emergency key lockbox near the cave. The emergency lockbox was easily opened (but full of ants!).

The IKC is very appreciative of the stewardship opportunity and being able to provide access to this wonderful cave to responsible cavers. Thank you Charlie and Will Biel, stewards of the Arrow Hill Ranch Forestry & Wildlife Sanctuary, for another great year!

Orangeville Rise Report (Carla Striegel-Winner)

Total volunteer time for 2019: 25 hours

Total trash removed: 23 pounds

Total garlic mustard pulled/disposed: 30 pounds

This was my first full year as Property Manager, so I familiarized myself with all the documents relating to the Rise property and researched neighboring property owners. I corresponded with IDNR Nature Preserve staff, IKC officers and Board, Orange County SWCD, and Lost River Watershed. I

Continued on page 23...

INDIANA KARST CONSERVANCY TREASURY REPORT

Income/Expense Statement From January 1, 2020 to March 31, 2020

INCOME:

Dues Apportionment and Residuals	885.00	
Donations - General	1,566.50	
Donations - Land Acquisition Fund	8,517.00	
Investment Earnings	<u>1,115.59</u>	
		\$12,084.09

EXPENSES:

IKC Update (printing, production, mailing)	118.25	
Education / Outreach	0.00	
Stewardship/Conservation	198.21	
Business (PayPal/NFG fees, PO box rental)	302.85	
Transfers to/from restricted funds/other adjustments	<u>8,886.32</u>	
		(\$9,505.63)

NET OPERATING EXCESS (DEFICIT) THIS PERIOD: \$2,578.46

Balance Sheet March 31, 2020

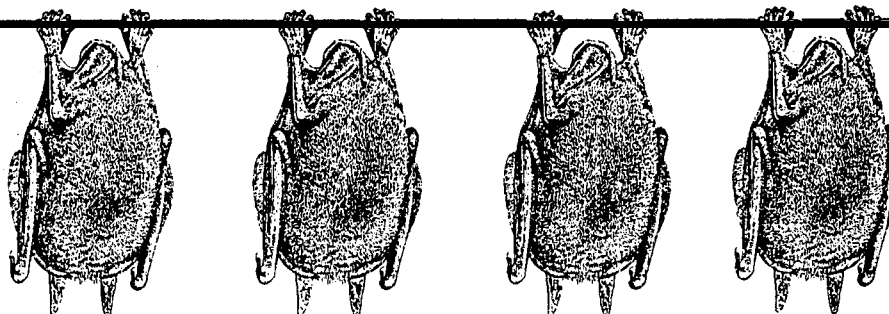
ASSETS:

Cash in Checking / Saving / CDs / Brokerage acc'ts	239,397.50	
Robinson Ladder Cave Preserve (73.48 acres)	162,000.00	
Wayne Cave Preserve (57.59 acres)	188,000.00	
Shawnee Karst Preserve (50.31 acres)	105,000.00	
Buddha Karst Nature Preserve (36.84 acres)	29,000.00	
Sullivan Cave Preserve (28.00 acres)	72,000.00	
Lowry Karst Preserve (6.66 acres)	33,000.00	
Orangeville Rise Nature Preserve (3.01 acres)	7,000.00	
Indian Creek Conservation Easement (valued at \$1/acre)	<u>13.16</u>	
		<u>\$835,410.66</u>

FUNDS & OPERATING EXCESS:

Land Acquisition Restricted Fund	96,447.42	
Deferred Dues Restricted Fund (226 members)	5,175.00	
Stewardship Endowment Restricted Fund	73,864.93	
Previous General Fund (total)	61,344.85	
Net Excess (Deficit) This Period	<u>2,578.46</u>	
Current General Fund (unrestricted)	63,923.31	
Current General Fund (committed)	1,550.00	
Real estate liquidity (basis value excluding CE)	<u>596,000.00</u>	

Total Liabilities & Operating Excess \$835,410.66



IKC ANNUAL BUSINESS MEETING MINUTES

March 21, 2020 10:30 AM EST, Monroe County Public Library, Room 2A

The venue for this meeting was cancelled under the coronavirus precaution orders. The Board discussed alternative options (outdoor venue with social distancing or a virtual meeting), but it was decided to just cancel the meeting and that the election ballot tallying could proceed remotely and that other agenda items could either be postponed to the June meeting or handled by e-mail.

The annual Cave Patrons and Property Manager reports typically presented at the March meeting are published in this issue of the *IKC Update* starting on page 16. The election results, counted by Election Tellers Danyele Green and Goni Iskali, can be found on page 6.

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helped the IU Center for Rural Engagement with their request to do water monitoring on site and once approved, corresponded with their water monitoring staff to receive activity reports and share those with the board.

I made five physical visits to the Rise, completing an annual boundary walk, and initiated a more complete invasive plant ID. I treated some invasive plants in the winter and spring. I pulled up and removed 30 pounds of invasive garlic mustard, picked up 23 pounds of roadside trash, and inter-

acted with visitors (including a very friendly pit bull and other dogs and cats that wonder through). Additionally, I kept the grassy pull off, around the plaque, and along the guardrail weed-eaten.

Plans for 2020 include continuing with invasive treatment and other general maintenance, holding garlic mustard pulls, continuing open communication with agencies and organizations, and perhaps creating more partnerships.

Indian Creek CE Report (Jamie Winner)

Properties covered by the conservation easement were inspected by Jamie Winner and Keith Dunlap on June 21st, 2019. Inspection reports were mailed to applicable landowners in early July.

Most of the lots met the easement requirements. There continued to be a few invasive species in lot #10 that could be treated during a future visit. Another PVC T-post cover was found missing and replaced in lot #11. Some excessive mowing was also noted in the easement area of lot #11 and communicated to the owner.



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.

