

# 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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Cover: Sherri (Smith) Hicks in Devil's Drapery Well (Harrison County) Photo by Chuck Perkins, 2003.



# ANNUAL BUSINESS MEETING REMINDER

# SATURDAY, March 18th, 10:30 AM EST ELLETTSVILLE, INDIANA MONROE COUNTY PUBLIC LIBRARY (ELLETTSVILLE BRANCH)

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

Preliminary Agenda: Elections; Bylaw amendment proposals; Cave Patrons/Property Managers annual reports; Upcoming projects at various other preserves; Chestnut tree re-planting at Robinson Ladder Cave Preserve; Sauerkraut Cave gating project; Indiana Cave Symposium; DNR cave access update; Financial reports; Land acquisition activities; and more....

Meeting address: 600 W Temperance St, Ellettsville, IN 47429 (812) 876-1272.

Directions: The Ellettsville Branch is located at the intersection of Highway 46 (Temperance Street) and Sale Street. To reach it from Bloomington, travel west on Highway 46 until you reach the stoplight at Sale Street. Turn left. The library and parking will be 1 1/2 blocks on your right.

## **ACTIVITIES CALENDAR**

Mar 18 – IKC Annual Business meeting (see above)

Apr 22 – Tree Re-planting at Robinson Ladder Cave Preserve (see page 5)

Apr 29 – Indiana Cave Symposium (see page 6)

Jun ?? - IKC Quarterly Board Meeting (date & location to be determined)

Aug 4-6 – Cave Capers – Harrison County Fairgrounds

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

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

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### RAMBLINGS FROM THE PRESIDENT...

It rained long and hard that evening. When I saw a posting on Facebook from Sarah Blevin's family concerned about her being in Binkley, I cringed and checked the weather radar, where I saw a line of rain that extended all the way to Texas, streaming northward across Indiana. The next morning I heard from Mike Gower that he was headed for the cave entrance to await his son Seth's return to the surface. After talking to Gary Roberson, I threw our caving gear and wetsuits in the car, and Salisa and I sped off to meet Mike and Seth's fiancé Kyla at the entrance. I hoped they had someone a lot younger than me to actually go in the cave, but thought it better to come prepared than not. After a short chat with property owner Doug Henrickson, we drove back to the entrance for one of the longer days of my life.

I'd made this drive dozens of times in the past. Back in the 1990s, Tom Sollman and I had

entered Binkley once or twice a month for over a year during our biological inventory of the cave. I'd been back many times in the interim, and among others, I'd taken Seth on his first trip into Binkley. After going on a cave trip that Salisa and I led for our Borden boy scout group, Seth started accompanying us frequently on our biology trips when we were working in local

area caves. Eventually I introduced him to Dave Everton, who folded him into the Indiana Speleological Survey (ISS) and Binkley caving. Now Seth was someplace three miles from the entrance, the cave was in full flood, and the group of seven cavers led by another friend, Rand Heazlitt, was long overdue. If I remember correctly another of the members of the crew, Sarah, had come along on one of the trips with Seth and myself, for her first trip into Binkley. It being a small world, I'd met Sarah in a French class we were both taking at Indiana University Southeast. She'd been working at Marengo Cave at the time, but had since changed jobs and now worked in the commercial section of Binkley at Indiana Caverns. Over the course of that day, I wondered if I'd done a good thing introducing both Seth and Sarah to Binkley.

Everyone knows the outcome of this story... after long, tense hours that day in December, the caver rescue team located the group and got them out of the cave. Perhaps worse for wear, but alive and well. Throughout the day, as the sky spit flurries, I had watched the crowd in the pasture growing. The local emergency response team brought in a trailer and ambulances were parked at the back of the pasture. Conservation officers, American Red Cross, and various other officials were gathering. As the day turned into evening, light towers were erected that gave the Binkley entrance sink that I'd visited so many times in the past an ethereal appearance, with long deep shadows thrown by the trees in the sinkhole. The infrastructure sprouting in this pasture was becoming impressive.

I'm wondering how all of this would play out if it had happened in one of the IKC-owned

caves. Our shortest cave, Robinson Ladder, has the largest open areas on the surface where the ambulances and other vehicles could be parked. Our longer caves – Sullivan, Upper Twin, and Wayne – have small parking areas enclosed by forests that don't leave a lot to negotiate for additional parking area. I shudder to think of trying to find a place to put all these vehicles and

**>>** 

have small parking areas enclosed by forests that don't leave a lot to negotiate for additional parking area. I shudder to think of trying to find a place to put all these vehicles and people in the postage stamp parking area at Buddha Karst Preserve, where the IKC has planted more than 10,000 trees over the years to re-forest the pasture that was present when we bought the property. There's room to park half a dozen cars

in the parking area that doesn't even have gravel –

it's just a grassy spot immediately inside the prop-

erty gate, completely enclosed by the forest that

our IKC members and volunteers planted.

There were several dozen people gathered in the field around the Binkley entrance sink and most of them had good reasons to be there: cavers actively involved in the rescue, family members anxiously waiting for news, personnel from various organizations staging the rescue and support persons working to provide food, light, medical care and other logistical support. Who are all these people? How does one contact them?

One of the things to consider after a situation like this is how to learn from it. Anyone who owns a cave has to recognize the possibility of being confronted with an emergency like this, or of some sort: people trapped by flood waters, lost in the cave, injured, or even a death. Responding to

any of these events effectively would be greatly facilitated by having plans in place before there's a problem. At upcoming IKC meetings we'll be discussing how to be better prepared for an emergency occurring in one of our caves.

Jerry Lewis

## **NEWS BRIEFS...**

- □ Last year in April, the IKC partnered with The American Chestnut Foundation to plant 200+ trees at our Robinson Ladder Cave Preserve in Crawford County. In September, a morality survey was taken that documented approximately 70 of those trees did not survive. On April 22nd, starting a 11 AM EDT, we plan to replace the dead trees with new seedlings. It will not take a lot of volunteers to complete the re-planting task, but it is a good excuse to visit the property and we likely will have some other stewardship activities (e.g., grapevine cutting) to accomplish. For more information, contact Property Manager John Benton (contact info on page 2).
- ☐ Most of the IKC's basic operating expenses and obligations (newsletter, liability insurance, property taxes, routine stewardship activities) are covered by the IKC membership dues. However, we are greatly appreciative of additional donations to supplement and support the many other projects that the IKC initiate. During 2016, fifty-two individuals and six organizations made general donations beyond their dues to-



taling \$10,430. Donors include John Ahlberg, Miriam Ash, John Benton, Ted Bice, Virgil Brack, Jeremy Brisch, Carl Brown, George Brutchen, Larry Bundy, Jeff Cody, Barb Coons, John Dimit, Keith Dunlap, Dave Everton, Jeff Farr, Peri Frantz, Rick Gikas, Barbara Hanka, Dave Haun, Horton III Hobbs, Tem Hornaday, Johnathan Knott, Paul Kortepeter, Glenn Kotnik, David Lasser, Jerry & Salisa Lewis, Rich Lunseth, Jon Miller, Mark Milne, Bill Morrow, Carl & Louie Nelson, Ernie & Jacqueline Payne, Gene & Jennifer Pelter, Kevin Rasmus, Tom Rea, Kelle Reynolds, Wesley Roeder, Ralph Sawyer, Bob & Phyllis Sergesketter, Susan Strickland, Bruce Trotter, Aaron Valandra, Bob Vandeventer, Dick & Sue Vernier, William Wayne, Mark Webb, Norbert Welch, Gary Whittaker, Carla & Jamie Winner, Chris Wadsworth, Scott Worpell, Bluespring Caverns, Hulman Memorial Way Foundation, The Cleveland Grotto, Greater Cincinnati Grotto, Near Normal Grotto, and Northern Indiana Grotto. The IKC would particularly like to recognize Ray & Gale Beach for their particularly generous year-end donation.

- □ The IKC also maintains a Cave Acquisition restricted fund which is used to accumulate resources for our next property acquisition. During 2016, twenty-two individuals and two organizations have contributed \$2,913 to the fund. Donors include Miriam Ash, Laura Demarest, Keith Dunlap, Scott Fee, Peri Frantz, Al Goodcase, Barabra Hanka, Marlin Heinlein, Hank & Ellen Huffman, Jon Miller, Ernie & Jacqueline Payne, Kelle Reynolds, Gary Roberson, Matt Selig, John & Brenda Shultheis, Susan Strickland, Aaron Vanlandra, Mark Webb, Gary Whittaker, Jamie & Carla Winner, Shelly Wolf, Scott Worpell, Indiana Caverns, and Servaas Labs.
- ☐ The IKC has gained five new member in the last quarter. Welcome David Frederick, Christopher Frosch, Michele Dutcher, Vicky Haralovich, and the Greater Cincinnati Grotto. The IKC membership currently stands at 192.

## 2017 INDIANA CAVE SYMPOSIUM PREVIEW

by Keith Dunlap

The 25th annual Indiana Cave Symposium, co-sponsored by the Indiana Karst Conservancy and Indiana Cave Survey, will be held on Saturday, April 29, at the Handy Meeting Barn (2827 E Moffett Lane) in Bloomington, Indiana. The customary free cookout (burgers, brats, and other assorted meats and non-meat offerings) and pitchin side dishes (please bring a covered dish or dessert to share) will start at 5 PM EDT. Presentations will begin at

6:30. The tentative presentation titles and presenters (in no particular order) include:

- Chris Bell Recent cave discoveries and re-discoveries in Harrison/Crawford counties.
- Jerry Lewis Indiana Karst Conservancy highlights of the past 25 years
- Bruce Trotter Indiana Cave Survey archive highlights of the past 25 years
- Rand Heazlitt Binkley Cave updates and highlights in the past year.
- Dave Black A photographic history of the Indiana Cave Symposium.
- John Benton A cave history-related presentation
- Dave Everton Highlights from past Symposia, significant accomplishments, and more...

For more information about the Symposium, contact Dave Everton (deverton@indiana.edu or evening phone 812-824-4380) or visit the Indiana Cave Survey website (www.caves.org/survey/ics).



# DR LEWIS GOES TO WASHINGTON, PART 2

by Jerry Lewis

Most people visit the National Museum of Natural History in Washington, DC, to see the Hope Diamond or Dinosaur Hall. For every fossil, gem, or insect on display, there are millions of other specimens guarded and maintained at the Smithsonian Museum Support Center (MSC) in Suitland, Maryland. In February 2016, I had the privilege of working at the MSC as a Smithsonian Fellow. My project there involved doing a "revision" of the isopod genus Lirceus, a group of about sixteen species that occur mostly in springs, although two Virginia species are troglobitic. There are three species that occur in Indiana, with the most common being Lirceus fontinalis. This species is very common in springs in southern Indiana, so anyone who has looked under rocks in a spring or cave entrance has a good chance of seeing one. They're brown in color and have eyes, not to be confused with the whitish troglobitic isopods that are common in Indiana caves.

Salisa and I returned to the MSC last December to look more carefully at specimens of *Lirceus* from Virginia and Tennessee. During my previous visit, I had discovered there was no difference in the anatomy of the genitalia (the method used to tell apart many species of insects and crustaceans) of the spring-dwelling



Continued on page 18...

### A LOOK BACK AT INDIANA KARST

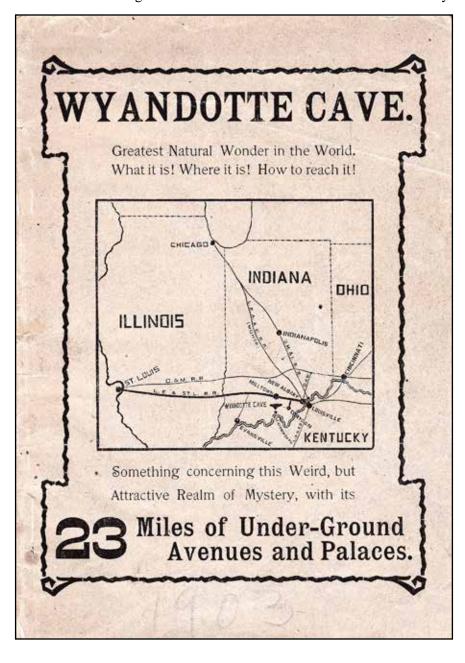
by John M Benton

In 1903, the owners of Wyandotte Cave published a 48 page booklet (cover below) to advertise the cave — What it is, where it is, and how to reach it. Most of the text of the pamphlet is from the geological reports of E.T. Cox, Professor John Collett, and Dr. G.M. Levette that were published in 1879. This booklet was revised over the years, and I have seen several editions of the book, all varying in some degree.

What follows on the next two pages are several ads that appeared in the cave publication. A lot different than today, as 1903 transportation was by train, steamboat, stagecoach, hack, or horse. The automobile would soon be taking over. Other

ads detail places to stay, where to have meals, buy liquor, wine and cigars, or where to board your horse. There is also an ad for Lily White Sulphur Springs Co. in nearby Sulphur, Indiana, which was a resort, but never as famous as French Lick or West Baden Springs in Orange County.

Even in 1903, Wyandotte Cave was touting 23 miles of cave passages. One ad, is for lantern slides or stereo-views from Ben Hains, cave photographer. Hains was a noted photographer from New Albany, Indiana, who also sold cave pictures from Mammoth Cave in Kentucky, as well as many other commercial caves. Hains signature can be found towards the end of the South Branch in Wyandotte Cave.



# WYADDOCCE CAVE,

Pronounced by eminent scientists and noted writers of wide experience and extensive travel to be the

## **Greatest Natural Attraction**

OF ITS KIND

## IN THE WORLD.

Gompiled from Reports of former State Geologist, Hon. E. T. Gox, assisted by Prof. John Gollett and Dr. G.M. Levette, published in 1879; and from reliable information secured from other sources.

PUBLIC PRESS, PRINTERS AND BINDERS, NEW ALBANY, IND., 1960. one Principal

# Ralph & Wiseman hid: ~THE~

Kintner House,

The Leading Hotel of the City.

G. W. SHUCK & CO., Props.

CORYDON, IND.

Special Attention Given To Commercial Men.

RATES: \$2.00.

First-class Livery in Connection with Hotel.

Driving done in this and adjoining counties. Special attention given to excursions to the cave.

# 对国相 国人切的 冠0公司了。

NELSON STREET.

LEAVENWORTH.

- INDIANA.

MRS. M. E. HAWN, Proprietress.

# ACCOMMODATIONS FIRST-CLASS.

HEADQUARTERS FOR CAVE PARTIES.

# T. E. LONE'S LIVERY & FEED STABLE.

Horses Cared for by the day or week. SPECIAL RATES TO WYANDOTTE CAVE. Corydon, Indiana.

LEAVENWORTH IND.

Share of the patronage of parties visiting Wyandotte Cave and White Sulphur Springs is respectfully solicited.

Near the Wharfboat. Will Meet Boats. ALEX. PERKINS, Proprietor.

# Lily-White Sulphur Springs Co.,

SULPHUR, INDIANA.

W. W. HITE, President, Louisville, Ky. J. C. HOSKINS, Sec. & Mgr., Sulphur, Ind.

AMUSEMENTS.

Time will not hang heavy if you take advantage of the many formeted entertainment to anti-out all the many formeted entertainment to anti-out all the morquet, driving or sability corones, good hunting and fishing affect imple ways, old fashion and stonders, of cosing the hours with pleasure and profit.

THIS SPEING

FOUNDRD IN 18ct,

Inst been recently acquired by progressive newconsers, with anopic capital to develop this valuable property, giving it an income season of the modern improvements requisite to an all-the-year-round sole of the first rises. The new features which have been installed will insure our eves income from the first rises. The new features which have been installed will insure our eves income from the first rises. The new features which have been installed will insure our eves income rises in the property of the first rises.

UR DULIPMENT.

The new boiet is fully empipeed with all the recent appliances for the convenience of 250 gasets. Roomes may be had single or easier, bothe, tellephones and call fadle are all costs, long distances telephone, news stand, electric lights, telephones and call fadle are all costs piets and at the coststant disposal of the grayers, converted from our own grades, and the suremaker of the search of the suremaker of the state of the search of the search of the suremaker of

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# Wyandotte Gave Route.

LOUISVILLE. NEW ALBANY & CORYDON RAILROAD.

6 TRAINS DAILY 6

BETWEEN

Corydon and Corydon Junction,

Making close connection with Trains East and West of the

Southern Railway Company.

Direct Route to Wyandotte Cave Va. Corydon

Delightful drive of only 8 miles with beautiful and unsurpassed scenery along route.

> G. W. BRIFFETT, Gen. Pass. Agent, Corydon Indiana

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MILLTOWN, INDIANA.

I can take care of and furnish meals for a limited number of guests enroute to Wyandotte Cave.

Mrs. M. B. Odle.

Milltown, Ind.



## H H H H H H H H H H

HE UNDERSIGNED, Manager of Wyandotte Cave and publisher of this book, can and does unhesitatingly recommend each and every advertiser herein represented as thoroughly reliable and straightforward and worthy of the confidence and patronage of the people.

H. W. ROTHROCK, Manager Wyandotte Cave.

H H H H H H H H H H

# ST. CHARLES HOTEL.

Mrs. E. A. Shaney, Proprietress and Manager.

Cor. Market and Bank Sts., New Albany, Ind.

Remodeled, Steam Heated, Newly Furnished: Rates \$2.00 and \$2.50 per day.

# HACK LINE TO WYANDOTTE CAVE

From Leavenworth and from Corydon, Ind.

Leaves Leavenworth 6 o'clock A. M., Tuesdays, Thursdays and Saturdays. Leaves Corydon at 1 o'clock P. M., on Tuesdays, Thursdays and Saturdays.

HART CARVER,

Leavenworth, Ind.

CARRIER.

## THE ONLY VIEWS

Ever taken in the Cave are those made by

## BEN. HAINS,

WHICH are pronounced by The SCHATTER ARRIVERS "The best spec

Ben. Hains, Cave Photographer.

Lantern Slides a Specialty. NEW ALBANY, IND.

Leading Liberyman.

First-class Turnouts.

# Chester Elliott,

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Special attention given to cave parties, White Sulphur Spring visitors and commercial men.

WINER THE WINER

# STAR SALOON.

Chester Elliott, Proprietor.

LEAVENWORTH, IND.

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Wines, Liquors and Cigars. &

## 2016 WINTER HIBERNACULA SURVEY IN INDIANA

by Keith Dunlap

Traditionally, the Indiana bat hibernacula surveys were conducted biennially in the "odd numbered" winters, so 2016 would be an "off year". However, due to the invasion of White-nose Syndrome (WNS) into Indiana, and the added costs it now takes to conduct these counts, the "odd-year" surveys have been scaled back such that only the largest "Tier 1" hibernacula are visited. The 2015 results, conducted by Virgil Brack/ESI were reported in the December 2015 *IKC Update*.

To fill in the data gaps, and to further assess the impact of WNS, in January/February 2016, Tim Shier and Cassie Hudson (both DNR) and others (including Tom Sollman and Keith Dunlap) visited fifteen "Tier 2" sites in nine counties. This article will summarize those visits, and as in the past, present the census numbers from a historical perspective.

A total of 1685 bats were counted in the fifteen caves visited. Most numerous were 1337 Indiana bats (*Myotis sodalis*). Also observed were 215 little brown bats (*Myotis lucifugus*), 75 big brown bats (*Eptesicus fuscus*), and 58 tri-colored bats (*Perimyotis subflavus*).

In Crawford County, the DNR-managed Saltpeter Cave near Wyandotte Cave had been showing a gradual upwards trend, peaking at 1399 bats in 2005. However, since 2007, the

numbers of all species in the cave have dropped significantly. In 2016 there were only 229 bats counted, a drop of 84% in eleven years with the little browns showing the greatest decline.

Just over the ridge from Saltpeter is Wildcat Cave, also DNR-managed. The bats in this cave have been dominated by little browns with some Indianas and tri-coloreds. Over the prior eleven pre-WNS visits dating back to 1982, the population has averaged 440 bats. In 2016, only 32 bats were found, a drop of 92%.

Also in Crawford County is Robinson Ladder Cave, owned by the IKC. Prior to WNS, the cave

hosted an average of 388 bats over nine visits with a significant number being *sodalis*. In 2012, the population had dropped by about 10% and many of the bats showed signs of being infected with WNS. In 2014, the bat population completely collapsed with only a single big brown observed. In 2016, six Indiana bats, 1 big brown, and 3 pips were found. Hopefully this is the start of a long recovery.

Moving to Harrison County, privately-owned Swinney Cave has been showing a mostly upward trend since first visited in 1997. The 2016 visit found 457 Indiana bat, the largest number in the past ten visits. This is very promising.

Moving to Washington County, privately-owned Panther-Neyman Cave recorded 696 sodalis (a 60% increase from 2014), the largest number for that species in eleven visits. Con-

versely, the number of little browns found there were only 85, the smallest in eleven visits. The other species were also near or at their lowest numbers since 1995.

Gypsy Bill Allen Cave in Martin County is owned by the Hoosier National Forest. The cave was first censused in 2001 and has had declining *myotis* numbers since 2005. In 2016, only 16 bats were found, down 95% from the maximum in 2003.

Moving to eastern Greene County, privately-owned Sexton

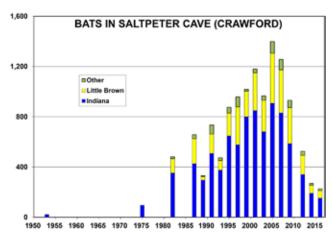
Spring has had a small but fairly stable pre-WNS population averaging 90 Indiana bats since censusing began in 1993. The number of *sodalis* found in 2016 was zero. Likewise the number of little browns which previously averaged 50 bats was down to only 2.

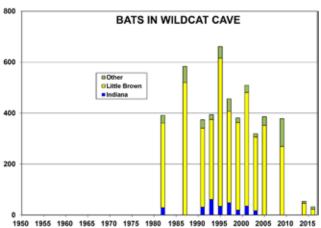
Privately-owned Saltpeter Cave in Monroe County has had a decreasing population since 1993. Most of the bats are located in a room off the entrance crawl that requires vertical gear to access. The room partially floods on occasion which may or may not be part of the problem. The greatest number of bats counted has been 357. This

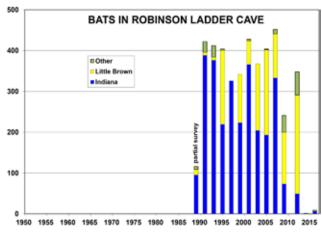


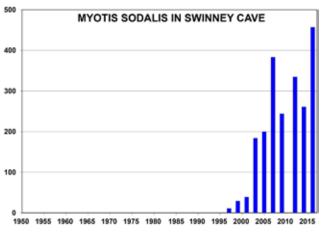
A white-haired bat in Saltpeter Cave (Monroe County). This is likely the same bat, in the same location, observed in January 2014.

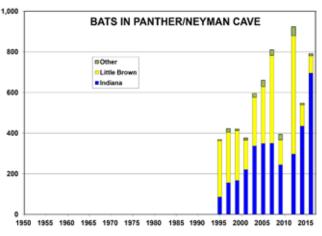
Photo by Keith Dunlap

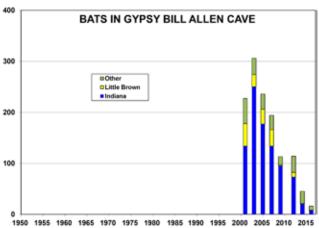


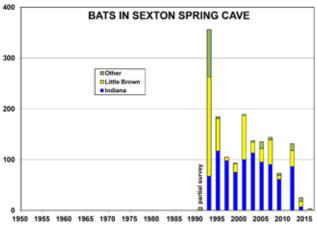


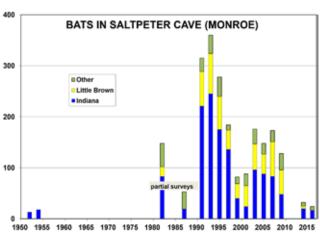


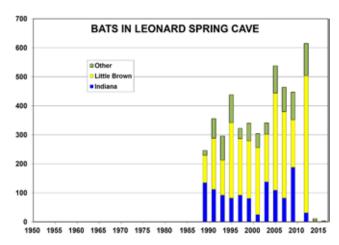


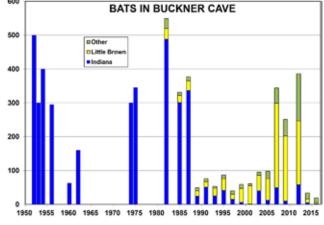












year only 24 bats were found (a decline of 93%), again mostly in the side room. Of interest was the observation of a white-haired *sodalis*. This was very likely the same bat found in 2014 in this cave in almost exactly the same location, supporting the notion that Indiana bats habitually use the same cave and even the same location within a cave.

Nearby is Leonard Springs Cave, also privately owned. Over the past twelve pre-WNS surveys, the bat population has been gradually increasing. In 2012, 615 bats, mostly little browns were counted. There were many bats observed with WNS in 2012, so it was no surprise that the 2014 and 2016 counts would be down, but we did not anticipate the extent of the decreases. In 2014, we counted only 11 bats. In 2016 the number was only three bats (a 99.5% drop).

The last of the long-monitored caves is Buckner Cave, owned by the NSS. From 1952 to 1987, the entrance room of the cave was censused eleven times with a population of around 300 sodalis (the early counts did not document other species). After a winter rescue in 1989, the population dropped significantly, and stayed below 100 bats until 2007 when the population unexplainably tripled. The largest count in recent history was 386 bats in 2012. During that visit, there were numerous observations of WNS. In 2014, 34 bats were counted. In 2016, only 19 bats were observed, a 95% decrease over the past four years.

Five other hibernacula were visited in 2016, although long-term data is incomplete. Four visits were made to the Historic entrance area of Binkley Cave (Harrison County) between 1997 and 2012, with 588 bats found on the last count. Considerable WNS was observed in 2012. In 2016, only 22 bats were found, down 96%. Ashcraft Cave (Greene Co) has been visited five times prior to 2014 with the largest count of 220 bats in

1995, although more recent visits averaged only 40 bats. In 2016, only 4 bats were observed. In Sullivan Cave (Lawrence County), owned by the IKC, 1027 bats were counted in 2012, but in 2014, we only found 64 bats, and in 2016 that number dropped to 34. In Brough's Tunnel in Clifty Falls State Park, 203 bats were counted in 2012, but only 36 bats were found in 2016. Interestingly, 33 of the bats were big browns, which might still be the largest winter congregation of this species in Indiana. Finally, Copperhead Cave (actually a mine) in Vermillion County was found to average around 200 bats (little browns and tri-coloreds) for five visits between 2009 and 2013, but the 2016, zero bats were found there.

Of the fifteen hibernacula visited, only Swinney Cave and Panther-Neyman Cave are showing any real positive progress with most of the others having population crashes. There were a total of 5418 bats counted in 2012 verses 1795 bats in 2014 and 1685 bats in 2016. By species compared to 2012, little brown bats saw a 72% decrease, tri-coloreds bat experienced a 92% decrease, Indiana bats actually saw a 5% increase, and big browns saw a 7% increase. Qualitatively, the observed population decreases were consistent with WNS decreases elsewhere; that being, little browns and tri-colored bats are impacted the most, while Indiana bats are hurt comparatively less (or not at all in a few larger caves), and big brown bats seem pretty much immune to the disease.

Anecdotal observations in 2014 and 2016 both noted few bats with WNS symptoms such as visible fungus on the muzzle and wings. This might mean that the surviving bats have a higher tolerance or immunity to the disease, or it might just be that there are fewer bats, such that there are less number of bats to observe the symptom.

## 2017 PROPOSED IKC BYLAW CHANGES

by Keith Dunlap

**Background:** Over the past several election cycles, the IKC President, Jerry Lewis, had several questions on the elections procedures. In reading our Bylaws, there were several areas that appeared to be ambiguous with Board members having differing opinions on the interpretation on the language. Further, other parts of the election process were considered overly complex without any real benefit. As a result, at the March 2016 Annual Business meeting, the President appointed a five-person *ad hoc* committee to review the election procedures, as well as the reminder of the Bylaws (last amended in 2004), to present proposed improvements. The committee formulated three proposed amendment that were presented at the December IKC E-Board meeting, and will be voted on by the membership at the March 18, 2017 Annual Business meeting.

Proposal #1: Remove voting privileges of Organizational Members. While this proposal sounds "harsh", the proposed change is mostly from a practical aspect. The IKC only has a handful of organizational members (mostly grottos and commercial caves) and from past observations, few if any of these organizations actually ever vote (the exception might be the Evansville Metro Grotto). The greatest problem with allowing an Organizational Members to vote is the inability to verify if their vote was properly sanctioned by the organization, or was simply cast by whomever opened the mail. Further, voting "in person" at a meeting also raised the question if the representative claiming to represent the organization was actually authorized to vote on behalf of the organization. Finally, our Articles of Incorporation define members as "natural persons", so granting organizations voting privileges would seem to be in conflict. The simplest solution to all of these issues is to remove Organizational Membership voting privilege.

#### **PROPOSED CHANGES**

#### ARTICLE III: MEMBERSHIP

#### 3.1.2 Organizational Membership

Organizational members are organizations whose principal goals and objectives are consistent with the goals and objectives of the Conservancy and whose governing organizations wish to support the Conservancy and receive the benefits of membership. Organizational Members shall not have voting privileges.

#### **EXISTING LANGUAGE**

#### ARTICLE III: MEMBERSHIP

#### 3.1.2 Organizational Membership

Organizational members are organizations whose principal goals and objectives are consistent with the goals and objectives of the Conservancy and whose governing organizations wish to support the Conservancy and receive the benefits of membership. Organizational members shall have election-only voting privileges consisting of one vote per organization.

**Proposal #2:** Clarify/simplify the election process. Basically the entire Article VI was revised and reorganized to hopefully remove ambiguities in the current language. The proposal also removes the options for write-in candidates and nominations from the floor. This was mostly done from a practical standpoint, as it is believed that no such candidate in the past 29 years of voting has ever received more than a few votes. Removing these options also minimizes the likelihood of a "hostile takeover" attempt by a group wanting to gain control of the organization with the intent to liquidate our properties.

#### **PROPOSED CHANGES**

#### **ARTICLE III: ELECTIONS**

Election to the Board shall be by appropriately secured balloting (mailed or electronic). Only individual members as described in §3.1.1 shall participate in the election process.

No less than 90 days prior to the election portion of the Annual Business meeting, an ad hoc Nominating Committee shall be appointed by the Presi-

### **EXISTING LANGUAGE**

#### **ARTICLE III: ELECTIONS**

Election to the Board shall be by ballot. The Board shall select and approve a list of candidates and a ballot shall be prepared and distributed at least thirty (30) days in advance of the Annual Business Meeting. No nominee's name may be included on the ballot without his/her express acceptance of nomination to a specific position on the Board. Final nominations and election of Board members shall be the first or-

dent. The committee shall consist of one or more individual members, preferably members not running for office. The committee shall assemble a list of willing and qualified candidates for the open positions by soliciting the entire membership and recruiting as needed to find the best candidates. No nominee's name may be included on the list without his/her express acceptance of nomination to a specific position.

The list of candidates shall then be presented to the Board at least 45 days prior to the Annual Business meeting for review and final approval. Election ballots will then be distributed to all members at least 30 days in advance of the Annual Business meeting. No "write-in" candidates or nominations from the floor during the Annual Business meeting will be recognized.

The election ballots shall be accepted up to the beginning of the Annual Business meeting. Proxy votes will not be recognized.

The appointed Election Teller shall tally the ballots and summarize the results for the President to announce prior to the end of the meeting.

For the Officer positions, those candidates receiving the most votes for the respective positions will be elected. For the Directors positions, candidates receiving the most votes will be assigned, in order, to those open positions that have the longest terms.

The newly-elected Board positions will be seated on the first day of the month following the election.

#### 6.1 Election Tie

In the event of a tie, those individual members in attendance at the meeting shall conduct additional votes by paper ballot as necessary to break the tie. The following rules shall apply:

First-round ballots will not be counted.

In the election of an Officer, when first-place candidates tie, a second vote shall be taken; however, only those candidates who tied on the previous ballot will be eligible to receive votes on a subsequent ballot.

In the election of Directors, a tie within the group receiving the most votes shall be disregarded. However, in the event of a tie for the final Director opening, and/or to properly assign term periods per §4.1.2.2, the tie will be resolved by the same process used for ties in the election of Officers.

#### **6.2 Absentee Ballots**

[Eliminate this entire section, incorporating some of the language into the above sections] der of business of the Annual Business Meeting. The newly-elected Board will be seated on the first day of the month following the election. Individual members must register (sign in) prior to the start of balloting. Members wishing to vote by absentee ballot must return the ballot to the designated Teller prior to the meeting. Organizational members must present written documentation of their authority to vote on behalf of the organization they represent.

Each position shall be filled individually (one ballot per office). Absentee ballots shall be valid for the first vote only. Individuals elected shall be determined by the candidate receiving the most votes and will proceed as follows: President, Secretary, Treasurer, and Directors.

All Director vacancies will be filled on a single ballot with those individuals receiving the most votes being seated, up to the number of Board vacancies. Director candidates receiving the most votes will be assigned, in order, to those open positions that have the longest terms.

#### 6.1 Election Tie

In the event of a tie the following rules shall apply:

In the election of an Officer, when first-place candidates tie, a second vote shall be taken; however, only those candidates who tied on the initial ballot will be eligible to receive votes on the second ballot.

In the election of Directors, a tie within the group receiving the most votes shall be discounted except in the event of the tie occurring for the final position(s) to be filled or for the determination of appropriate term periods (per 4.1.2.2). Additional votes shall be taken as necessary, with only those candidates who tied on the previous ballot eligible to receive votes for the remaining position(s).

#### **6.2** Absentee Ballots

To ensure the integrity of the secret ballot process, absentee ballots shall be assigned a numeric identification code at random prior to distribution through the mail. The Secretary or his/her designee shall maintain a confidential record of this code. At the Annual Business Meeting the designated Teller will advise the Secretary or designee of the code numbers of the absentee ballots received for inclusion in the voting process. The Secretary or designee shall then compare the registration (sign in) list with the absentee ballot codes. Any absentee ballot(s) received from individual(s) in attendance at the meeting will be disallowed. The Secretary or designee shall notify the Teller of any ballot(s) to be disallowed by code number. The Teller shall not be made aware of the identity of the member(s) by code number, nor will the Secretary have reason to see or learn of the individual votes cast by the Teller.

Proposal #3: Clarify the amendment process. Previously the bylaws only indicated proposed changes had to be presented at a Board meeting, but it was not clear if the Board had the discretion to accept or deny them. From a practical standpoint, there needs to be a filter in place to prevent frivolous proposals and abuse of the process.

#### **PROPOSED CHANGES**

#### ARTICLE IX: AMENDMENT OF BYLAWS

Amendments to these Bylaws may be proposed by a member of the Board, or by petition of the lesser of twenty-five (25) individual members of the Conservancy or one-fifth (1/5) of the total voting membership.

The motion/petition to amend the Bylaws must be presented at a regularly scheduled Board meeting and approved by the Board. The specific text of proposed change(s) must then be communicated to the membership in written form at least 30 days prior to final consideration at a meeting as outlined in 4.3.1. Concurrence of not less than two-thirds (2/3) of individual members attending the specified meeting is required for passage of each change. Under the above procedures, only minor changes to the language from that published may be allowed at the time of adoption.

#### EXISTING LANGUAGE

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# REVISED IDNR STRATEGIC FORESTRY PLAN SUGGESTS RE-OPENING CAVES

by Sarah Fentem

The Indiana Department of Natural Resources' newly-revised strategic forestry plan doesn't include any significant changes to the amount of timber cut by the Indiana agency, but does include plans to make forests more accessible to Hoosiers looking to pitch a tent or explore a cave.

DNR Forestry Division Director John Seifert calls the strategic plan a "living document" that's revised even while its original iteration is in effect. While it doesn't contain binding resolutions or legislation, the plan maps out the DNR's direction and priorities for its 13 state forests through 2019.

Seifert says other than logging, one of the most popular requests the DNR fielded was for more recreational opportunities in forests.

"They want bike trails, they want more hiking trails, they want these things and we have to figure out how to have all these constituent groups be happy with the forest management in place," he says.

The revised plan floats the idea of extending trail systems in half a dozen state forests. It also considered selectively opening caves, many of which have been closed because of the deaths of thousands of Indiana bats due to the spread of White-Nose Syndrome.

Seifert says just because the amount of harvesting didn't change doesn't mean the DNR didn't take public comment into account.

"It just depends," he says. "Some people are telling us we should be harvesting more making more opening and some people are telling us we should cut less."

Meanwhile, two bills hoping to regulate state timber sales died before reaching the floor this session.

Reprinted from WBAA.org website, February 11, 2016. You can see the full Strategic Plan here: http://www.in.gov/dnr/forestry/files/fo-State\_ Forest Strategic Plan 2015 2019.pdf

### INDIANA KARST CONSERVANCY TREASURY REPORT

# Income/Expense Statement From October 1, 2016 to December 31, 2016

#### INCOME:

Dues Apportionment and Residuals	698.75
Donations - General	6,499.61
Donations - Land Acquisition Fund	1,800.00
Large Mammal Project	700.00
Interest	291.32

\$9,989.68

#### **EXPENSES**:

IKC Update (printing, production, mailing)	393.19
Education / Outreach	0.00
Stewardship/Conservation	43.50
Business (PO Box rental, donation fees, etc)	71.28
Liability insurance	819.00
Large Mammal Project	355.12
Transfers to/from restricted funds/other adjustments	2,010.57

(\$3,692.66)

NET OPERATING EXCESS (DEFICIT) THIS PERIOD:

\$6,297.02

### Balance Sheet December 31, 2016

#### ASSETS:

Cash in Checking / Saving Accounts / CDs		156,671.86
Robinson Ladder Cave Preserve	(73.48 acres)	162,000.00
Shawnee Karst Preserve	(50.31 acres)	105,000.00
Wayne Cave Preserve (31.85 acres)		85,000.00
Sullivan Cave Preserve	(28.00 acres)	72,000.00
Buddha Karst Nature Preserve	(36.84 acres)	29,000.00
Orangeville Rise Nature Preserve	7,000.00	
Indian Creek Conservation Easement (valued at \$1/acre)		13.16

\$616,685.02

#### **FUNDS & OPERATING EXCESS:**

Land Acquisition Restricted Fund	39,087.95
Deferred Dues Restricted Fund (191 members)	3,281.25
Stewardship Endowment Restricted Fund	56,738.60

Previous General Fund (total)	51,280.20
Net Excess (Deficit) This Period	6,297.02

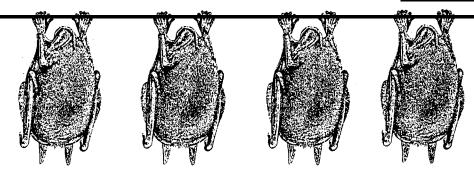
Current General Fund (unrestricted) 57,577.22

Current General Fund (committed) 600.00

Real estate liquidity (basis value) 460,000.00

Total Liabilities & Operating Excess

\$616,685.02



## **IKC QUARTERLY BOARD MEETING MINUTES**

Saturday, December 10, 2016, 2:00 PM EST – Ellettsville, Indiana

#### **Board Members Present:**

Jerry Lewis, President Sue Vernier, Secretary Keith Dunlap, Treasurer Joy Baiz Bruce Bowman

Danyele Green

Dave Haun

**Everett Pulliam** 

Bob Sergesketter

Kevin Smith

Tom Sollman

Carla Striegel-Winner

Bob Vandeventer (present, but proxied by

Salisa Lewis)

Richard Vernier Jamie Winner

#### **Board Members Absent:**

none

The meeting was called to order by President Jerry Lewis at 2 PM EST at the Ellettsville Branch, Monroe County Public Library, Ellettsville, Indiana.

#### **E-Mail Motions**

There were no e-mail motions since the last meeting.

#### **September Meeting Minutes**

The minutes from the September Board meeting were approved as published in the December 2016 IKC Update.

#### Treasurer's Report

Treasurer Keith Dunlap reported cash assets totaling \$147,440.66 and land assets totaling \$460,000.00 for total assets of \$607,440.66. Funds include Stewardship: \$56,528.03; Deferred Dues: \$3,607.50; Land Acquisition: \$37,287.95; and General Fund (unrestricted): \$50,017.18. The IKC membership currently stands at 187 with 11 yet to renew.

### **Invasive at IKC Property**

Jerry Lewis introduced guest Ellen Jacquart who works on invasive species issues for The Nature Conservancy. She gave a brief talk about TNC's number one invasive problem, Japanese stiltgrass. Keith Dunlap had reported during the previous Board meeting on the presence of stiltgrass at the camping/parking area at Sullivan Cave Preserve and wanted advice on the best way to deal with it. It is an annual grass which is easy to kill; however, it spreads quickly and far on the boots of people going from one preserve or trail to another. Ellen emphasized the importance of keeping boots brushed and clean to prevent the spread. Stiltgrass can be eliminated in a one or two-year control effort by controlling the seed source but don't start treatment too early; it seeds very late in summer. Fire management cannot be used if stiltgrass is prevalent, so it's important to control at the initial stage!

#### **Bylaws Revisions**

Keith Dunlap now has the proposed language changes to more clearly interpret "requests to amend the Bylaws" as follows:

The motion/petition to amend the Bylaws must be presented at a regularly scheduled Board meeting and approved by the Board [added]. ...change(s) must then be communicated to the membership in written form at least 30 days [added] prior to final consideration...

The proposed changes will be in the members renewal and elections notice sent out in February. [The mailing will also include the proposed changes to Bylaws on "write-in candidates", "nominations from the floor", and "organizational voting rights" - secretary]. The actual vote on the language of all proposed changes will take place at the March meeting.

#### **Shawnee Karst Preserve**

Keith Dunlap advised that the IKC entrance to Upper Twin Cave is getting bigger and is in stable condition. Tom Sollman has reluctantly agreed to Keith's suggestion that Tom conduct a stream community census at Shawnee Karst/Upper Twin Cave. Danyele Green offered help from her IU Caving Club students, if assistance was needed. Tom suggested that too many people in the cave will affect water turbidity which makes it more difficult to see the fish. Keith made a motion that the board approve of Tom conducting a biological inventory at Shawnee Karst/Upper Twin Cave. Dave Haun seconded. The motion passed with 13 yes votes and one abstention [one director arrived after this vote -secretary].

Jerry Lewis will be looking into putting together a kiosk for Shawnee Karst Preserve, something similar to ones used by USFWS at their wildlife refuges.

Sometime in the near future, Keith and Jerry will download data from the stream-level datalogger.

#### **Buddha Karst Nature Preserve**

Keith Dunlap did the final mowing for the season. He also planted four more hybrid chestnuts (purchased from Rural King).

#### **Wayne Cave Preserve**

Tom Sollman said everything looks great at the preserve. He now has the information to condense for placement on the kiosk in the future. Jerry Lewis called attention to the detailed history of Wayne Cave article by Tom Sollman in the IKC Update.

Keith Dunlap discussed a caver's proposal to place a limestone memorial bench at the entrance to Wayne Cave in memory of a fellow caver. It will be similar to the one at Sullivan Cave. A small "in memory of" plaque will be on the bench. Danyele Green suggested vetting the information to prevent memorializing an inappropriate individual. Tom Rea would prefer that the bench not be placed at the entrance, but some distance away. After more discussion the Board agreed to leave the details of the bench and its placement to the discretion of the property manager.

#### **Robinson Ladder Cave Preserve**

Keith Dunlap advised that our membership in The American Chestnut Foundation is up for renewal. TACF did invest in the trees, fencing, and planting at Robinson Ladder Cave. Keith made the motion to renew at \$40. Everett Pulliam seconded. All were in favor and motion carried.

The deer fencing is doing an incredible job of protecting the trees. Keith has mowed more than once to keep the briars down. He has flagged the dead trees to be replaced later. Purdue indicated they would provide the trees; but if not, Keith will purchase the replacements.

#### **Sullivan Cave Preserve**

Jerry Lewis said that Gavin Bradley will be at Sullivan sometime in the future to conduct the Cave salamander behavioral studies.

Keith Dunlap said that Paul Uglum has asked him to rebuild the latch on the gate. It will require welding, repainting, etc., which Keith will do in the spring.

#### **Education and Outreach Report**

Since the last meeting Jerry Lewis gave talks about cave life to the Corydon Middle School seventh-grade science classes and another presentation at the National Museum of Natural History, Smithsonian Institution.

#### **Land Acquisition Activities**

Keith has received emails from several people on the 88-acre Eller Cave property. A recent buyer is now trying to flip the property at a higher price of \$190,000. The original Realtor listing suggested that it was ide-

al for horses and 4-wheelers, use that is restricted or prohibited in the easements placed on the property by INDOT, USFWS and DNR. Timbering is also prohibited and there are restrictions on entering the cave (controlled by the USFWS). The Realtor and USFWS have been advised of the potential for violations of easement restrictions.

### 2017 Elections and Candidate Solicitations

Keith Dunlap announced that all three officers are up for re-election in 2017, as well as Directors Bruce Bowman, Bob Sergesketter, Bob Vandeventer, and Richard Vernier. Jerry Lewis asked that those interested in continuing to serve on the Board should let him know. There are no term limits. Keith will send out an e-mail reminder to the membership soliciting new candidates.

#### **IDNR Contracted Project for Large Mammal Capture**

Keith Dunlap said that Indiana's Department of Natural Resources wanted to be prepared to manage/capture large mammals (bear) and bought two traps, but one did not work properly and needed to be modified. Keith submitted a successful bid for the project and the IKC is now under contract to the IDNR. Actual material costs will be less than Keith's bid, so the balance will be a donation to the IKC.

#### Items from the Floor

Daneyele Green said there have been seven trips to Truitt Cave since the gating and the owner is happy with the gate.

Dave Haun mentioned that incidents of vandalism continue to be a problem at Buckner Cave, as evidenced by the vandals leaving trails of broken gypsum formations taken from the cave.

#### **Next Meeting**

The next meeting will be March 18, 2017, with location and time to be confirmed. Keith Dunlap will attempt to reserve a room at the Ellettsville library with a preferred time of 10 or 11 AM EDT.

### Adjourn

The meeting was adjourned at 3:31 PM EST.

Respectfully submitted, Sue Vernier, IKC Secretary.

...continued from page 6

species Lirceus hargeri and the troglobitic Lirceus usdagalun. In 1973 when L. usdagalun was described, the anatomy of L. hargeri remained unknown, although both species occurred in Lee County, Virginia. This was problematic since L. usdagalun is a federal endangered species. If it was found to be identical to a common surface

species, the troglobitic species would likely be removed from the endangered species list. Millions of dollars have been spent protecting the endangered species with land acquisitions, so getting to the bottom of the identity of these species is important. The final conclusion will be judged when I complete my evaluation of the morphology, as well as concurrent DNA analysis of specimens from across the range of *L. hargeri*.

### INDIANA'S NATURE PRESERVES CELEBRATES 50TH ANNIVERSARY

by John Bacone, Director, Division of Nature Preserves

The Indiana Legislature passed the Nature Preserves Act in 1967, creating the Division of Nature Preserves. The Division is charged with working with partners to set aside and preserve areas of unusual natural significance for the benefit of present and future generations, to benefit from the scientific, aesthetic, cultural and spiritual values they pos-

sess. Since the Division was established, staff has worked with partners throughout Indiana, to catalogue Indiana's flora, fauna, and natural areas, striving to set up a system of nature preserves that includes examples of all the natural areas and rare species habitat that occur in Indiana. At least one example of almost every type of the 61 natural communities found in Indiana at the time of settlement is included in Indiana's nature preserve system. Ninety percent of the 416 plants considered endangered, threatened, or rare have viable populations in Indiana nature preserves.

Nature Preserves are the most widely and evenly dis-

tributed system of state significant public properties in Indiana. There are nature preserves in 70 of Indiana's 92 counties. As of January 2017, there are 274 dedicated nature preserves, protecting 51,836 acres. A dedicated nature preserve has the highest level of protection of

any land in Indiana, as it is intended to remain in its natural ecological condition in perpetuity. These nature preserves are owned by 46 different entities, including DNR Divisions of Nature Preserves, Forestry, State Parks, and Fish and Wildlife, land trusts, city and county park departments, and colleges and universities.

> The Division of Nature Preserves has had a significant conservation partnership with the Indiana Karst Conservancy for many years. Together, the IKC and Division of Nature Preserves have partnered on the acquisition of the Buddha Karst Nature Preserve, utilizing funding from the Indiana Heritage Trust, which has just been replaced by the President Benjamin Harrison Conservation Trust. The IKC's Orangeville Rise of Lost River is also a dedicated nature preserve, protecting a very significant geologic feature.

During 2017, and in the years to come, I hope readers will visit as many of these spe-

cial places as possible, and enjoy these remnants of the "original Indiana" that have been protected for your enjoyment. We look forward to continuing our partnership with the Indiana Karst Conservancy, protecting more special places as dedicated Indiana nature preserves.

	Lieu	
photo by S	Scott Fee	

INDIANA KARST CONSERVANCY, PO BOX 2401, INDIANAPOLIS, IN 46206-2401			
I would like t	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.		
<u></u>	I would like to volunteer to help. Please contact me.		
NAME	Make checks payable to the Indiana Karst Conservancy, Inc. and mail to the		
ADDRESS _	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 organiza-		
CITY/STATE			
PHONE #			