

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.

EXECUTIVE BOARD

President

Matt Selig (2022) 317-258-9983 MSelig@hotmail.com

Secretary

Laura Demarest (2022) 812-320-5973 LadyLauraDemarest@gmail.com

Treasurer

Keith Dunlap (2022) 317-882-5420 Keith.Dunlap@juno.com

Directors

James Adams (2022) 317-499-5451 JKAdams@aol.com

Jeff Cody (2022) 317-888-9898 CodyJpme@att.net

Scott Frosch (2023) 317-250-9535 Frosch.Apple@gmail.com

Danyele Green (2022) 317-370-7891 DCottrel@iu.edu

Dave Haun (2024) 317-517-0795 DaveHaun@ExploringEarth.com

> Rand Heazlitt (2024) 502-445-9532 RandHeazlitt@gmail.com

> Goni Iskali (2022) BattyCaver85@gmail.com

Joe Kinder (2024) 812-322-3328 KinderJoe@yahoo.com

Tom Sollman (2023) 812-753-4953 TPSollman@gmail.com

Carla Striegel-Winner (2022) 812-639-9628 CarlaStriegel@gmail.com

Paul Uglum (2024) 317-417-5596 Paul.A.Uglum@gmail.com

Richard Vernier (2023) 812-385-5058 rsavcaver2@gmail.com

COMMITTEES / CHAIRPERSON

Education/Outreach Vacant

Web Technologies Bruce Bowman 317-539-2753 Bruce.Bowman@tds.net

IKC Update Editor/Publisher Keith Dunlap (see E-Board list)

Buddha Karst Property Manager Keith Dunlap (see E-board list)

Lowry Karst Property Manager Ray Sheldon RSheldon.Indiana.Caves@gmail.com

Orangeville Rise Property Manager Carla Striegel-Winner (see E-board list)

Robinson Ladder Property Manager John Benton 830-305-1026 JMBenton1952@gmail.com

Shawnee Karst Property Manager Vacant

Sullivan Cave Property Manager Keith Dunlap (see E-Board list)

Wayne Cave Property Manager Danyele Green (see E-Board list)

Indian Creek CE Monitor Rand Heazlitt (see E-Board list)

GROTTOS & LIAISONS

Bloomington Indiana Grotto* Dave Everton 812-272-2300

Central Indiana Grotto* Keith Dunlap 317-882-5420

Dayton Underground Grotto Mike Hood 937-252-2978

Eastern Indiana Grotto Jonathan Annonson 317-395-4325

Evansville Metro Grotto* Steve Weinzapfel 812-630-7995

> Louisville Grotto* Susan Wilkinson 317-910-8023

Near Normal Grotto* Ralph Sawyer 309-822-0109

Northern Indiana Grotto* Cheryl Doan 260-385-0631

St Joseph Valley Grotto* Joy Baiz 574-286-9404

Sub-Urban Chicago Grotto Gary Gibula 630-791-8020

> Windy City Grotto Phil Goldman 847-917-1290

*grottos with liaison agreements

MANAGED CAVES / PATRONS

Buddha Cave Jeff Cody 317-888-9898 CodyJpme@att.net

Lowry Cave Ray Sheldon RSheldon.Indiana.Caves@gmail.com

> Robinson Ladder Cave John Benton 830-305-1026 JMBenton1952@gmail.com

> > Shiloh Cave James Adams 317-499-5451 JKAdams@aol.com

Suicide Cave Kevin Smith 317-412-3667 FreeWheeler2Go@yahoo.com

Sullivan Cave Paul Uglum 317-417-5596 Paul.A.Uglum@gmail.com

Upper Twin Cave Dave Everton 812-272-2300 DEverton@indiana.edu

Wayne Cave Dave Everton 812-272-2300 DEverton@indiana.edu

Cover: Hoosier Cavefish (*Amblyopsis hoosieri*) in Erics River Cave, Crawford County, Indiana. Photo by Dave Black (2005)



IKC QUARTERLY MEETING REMINDER

Sunday, December 12th, 1 PM EST Bluespring Caverns (in the cave) 1459 Blue Spring Caverns Road, Bedford, Indiana

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 Items: Recap of recent work projects and the promotion of upcoming projects at our various preserves; Financial reports; Investment Committee update; Stewardship Endowment policy document; Sullivan Preserve Management Plan update; Election Process ad hoc committee status report; Nomination Committee appointment and guidelines; Fields Days for 2022 planning; Mid-State Corridor update; Indiana Cave Symposium details; Sullivan Cave Preserve expansion update; Cave/land acquisition activities; and more...

Meeting Details/contingencies: This meeting will be held in the spacious over-night adventure area of the cave, following current CDC Covid social distancing/masking guidelines. If you are feeling sick, please stay home. Please remember to dress appropriately for a several hour meeting in cave temperatures.

ACTIVITIES CALENDAR

Dec 12 – IKC Quarterly Executive Board meeting (see above)

January - Yoga Classes to Support the IKC (see page 6)

March ?? – IKC Annual Business meeting (place and time TBD)

April 23 – Indiana Cave Symposium, Orange County Community Center

TBD - 2022 Field Day #1 (more details in the March *IKC Update*)

For more information on the Indiana Karst Conservancy, visit our website at *ikc.caves.org*, our Facebook page at *www.facebook.com/IndianaKarstConservancy*, 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 may also be made electronically by credit card or PayPal using our on-line services on our website (see the Join Us! tab in the menu) or *ikc.caves.org/join-the-ikc*.

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. Back issues can be found at *ikc.caves.org/ikc-updates*.

IKC Update (ISSN 1076-3120) copyright © 2021 by the Indiana Karst Conservancy, Inc. Excluding reprinted material and individually copyrighted articles, photos, and artwork, permission is granted to National Speleological Society affiliated organizations to reprint material from this publication, with proper credit given to the author/photographer/artist and the *IKC Update*. Articles do not necessarily represent the opinions of the Indiana Karst Conservancy, the National Speleological Society, or their respective members.

RAMBLINGS FROM THE PRESIDENT...

I walked from the overflow parking area at the Sullivan Preserve on a recent Sunday morning and was met by a serious gentleman with a clipboard who informed me, "There's a party of cavers who haven't been heard from since they told their spouses they were going caving in Sullivan Cave Saturday afternoon. Their cars are still in the parking lot. We're beginning a search and rescue operation."

He asked me a series of questions: "Do you have any training or experience in cave rescue?

Are you familiar with Sullivan Cave? Do you consider yourself a strong caver? Do you have any medical training?"

I observed behind him what appeared to be a full-blown search and rescue effort being organized at 0800 hours at Sullivan Cave. There were litters laid out, communication gear being assembled, a person at the cave gate performing entrance control, and after we were given a quick we huddled briefing, around the campfire in the staging area waiting for our assignments.

"Hasty Search Team #1, go to the Mountain

Room and report back... Hasty Search Team #2, go to the Merry-Go-Round and report back. As fast as you (safely) can do so."

We're briefed on the Search Teams' reports – there is a patient in the Mountain Room with a broken leg who cannot exit the cave under her own power. We also have unaccounted for cavers still believed to be in the cave.

"Medical Team #1 - go!" I grab my pack and my helmet, sign in with Entrance Control, enter the cave and begin following the wire laid by the Communication (aka Comms) Team through the Backbreaker. Our Medical Team is led by an EMT and his mission is to get to the patient and evaluate her medical condition. ASAP.

We correctly turn left at the "T" in the Backbreaker, but then get briefly "disoriented" going to the Mountain Room. With two trips in Sullivan Cave under my belt, I had the most experience with the cave and was as relatively unsure of the route as the other members of our team. We quickly corrected our mistake and arrived in the Mountain Room to find the patient lying on the breakdown slope suffering from a broken femur.

A Ferno litter had already been hauled to the patient in preparation for evacuation and our EMT evaluated her condition, which was good, all things considered. I searched a passage at

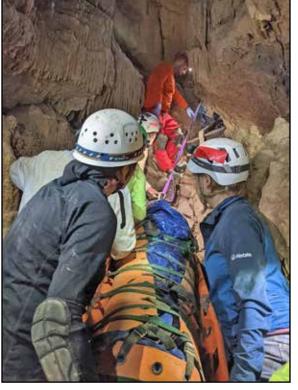
the top of the Mountain Room while the patient was packaged in the litter. No lost cavers there.

Then, we became part of Evacuation Team #2 as we took turns leapfrogging with Evacuation Team #1 hauling the patient on the litter from the Mountain Room and through the Backbreaker, before transferring her to a more flexible Sked litter so she could be lowered down the slot from the Backbreaker. After some nerve-wracking moments in the tightest spots, the teams worked together with a surface team to physically lift, twist, and turn the litter

to evacuate her from the final corkscrew passages and climbs of Sullivan Cave without causing further injury. In the meantime, we received reports that the lost cavers had been found.

At 1350 hours, the patient exited Sullivan Cave and was ready for air evacuation for further medical treatment. At 1400 hours, all of the Search & Rescue teams and missing members of the original caving party had exited the cave.

We removed the patient from the litter, and everybody cheered before we began our after action debriefing. The patient told us about her experience strapped into a litter for four hours and the National Cave Rescue Commission (NCRC) instructors told us what they saw that went well, and what could be improved. We gave ourselves a round of applause, we gave the instructors a



round of applause, and we carried all the rescue gear back up the hill.

This was a "mock rescue". Thankfully, no one was really lost or injured on this day in Sullivan Cave. We were students in the NCRC's Orientation to Cave Rescue (OCR) training, which began with the basics in a classroom on Saturday, and then proceeded to the mock rescue exercise on Sunday at the IKC's Sullivan Cave.

As I write this on the day after, my muscles are still somewhat sore, my body at 53 years old "doth protest a bit too much," and I am glad the IKC took the initiative to again sponsor this training exercise to help another group of twenty-five or so cavers begin the process of learning how to help cavers in distress

(and hopefully cave more safely in the future!). In previous Ramblings, I've highlighted the

hard work the IKC's volunteers do to conserve the caves and karst landscapes of Indiana (and the world). This includes not only protecting the rocks and water that make up the caves we love, but also the life that depends on caves and karst for their existence.

My own belief is that these conservation efforts extend to we humans who use caves, especially those who by misfortune find themselves in trouble inside a cave and desperately in need of the help of able rescuers to assist them in getting out of the cave to recover from their accident.

The IKC is proud to have sponsored this OCR training for several years now. We offered registration discounts to IKC members and provided 100% scholarships to first-responders to participate in this training. We made a donation to the school where the first day's classroom training was conducted, and we made our challenging Sullivan Cave available for the mock cave rescue exercise described in this article.

Our IKC Secretary, Laura Demarest, was one of the instructors who conducted the training along with several other NCRC Instructors who (in my opinion) are among the "best in the business".

Activities like the OCR training are part of what your membership dues, donations and volunteer efforts support as the IKC works to fulfill



photos courtesy Laura Demaresi

its exempt purpose. We are part of the special community of cavers who find wonder and amazement underground and, in this fellowship, we have a unique opportunity to experience exploration, wonder, science, learning and adventure.

If you have the chance to participate in NCRC training, such as the OCR and others, I emphatically recommend them. You will learn a lot and you will experience caves in a new way. You will also be on the path to becoming a skilled volunteer willing to help under trying circumstances, when someone's loved one didn't come out of a cave when expected and a serious person with a clipboard asks you, "Do you have any training or experience in cave rescue?"

The rescue effort was difficult, by any measure, but I would gladly do it to save someone's life. This OCR training increased my confidence that I can play a proactive role in this tough work. This training will also build your confidence so that when asked, "Do you consider yourself a strong caver?", you will have a new appreciation of what your answer means.

And I will never again go through a small winding, twisting crawlway without thinking, "What will it take to get an injured patient strapped to a litter through this?"

As part of the IKC's responsibilities, we monitor the Conservation Easements on the Sinks of Indian Creek. To this end, I joined three other E-Board members (Rand Heazlitt, Carla Striegel-Winner, and Keith Dunlap) to inspect the Sinks of Indian Creek on a recent November day. We took a hike through the woods to observe this special

karst phenomenon, where Indian Creek drains underground, through the Binkley Cave system (Indiana's longest), to re-emerge 4.1 miles away at Harrison Spring (Indiana's largest).

I could write a second "Ramblings" about this inspection trip, along with my thoughts on the system of karst hydrology we observed, but I am out of space, and you would have had a chance to read about this trip on the IKC's Facebook page, in any case. Please check out (and like) the IKC on Facebook! We are committed to bringing hu-

man interest stories, news about the IKC's conservation activities, and interesting educational information about karst sciences to help build our Indiana caving community.

Until my next Ramblings, I wish you amazing caving, a wonderful holiday season, a prosperous 2022 and for our Executive Board, I look forward to joining you at our next quarterly meeting – which will be held *in a cave* (see page 3).

Matt Selig

NEWS BRIEFS...

- ☐ As we close out 2021, it is always a good time to remember that the IKC would appreciate any year-end tax-deductable donations you might be thinking of making to your favorite non-profit organizations. As you will see on the following page, the IKC is undertaking another acquisition project that could use your consideration and donation. Thanks!
- ☐ Board member Goni Iskali has arranged for her favorite yoga studio in Bloomington to raise donations for the IKC during the month of January through their donation-based classes. Caver yoga sounds great! For more info on how you can attend a class to benefit the IKC, contact Goni or *Vibe Yoga Studio.com*
- As part of the overall scheme of caring for each of our cave/karst preserves, the IKC Board develops and approves a preserve-specific Management Plan soon after each preserve is acquired. This document provides the guidance for the Board, Property Manager, and Cave Patron to perform their responsibilities, and it is also a public viewable document (available on our website) so that anyone can see how the preserve and cave(s) are to be managed, and what activities are permissible and prohibited. These Management Plans are not static, as planned tasks are completed (e.g., lane gates are installed, campsites constructed) and vegetation changes over time. Also when a preserve is expanded, there can be new tasks that need to be included in the plan. Such was the case with the Shawnee Karst Preserve. The original plan was adopted in 2012. With the November 2019 expansion, the plan was recently revised and the new plan was adopted by the Board at the September Board meeting. You can download the new plan here: (ikc.caves.org/sites/default/files/webmaster_uploads/Shawnee Karst Preserve Management Plan adopted 2021-09-26.pdf). Also note that because of concerns on the impact of the cavefish in Upper Twin, the Board has reduced the group-size to 10, and limited the number of trips per day to one.
- □ Several months ago, the project team for the Mid-State Corridor study announced that the preferred corridor to identified in the Tier 1 Draft Environmental Impact Statement (DEIS) was being delayed, and is now expected to be announced in early 2022. This will also push the Final EIS and Record of Decision to late 2022. Part of the delay was due to a "re-calibration" of the purpose after InDOT announced they would invest \$75 million in upgrading US 231 between Jasper and Crane, potentially negating most of the justification for this new highway. It is now suspected (and feared) that one of the "new-terrain" alternatives will



photo courtesy Gretchen Anderson

take on the preferred status, increasing the environmental impact of this project, especially Routes "O" and "M" that cut across sensitive karst topography. This has also renewed the grass-root opposition to this project, including a peaceful protest when the Governor visited Jasper in early November.

☐ The IKC has gained three new members in the last quarter. Welcome Matthew Lewis, Taven Noll, and Paula Phillips. The IKC membership currently stands at 233.

THE SULLIVAN CAVE PRESERVE GETS BIGGER

by Keith Dunlap

On October 27, 1998, the Indiana Karst Conservancy acquired its first property, the 28-acre Sullivan Cave Preserve. The original "Sullivan" property was 30 acres in size, but a 2-acre corner with the previous landowner's homestead was split off and sold separately to reduce the purchase price of what the IKC was acquiring. Many old-timers will remember Janet (Owens) Stewart and having to access the cave via a driveway across her property before the IKC constructed their driveway.

Fast forward 23 years. The opportunity for the IKC to re-acquire this 2-acre corner tract resurfaced, minus the house, an abandoned mobile home, a garage, a car port, and several other outbuildings; all of which were demolished in 2020.

The now-vacant property was acquired for \$16,000 (it appraised for \$29,000) on November 22. Buying this property has several benefits. First, it adds to the conservation buffer around and over the cave. In particular it prevents someone else from constructing a new home (or placing a mobile home) with a septic system on the available lot (note that the first bathtub in the Beyond the Beyond is only a few hundred feet north of this tract). Second, it allows the IKC to move the access driveway back to its original location, providing a better/more level egress onto State Road 54. Third, the new expansion provides an area for overflow parking when there are multiple or larger groups at the cave (such as the recent NCRC training mock rescue, see below), or when there is snow on the ground and the driveway and near-cave parking area are inaccessible.

The IKC Executive Board understands this expansion purchase is not as exciting as acquiring a new cave, but strategically it made sense as justified above. We do not plan to have an extensive fundraising campaign, but if you would like to contrib-



ute to this acquisition, your name will be added or upgraded to the original Sullivan Cave Preserve donor's list that can be viewed on our website (*ikc. caves.org/sullivan-cave/sullivan-cave-donations-list*) and eventually to the property's future kiosk. You can make a donation via credit card/PayPal (*ikc. caves.org/donate-to-the-ikc*) or by mailing a check to the IKC PO box. Just be sure to indicate this is a donation for the Sullivan Cave Preserve acquisition.

photos courtesy Carla Striegel-Winner



DISCOVERING OUR SURFACE DIVERSITY ONE PLANT AT A TIME

by Carla Striegel-Winner

After my first visit to our Lowry Karst Preserve in the spring of this year, I was amazed at what I saw on the surface of the preserve itself, and started thinking of the diversity of several of the IKC properties. These are special places, not just for the karst that attracts us to them, but in a holistic ecological sense. The life on the surface of our preserves is important. Our own Board member and bat biologist, Goni Iskali, emphasizes, "Bats can greatly benefit from a healthy plant community. Our bats in Indiana rely on insects for suste-

nance and a healthy plant ecosystem means a higher diversity of other species such as insects."

I wondered, "Do we have plant inventories for our preserves?" and then proceeded to try to answer that question. I am now on a bit of a wild goose chase and have collected the partial inventories we had for Lowry (thank you Wyatt Williams), for Robinson Ladder (a forgotten find in my own files put together after meeting with Cassie Hauswald of The Nature Conservancy and IDNR District Biologist Mark Bennett in 2007), and for the Orangeville Rise (in my resource info from the Division of Nature Preserves regional ecologist, Jason

Larson). After talking to past Shawnee Karst Preserve Property Manager Jerry Lewis to see if he had started a plant inventory (the answer was no, but "Go find Ellen"), I ended up hosting several volunteer botanists at the Shawnee Preserve in August – and the result is a tiny start of an inventory for that preserve.

Buddha Karst Preserve is also a State Nature Preserve, just like the Orangeville Rise is, but Property Manger Keith Dunlap was not aware of any inventory that may have been completed by the State. I contacted the state Division of Nature Preserves (DNP) State Ecologist (and IKC member!), Wyatt Williams, to ask if they had any kind of plant inventory recorded in the state database. I guess the answer was no, because a few weeks later I received an email from Wyatt saying that he and State Botanist Scott Namestnik were coming to start an inventory. I was even more pleased to hear this from Wyatt after the visit: "I just took a quick look at the list we put together and counted 170 plant species! We want to revisit next spring and summer to get a look at spring wildflowers and ID

some of the carex sedges when they have fruit, we think that your rocky outcrops have a nice diversity that we weren't able to ID this time of year."

Wayne Cave Preserve Property Manager Danyele Green has been encouraging visitation to Wayne's surface trail, and in doing so has invited the Indiana Native Plant Society (INPS) South Central chapter to conduct field ID walks for their members and the public. We hope to work with them to start a list for Wayne as well. My goal is to add the Sinks of Indian Creek and the Sullivan Preserve in the mix in the future.

I have also reached out to the Indiana Native Seed Communities Coordinator, Bill Daniels,

about interest from their volunteers in collecting seeds from our properties to help expand Indiana provenance native plant populations. By collecting on our properties, we can help spread diversity throughout Indiana. My hope is that seed collectors could help identify new plants along the way. Bill suggested that volunteers of this pilot project of INPS would likely "love to be able to use IKC properties in the future." I now have a spreadsheet set up for each IKC preserve, modeled after the Indiana Natural Heritage Database, so that we can add plants to



Paul Rothrock, Nic Garza, Ellen Jacquart and Cathy Meyer spent a morning in August touring the Shawnee Karst Preserve, botanizing as they walked. Here they are discovering that we have *Verbesina helianthoides*, or crownbeard.

the lists as they are discovered. This project will help us meet our missions of preserve stewardship and promoting/facilitating future scientific research. Eventually I'd like to have these inventories available on the preserve pages of the website, so that anyone wanting to visit could access a plant list for the preserve. I really want

to thank the organizations, agencies, volunteers and staff who have helped initiate this project. Currently I am working on recruiting qualified volunteers to help us out with identifying as well as data entry. If you are interested, or know another resource person who may be, I would love to hear from you!

GET TO KNOW YOUR INVASIVES: PERIWINKLE

by Danyele Green

The fourth in a planned installment of invasive species education series.

Fast Facts:

- Common name: Periwinkle or Creeping Myrtle (scientific name: *Vinca minor*).
- Perennial evergreen herb
- Introduced in the US as an ornamental ground cover, and for its medicinal qualities
- Its elliptical leaves are dark evergreen with a light mid-vein
- Blue-purple five-petal flowers appear in the spring (late March through April)` and can flower again throughout the season depending on weather and environment.
- This can be a medium-growing ground cover that eradicates other plants under its mat. It currently covers hundreds of acres of forests in southern

Indiana and is considered invasive when planted near woodlands. It is fairly easily to contain if planted near driveways/concrete as it does not spread by seed.

- Pulling, raking, digging it up generally results in re-sprouting unless chemical persuasion is practiced.
- Mowing or cutting in the early spring, then doing a foliar application of glyphosate or triclopyr on the re-sprouts in July/August works well.

Alternatives to planting Periwinkle:

- Dwarf Crested Iris (Iris cristata)
- Wild Ginger (Asarum canadense)
- Creeping Phlox (*Phlox subulata*)
- Palm Sedge (Carex muskingumensis)

For more information on identifying and managing invasives in Indiana, go to www.sicim.info



photos courtesy K. Yatskievych (left) and Emily Finch (right,

A LOOK BACK AT INDIANA KARST

by John M Benton

This issue's Look Back is an interview with longtime caver Bill Greenwald, conducted in August 2021.

How did your caving career begin? At Southern Illinois University (SIU) in Carbondale in the mid-1960s, I got into rock climbing and got pretty good at it until I fell and wound up on crutches. One day I was in the school cafeteria and this big guy, Gary Frazier, from Franklin, Indiana was sitting across from me talking about a cave rescue. It seemed, to get the injured guy out of the cave, they had to break his clavicles to collapse his shoulder. I pretty much choked on my hotdog listening to the story. At another lunch, Gary said, "I hear that rock climbing

is not working out for you. Do you want to go caving? We are preparing for a vertical cave trip in December to a pit cave that was just discovered in Bedford, Indiana and could use another guy." The rest is history. Literally. You can read my 1966 trip report to Gory Hole on pages 57-60 of the 2007 NSS Convention Guidebook. That trip is what really got me hooked on caving. After that, I joined the NSS (# 9146RL) and became an active member of three Midwestern grottos over the years. Little Egypt

Grotto (LEG) in the 1960s, Windy City Grotto (WCG) in the 1970s and 1980s, and Central Indiana Grotto (CIG) from the 1990s onward.

Please talk about your background, where you were raised, schools attended and occupation? Are you a native Hoosier? I was born in 1944 in Providence, Rhode Island. My biological father, John Henry Finrow, was a WWII Navy pilot that flew Helldivers in the Pacific. His plane was shot down six months after I was born. He received nine medals after his death, including the Navy Cross (valor.militarytimes.com/hero/21236), and two Presidential Citations. My foster father, Barney Greenwald, was from Streator, IL and was also in the Navy. He served as a cook and a currier and

after the war, he worked on river barges, and finally settled on a career as a butcher for the A&P grocery stores. My mother, Mildred Huffman Finrow, was from Roanoke, IN and lived with my sister Ruth in Ft Wayne, IN, so I do have some Hoosier roots.

I spent my younger days in Chicago with Barney and my step-mother, and my summers on my grandparent's farm in Streator. I was a very independent kid and moved out to live on my own at 16, and finished high school while working two part time jobs. At that time in the mid-1960s, they were drafting high school graduates for the Vietnam War. I tried to sign up to be an Army helicopter pilot, but when Barney found out about it, he

sent me to the VA. Since I was a sole surviving son of a navy pilot, they classified me as 4A and offered me some funds to go to SIU in Carbondale to study to become a Mechanical Designer.

As far as a career path, as computers developed and got faster, I managed to get an advanced degree in Computer Aided Drafting and Design going to college part time. Over my 50 years of work, I have had experience with eight or more different CADD packages, have my name

Bill Greenwald in Reeves Cave (Monroe County IN)

on twelve patents, and have worked for at least twenty different companies.

My first wife Loretta and I moved from Chicago to Indianapolis in 1990. This was after our two daughters grew up and the dog died. However, Loretta was diagnosed with a brain tumor and passed in 1998. My second wife, Nancy, and I have five grown married children and twelve grandchildren.

Please tell us about your volunteer work at NSS Conventions? For a number of years I conducted an *Experiment in Speleoart* class for the JSS and the Fine Arts Salon. I would provide everything needed in a kit for a participant to complete what I called a Speleoart letter. I would play popular

music to help the participants stay focused. I was also recruited by the NSS Vertical Section to help with the NSS and JSS Vertical workshops. For the 2007 NSS Convention in Marengo, I was the convention safety coordinator as well as the JSS, Photo Salon, and Art Salon liaison, and did the CAD drawings of the school and fairgrounds for the publications. I also helped Mindy Grayson and Jamie Coffman design "Indy", the convention's bat mascot. Subsequently, Terry Clark's death hit me pretty hard, so I sort of stopped going to NSS conventions. In 2013, I decided it was time to retire from them. Since then, most cave trips I have led have been for church groups.

Tell us about some of your favorite caving friends. Terry and I became good friends on one of my CIG Illinois Caverns trips that I used to lead every year on Father's Day weekend, up until the cave was closed because of White-nose Syndrome. We would drive to Waterloo, IL on Friday and spend the night at Camp Wartburg, a Lutheran church camp only a couple miles from the Caverns. We would get up early Saturday morning and head for the Caverns. Terry managed to somehow get a deep cut in his knee that year, so I had to patch him up so he could do the cave with us. I had to patch up his knee two more times during the cave trip. Terry didn't complain a bit. Since the DNR folks would kick us out of the Caverns about 3 PM, we would head south to Cahokia Mounds State Historic Site on our way back to Indiana. It had a nice museum, theater, and the mounds outside to explore. Terry would strike up a conversation with just about anybody that would listen, and he would have them all laughing by the end of his many stories.

Tim McLain was another great caver... easy to make friends with and talk to. I can't get how he died in a cave out of my head. I designed a plaque with Tim's picture on it and mounted it on a rock, and placed it at Stop 6 on the Indiana Caverns Interpretive Trail.

Do you have a favorite cave or group of caves?

I had a good relationship with Scenic Hills Christian Camp for about 25 years, which had two caves: Eversole and Coon. I would tell the church kids and their leaders in my cave intro program about my friend Tim. Tim liked to point out that caves are full of bright stars too, but to see them you have to take the time to go in there and light them up. In the December 2015 *IKC Update* there is an interesting article on *What it*

Takes to Move a Cave Gate. It documents the move of the unsightly gate at the entrance of Eversole Cave further into the cave, so it was out of sight. Unfortunately, three years later, Scenic Hills Christian Camp closed after being sold.

With the LEG in the 1960s, my favorite caving area was Monroe County, IL. I spent a lot of time in Illinois Caverns. I did the spring and fall MVORs in Missouri, and did cave surveying and mapping in the Perryville, MO area.

With the WCG in the 1970s and 1980s, my favorite caving area was the Buckner's Barn in Monroe County, IN. I spent a lot of time in Reeves Cave. I also loved visiting Mystery One and Two caves in Spring Valley, MN. When you go caving with cavers who have their cave packs mounted down on the calf of their leg, you know there is going to be a lot of crawling.

What are your special area interests in caving?

My most recent work is the "Wolf Cave Bench". It is in the Nature Center at McCormicks Creek State Park. It is a stained and varnished bench that has a plaque with my name on the side. It features a crawl through in the middle that has a center paddle that duplicates the exit dimensions to the park's notable 250 foot Wolf Cave. If you ask the Naturalist, the fixed paddle can be replaced with a "competition" center paddle that can measure your crawl-through height from 6 to 14 inches.

Anything else to add or elaborate? I think it is important to get the older cavers with "mud in their blood" and four-digit NSS numbers to talk about their life as a caver. I encourage all cavers to listen to *The Caving Podcast* by Matt Pelsor, as he focuses on some of these people. At the 87th June birthday get-together for Tom Rea, I discovered that there were still seventeen four-digit NSS number cavers remaining in Indiana. I was on a Pillared Palace tour in Marengo Cave with some kids one time, and they asked me, "Where do all these beautiful formations come from?" I said, "Why those are the Old Cavers that have turned to stone."

I have a piece of barn art that I bought at an MVOR in Missouri many years ago in my garage that defines old cavers as Perimorph: "Once a caver, he stood too long... One foot beside the other – so guidebooks put him on a map for others to discover!" I do have a 50-year NSS pin which basically shows that "Yes Bill, you have been caving long enough to be classified as a formation."

MEMBERSHIP QUESTIONNAIRE RESULTS, PART 2

by Carla Striegel-Winner

In February of this year, the IKC mailed out a questionnaire that was returned by about 30% of membership. In addition to reviewing the results, the Board had a dedicated Zoom meeting from which emerged a great discussion of the eight questions and a list of eleven action items. In the September *IKC Update*, we went over the results of half of that questionnaire. We covered our organizational missions, education and outreach, effectiveness of the *IKC Update*, and effectiveness of our electronic communications. This article will cover the results of the remaining four questions: #2 – Utilization of Acquisition Resources, #3 – Utilization of Stewardship Resources, #7 – Governance Transparency, and #8 – Board Representation.

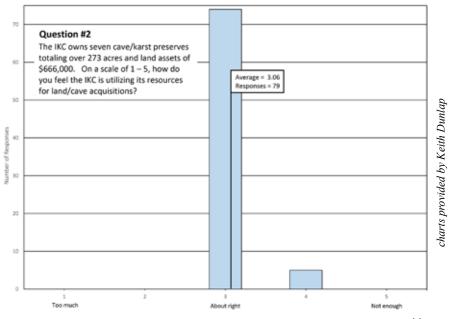
Question #2 - Utilization of Acquisition Resources: This question asked members to rank how we are doing at utilizing our resources for property acquisitions. Seventy-nine members ranked this, making it the most answered question of all eight. Only one member who filled out the questionnaire skipped the question. Ninety-four percent of respondents feel we have this "About Right", with the remaining six percent rating our utilization of resources a "4", in between "About Right" and "Not Enough". In some of the seven comments provided, members mentioned the "... challenge of acquisition and taking care of what we own", having to "...balance acquisition with protection, maintenance of properties and fiscal soundness", and "...the fact that you are able to

maintain an acquisition reserve is a wonderful testament to the proper management of funds...". As the Board discussed this topic during our Zoom meeting, we brainstormed ways to continue to utilize resources appropriately, through a Board "wish list", an internal committee, and focusing on estate planning and long-term donations. We have since, at two Board meetings, discussed the idea of a formal committee and have determined that at this time, the membership appears to have faith in the Board itself working together on acquisitions. Our action item is

to formulate strategies for managing and soliciting incoming donations and the pursuit and prioritization of land acquisitions.

Question #3 – Above Ground Stewardship Resources: There were seventy-seven responses to this question about utilization of these resources. Eighty-seven percent felt we are "About Right" while about 10% ranked as between "About Right" and "Not Enough". Two responses showed between "About Right" and "Too Much". Comments by members included, "Every preserve I visit is so nice and maintained. Great job!!", as well as a suggestion that we "...should look at hiring routine mowing, weed whacking, etc to be done by a local vendor". Additionally, members mentioned enticing volunteers with snack and drinks, make work days more publicly known, that there are trails and campsites that do not get utilized and it should be publicized or energy go to other efforts. These comments led to substantial discussion at our Zoom meeting, and an action item is to make a plan to incentivize and energize volunteers.

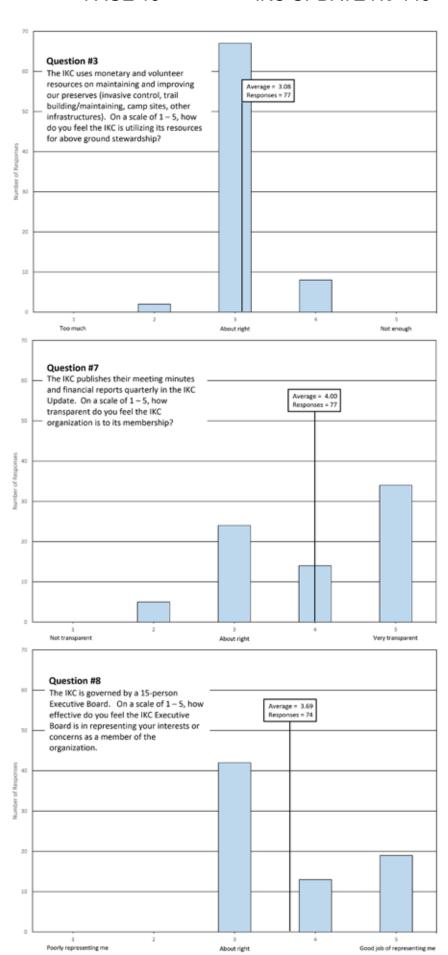
Question #7 – Governance Transparency: This question looked at member thoughts on how meeting minutes and finances are shared with the membership. Of the 77 respondents, 72 felt that we are "About Right" to "Very Transparent". The remaining 5 members placed us just below the "About Right". There were not as many comments here, but one in particular touched on our



electronic communications. saying we need more than the IKC Update to share what is going on and suggested we also use our website and Facebook to keep our members informed. Another comment suggested we encourage members to attend quarterly meetings and encourage discussion from the floor, while a final comment was "... certain details missing on certain topics at times". This question brought out a lively discussion at our Zoom meeting, with Board members bringing up that we had a lot to get done at our general business meetings and while we value member engagement and encourage members to attend Board meetings, it might not be the most efficient way to inform our membership. Perhaps having other events to update and engage members would be a better option. We wondered if alternate events might be more inviting. We also discussed if we are too transparent, as many similar organizations do not share detailed financials or Board meeting minutes to the extent we do. Our action item here was to develop membership engagement events of some sort.

Ouestion #8 – Board Representation: We were pleased to see the results of this particular question. Our volunteer Board works hard to try to represent membership, and that seems to show in the answers here. All seventy-four respondents felt their interests or concerns are represented. As such, there were a couple of comments about how Officers and Board members are elected. During our meeting, we discussed how candidates are chosen and that we do have an

Continued on page 16...



MORE ADVENTURES OF GALE & RAY BEACH

by Bruce Rogers

Editor's note: In the September IKC Update, there were separate articles on Gale Beach and Ray Beach provided by Bruce Rogers. Bruce had many more interesting short stories about both of them, some which are included below in no particular order.

Ray was among the first cave divers in California... only a very few others in the SoCal Grotto were working in Devil's Hole in Death Valley National Park in the very late-1950s, preceding the San Francisco Bay Chapter (SFBC) 1962-63 dives into Black Chasm, a now commercialized,

vertical, heavily decorated, ~2/3 mile long cave. The SFBC was appointed as "caretakers" of the cave via a lease that The Nature Conservancy had with the owners, the American Cement Co. That lease was later dropped due to an ill spoken comment by a caver about the property owners during a public hearing. The following decades of ultimately unsuccessful purchase attempts is convoluted so I won't go into that here... just to say about two hours before signing the cave over to the NSS, the cement company was bought out

by an east coast investment holding corporation, and the new owners didn't give a hoot about conservation, caves, or anything but dollars.

There is another well-known tale about a mystery passage in the Mother Lode area that involved the discovery of a connecting passage between long-known Cave City Cave and the newly discovered Cave of the Quills by a major-known caver, now living in Missouri. That person managed to contort through to 'Quill Cave, then marked the passage as "not going". A few years later Ray, not believing in such nonsense unless personally inspected, managed to also make the connection. At the following NSS convention, the caver asked Ray what he'd been up to... and the story unfolded. Even today, the TA-Beach

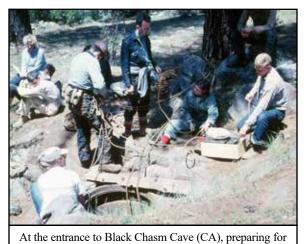
discovery route remains undiscovered, replaced with a vastly muddier one featuring the Hershey Crawl (aka Ex-lax Crawl).

On another Mother Lode cave trip in 1962, Gale and Ray were camped out at Cave City Cave in the Gold country, a formerly favorite place to camp and go caving in 3/4-mile long Cave City Cave. Among the other cavers present was Ken Miller, a former US Army Ranger (and fellow Black Chasm cave diver). Ray and Ken had a military bond, both having spent "some time" in combat. Both Ray and Ken also carried heavy caliber side arms on their trips - some-

times to protect against "Errant and Mysterious Figures Of The Night", and other times against threatening tin cans sitting arrogantly in gravel pits... Far into the night as all settled into their sleeping bags, a shadowy figure suddenly dashed across the campsite. Ken, instinctively acting out of training as a Ranger, rolled over, grabbed his side arm, and dropped his gun sight on the rapidly moving figure. Ray, also awakened by the dashing figure, shouted out: "Don't Shoot My Cat!!", and Ken immediately dropped his aim. It seems a sorta stray cat, actually belonging to

a neighboring miner, was wandering about and had been fed whenever Ray and Gale were on site. No one ever bothered the cat on subsequent trips, knowing said kitty had a double-armed guard to protect it.

Ray was among the first explorers of the Rapunzel Passage in Black Chasm, a very deep fissure passage off the side of the 240-foot main drop to the 70-foot deep lakes at the cave's bottom. As Ray chimneyed along the fissure on one of the first exploration trips, he sighed with relief for there was a small ledge to rest. The passage's name came from the Ponderosa pine tree roots that hung down for nearly 100 feet, reaching down towards the lake far below. Honey-blonde in color, they reminded cavers of Rapunzel's hair of folk tales. As soon as Ray stepped on the "ledge", it noisily slid away, cascad-



the first dive in August 1962. Ray Beach (back to camera as he clipped into the Goldline main rope) prepares to rappel down about 240 feet to lakeside and don his dive gear. The cave's entrance is protected by a City of Oakland manhole cover that "mysteriously" appeared on site earlier that year and was cemented in place... The milelong 'Chasm Cave, now commercialized, is one of the most decorated caves in California with literally walls of helictites upwards of 24-inches long.

ing into the lake nearly 100 feet below. Ray's reply about the impermanence of said ledge was both loud and also largely unprintable...

Ray and Gale made many more only slightly insane trips. On one trip to an extremely seldom visited trio of pit caves, they literally crawled for about three hours under heavy brush with lots of vertical gear and ropes to the pits. Sparking Pits were essentially vertical molds of the former marble lenses, now dissolved away. Rocks thrown into the ~200-foot deep pits sparked against the quartzite walls, hence the name.

Gale "once" made a twelve hour trip into an alpine cave in Sequoia National Park at about 10,500 feet elevation — unfortunately Ray was rather sick at our adjacent camp and couldn't

muster enough surplus Marine Corps energy to come along. The slit-like passage had one orange wall and one black wall of extremely jagged marble; the floor was algae-covered and slippery, rolling granite boulders; and the water element was an adjacent ice field's melt water falling throughout the cave - dropping between 20 and 30 feet on each climbing pitch... and all this done in Levis and cotton sweatshirts before wet suits were available for caving. We finally gave up after surveying most of the day to the shore of

a large black room with an only swimmable pool too wide to cross. We were in stage 2 hypothermia upon exiting... Nearly a decade later, several younger cavers managed to connect another cave nearby to Gale's cave to make a 3/4-mile long cave... that through trip has never been repeated and Ray was very jealous that he missed out.

Ray and Gale became interested with the California desert after I started leading trips there in the late 1960s. A Jeepster, a Chevy Nova (Gale's commute car – that was lacking its muffler after one trip... Ray paid dearly for that), and a CJ-5 were followed by a 3/4 ton, 4WD Chevy pickup – all named Yellow Dog for their color. On many of these trips we spent days looking over barren rocky mountains between -200 feet elevation

and 11,000+ feet for rumored caves... and actually finding a few. This included a trio of small, extremely warm caves filled with an impressive biota best represented by critters living in the Mesoamerican rain forest – relics of a vastly warmer time. Once we stumbled upon a small cave in the western shoulder of Death Valley at a site named in the 1870s as Hungry Bill's Ranch (named after a Shoshone Native American with a prodigious appetite for tinned corn beef). This little gem turned out to be a major archaeological site, dating back perhaps 3,000 years.

In the 1980s-90s, we started going to Mexico in the dead of winter – mostly because it was warm. We visited many of the major deep pits and drain caves, then turned our attention to the

Yukatan (note "correct" spelling). Caving was included on the schedule, as was "caving" within Maya pyramids. Sometimes these trips were even sorta legal and preceding the archaeologists who made names for themselves as they peeled back a thousand years of soil and decay from the buildings. Other times we simply let ourselves down pits and explored dirigible passages in the sweltering heat and oppressive humidity, side stepping blind fish and eels and

Other times we simply let ourselves down pits and sessions at the 1972 Beaches went caving, of in the flank of Mt Baker, the was taken on the same of the brember *IKC Update*.

Seek with vampire bats. On almost all trips we managed to avoid getting bit by pit vipers, but I did have a trio of trips where we all got histoplasmosis — fortunately the Beaches missed those caves. Snorkeling into coastal caves and cenotes as far as a single breath could hold us. In one ~18-foot diameter major shoreline karst spring, the outgoing current was so strong we had to horizontally "climb" in along the wall, then when our breath gave out, let go, and be

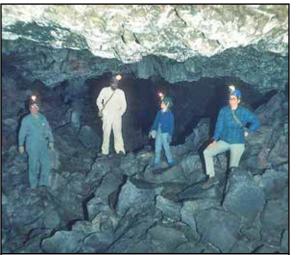
Both Ray and Gale became enamored with the Great Basin in the 1970s. The Beaches would

world near the Yukatan town of Tulum.

swept back out to sea – another fun thing to do.

One of those trips was into the very first reach-

es of what's now the second longest cave in the



In between other fun activities and sessions at the 1972 White Salmon convention, the Beaches went caving, of course. Here in Wildcat Cave on the flank of Mt Baker, Ray (white coveralls) and Gale (far right) enjoy the anklebiting lava in the cave. This photo was taken on the same trip as the cover photo on the September *IKC Update*.

take off for weeks at a time looking for caves, hot springs, ghost towns, and anything else of interest that I steered them In between those junkets, they also started world travel in the 1990s-2000s ranging from the North Pole to Antarctic, the Far East, throughout Europe, across Africa, to Australia, and South America. Cave visits if at all possible on these junkets figured in their itinerary since they had met many foreign cavers

at NSS conventions and such. As Gale once said, "It's so exciting to meet famous persons!"

In addition, they were major heavy weight players when they assisted running both the 1975



Ray and Gale enjoyed exploring the Mojave Desert and Great Basin, often combining cave hunts with general travel. Here Ray shows exemplary style cresting a 4-foot high, dry waterfall in Lemoigne Canyon in Death Valley in 1972.

Frogtown NSS convention (AKA, the Dissension Convention - the name from small, lull, cranky groups of cavers in CA, NV, OR, WA, ID, CO, NM, AZ, and NJ, who claimed the original site in Ely, NV, in eastern Nevada as "their" caving area)... peace was finally attained as I ran preconvention trips to NV with the main show in CA. I still have a sampling of the hate mail I got for months about all that from assorted cav-

ers... some of whom were/are BNCs (Big Name Cavers) who should've known much better. As well, Beaches participated in running the 1990 Yreka convention.

PLAN TO JOIN US FOR FIELD DAYS IN 2022

The IKC Executive Board has been talking about outreach, education, and engagement; both for current and possible new members. From these discussions came an idea to host field days on our preserves. While the 2022 field days (targeting to do four) are not yet developed enough to detail in this newsletter, plans are in the works for a bat hike with Board member and bat biologist Goni Iskali, a live Look Back at Indiana Karst with John Benton, a karst features walk, a plant/tree identification walk, and general tours of a preserve or two. We will feature different preserves for each of the field days, and are looking at having members register in advance so that we can ensure a quality experience for those attending. We are excited about hosting these in 2022, so please keep your eyes out for a member email, on our Facebook page, and in the March *IKC Update* for further details! Also, any member having an idea for a topic, a resource person, or wanting to help out, can please contact board member Carla Striegel-Winner (*CarlaStriegel@gmail.com*).

...continued from page 13

ad hoc committee currently comparing and contrasting those to similar organizations. Our two action items here included continuing to look in to how Board members are chosen, and most importantly, our last action item was to continue occasional membership questionnaires.

The Board was excited to see the results of this questionnaire, and pleased that 30% of our membership participated. We do try to represent the goals and mission of the organization, as well as the wants and needs of the membership. We feel the questionnaire was a great way to reach out to members and get that feedback, and to let us

know how well on track we are. You will see that we have already put some member ideas in place and that of our eleven action items, several have been completed or are being worked on as we go forward. We intend to occasionally use questionnaires in the future to continue to solicit feedback. As we look at other ways to engage you, our members, we hope that you do feel free to contact our President or a Board member at any time to provide us with feedback. You can view the first half of this article in the September 2021 *IKC Update* on page 14, and view all of the charts and comments here: *ikc.caves.org/sites/default/files/webmaster_uploads/2021QuestionnaireResults.pdf*

IKC HOSTS CAVE RESCUE TRAINING IN LAWRENCE COUNTY

by Laura Demarest

On November 6-7th, the Indiana Karst Conservancy hosted a two-day Orientation to Cave Rescue (OCR) seminar for a full class of 26 students. This class was coordinated by representatives of the National Cave Rescue Commission (NCRC), a volunteer organization under the National Speleological Society, that offers cave rescue instruction. The OCR class requires no training prerequisites for students, making it an ideal introduction for anyone who may find themselves involved with a "call-out" rescue, whether as a caver (experienced or novice), emergency first-responder, property manager, or trip leader. As an organization man-

aging cave and karst properties, the IKC has a vested interest in promoting safety and accident prevention, as well as emergency preparedness should an incident occur.

The first day of this class took place at the Lawrence County Independent School and consisted of a series of

quick, intensive classroom lessons on a variety of rescue-related topics, including medical assessments and patient care, Incident Command System and how it applies to cave rescue management, hypothermia prevention and treatment, patient packaging for evacuation, considerations for extreme situations (crack & crevice entrapment, water problems, etc.), pre-planning for an incident, how the cave environment influences rescue proceedings, in-cave communications, media interaction, cave search tactics, and more. Following the classroom sessions, the students were invited outside for some demonstrations and handson practice involving how to package a patient in the "litter", as well as techniques for patient maneuvering through an obstacle course. The NCRC offers a variety of more advanced classes that delve more deeply into these topics and many more (visit www.NCRC.info for more details).

Instructors for this weekend's training included Jessica Deli (NCRC Central Region Coordinator), Stephen Bishop, Leanne Hughes, Anmar Mirza (former NCRC National Coordinator), Don Paquette (former NCRC National Coordinator),

and myself. Each Instructor has completed NCRC week-long training levels 1-3, passed the Instructor Qualification class and test, and received approval from the NCRC Board of Regional Coordinators. Several NCRC 'specialists' also assisted with the class including Tymme Laun, Chris Bauer, and Adam Mathis. These specialists have completed NCRC Level 1 week-long (or higher) and are working towards becoming an Instructor in the future. All NCRC Instructors and specialists are volunteers, which helps to greatly reduce the costs of these trainings. The students for this class were a diverse group of mostly cavers and

some emergency personnel from all over Indiana as well as some traveling from Illinois, Kentucky, Ohio, Wisconsin, Missouri, and Arizona. IKC President Matt Selig and Director Carla Striegel-Winner were also enrolled in the class and re-

in the class and received first-hand experience as students. Thanks goes to Carla for setting up the IKC educational display for students to peruse during breaks!

Day two of this training was perhaps the most exciting: a full-scale mock rescue scenario in Sullivan Cave! The Instructors discussed and pre-planned a plausible rescue scenario the night before and arrived early on Sunday to go into the cave for an educational game of rescue hide-andseek. Students and NCRC specialists arrived onsite shortly after, having no clues regarding the pretend incident other than an overdue call had been made by a couple of worried caver spouses. Students and specialists had to determine ways in which to best organize themselves into roles and task forces, figure out how to retrieve information about situation underground, manage equipment and personnel, and set up communication between the surface and the patient. For this mock scenario, one caver (Stephanie Suen) had fallen in the Mountain Room resulting in an injury that would require being carried out in a litter. Two other cavers had gotten lost while trying to exit the cave for help. Jess Deli was found



FAMILY CAVE AND SCIENCE WEEKEND

by Chris Landis

The Windy City Grotto hosted a unique, educational adventure at Sullivan Cave on June 5-6, 2021. This family-friendly, science-based event was designed to educate kids on natural science, as well as get more families involved in caving. The announced event generated a lot of interest, with eight families signing up. But as the event drew closer, many of the families dropped out for various reasons. In the end, we had only three families.

Participants were Andrew, Mark, and Susan Clark; Christian and Jackson Hauser; Jennifer Powlow, Madyn Wydra, and me.

The agenda was to visit Sullivan Cave on Saturday, learning about cave science, and then spend Sunday on the surface learning other science lessons and playing a few family-based games.

The first cave lesson began in the parking lot, focused on how to locate the entrance to a cave if you don't know where it is. Because caves are formed by water, kids were taught to go downhill, as water does, to find the entrance. We pretended to turn Jackson

into water, and let him lead the way to the cave.

A recent IKC Facebook post mentioned a bird's nest just inside the narrow entrance of Sullivan Cave. We were careful not to disturb the nest, and Madyn was able to inspect the nest and reported five eggs. Madyn was also excited to point out all the salamanders at the entrance. There were at least a dozen of them, and with youthful enthusiasm she pointed out every single one to everyone who passed. *Every single one*.

Once inside the Backbreaker passage, we stopped and learned about sedimentary layers at the spot where Mark and Andrew pointed out the layer peeling away from the ceiling. We also had a brief lesson on crystal formation. Madyn found some excellent examples of gypsum blossoms further down the passage. Our next stop was

in the Lost Formation Room, where we learned about how various speleothems are created. Mark and Christian continued down the rest of the passage while the others stayed behind and participated in the science lesson. While most of the formations in this room have been damaged, a few good samples can still be found, mostly behind a column to the right. It was here that I took the photo of Jen and Madyn inspecting he-

lictite formations growing behind the column. This is my favorite cave photograph that I have ever taken. It has all the elements of our weekend event: discovery, family, science, and adventure. I am very happy with this photo. Susan and Andrew brought a black light, and used it to find some luminescent life growing in a few spots.

Our next stop for a science lesson was in the Mountain Room, where we learned about breakdown and carbonic acid. After a brief lunch break, we continued down to the stream passage. Immediately at the drop down to the stream passage were

perfect examples of drastic changes in the layering of the sediments. There are three distinct layers visible in the walls and breakdown at this location, so we reviewed how layers in a cave are made. We also noticed the low levels of the stream. As we proceeded down the stream passage, we stopped when we saw crayfish and fish. There were many fish in the stream, more than we had ever seen. This was a good opportunity to cover how life in a cave adapts to its environment, and what the crayfish and fish eat to survive.

At the South-Y, we had a discussion about going to the Spiral Room. I had never been to the Spiral Room, so I deferred to the Clarks' experience. With the water levels being very low, Mark decided to scout the passage and reported it was safe. There was concern for Madyn and her small



Jen and her daughter Madyn inspect helectite formations

size, so it was decided that she would ride piggyback style on my back through the deep section of the stream. The water was waist-deep on me, and would have put Madyn in danger of tripping and being submerged in the chilly water. Even without tripping, all of Madyn's clothes would be soaked, and hypothermia could set in quickly. She put up little argument about hitching a ride, but nearly toppled us over when, at the deepest point, her butt touched the cold water and she panicked and tried to scramble up my back.

The Spiral Room was very impressive, and al-

lowed for lots of exploration. Looking at the map, we became convinced we could find the Speed Hollow entrance. Many leads were explored. I climbed down a twenty foot narrow fissure that looked like it held possibilities. The passage was very tight, and climbing out was much more difficult than I anticipated, and left my chest bruised in a few places. Only after I finally popped my head out, did Mark point out the "Dead End" spray painted on the rocks a foot above my head. I wish I had seen that before nearly getting stuck in this narrow crack. Meanwhile, Susan, Jen,

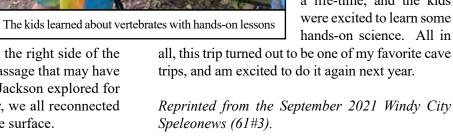
Andrew and Madyn explored the right side of the adjacent room, and found a passage that may have been the exit. Christian and Jackson explored for a bit, then rested. Eventually, we all reconnected and began heading back to the surface.

Sunday morning was drizzly, with increasing chances of rain. We quickly packed up our tents and chairs. I grabbed my materials for Sundays lessons, and rushed through them, skipping many sections and shortening others. I displayed my collection of animal bones found out in the wilderness as we learned about vertebrate and invertebrate animals. As we examined the teeth of some of the skulls, we discussed herbivores, carnivores and omnivores. We quickly played our scavenger hunt game, with each family forming a team. During the scavenger hunt, we learned interesting facts about mushrooms, beavers, bats, leaves, and

pine cones, among other things. We wrapped up with a reminder to the kids that anyone can be a scientist, as long as they remain curious about the world around them. Curiosity is always the key to scientific discovery.

The Hausers, Clarks, and I were able to stop in Bloomington for our post-cave tradition Mother Bears Pizza. All four people on this trip who were not previously WCG members joined our grotto. Families had experiences together that will be remembered for a life-time, and the kids were excited to learn some hands-on science. All in

all, this trip turned out to be one of my favorite cave trips, and am excited to do it again next year.





...continued from page 17

in the Backbreaker and Laura Demarest was exhausted and lost in the Merry-Go-Round. Both were given medical assessments and escorted to the surface. Stephanie, however, required the full evacuation service, with students working in leap-frog teams to carry her toward the entrance. Careful coordination took place to ensure the mock patient was not injured "for real" during the training, and NCRC Instructors silently observed or gave occasional feedback to keep the operation running smoothly and safely for all. Towards the entrance canyon series, some meticulous maneuvering was necessary with webbing being used as a safety line to capture progress as the patient was gingerly passed from person to person through the tight portions of the passage. Finally, she was brought successfully to the surface, resulting in relieved cheers. The class gath-

INDIANA KARST CONSERVANCY TREASURY REPORT

Income/Expense Statement From July 1, 2021 to September 30, 2021

INCOME:

Dues Apportionment and Residuals	867.50
Donations - General	1,322.00
Donations - Land Acquisition Fund	619.00
EQIP contract (Wayne Cave Preserve)	19,724.79
General Investment Earnings	4.77
Endowment Funds Unrealized Gains/Losses	(4,536.41)

\$18,001.65

EXPENSES:

IKC Update (printing, production, mailing)	347.87
Education / Outreach	175.00
Stewardship / Conservation	971.04
Land Acquisition expense	400.00
Business (PayPal fees, renewal/election letter)	33.88
Transfers to/from restricted funds/other adjustments	(4 317 41)

\$2,389.62

NET OPERATING EXCESS (DEFICIT) THIS PERIOD:

\$20,391.27

Balance Sheet September 30, 2021

ASSETS:

Cash in Checking/Saving/Brokerage ac	634,614.75	
Robinson Ladder Cave Preserve	(73.48 acres)	162,000.00
Shawnee Karst Preserve	(67.78 acres)	175,000.00
Wayne Cave Preserve	(57.59 acres)	188,000.00
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)		13.16

\$1,300,627.91

FUNDS & OPERATING EXCESS:

Land Acquisition Restricted Fund		64,090.42
Deferred Dues Restricted Fund	(229 members)	5,707.50
Stewardship Endowment Fund	(+0.34%)	87,386.48
Gale & Ray Beach Endowment Fund	(-5.66%)	395,088.94

Previous General Fund (total) 61,963.30

Net Excess (Deficit) This Period 20,391.27

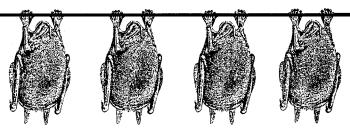
Current General Fund (unrestricted) 82,354.57

Current General Fund (committed) 1,100.00

Real Estate Basis (excluding value of CE) 666,000.00

Total Liabilities & Operating Excess

\$1,300,627.91



IKC QUARTERLY BOARD MEETING MINUTES

September 26, 2021 – 1:00 PM EST

6888 East Bender Road, Bloomington, IN 47401

Board Members Present:

Matt Selig, President Laura Demarest, Secretary Keith Dunlap, Treasurer

Jim Adams Jeff Cody Scott Frosch Danyele Green Goni Iskali

Joe Kinder
Tom Sollman

Carla Striegel-Winner

Paul Uglum Richard Vernier

Board Members Absent:

Dave Haun Rand Heazlitt

Call to Order

Meeting was called to order by Matt Selig at 1:00 pm ET at the home of Danyele Green and Tymme Laun.

Acceptance of Proxies

There were no proxies representing absent Board members.

Approval of Previous Minutes

The minutes from the June meeting were approved as published in the September 2021 *IKC Update*. Danyele Greene made the motion and Paul Uglum seconded. Unanimously passed.

E-mail Motions Since Last Meeting

Per July 1, 2021 email correspondence: "I move to approve the resolution as shared for the Board to set up a Fidelity account for investment of the Beach Bequest." Motion was made by Danyele Green and seconded by Paul Uglum. 13-0 in favor (with two abstaining).

Per September 10, 2021 email correspondence: "I move for the Indiana Karst Conservancy to make an offer of \$29,000 to purchase the property at 2088 State Road 54 in Springville." Motion made by Carla Striegel-Winner and seconded by Jeff Cody. 13-0 in favor (with two abstaining).

Treasurer Report

Keith outlined the current financial status of the organization:

Assets:

Cash assets totaling	\$642,524.63
Land assets totaling	\$666,000.00
Total Assets	\$1,308,524.63

Dedicated Funds:

Land Acquisition Fund	\$64,490.42
Stewardship Endowment	\$89,753.12
Gale & Ray Beach Endowment	\$400,733.78
Deferred Dues	\$5,685.00
OCR Training (semi-restricted)	\$1,157.87
General Fund	\$81,862.31
Total Dedicated Funds	\$642,524.63

Membership currently stands at 228 paid members. This total excludes the 28 memberships which recently expired after multiple reminders.

Additional comments: The general fund reflects the highest total to date due to recent NRCS EQIP program payments for the Wayne Cave Preserve. Also the Stewardship Fund has experienced a ~10% increase in the past 10 months. The Gale & Ray Beach Endowment fund was initiated on September 9, 2021 and is now partially invested, and is currently performing well.

Gale & Ray Beach Bequest

Gale & Ray Beach Endowment Resolution: The IKC has partially invested the \$400,000 bequest in low-fee, broad market-based, high-quality mutual funds with the intention of providing long-term security to the organization in the form on an endowment. A detailed resolution for this fund was developed and circulated to IKC Board members via email for review prior to the quarterly meeting. In summary the principal will be allowed to grow to \$500,000 before funds in excess of this amount may become available primarily for allocation to the land acquisition fund. The resolution also stipulates that the IKC Board would need a high majority (100%) vote to utilize any of the principal funds for any special circumstances and only after being advertised to membership and passed by a second vote at a subsequent meeting. The IKC Board will be allowed to use funds over \$500,000 (subsequently indexed to the cost of living) for land acquisition with a simple majority vote. Loans against the money will require a 100% IKC Board vote. Jim Adams made the motion to adopt the Gale & Ray Beach Endowment Resolution as presented. Scott Frosch seconded the motion. Unanimously passed.

Following this motion, Keith Dunlap suggested making a resolution pertaining to the Stewardship Fund (endowment) similar to this one. Keith volunteered to draft this resolution and present it at the next quarterly meeting.

Safety Committee

Cave visitation protocol for Covid-19 Update: Danyele Green gave an overview of the Covid policy as posted on the IKC website. Visitors may refer to specific cave management plans or contact cave patrons to inquire about group size limits and/or other guidelines for visitation.

Presentation of Safety Committee Responsibilities: Matt continued the discussion from the previous IKC quarterly meeting regarding the formation of a Safety Committee. An overview of proposed Safety Committee duties was circulated to the IKC Board for review via email prior to this meeting. Based on this document, the Board discussed whether or not it was preferable to have a standing or ad hoc committee for 'as needed' safety issues/concerns/policies. Laura Demarest inquired about the configuration of a potential safety committee and Paul Uglum iterated that Cave Patrons and Property Managers already share in managing some of these safety-related matters. It was also noted that other items could be added to this document draft including language about revoking an individual or group's privileges if necessary as well as provisions for restricting access to the property and/or cave due to dangers or misuse. Accidents should be reported and reviewed in internal discussions so that all Board members are made aware and appropriate decisions can be made. Matt shared concerns about suitable volunteers being available and dedicated to this committee as it presents a potentially large time commitment. Tom Sollman questioned whether or not disclosing known hazards may increase liability and if waivers should be updated accordingly. Matt shared what he learned after recently consulting with an attorney about liability with topics including waivers, insurance, policies, and whether or not the IKC is actively managing hazards. Joe Kinder suggested reviewing how the NSS (National Speleological Society) and/or similar organizations such as SCCi (Southeastern Cave Conservancy) handle similar issues. It would be prudent to review their policies and discuss at a future meeting.

Outreach/Education Committee

New committee chair - find a replacement: Matt explained that a new Education Committee chair would be needed and some discussion ensued on reevaluating and updating the goals and tasks of this committee. Sue Vernier posited that the term "education" is broad and may carry different meaning to the organization now than it has in the past. Many of the Education Committee's activities depend on the background and interest of the volunteers involved as well as available equipment for use. Matt pointed out that 'education' is in the IKC mission statement. Carla suggested that education efforts should be targeted toward membership recruitment and retention. Paul explained that Cave Patrons often act as educators by providing relevant information and directing potential cavers towards grottos/NSS for more resources. Keith shared that the IKC's 501c3 tax exemption includes "Education" so it is imperative that this role is filled. Matt suggested scheduling an interim meeting to discuss how to hone Education duties/roles and consider ways in which the IKC can continue to carry out this mission in the future (i.e. *IKC Update*, hosting Zoom webinars, social media posts about science, etc.)

Election ad hoc Committee

Committee discussion and timeline for 2022 elections: Carla gave an overview of her compiled research on how other organizations are structured in regards to how elections are conducted. She has spent an extensive amount of time analyzing this information, but requests more time to solidify recommendations before formally presenting them to the IKC Board for review. The other committee members (Laura, Keith) agreed that they don't necessarily think that any major changes need to be made at this time in terms of how the IKC performs elections.

NCRC Training

Board approval for NCRC to use Sullivan Cave for OCR training and ICEE: Laura is currently helping to coordinate the two upcoming NCRC (National Cave Rescue Commission) training events and would like to receive formal approval for use of Sullivan Cave for both sessions. The OCR (Orientation to Cave Rescue) training will use the cave for a mock rescue where a patient undergoes a litter evacuation. The ICEE (In-Cave Emergency Exercises) class simulates small party rescue methods, emergency bivouac, and other topics relevant to a small group managing an extended exit without the aid of a surface "call-out" response. The ICEE class size is limited to 12 and a cave camping component is associated with this training. Paul, the Sullivan Cave Patron, mentioned that camping in Sullivan cave is not allowed, but as this is a special request coming from NCRC cavers who are trained and conscientious, he supports a special exemption. Keith made a motion to use Sullivan cave for the NCRC's OCR (November 7th, 2021) and ICEE classes (December 4-5th, 2021). Richard Vernier seconded the motion. Unanimously passed.

Laura also asked if it would be possible for the IKC to make a donation of \$100 to the facility being used for the classroom portion of the OCR training – LCIS (Lawrence County Independent School). There was no disagreement. Keith will send a check to the school and Paul will send out notices to grotto liaisons to not book Sullivan Cave on those training days.

Membership Questionnaire

Carla wanted to reiterate that as a result of the Membership Questionnaire this past spring, data was compiled and "Action Items" were developed during a lengthy discussion via Zoom on 7/21/2021.

Plant Inventories

Carla explained that a recent plant inventory had been conducted for the Lowry property and she had been researching if other properties/nature preserves also had documented inventories. She suggested that Wyatt Williams may be willing to help and that the Indiana Natural Heritage Database from the Division of Nature Preserves may be interested in helping compile this information for our state nature preserves. Carla has started a spreadsheet tailored for IKC usage and plans to submit an article for the IKC Update in the future.

2022 Property Field Days

Carla brought up the idea of future member events/field days/hikes to highlight IKC properties and provide programming for IKC members. She mentioned that she'd like to move forward with planning a field day event at several properties in 2022 – one for each season? These field days could serve as Ed/Outreach objectives and could be member-only events or open to public. She plans to share more details at the December IKC meeting.

Preserve Updates and Preserve Manager Report

Buddha Karst Nature Preserve: Property Manager Keith Dunlap reported that a big oak tree came down across trail recently will need to be removed soon.

Lowry Karst Preserve: Keith reported that Property Manager Ray Sheldon recently had surgery, but is back on duty. He painted the road gate and has been routinely mowing and performing other tasks when he visits the property every two weeks.

Orangeville Rise Nature Preserve: Property Manager Carla is working on IKC website updates for the Orangeville Rise page. Invasive species were recently sprayed for the first time and the "air potato" aka "Chinese yam" was observed. These management activities were documented and shared via IKC social media.

Scientific research permit – Sarah Burgess (Indiana Geological Survey) requests permission to conduct water monitoring at the Orangeville Rise site. Specifically, a grab sample would be collected once annually during the dry season for next 10 years. Sarah has been sharing the results of her research and has contributed content to the *IKC Update* and the IKC Facebook page. The Division of Nature Preserves has already approved this permit so the IKC would need to also approve. Keith made a motion to approve permit IKC 01-22 and authorize the IKC Property Manager to renew each year for duration of this project. Paul seconded the motion. Unanimously approved.

Robinson Ladder Cave Preserve: Carla reported that Jamie Winner has mowed twice. Tree of Heaven, an invasive plant, was recently identified and will need to be sprayed in fall. The cave was available for trips during Cave Capers in August and has seen a recent uptick in activity. Keith reports that the Chestnut tree plantation looks good.

Shawnee Karst Preserve: Property Manager (Vacant)

Property Manager Position - Joe Kinder expressed interest, but had questions about the necessary duties. Currently, Keith Dunlap is mowing twice per year and Tom has done some light work. There is a mower onsite Keith had considered selling, though he may opt to leave it in shed for continued property maintenance. Ellen Jacquart suggested mowing in fall/winter to keep the clearings open, which is valuable to wildlife. Keith would like to see more trees planted in 2022. After some discussion, Joe agreed to help with workdays, but isn't able to commit as full-time Property Manager. Danyele suggested asking the membership to see if anyone lives nearby and is interested. Paul and Matt recommended emailing the membership and possibly soliciting interest on social media. Matt advocated for making increased efforts to recruit more IKC volunteers rather than overbooking existing ones for these duties.

Shawnee Karst Preserve Management Plan Update – Keith recently shared the updated Plan with the IKC Board via email and asked for approval. Paul made a motion to approve the Shawnee Karst Preserve Management Plan as written and presented on 9/24/2021. Danyele seconded the motion. Unanimously passed. Paul will help with updating the Sullivan Management Plan using the Shawnee Karst Preserve Management Plan as a template. Keith will inform the Upper Twin Cave Patron of changes in Management Plan.

Sullivan Cave Preserve: Property Manager Keith reported that $\sim 50\%$ of the property has been treated for invasive species and is currently in pretty good shape in that regard. He also spread \$100 worth of grass seed in the camping area to overcome stiltgrass with some success. Jamie Winner brought his tractor and mowed the 2-acre neighboring lot prior to Classified Forest enrollment. Keith subsequently treated the mowed area with herbicide to kill the fescue. Paul still getting the same amount of requests for cave access, but group sizes are smaller.

Wayne Cave Preserve: According to Property Manager Danyele Green, new stone and grading was completed on the driveway in August. The property has been mowed several times, and she handles camping requests approximately every three weeks. The porta-potty is clean and smells great! On the same day as gravel delivery, she conducted a led-hike with the South-Central Indiana Native Plant Society (co-hosted with Nic Garza). Five people attended and walked the loop trail. The sinkhole pond apparently has a rare type of sedge that is highly environmentally desirable so the pond is a high priority for protection. The group also identified a type of fern that is rare. It should be noted that as Nic and Danyele were walking the property before this event, there was someone shooting inside the Wayne property boundaries - very close and enough to cause alarm and concern. No one was identified or seen, but the surrounding neighbors have been notified and are keeping an eye out for trespassers with instructions to

call the sheriff and/or a Conservation Officer. Danyele has also been speaking with other neighbors who hike the trail regularly and asked them to help keep an eye on the property. Another hike is tentatively scheduled for spring ephemerals to be co-guided with Nic Garza.

Wayne EQIP update: Cara Bergschneider, NRCS District Conservationist, visited the property to review invasive species work in order to approve the EQIP payment. She recommended a prescribed burn be conducted in the 2-acre clearing, located on the southern 20 acre portion of the property. A prescribed burn would enhance grasses (spring) and pollinator plant establishment (fall) and is tentatively scheduled for fall 2022/Danyele will obtain contractor bids and determine cost.

Indian Creek Conservation Easement: Matt will reach out to Rand to see about the inspection for Indian Creek Conservation Easement (was due in summer).

Land acquisition activities

Sullivan Cave Preserve 2-acre expansion discussion: Matt referenced a recent email motion stating that the IKC would offer \$29,000 to acquire the adjacent 2-acre expansion. The landowner (Keith Dunlap) agreed to take \$16,000 for the property (\$8,000/acre). Another motion will need to be made to direct the IKC President to sign a purchase agreement for the expansion, with IKC paying most of the closing costs (<\$1,000). The sale could be executed before the December meeting. Paul made a motion to direct the IKC President to execute the Purchase Agreement for the 2-acre Sullivan Preserve expansion for \$16,000, plus necessary closing costs. Laura seconded the motion. 11-0 in favor (with two abstaining).

Source of funding for the acquisition: General Fund or Land Acquisition Fund? Which fund should be used to cover the purchase of this 2-acre expansion of the Sullivan Cave Preserve? Currently, there is \$64,490.42 in the Land Acquisition Fund and \$81,862.31 in the General Fund. Tom suggested the Land Acquisition Fund be used because the IKC was purchasing land. Keith suggested to pay out of the General Fund because this acquisition is more of a strategic/tactical acquisition, intended to prevent encroachment and provide a new driveway route, rather than purchasing cave or karst property. Paul advocated for a new driveway soon as it is a necessary safety issue. To improve safe entry/exit to the property, the old driveway should be removed which will cost several thousand dollars. The general consensus was that using either fund would be acceptable from a governing standpoint, so this proves to be more of a philosophical dilemma. After allowing for sufficient discussion, Matt took an informal 'tally' to gauge the Board's leaning on which fund to use. Results were 8 in favor of using the Land Acquisition Fund and 4 in favor of using General Funds. One Director abstained from voting. A subsequent question

was posed: "Can we replenish the Land Acquisition Fund with General Fund, if needed?" Dunlap answered "Yes". Paul wondered why the General Fund is so large and whether or not the IKC should be utilizing this money, and if so, for what types of expenses?

Items from the Floor

- 1) Matt led discussion regarding a potential Land Acquisition committee following recent conversations with an inquiring IKC member. Matt has given the concept much consideration and has a lot of ideas, but at this time is questioning if the IKC has available volunteers who can handle a formal workload? Do we need a formal committee for something we are already doing? It was acknowledged that the IKC Board is tasked with serving in this capacity, as land acquisition is one of the primary goals. Goni acknowledged that it would be beneficial to have a "hot" list that may include desirable properties, especially those likely to undergo a property transfer/change in the future due to aging owners, encroachment, etc. It would be prudent to be more proactive about soliciting interest and making certain owners aware that the IKC would be interested in their property. Keith indicated that he has been conducting similar outreach informally for years on his own. Danyele suggested that someone could be mentored to assist in these duties. Matt speculated about how to create an action item for this. Paul inquired about which caves we should be looking at and whether it might be possible to compile collected knowledge from current Board members. A shared spreadsheet could be created in an effort to formalize an updated acquisition "wish" list. Methods for ranking could be devised involving priority, affordability, feasibility, etc. Matt suggested a Zoom meeting to discuss further.
- 2) Paul brought up another point in the safety discussion concerning the inclusion or designation of a media point of contact for emergencies, etc. it was confirmed that it should be one of the IKC Officers.
- 3) Keith provided an update regarding the neighboring property between Wayne and Buckner which the owners are looking to sell. Keith had another conversation with the owners and an adjacent owner is also interested in purchasing. There may be an option to split the acreage with the neighbor.
- 4) Jim Adams commented that there are a number of caves the IKC doesn't own, but helps manage (Shiloh, Suicide) and wondered if there are any others with similar management practices. In the past it used to be an IKC priority to keep these caves open and accessible is it still? If another property owner approached us and wanted the IKC to manage, how would that be handled? Goni inquired on how this might affect liability? Keith stated that there is not much change in liability and unfortunately, sometimes efforts made to keep these caves in the fold don't pay off.

- 5) Keith asked if there was interest in another IKC mini-fundraiser (persimmon pulp and honey) several 'yes' responses.
- 6) Laura reiterated that the IKC needs some sort of Archive/Cloud/Repository for documents/waivers/ templates, etc. as a means for future-proofing the organization. Laura can look up some quotes and make a proposal for the December meeting. Keith suggested the IKC create a position for an Archivist/ Custodian who would be the gate-keeper for what is retained in this shared repository.
- 7) Keith would like for the IKC to place an order for more stickers to mail out in February to membership with the election mailings. Laura will provide the information used for the last run of stickers so more can be made.

8) Joe brought up the idea of another mini-fund-raiser involving IKC T-shirt. He offered to speak with Charlie Vetters who has worked with grottos in the past to donate printing costs and set-up an online fund-raiser. Joe will spearhead fund-raiser and speak with Charlie about designs and costs.

Next Meeting Date and Place Selection

Sunday, December 12th, 2021 at 1:00 PM EST – Bluespring Caverns (in-cave!)

Adjourn

The meeting was adjourned at 4:16 PM EDT.

Respectfully compiled and submitted by Laura Demarest, IKC Secretary

...continued from page 19

ered before dismissal to debrief so that all would understand the full scenario and the Instructors could provide feedback. All students were given a certification card as well.

It can be said that "experience is the best teacher" and students attested to many eye-opening realizations and as they worked to overcome challenges in a dynamic, underground learning environment. Much positive feedback has been received as a result of this seminar and the IKC is grateful to all involved. Special thanks to generous donors Barbara Hanka, Matt Selig, and Stephanie Suen who allowed the IKC to offer registration discounts for members, and full scholarships for the three licensed First Responders. Rescue trainings such as OCR provide a valuable opportunity for the cave community and rescue personnel to work together to build trust and familiarity

before needing to work together in the event of a real rescue, though the best rescues are the ones that are prevented! Stay safe out there, folks!



NCRC Instructor Laura Demarest demonstrates patient packaging on class volunteer Grace Bohnenkamp.

photo courtesy Carla Striegel-Winner

I	NDIANA KARST CONSERVANCY	, PO BOX 2401, INDIANAPOLIS, IN 46206-2401	
I would like to	help the IKC protect Indiana's unique caves an	d other karst features. Enclosed is:	
\$	for IKC membership dues at \$15 per year (due	s 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	e contact me.	
	I would like to volunteer to help. Please conta	act me.	
NAME		Make checks payable to the Indiana Karst Conservancy, Inc. and mail to the	
ADDRESSCITY/STATE/ZIP		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-	
		tion with membership dues and donations fully tax deductible.	
PHONE #			