

# IKC Update

NUMBER 51

DECEMBER 1998

Instrument Book Vol. Page  
9800010657 OR 102 529

## WARRANTY DEED

THIS INDENTURE WITNESSETH that Robert S. Decker and Robert Keith Dunlap, as tenants in common of Marion County, in the State of Indiana, CONVEY AND WARRANT to Indiana Karst Conservancy, Inc. of Marion County, in the State of Indiana for and in consideration of One Dollar (\$1.00) and other valuable consideration, the receipt whereof is hereby acknowledged, the following described real estate in Lawrence County, Indiana, to-wit:

Part of the west half of the southeast quarter of Section 20, Township 6 North, Range 2 West, Perry Township, Lawrence County, Indiana, being more particularly described as follows:

COMMENCING, for reference, at a stone found at the northeast corner of the northwest quarter of the southeast quarter of said Section 20; thence south 00 degrees 26 minutes 09 seconds east along the east line of the west half of the southeast quarter of said Section 20 a distance of 1039.92 feet to a PK nail set in the center line of State Road #54, the same being the true POINT OF BEGINNING of this description;

THENCE south 00 degrees 26 minutes 09 seconds east, continuing along the east line of the west half of the southeast quarter of said Section 20, and generally along an old existing fence line, at 34.20 feet passing an iron pipe set, in all 1404.52 feet to an iron pipe set for corner; THENCE, south 89 degrees 45 minutes 56 seconds west a distance of 849.59 feet to an iron pipe set for corner; THENCE north a distance of 1341.92 feet to an iron pipe set for corner at the southeast corner of that certain tract of land as conveyed to Curtis and Karen Owens by deed as recorded in Book 217 on page 908, Lawrence County Recorder's Office; THENCE, north 08 degrees 06 minutes 56 seconds east along the easterly line of said tract, at 257.70 feet passing an iron pipe set, in all 317.89 feet to the center line of State Road #54, THENCE south 77 degrees 16 minutes 35 seconds east along the center line of State Road #54 a distance of 325.38 feet to the P. C. of a curve to the right, said curve having a radius of 1909.85 feet, and a central angle of 15 degrees 17 minutes 55 seconds; THENCE in a southeasterly direction along said curve to the right an arc distance of 509.95 feet to the POINT OF BEGINNING, containing 30.00 acres of land, and being subject to any easements and rights-of-way of record.

EXCEPTING THEREFROM, the following described real estate, to-wit: A part of the West Half of the Southeast Quarter of Section 20, Township 6 North, Range 2 West, Lawrence County, Indiana, and being more particularly described as follows:

Commencing at a 3/4 inch pipe found at the northeast corner of said West Half of the Southeast Quarter of Section 20, thence South 0 degrees 26 minutes 09 seconds East (assigned bearing basis) 1039.83 feet on the east line of said west half to the centerline of State Road 54; thence on said centerline the following two (2) COURSES: 1) 509.82 feet on a 1909.85 feet radius non-tangent curve to the left whose chord bears North 69 degrees 37 minutes 03 seconds West 508.31 feet; thence 2) North 77 degrees 16 minutes 35 seconds West 35.13 feet to a set Mag nail and to the POINT OF BEGINNING; thence South 0 degrees 02 minutes 12 seconds West 51.25 feet to a 5/8 inch rebar set on the south right-of-way of the aforesaid State Road 54; thence continuing on said line 199.53 feet to a set 5/8 inch rebar; thence South 89 degrees 59 minutes 49 seconds West 328.00 feet to a one-inch pipe found at the southeast corner of land of Owen (DR 217/908); thence North 8 degrees 08 minutes 38 seconds East 257.74 feet on the east line of said land of Owen to a one-inch pipe found on the aforesaid south right-of-way of State Road 54; thence continuing on said line 60.19 feet to a nail found in the centerline of said State Road 54; thence South 77 degrees 16 minutes 35 seconds East 290.25 feet on said centerline to the POINT OF BEGINNING; said described tract containing 2.000 acres, more or less.

Leaving POINT CONTAINED after said exception, 28 acres, more or less.

Grantor also grants unto grantee a temporary easement for ingress and egress, which shall expire at 11:59 P.M. on December 31, 2000, over and along the following described real estate, to-wit:

A part of the West Half of the Southeast Quarter of Section 20, Township 6 North, Range 2 West, Lawrence County, Indiana, and being more particularly described as follows: Commencing at a 3/4 inch pipe found at the northeast corner of said West Half of the Southeast Quarter of Section 20, thence South 0 degrees 26 minutes 09 seconds East (assigned bearing basis) 1039.83 feet on the east line of said west half to the centerline of State Road 54; thence on said centerline the following two (2) COURSES: 1) 509.82 feet on a 1909.85 feet radius non-tangent curve to the left whose chord bears

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of perpetual protection**

North 69 degrees 37 minutes 03 seconds West 508.31 feet; thence 2) North 77 degrees 16 minutes 35 seconds West 125.38 feet to the POINT OF BEGINNING of the easement centerline description; thence South 13 degrees West for a distance of 80.00 feet; thence South 53 degrees East to the property line (approximately 133 feet). The width of the easement will be 8.00 feet on either side of the centerline (16.0 feet total).

Subject to taxes.

Grantors certify that the above described real estate is not "property" as defined in Indiana Code 13-7-22.5-6. It has not been used as a landfill or dump, contains no underground gas storage tank(s) and contains no hazardous wastes. Thus no disclosure statement is required by Indiana Code 13-7-22.5-1, et seq., is required.

Dated this 27th day of October, 1998.

Robert S. Decker

Robert Keith Dunlap

STATE OF INDIANA  
COUNTY OF LAWRENCE, SS:

I, John E. Thomas, the undersigned, a Notary Public in and for said County and State, this 27th day of October, 1998, personally appeared Robert S. Decker and Robert Keith Dunlap, as tenants in common and acknowledged the execution of the foregoing deed.

Witness my hand and seal, and whereunto I have hereunto subscribed my name and affixed my official seal.

John E. Thomas, Notary Public  
a resident of Lawrence County, IN

My Commission Expires:

Feb. 3, 2000

THIS INSTRUMENT WAS PREPARED BY JOHN M. PLUMMER, JR., ATTORNEY AT LAW.

Mail Deed to: P.O. Box 2401, Indianapolis, IN 46206

DULY ENTERED FOR TAXATION  
THIS 28th DAY OF Oct 1998

Jack D. Cummings

9800010657  
Filed for Record in  
LAWRENCE COUNTY, IN  
JULIE CHASE  
On 10-28-1998 At 10:36 am.  
WARR DEED 12.00  
Book OR Vol. 102 Pg. 529 - 530

**Sullivan Cave:  
IKC's first preserve**

# INDIANA KARST CONSERVANCY, INC.

PO Box 2401, Indianapolis, IN 46206-2401

*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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## MANAGED CAVES/PATRONS

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### Grotto Cave

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### Shiloh Cave

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Cover - A copy of the IKC's recorded deed for  
the 28 acres surrounding Sullivan cave.

Editor Keith Dunlap  
Publishers Keith Dunlap & Bambi Erwin



# QUARTERLY MEETING REMINDER

**SATURDAY, DECEMBER 5th, 7:00 PM**

**BLOOMINGTON, INDIANA**

**IU GEOLOGY BUILDING, ROOM 143**

**(SAME ROOM AS BIG MEETING)**

The annual business meeting is for the explicit purpose of elections. It is also for members and other interested persons to have an open forum for talking about cave and karst conservation and related topics. Past, present, and future IKC projects are discussed to solicit comments and input from our members and the caving community as a whole. The meeting is informal, and everyone is encouraged to attend and participate.

Preliminary Agenda Items: Brief recaps of last quarter's activities; Sullivan Cave acquisition status; Other land acquisition progress; IDNR cave permit policy; DNR bat gate project; HNF inventorying project; Forest Service award; Cave water sampling in Harrison County status; Confined feedlot regulations; and more....

Meeting directions: The Geology Building is located at 10th and Walnut Grove. Tenth Street runs east/west and is one of the major streets that cut across the IU Campus. Park behind the building, parking permits are not enforced at night. Enter the building from the rear at the west end. The room is halfway down the hall on the right.

## EVENTS CALENDAR

- 05 DEC = IKC QUARTERLY MEETING, Bloomington (see above)
- 19 DEC = HNF CAVE INVENTORY WORKDAY (contact Kriste Lindberg)
- 16 JAN = HNF COMMITTEE MEETING/HNF CAVE INVENTORY WORKDAY
- 20 FEB = HNF CAVE INVENTORY WORKDAY (contact Kriste Lindberg)
- ?? FEB = IKC DIRECTOR'S MEETING (date/place TBD)
- 13-14 MAR = NCRC BASIC RESCUE TRAINING, Bloomington
- 20 MAR = IKC ANNUAL BUSINESS MEETING, Greenwood (tentative)
- 27 MAR = NSS BOARD OF GOVERNORS MEETING, Greenwood
- 10-14 APR = SINKHOLE CONFERENCE, Pennsylvania
- 12-16 JUL = NSS NATIONAL CONVENTION, Idaho
- 19-23 OCT = NATIONAL CAVE MANAGEMENT SYMPOSIUM, Tennessee

For more information on the Indiana Karst Conservancy, visit our web site at <http://www.caves.org/conservancy/ikc> or write to our PO box. Membership to the IKC is open to anyone interested in cave and karst conservation. Annual dues are \$15. Please see inside back cover for the membership application form or to make a donation.

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...

Well, folks, we've done it! We went out and bought ourselves a cave. I am referring, of course, to Sullivan Cave; the third-longest cave in Indiana. Although we remain nearly \$10,000 in debt, I have little doubt that we'll eventually raise the remaining money. It is a testament to the generosity of cavers in general and the active membership of the IKC in particular that we were able to do this in just little more than one year. This is definitely one of our crowning achievements over our fourteen-year history. Thank you for your support.

Now what are we going to *do* with this cave?

Those who have struggled to help raise the money, putting together grant proposals, donating their time and financial resources, deserve a little time off to rest on our laurels. At the same time, we need to recognize that our trip down the road of cave management is just beginning. There is much more to do, more challenges ahead. Not just acquiring additional properties, but managing the ones we already have.

Obviously, the first order of business is to get the IKC out of debt. We have already acquired liability insurance, which will be another expense we need to budget every year. We have more workdays planned for the property, including building an access road next summer which will cost us another \$1000 to \$2000. Even when that's done, there is the matter of maintenance. Who is going to keep the clearing mowed? Who is going to maintain the fences and paths? How will we react if someone decides to cut down some trees for firewood while we "aren't looking?" How will the neighbors react to IKC members camping on the property? From where I stand, the "ad hoc" Sullivan Committee is beginning to look more and more like a permanent fixture in the operations of the IKC.

There is also management of the underground resources. Now that we have the cave, there's been a sudden influx of requests for access. Can we expect one person to deal with all this? How can we effectively nominate "approved trip leaders" under our management plan? How do we balance the sometimes-conflicting use of Sullivan Cave for education, science, and recreation? Will we manage to keep everyone happy, or eventually find some way to anger everyone? I fully expect someone down the road to get irritated at the IKC over something. The cave management plan must be a living document, one we can alter as the situation and experience dictates.

Finally, we need to think more long-term with regard to how this property will be protected. Although I can't foresee the IKC ever folding as a legal entity, I also know that the unforeseen frequently happens. We need to prepare for this and see what we can do to ensure this property remains protected even if the IKC disappears. I can understand why some folks would prefer not to think about this, and why we'd choose to avoid placing restrictions on ourselves at this time. Yet I think the property would benefit if we eventually sold a conservation easement to some other organization; one that not only shares our management philosophies, but who we can trust to work for the betterment of the cave. Such a sale could also provide seed money for our next land purchase.

Addressing these issues will bring new challenges for the IKC. But as I look back on our history, we've consistently risen to the challenge. I'm confident that the above concerns can and will be addressed. Private landowners and government agencies manage caves all the time. With our focus on karst, I'm sure we can do as well or better than they do.

- *Bruce Bowman*

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## NEWS BRIEFS...

- The Indiana Department of Environmental Management (IDEM) is currently in the rule making process to formula new regulations for confined animal feeding operations (CAFO). Currently most CAFOs are poorly regulated or are completely unregulated even though some operations can produce more animal waste than many small towns that require full sewage treatment plants. This obvious contradiction in environmental protection is due to Indiana's long history of pro-agricultural legislation and the lobbying power of the Indiana Farm Bur-

eau. The formulation of new regulations is only now being addressed because: 1) Large corporate CAFOs are displacing many "family farm" operations, 2) the EPA is working on their own set of regulations which will apply to Indiana if Indiana does not formulate their own regulations, and 3) Numerous water quality problems have been reported related to CAFOs. The regulations primarily will address manure storage (usually in lagoons) and manure application to farm land. Special emphasis/concerns are being proposed for CAFOs in karst areas where lagoon construction is problematic and improper manure application can allow off-property manure transportation through the karst. The IKC will be providing comments to these regulations before the end of the comment period (December 31st).

- ☐ The Indiana DNR Division of Reclamation has approached the IKC for assistance in installing bat-friendly gates on several old coal mine entrances in Pike County. The division has the responsibility of closing mine entrances that may be a hazard to residents of the area. The usual method of closing the mines is with a bull-dozer or backhoe. The division also has the responsibility to check the mines prior to closing for use by endangered bats. This is usually done by visiting the cave entrance and monitoring with a bat detector or by netting the entrances. If bats are using the cave, but are not an endangered species, physical closure can proceed. Hundreds of entrances have been closed in the past. In 1996, two mine entrances (thought to connect to the same mine system) were found to be used by Indiana bats. This precluded the entrances from being closed in the traditional way, rather bat gates would need to be used. The division also is rethinking its strategy on closing mines used by non-endangered bats, if bat gates can be placed on the mine entrances economically. Roy Powers of the ACCA has consulted with the DNR and Keith Dunlap has also visited the mine sites. While these mines are not caves, the IKC has the expertise to install the gates and this project is definitely a positive thing for the bats. After polling some of the membership to determine their support, the IKC has tentatively expressed an interest in gating seven mine entrances next spring with the option to do three more before September. At this point the IKC is working on a contract bid for the seven gates and investigating other issues such as insurance compliance, etc. Assuming we can negotiate an agreement, we will likely do three gates (one site) on a weekend in early May, followed by the other four gates (one site) on a weekend in June.
- ☐ The IKC and the DNR has undertaken a long term temperature monitoring project in several Indiana bat hibernacula (Coon, Grotto, Ray's). Now in our sixth-year, we are accumulating a lot of data which may prove useful in determining why some caves are better than others for Indiana bats. Our preliminary report covering the first three years of data has raised enough interest that Bat Conservation International has initiated a similar monitoring study in twelve of the major hibernacula in Indiana, Kentucky, Missouri, Virginia, and Tennessee. In Indiana, Twin Domes, Batwing, Wyandotte, Saltpeter (Crawford), and Ray's caves were equipped with multiple dataloggers. Data will be retrieved each summer by local volunteers and forwarded to BCI for compilation. Scott Johnson is coordinating this project for the Indiana caves.
- ☐ In early October, Dr Jerry Lewis and Tom Sollman made their last trip into Binkley as part of their water sampling project partially funded by the IKC. The purpose of the study is to obtain a baseline for pollution levels and to determine if certain tributaries contributing pollution can be associated with surface developments. Due to Binkley's size, some of the trips required traveling over four miles round trip to collect samples. The sample results are currently be summarized and a report will be forthcoming.
- ☐ Unrelated to Sullivan Cave, Sullivan Hill Pit Cave recently changed hands. This small cave is located about three-quarters of a mile west of Sullivan Cave. The landowner found out about the IKC from an article in the Bedford newspaper and asked for the IKC's help with managing his cave. After some discussion, the IKC was able to assure him that this cave didn't need to be gated. He is receptive to visitation by knowledgeable/experienced cavers as long as there is at least three in the party and he isn't bothered for access too frequently. It's always a good idea to develop friendly relationships with our neighbors, and hopefully these folks will help us keep an eye on things at Sullivan.



- ❑ The NSS National Cave Rescue Commission (NCRC) is organizing a Basic Cave Rescue Orientation training weekend in Bloomington next March. This is something that every caver should participate in to better prepare volunteers, should they become involved in a real cave rescue. The first day of the training is in a class room, discussing rescue techniques, organizational skills, and other information cavers should know to contribute to a successful rescue. The second day of the training, is to put to use what you learned on the first day by participating in an in-cave mock rescue which will be conducted in Sullivan Cave. For more information, contact Amanda Clark at [amandacaves@msn.com](mailto:amandacaves@msn.com).
- ❑ At the September IKC meeting, Bob Vandeventer was appointed the Patron for Sullivan Cave. Bob's primary responsibility will be to coordinate trips and oversee the cave's protection. With the cave available for visitation once again, the requests have been pretty heavy. Experienced cavers who can provide their own approved leader (someone familiar with the cave and is known to practice conservation oriented caving) should have little trouble scheduling a trip. Novice groups who will need a leader will need more lead time. At a minimum, *all trips should be scheduled at least two weeks in advanced*. Requesters for trips should review the access policies in the cave's management plan available on the IKC's web site at <http://www.caves.org/conservancy/ikc/>. See page 2 on how Bob can be contacted.
- ❑ With the IKC becoming a land-holding conservation organization, it is comforting to know that we are not alone in what we are doing. A recent census by the Land Trust Alliance shows that the popularity of land trusts has skyrocketed. In the past ten years, the number of land trusts has almost doubled to 1,213. Land trusts currently protect more than 4.7 million acres, have more than one-million supporters, and have over 50,000 active volunteers.
- ❑ Speaking of expanding land trusts, the Southeastern Cave Conservancy has just closed on their 13th property, this time West Virginia. The 29.5 acre tract contains the historically significant Lobelia Saltpeter Cave. This new addition brings SCCi's holding to 26 caves and 622 acres in six states. For more information on SCCi, visit their web site at [www.scci.org](http://www.scci.org).
- ❑ The Crane Karst Study continues to make progress in documenting all the known caves/karst features on the Crane Navy Depot. This project with ties to the Indiana Cave Survey and the Indiana Karst Conservancy has made 17 trips onto the property, thus far surveying four caves and one karst feature. The longest cave, Aunt Liz, was surveyed to 2265 feet. Blume Cave is nearly 600 feet long, part of which was virgin. In Mossy Hole, an October 9, 1869 date was found scratched on the wall, likely preserved only because the caves on the Depot have been pretty much off limit for the past fifty years. Ray Sheldon has been the main organizer of this project with Bruce Trotter handling most of the data compilation tasks. Other participants include Jerry Walker, Kevin Wools, Keith Dunlap, Steve Collins, James Adams, Julie Bringle, Beth Sheldon, and Bambi Erwin.
- ❑ During the second week of October, Kriste Lindberg was invited to give a presentation on the IKC at the National Council for Geographic Education's Annual Meeting, in Indianapolis. The timing of the presentation was perfect, as it was also National Earth Science Week! The presentation was very well received. Among those at the conference were a few other cavers/karst specialists from around the country who also presented and were just as warmly received. A number of the educators we met are very interested in working with the caving community on karst issues. This is a good thing - and remember, they are teaching future generations of landowners, media, cave visitors, and cavers who impact caving/karst in general. So, the more responsible, accurate information that they have, the better. Incidentally, Hilary Lambert Hopper, the Editor of the American Geographical Society's journal, *Focus*, has graciously given the IKC several copies of a special edition that came out this summer which features an article on karst, "Living with Karst and Teaching About Karst." If you would like a copy of this magazine, just let Kriste know. Hence, we learned a lot, met interesting people, made good contacts, and discovered more about other progressive karst/caving projects around the country.
- ❑ Four new members have joined the IKC in the past quarter. Welcome Jack Wood (338), Brandon Billings (339), Eric Weaver (340) and David Green (341). The IKC membership now stands at 153.



## ANOTHER WORKDAY AT INDIAN CREEK SINKS

by Bruce Bowman and Keith Dunlap

The Sinks of Indian Creek in Harrison County is the main source of water for Harrison Spring, the largest spring in Indiana. In 1997, a conservation easement for this property was acquired by The Nature Conservancy and will eventually be transferred to the IKC. Unfortunately, as reported in last December's *IKC Update* (#47), there is a substantial trash dump upstream of the sinks, on top of a 50-foot bluff. A workday last year, in which one 20-cubic-yard dumpster was filled, failed to complete the cleanup (in actuality it barely made a dent); so another workday was planned for this year. This collaborative effort between TNC and the IKC resumed on Saturday, November 7.

Unlike last year, the 1998 cleanup dawned fairly warm and clear and stayed that way all day. People started to arrive at about 10:45, and within another hour or so we had a substantial work crew; including a number of local TNC volunteers. TNC also arranged two dumpsters this time around; one 20-yard dumpster and another with a 30-yard capacity (the IKC and TNC had previously agreed to split the cost of these dumpsters). The work began right on schedule, with everyone full of hope that we would complete the job this time around.

There isn't much to say about cleaning up a trash dump, you just jump in and get your hands dirty. As before, the dumpsters had to be dropped about a quarter mile from the actual dump site because they would have been difficult to remove once they were full. Therefore, we had to shuttle all the trash to the dumpsters. This was helped substantial-

ly when Terry Clark arrived with not only his large pickup, but also a long flatbed trailer. TNC supplied the heavy-duty trash bags left over from another project and we filled them with the smaller items; larger items were hauled intact.

After several hour, it became clear that we had a problem. There was still much more trash at this site than we expected. Things didn't look too bad with the fall leaves and some humus scattered on top, but the further we dug the more trash we found. Even 50 cubic yards of dumpsters weren't going to be enough. Undaunted, the workers continued with hauling away everything as best we could.

We also sent one person down to dig up a freezer located down by the sinks, which was not only embedded in the bank of the stream but was completely full of silt. After two hours of near-constant digging, the freezer was freed and hauled away, and a silt-filled tire weighing perhaps 250 pounds was also removed from the stream below the dam.

About 3 PM, most of TNC volunteers hiked down to the sinks to see what the main attraction of the property looked like. The caver volunteers continued to haul trash for another hour and then called it quits, satisfied that the dumpsters were piled high enough to consider them "full".

In summary, it was quite disappointing to fail again in finishing the clean-up despite having spent two workdays and over removing 70 cubic-yards of trash. Nonetheless,

...continued on page 21

Volunteers overlook the bluff along Indian Creek where the trash dump is located. The trash was collected in trash containers and bags and hauled on the trailer to the dumpsters located about 1/4 mile away.

photo by Dick Vernier





## SALTPETER CAVE WORK PROJECT

by Keith Dunlap

Saltpeter Cave in Crawford County has been a documented Indiana bat (*Myotis Sodalis*) hibernacula even before the bat was identified as a distinct species (Blatchley, 1899). Rock stains in the cave indicate bat usage for thousands of years and probably in very large numbers, perhaps hundreds of thousands of bats (Tuttle, 1998).

In more contemporary times, the bat usage in the cave had dwindled to only 22 Indiana bats reported by Mumford in 1953 and 75 bats documented by Humphrey in 1975 (Brack, 1984), but has rebounded somewhat with almost 1000 bats (4 species) counted in 1997 (Brack, 1997).

The cave's physical characteristics are typical of Indiana bat hibernacula with a down-sloping entrance able to trap cold air and a smaller, higher second entrance which forms a chimney effect to draw in cold air during the winter. Because winter airflow is critical to the survival of the bats, alterations of either entrances could make the cave less usable by Indiana bats. Thus, when the main cave entrance was found partially collapsed in the winter of 1996, some concerns were raised. As a result, both Brack and Tuttle independently recommended that the debris be removed to re-establish the pre-collapse cross-sectional area. Scott Johnson organized the workday and Keith Dunlap recruited the cave volunteers.

On August 30th, everyone met at Wyandotte Cave visitor's center and carried the various rock moving tools to the cave's entrance. Prior to beginning the restoration, Tom Sollman and Ernie Payne took detail measurements of the entrance in the "before" condition. Also, Roger Gleitz and Bob Sergesketter took many photos: before, during, and after.

The goal was to remove material only down to the "original" floor of the entrance. Going further might change the airflow characteristics too much, plus disturbing the floor below the recently fallen debris would require approval/supervision of an archeologist since the cave was undoubtedly used by native Indians.

When we started removing the collapse,

...continued on page 17

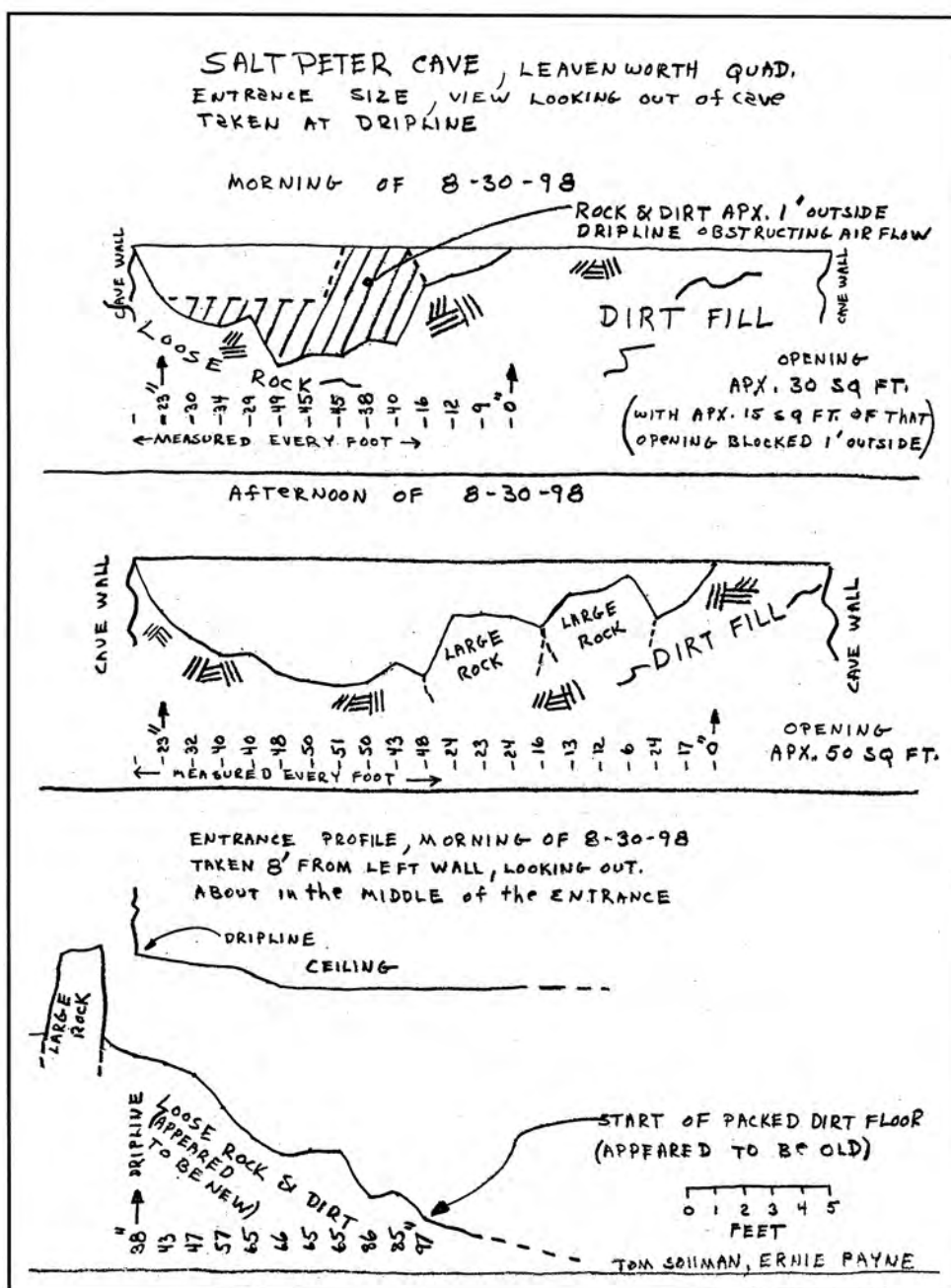


Tom Sollman and Ernie Payne take measurements of the entrance of Saltpeter Cave before debris removal. photos by Bob Sergesketter



Keith Dunlap, Dick Vernier, Mark Deebel, and Sam Russel rolls a breakdown block of limestone away from the entrance of Saltpeter Cave (in background).



Entrance to Saltpeter Cave *before* removal of debris.Entrance of the cave *after* debris removal.

## FREELAND'S CAVE SINKHOLE CLEAN-UP

by John LaMar Cole

The 1998 cave conservation project of the Ohio Valley Region was a huge success! About sixty volunteers representing ten grottos showed up to tackle removing forty years of garbage from a sinkhole that feeds into Ohio's longest surveyed cave, Freeland's Cave. This stream cave, a few miles south of Peebles (in Adams County), courses through heavily sculpted dolomite and has a current surveyed length of 2,323 feet. As was stated in a letter from Dr. Horton H. Hobbs III supporting the project, Freeland's is definitely a "caver's cave." Its passages are only rarely of standing height, with many a dousing bathtub along the tortuous routes toward its furthest reaches. Vandalism in the cave is relatively minor, given the limited appeal of its sopping, narrow crawlways, though there is evidence of some water contamination from the surface, primarily entering the cave from the sinkhole chosen for this year's cleanup efforts.

Freeland's cave possesses a diverse fauna, including *Pseudonophthalmus ohioensis* Krekeler, a troglomorphic beetle found nowhere else in the world. During the project, Dr Hobbs and a couple assistants installed charcoal bugs to monitor contaminants that might enter the cave as a result of the sediment and debris disturbance that is inevitable from such a project. Dr Hobbs additionally installed a thermometer to see if the increase in visitation from the weekend project had resulted in a rise in temperature in the cave.

Dr Hobbs, who suggested the site, was very pleased with the sinkhole restoration efforts. Mr Russell Piercy, the landowner of the sinkhole (who worked alongside us throughout the long day), was also very happy with the results. However, there is still more to do to restore the sink thoroughly; a follow-up project will be slated for a weekend in the next few months.

The project began shortly after 8 AM and ended at dusk, around 7 PM. The only snafu of the day occurred at the very beginning: the Rumpke landfill had not delivered their roll-off box per our agreement. However, it is to their credit that the oversight was expeditiously resolved and the box was delivered within a couple hours. Dan Wickerham however, brought the Adams Brown recycling box as promised, as well as sorting bins for glass, aluminum, & steel, so there was

never any waiting for containerization. The weather was exceptionally accommodating as well. Though cloudy, the expected rain never fell and the temperature remained in the mid-sixties all day -- ideal for manual labor.

The number of volunteers was unusually equal to the task and participants continued to show up throughout the day. Amazingly, the two 30 cu-yd roll-off boxes (one for recyclable metals and the other for landfill waste) were filled to capacity just as the sun was setting, a remarkable agreement between the limits of daylight and dumpster. Thanks to Lance Copas (GCG) & landowner Russell Piercy we had two tractors and wagons, plus Craig Ham (DUG) provided a 4-wheel cave vehicle with a small wagon, making possible the arduous removal and hauling of the twenty or so large appliances and hundreds of trash bags of garbage pulled from the sink. About fifteen feet of refuse was removed, roughly 80% of the total volume of garbage within the sink. Another five to ten feet remain, but given the conical shape of the sink, this represents a considerably less volume of waste than what has been removed thus far. The visible difference of the sinkhole before and after the project was very impressive.

Toward the end of the day, longtime caver Ed Weeks showed up with some very interesting news: in 1961 he had exited Freeland's cave via an entrance in the bottom of this sinkhole. This was the first confirmation that we'd had of a bona fide cave entrance awaiting us below. Apparently in 1961 there was no garbage in the sink, either. Naturally this produced a surge of excavation efforts by the volunteers, but the day was drawing to a close and the dumpsters were groaning at the seams. I can, however, think of no greater incentive for a follow-up project than the existence of an actual cave entrance just below the final layer of fill dirt and refuse. Thanks, Ed!

As the day drew to a close, Steve McCracken (REKT) took charge of cleaning up around the sinkhole as tons of garbage had been hauled up to the periphery and into the field for sorting and removal. He did a commendable job of restoring the area to pre-project tidiness. Scott Engel (WUSS) managed the bonfire throughout the day where low-risk combustibles were incinerated. On Sunday, several of us returned to rake the

ashes, check for abandoned tools (there were none), and estimate the remaining work load. Mr Piercy will not be planting soy beans this coming year and has expressed that we are welcome to return whenever suits us.

Lance and Carol Copas of the Greater Cincinnati Grotto hosted the project, providing very comfortable campsites and a much appreciated campfire on their farm a mere three miles from the project. Carol, a registered nurse, was on-site in the event of injury. Almost miraculously, there were no injuries requiring aid, very surprising considering the high-risk environment of this steep sinkhole choked with rusted metal and broken glass. A great portion of the success of this project is due to their timely generosity and hospitality, without which the project could not have been anywhere near as "user-friendly" as it turned out to be. Toward this end, Don Conover (COG/WUSS, et al) setup

and maintained a portable latrine near the project site a much appreciated act of forethought.

Good spirits remained intact throughout the long, exhausting day. Teamwork was exemplary and jolly. If someone approached me with a good idea, I immediately put them in charge of implementing it. This worked very well. Management of such a project, relying upon an indeterminable number of participants, must remain freeform and adaptable. I have learned that, much to their credit, cavers are very resourceful, self-motivated taskmasters, requiring only minimal supervision to cohere them into a conservation team more than up to the challenge. No project has proven this more conclusively than the Freeland's Cave sinkhole cleanup. All volunteers are to be highly commended for their efforts.

A million thanks to all of you who helped make this project a major success!

## WHAT'S IN A NAME?

by John Kinch

People disagree over the olfactory virtues of Limburger cheese. Cave millipedes do not: They are drawn to the smelly cheese like moths to light.

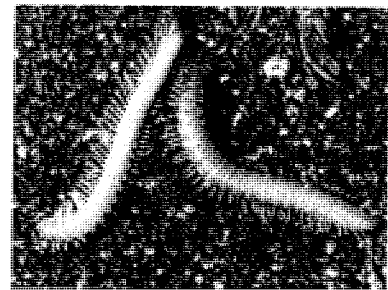
In Seven Springs Cave in southern Indiana, using a pitfall trap baited with Limburger, biologist Julian Lewis recently caught a millipede new to science. He named it *Pseudotremia conservata*. The "conservata" refers to The Nature Conservancy. Lewis and a colleague, Richard Hoffman, wanted to recognize the Conservancy for its cave conservation work in Indiana.

"I'm a fan of the Conservancy," Lewis says. "I've done a lot of cave bioinventory for the Conservancy in Indiana and around. So far, I've found more than a dozen new invertebrate species in three years in the Blue River area." Lewis's work on the millipede was funded in part by a grant from the Conservancy's Rodney Johnson/ Katharine Ordway Stewardship Endowment.

The color of wax, the Conservancy millipede is a part of the creepy-crawly ever-dark cave world of flatworms, crayfish, spring tails, pseudoscorpions, and spiders. In fact, of the some 7,500 described species of millipedes worldwide, most live in caves.

Another diminutive anthropod, though not a cave dweller, also bears the Conservancy's moniker. Biologists, discovered and described the "Conservancy's fairy shrimp" (*Brancheinecta conservatio*) in 1992. A denizen of ephemeral freshwater pools in California's Central Valley, this fairy shrimp is an endangered species because much of its habitat has been lost to development. The biologists who discovered the fairy shrimp wanted to honor the Conservancy, whose specialty is habitat protection.

*Reprinted from the Nov/Dec 1998 issue of Nature Conservancy.*



Subterranean namesake:  
*Pseudotremia conservata*.



## HNF/IKC KARST PROJECT UPDATE

by Kriste Lindberg

Let's hear it for the HNF/IKC Karst Project! Earlier this month, we were delighted to learn that the Project had won the US Forest Service Eastern Region Honors Award, Environmental Protection category. This is a big deal. We won over the seventeen other Forests in our Region. Needless to say, the HNF is very happy with us!

A couple of the committee's founders, Tom Rea and Kathy Welling, along with Ellen Jacquart, and myself will be attending a ceremony in Milwaukee during the first week of December to accept the award. Thanks to all who have helped. But, you're not off the hook, yet. We still have more work to be done! Please keep showing up...we still need you. We will continue to keep you posted on this award, future meeting dates, fieldwork days, training sessions, progress that is being made, and other relevant information...

For instance, there's been some interesting educational stuff going on lately that is sure to benefit the Project...

Earlier this fall, Keith Dunlap and I were given the opportunity to spend a couple of evenings with wildlife biologists, most of them Forest Service personnel, from around the country to help test a bat identification system known as an "Anabat." What is it and how does it work? Simply put, it consists of a high-frequency audio receiver that takes in a bat's in-audible signal, relays it to a laptop computer, displays it on the screen, and saves it in a file. Since different bat species have different signals, they can be differentiated *visually* - by frequency and time. With an experience operator, Anabat can also identify if a bat is simply flying through an area (navigating) or foraging (hunting)...It's a *very* powerful tool.

What can it do for us? It will allow us to identify various bat species and determine where they are in a particular habitat, what they're doing in the habitat, and how they're doing it. Our very own HNF now has this equipment.

In other news, as some of you may have heard, our omniscient HNF contact for the project, Ellen Jacquart, has accepted a new job as Director of Stewardship for The

Nature Conservancy's Indianapolis office. We will miss her. However, let's welcome Pat Merchant, HNF Soil Specialist, as our interim coordinator until a permanent replacement can be hired. They are interviewing for a field biologist who has experience or at least an interest in doing the karst project. Hopefully, they will find such a person within the next few months.

Speaking of looking for people, we need more warm bodies to volunteer with the karst field work! If you are interested, please let us know. (For you veterans, please keep me posted of any change of address.) There will be another quickie training session coming up this spring. We will let you know the details as the planning unfolds.

In the meantime, so you can plan ahead to make the fieldwork days, they are always scheduled for the third Saturday of each month. Every other month, we also have a meeting of the HNF/IKC Karst Project Committee that precedes the fieldwork. All are welcome to attend that, as well.

Here is the schedule for the next four months:

- o November 21, 1998 - HNF/IKC Karst Project Committee Meeting (10 AM). Fieldwork to begin at noon. Meet at the HNF Headquarters for both events.
- o December 19, 1998 - HNF/IKC Karst Fieldwork Day, (10 AM). Meet at Steve Lockwood's home in Mitchell.
- o January 16, 1999 - HNF/IKC Karst Project Committee Meeting (10 AM). Fieldwork to begin at noon. Meet at the HNF Headquarters for both events.
- o February 20, 1998 - HNF/IKC Karst Fieldwork Day (10 AM). Meet at Steve Lockwood's home in Mitchell.

Hope to see you there!

Kriste Lindberg  
HNF/IKC Karst Project  
Volunteer Coordinator/  
Biota Team Leader  
812-339-7210 or 812-849-5766  
lindberg@indiana.edu

## HEC ANNUAL BUSINESS MEETING

by Nick Noe

It was again my privilege to represent the IKC at the Hoosier Environmental Council (HEC) Annual Business Meeting held at the Indianapolis Athenaeum on November 14. The HEC is a loose consortium of statewide environmental groups that meets once per year to elect new board members and determine a legislative agenda for the coming Indiana General Assembly.

The meeting began with a breakfast and an address by HEC President William Miller reviewing the State of the Environment in Indiana in 1997/98 and setting challenges for the group for 1999. This was followed by the Treasurer's report, which showed HEC with net assets of \$183,501 and the HEC Action Fund (HECAF) balance of \$1,467, which isn't too shabby for a not-for-profit organization.

Following these reports, the meeting broke up into individual caucuses dealing with different areas of concern. These were:

- Land use and urban sprawl
- Utility deregulation
- Protection of water supplies
- Campaign finance reform

I picked the water supply caucus since it was the issue most near and dear to my heart. The caucus set a goal of increasing public participation in state water policy decisions, especially those concerning bacterial and non-point source contamination. Its methods will be working for strong water quality standards before IDEM and the General Assembly, educational workshops to activate the HEC membership and family farmers, use of EPA watershed reports as a technical resource and outreach tool, promotion of alternative waste water treatment methods and pollution prevention, a children's health initiative to include an awareness of the need to reduce use of pesticides in the environment, and a network of groups and schools to do stream testing. The water supply caucus also addressed the issue of factory farms. The goals here are to organize citizen support for stronger state regulation of large contained animal feeding operations (CAFO's). Comments are due to legislators no later than 12/31/98 so that a strategy may be developed for pushing a law through the General Assembly. They would also like to promote a referendum on the

USDA's mandatory pork check-off tax, which is largely used to promote factory farming.

The caucuses were followed by the HEC awards luncheon, where Dr. Rae Schnapp was recognized for her unfailing work on behalf of improving Indiana's water quality. After lunch came the caucus reports and the setting of priorities for the 1999 General Assembly and HECAF lobbying efforts. A program plan was adopted for 1999 (I have a copy which I can fax to any interested member of IKC) addressing a wide range of environmental issues.

HEC and HECAF elections were the next order of business. There were nine candidates running for seven open seats on the HEC board and one vacancy for the HECAF board. The HEC nominees were:

- Barry Banks, Muncie, IN
- Earl Becker, Jeffersonville, IN
- Bill Hansen, Chesterton, IN
- Rick Hill, Madison, IN
- Nancy Kelly, Gary, IN
- John Maier, Paoli, IN
- Joe Sczyzerbowski, Hammond, IN
- Gary Siebert, Princeton, IN
- Dona Young, Ogden Dunes, IN

I power voted for Becker, Hill, Maier and Siebert based on their history of supporting environmental activities in Karst areas, specifically:

- Becker's campaign against roadside or illegal dumping in Harrison Co.
- Hill's work to have Jefferson Proving Ground made a wildlife refuge as well as his efforts against Factory Farms in the Deputy area.
- Maier's efforts on behalf of the HNF in Orange Co. and with his educational efforts regarding Solid Waste recycling and abatement of sinkhole dumping.
- Siebert's stand against the construction of I-69 through Karst areas in Monroe and Greene counties.

Becker, Hansen, Hill, Kelley, Maier, Sczyzerbowski, and Young were elected to the HEC board with runner up Banks elected to the HECAF board.

The meeting was then adjourned with an environmental weekend retreat planned for early May 1999.

# SULLIVAN ACQUISITION STATUS & DONOR'S LIST

by Keith Dunlap

As announced by Bruce Bowman in his Ramblings Column, the Indiana Karst Conservancy is now the proud owner of the main entrance to Sullivan Cave along with twenty-eight mostly-wooded acres (see the deed on the cover). While the property is ours, we still have \$10,000 in loans to retire by next October (but hopefully much sooner). Fortunately, over half of that is already pledged, and Bloomington caver Dick Blenz is graciously matching all remaining donations, so essentially we "only" need another \$2500 in new donations to finish up this project. If you have been thinking about donating for the first time or wanting to upgrade to a higher donor's category, *now* is the time to do it (remember the donor's list will be part of a permanent display erected on the property). Also don't forget to encourage others to donate.

## \$5,000 or more

Central Indiana Grotto  
IPALCO Golden Eagle Grant  
National Speleological Society

## \$1,000 to \$4,999

Dick Blenz  
Bruce Bowman  
Bob Decker  
Keith Dunlap  
Bambi Erwin  
Jeff Farr  
Kriste Lindberg  
Steve Lockwood  
Tom Rea  
Larry Reece  
Bob & Phyllis Sergesketter  
Tom Sollman  
Bill Tozer  
Bob Vandeventer  
Dick & Sue Vernier  
Evansville Metro Grotto  
Greater Cincinnati Grotto  
Marengo Cave  
Richmond Area Speleo Society  
The Robertson Association  
Virginia Karstlands

## \$250 to \$999

Robert Armstrong  
Danielle Burden  
George Brutchten  
Chris Carpenter  
Mark Deebel  
Samuel Frushour  
Hank Huffman & Ellen Jacquart  
Robert Kolstad  
Steve McKenzie  
Jane Miller  
Lynn Miller  
Ernie Payne  
Donald Peters  
Buford Pruitt, Jr  
Nadine Radkey  
Mark Tozer

Bruce Trotter

Kathy Welling  
Dean Wiseman  
1997 Fall MVOR  
The Cleveland Grotto  
Harrison-Crawford Grotto  
Southeastern Cave Conservancy

## \$100 to \$249

Bruce Barnes  
Ted Bice  
Amy Branigin  
Keith G Calkins  
Martin Church  
Tony & Leslie Cunningham  
Rane Curl  
Bruce & Deb Devore  
Scott & Jaime Fee  
Joe Gasperi  
William Halliday  
John Hartman  
Tem Hornaday  
Glenn Kotnik  
David Lasser  
Daniel Lucas  
Bob Masta  
Larry Mullins  
Nick Noe  
Mitchell Norris  
Everett Pulliam  
Robert Roundy  
Don & June Shofstall  
Kevin Strunk  
Stan Weinzapfel  
Norbert Welsh  
Jeff Weston  
Rich & Joyce Whisler  
Kevin Wools  
Bloomington Indiana Grotto  
Mid-Hoosier Grotto  
Northern Indiana Grotto  
Paha Sapa Grotto  
St Joseph Valley Grotto  
Tri-State Grotto  
Windy City Grotto

## \$50 to \$99

Tom Ahlers  
The Boehler Family  
Jeff Bray  
Carl Brown  
Larry & Linda Bundy  
Dale Chase  
Jack Countryman  
Dave Everton  
Dave Haun  
Patrick & Nathana Jarboe  
Gary Napper  
Richard Newton  
Walter Pirie  
Steve Ragsdale  
Charles Rex  
Ron Richards  
Gregory Stamp  
James Wright  
Dayton Underground Grotto  
Meramec Valley Grotto  
Michigan Interlakes Grotto  
MSM Spelunker's Club  
Near Normal Grotto  
VPI Cave Club  
Wittenberg Univ Speleo Society

## \$5 to \$49

James Adler  
Jay & Karen Arnold  
Marty Atherton  
John Benton  
Brandon Billings  
James Braswell  
Barb Capocy  
George Cesnik  
Jeff Cobb  
Jeff Cody  
Bill Davis  
Michael Dowden  
Ron Dowell  
Bruce Foyer  
Ted Frost  
Matt Gibson  
James Helmbold  
Tim Heppner  
Hilary Lambert Hopper



Robert Jarboe  
 Kate Johnson  
 John Koch  
 Thomas Liddle  
 Dan McDowell  
 Jon Miller  
 Art & Peggy Palmer  
 Theresa Peterson  
 Jan Pursley  
 Steve Ragsdale  
 Kevin Rasmus  
 Rusty Riley  
 Jo Schaper & Eugene Vale  
 Susan & Dave Strickland  
 Barry Welling

John Wilkerson  
 Frederick Grotto  
 Mark Twain Grotto  
 Miami Valley Grotto  
 Western Indiana Grotto

#### Pledges

Dick Blenz  
 Danielle Burden  
 Dave Haun  
 Bruce Trotter  
 Kathy Welling  
 Kent Wilson  
 Dean Wiseman  
 Sycamore Land Trust

#### Summary (as of 11/24/98)

Donations collected: \$59,568  
 Outstanding pledges: \$5,468  
 Total raised: \$65,036  
 Fund-raising Goal: \$70,000

## Cave group gets IPALCO grant to buy entrance

by Jamie Wildman  
 Times-Mail Staff Writer

SPRINGVILLE -- IPALCO has joined more than 140 donors contributing to the Indiana Karst Conservancy for the purchase of land around the entrance to Sullivan Cave.

Indiana Karst Conservancy was awarded a \$7,000 Golden Eagle Environmental Grant by IPALCO to help purchase the cave entrance and land. IKC has received more than \$60,000 in donations and purchased the 28-acre property earlier this year [note: it was actually purchased on October 28th].

IKC estimated the purchase of the cave and improvements would cost \$70,000.

Sullivan Cave is the third longest cave in Indiana with 9.63 miles of mapped passages.

It is located south of Phillips Lane on Ind. 54 in Perry Township.

IKC will manage the cave so that it will be available for recreation and scientific study by responsible cavers. Life in the cave includes a small bat population, cave crayfish, salamanders, isopods, amphipods, beetles, and the famous Sullivan cavefish, a sculpin.

The 40-foot section of Sullivan Cave from the entrance to the

Waterfall Room and some of the crevice passages in that area have been known to explorers since the 1840s. Several passages, branches and rooms have been discovered since that time during expeditions that have lasted weeks.

Vandalism, graffiti, and spray paint were among problems with the cave, and in January 1990 the Central Indiana Grotto placed a stout gate on the cave's main entrance. Two IKC members bought the cave and land in 1997, then offered it for sale to the group.

IKC leases and manages properties containing the entrances to numerous caves throughout the state. These caves have written management plans. Visitation is controlled by a permit system; and the resources are regularly monitored for impacts.

IKC established a land acquisition committee in 1995 to begin preliminary steps toward an active land acquisition program to further the organization's goals of protecting and wisely using caves and related karst features. Out of more than 50 caves to be considered as acquisition priorities, Sullivan Cave was nearly at the top of the list in terms of desirability and practicality.

Purchase of the cave entrance will help ensure its long-term protection by providing access for environmental monitoring and re-

search, according to Marni Lemons, IPALCO representative.

IKC does not plan any improvements, such as stairs or handrails, inside the cave. It will be managed as a natural, wild cave. No camping will be allowed inside.

People who would like to visit the cave must obtain a permit and sign a liability release.

For more information on IKC, call Bruce Bowman at (317) 539-6935 or write IKC at PO 2401, Indianapolis, IN 46206-2401.

The Indiana Karst Conservancy is a nonprofit organization dedicated to the preservation and conservation of Indiana's unique karst features. It is affiliated with the National Speleological Society and is an NSS Conservancy.

Golden Eagle Environmental Grant recipients will be honored at a dinner on Saturday, Oct. 17, at the Indianapolis Zoo Dolphin Pavilion.

IPALCO Enterprises Inc. awards the grants annually to projects throughout Indiana that protect, preserve, enhance and restore Indiana's environment. Since 1993, IPALCO has awarded nearly \$300,000 in grants to some 60 projects throughout Indiana.

*Reprinted of the front page article from the Oct 3th issue of the Times-Mail, Bedford, IN.*

## PARASITIC ROUNDWORMS RESIDE IN RACCOONS

by John Marshall

Raccoons are one of Indiana's most common wildlife species. They have adapted well to human disturbance. Raccoon numbers are higher now than they were before Indiana was settled.

Perhaps due in part to their high densities, raccoons have become a growing public health concern in Indiana. Raccoon rabies and raccoon roundworm are two very dangerous diseases that can sicken or kill humans and other animals.

Raccoon rabies is not currently a problem in Indiana. No cases of the raccoon strain of the virus have been identified here, but the disease is headed this way. Rabies has plodded through the raccoon population from the East Coast across Pennsylvania and into Ohio. Ohio officials confirmed 59 raccoon rabies cases on its eastern border last year. The rabies epidemic could spill into Indiana in less than three years.

Raccoon roundworm, on the other hand, is a threat to Hoosiers right now. *Baylisascaris procyonis* is a common roundworm found in raccoons. The parasite is not fatal to raccoons but can have dramatic effects on other animals, as well as humans. A variety of animals including mice, squirrels, rabbits, woodchucks, birds and dogs are susceptible to larval infections, which often produce severe neurologic disease.

In raccoons, the roundworm lives as an adult in the small intestine and releases eggs in the animal's feces. Raccoons can deposit millions of eggs in their feces each day. It's when these eggs are consumed by other animals or humans that problems can occur. Most eggs are deposited in latrine sites the areas favored by raccoons for defecation [ed - such as caves].

Unlike in raccoons, roundworms in humans may migrate into the eyes causing blindness or into the brain causing serious neurological disorders and, in severe cases, death. People become infected by consuming the microscopic eggs. Young children are at greatest risk because of their tendency to put their hands and most any object into their mouths.

A fatal case that occurred a decade ago involved an 18-month-old Illinois boy who became infected from chewing on bark and woodchips from contaminated firewood brought into his home. Researchers estimate

the child consumed 46,000 to 64,000 eggs, which could be present in just 23 grams of raccoon feces.

The firewood came from a fallen tree apparently used as a latrine site by raccoons. Other known fatal cases involved children playing in or near raccoon latrines and consuming contaminated soil. The parasite has been identified in a half dozen cases of severe central nervous system disease in young children and in several dozen cases of eye disease in adults.

The damage roundworm larvae cause depends on how many eggs are consumed and where the larvae migrate in the body. An adult man, for instance, may never notice any symptoms of a minor infection of a few eggs. A small child or animal that has consumed a lot of eggs will have more larvae entering the brain and can suffer a great deal of neurological trauma, causing illness or death.

Purdue researchers estimate about 70-80 percent of raccoons in Indiana are infected with the roundworm, with the highest prevalence occurring in the fall. Raccoon latrines are common, so the potential for human infection is high. However, severe infections are rare due to the fact that people seldom consume fecal contaminated materials.

Treatment of larval infection is very difficult and often ineffective. Little can be done to reverse the damage to the brain or eyes, so prevention of infection is very important. Using simple precautions, one can prevent infection.

The best line of prevention is to avoid contact with raccoon feces, especially latrine sites. Toddlers should be kept away from soil and other objects that may have been contaminated with raccoon feces.

Raccoons should be kept out of dwellings and outbuildings. They should not be encouraged to visit homes or yards for food. Raccoons kept for rehabilitation or for other reasons should be on a strict deworming program beginning at an early age of 6-8 weeks.

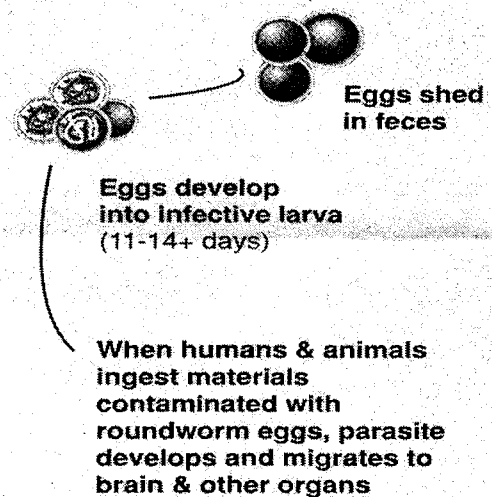
Raccoon roundworm eggs are very difficult to kill. Roundworm eggs can survive in the soil for 35 years, even under adverse weather conditions. Eggs will desiccate, or dry out, in completely dry attics or barn lofts, but this may take weeks to months. Another problem with the eggs is they are sticky and tend to adhere to surfaces.

Roundworm eggs will withstand most disinfectants but can be killed with heat. Areas are best decontaminated by thorough torching using a portable propane torch, such as a weedburner. Boiling water, steam or other types of burning can be used to rid an area of the parasite.

Any contaminated materials, such as hay or straw, should not be used as feed or bedding for other animals. Cages or enclosures used to house raccoons should not be used for other animals unless the areas have been thoroughly decontaminated using heat. Feces-contaminated hay or straw from barn lofts should be carefully removed and burned. Wear gloves and a filter mask during clean up, and wash thoroughly when done.

Wild animal rehabilitators, raccoon hunters and trappers, and owners of pet raccoons are all at higher risk of coming into contact with the eggs of this parasitic roundworm. If you have close contact with raccoons, you should pay extremely close attention to safety measures such as wearing gloves, washing hands, avoiding/preventing fecal contamination and cleaning contaminated areas.

*Reprinted from the Autumn 1998 issue of Focus on Fish & Wildlife, an Indiana Dept of Natural Resource quarterly publication. Also note that the roundworm is thought to be the primary cause of the decreasing population of the Eastern Woodrat, extirpated from most of Indiana.*



continued from page 8...

we found much of the debris were large blocks, requiring much prying and winching with a come-a-long. Some were large enough, we had to split them into two or three smaller pieces before we could winch them away.

After about three hours of work, we were down to the level we wanted to be except for two very large blocks. After sledging on them for another hour, we decided they were there to stay.

To finish up the day, Tom and Ernie took new measurements of the "after" condition. From the measurements, Tom estimated that the "before" entrance had about 30 sq-ft of flow area, but approximately half of that was partially blocked just outside the drip-line. The "after" entrance had about 50 sq-ft of flow.

Participants for the workday were: John Benton, Ted Bice, Mark Deebel, Keith Dunlap, Scott Johnson, Roger Gleitz, Ernie Payne, Sam Russel, Bob Sergesketter, Tom Sollman, and Dick Vernier.

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## Curiosity results in crisis as a man is buried in sinkhole

by Jennifer Stahl  
Leader-Democrat Staff Writer

A desire to explore nearly turned to tragedy for a Campbellsburg man this week as police and firefighters were called out Tuesday evening after he became trapped in a large sinkhole in his parents front yard.

According to members of Campbellsburg's volunteer fire department, Steve Irwin, 26, became buried alive after a wall of the 50-foot deep hole caved in. Two of Irwin's friends were with him at the time of the accident, and were able to call for assistance.

Washington County Sheriff Claude Combs said the call to the sheriff's department came in at 4:54 PM reporting the accident. Campbellsburg First Responders and members of the volunteer fire department were immediately dispatched to the scene on North West Washington School Road, near the Coonhunters Club.

Campbellsburg firefighter Jean Reed was one of the first to respond. "From what I saw, he had apparently tied a rope to the bucket of one of the pieces of equipment, tied the other end of the rope to himself, then climbed down into the hole," said Reed.

"There were two other guys with him, and after the dirt caved in all they were able to see was the top of his hands," she said. "They said they heard him trying to scream. They were able to get his face uncovered then call for help."

Reed said that by the time firefighters arrived, Irwin's friends had managed to uncover down to his shoulders.

Rescuers began digging with shovels, then switched to small hand-held spades. "We went as fast as we could," said Reed. "The main thing was just to get him out of there."

Sheriff Claude Combs was on the eastern side of the county when the call came in, and found Irwin dug out to his knees when he arrived. "He was uncovered down to his waist pretty quickly,

but the rest of it was slow going" said Combs. "His legs were kind of in a bent position, so it was very difficult to get the last part of him free."

Combs said the situation presented a danger not only to Irwin, but also to those trying to rescue him. "He's a very fortunate young man that the whole thing didn't fall in," he said. "There was a lot of dirt there that appeared ready to fall."

"The Campbellsburg fire department and rescue people put their lives on the line going down there, because the rest of that could have gone at any time."

Reed said rescuers were well aware that they were also in danger during the operation.

"There was some dirt that did fall in while we were down there, and some people said they could hear the ground cracking," she said. "We just tried to concentrate on helping him."

Combs said Irwin and the workers were able to stay calm during the digging and concentrate on the job at hand.

"I'm very proud of these people," he said. "Everybody out there did a good job of staying calm and working toward the rescue of the young man. And, he stayed calm and cool through the whole thing, and even helped dig himself out."

"What could have been a disaster turned out real well."

After being freed, Irwin was transported by ambulance to Washington County Memorial Hospital, where he was examined and released.

### County working to fill hole

Highway Superintendent Steve Anderson said work began Monday on filling the large hole in the Irwin's front yard.

Anderson said the problem was first discovered last June when a 15-foot wide and 45-foot deep hole opened up in the Dale and Marie Irwins' front yard. At that time, the county highway department filled the hole using more than 200 tons of dirt.

Over the summer, however, the hole opened up again, and officials monitoring the situation noticed weakening in the portion of West Washington School Road in front of the Irwin property. At that time, the decision was made to close the road.

"We started digging out the hole Monday, and right now the hole is about 40 feet wide," said Anderson. "We're working to uncover a hole that is located under the road, and then we'll be able to build up over the hole."

Anderson said the cavern-like hole under the road is approximately 15x20 feet in size and eight feet high.

"Once we've uncovered that hole, we should finish up in about five working days," he said.

Anderson said he has visited sites in Corydon where the same kind of problem has developed, and has consulted with engineers from Purdue University, the Indiana Department of Environmental Management and the state highway department.

"They've all been able to offer some good information and help us with the situation," he said.

Anderson said current plans are to use heavy plywood and concrete to seal off the hole, enabling the highway department to rebuild the road.

"The cap we're putting over the hole will have small drain lines in it so that all the water that accumulates will still be able to go into the cave, but it won't take any of the fill with it," said Anderson.

Both Anderson and Combs asked that people stay out of the area until work is completed.

"We are encouraging people to stay away from it," said Anderson. "I know everybody wants to see it, but it is a dangerous spot -- the Irwin boy can vouch for that."

Anderson estimates that the total cost of the repair will be at least \$15,000.

*Reprinted from the Oct 8, 1998 issue of the Salem Democrat, page A1.*

# INDIANA KARST CONSERVANCY TREASURY REPORT

## Income/Expense Statement From July 1, 1998 to September 30, 1998

### INCOME:

Dues Apportionment and Residuals	586.25	
Donations	149.80	
Dedicated fund transfer	0.00	
Interest	<u>94.34</u>	
		\$830.39

### EXPENSES:

IKC Update (printing, production, mailing)	246.55	
Membership (postage, meeting notices, etc)	52.35	
Conservation/Management/Education	4.77	
Sullivan (fund-raising)	56.49	
Misc (HEC membership, cook-out, banking)	<u>201.00</u>	
		(\$561.16)

NET OPERATING EXCESS (DEFICIT) THIS PERIOD: \$269.23

## Balance Sheet September 30, 1998

### ASSETS:

Cash in Checking Account	281.89	
Cash in Savings Account	<u>58504.32</u>	
		<u>\$58,786.21</u>

### LIABILITIES & OPERATING EXCESS:

Hancock Property Maintenance Fund	154.79
Indiana DNR Nongame Fund	134.00
Sullivan Aquisition Fund	48770.70
Hat fund (33 hats in inventory)	-50.33
Deferred Dues Fund: 148 members - 1998	1110.00
16 members - 1999	240.00
2 members - 2000	30.00

Previous Operating Excess	8127.82
Net Excess (Deficit) This Period	<u>269.23</u>
Current Operating Excess	<u>8397.05</u>

Total Liabilities & Operating Excess \$58,786.21

# IKC QUARTERLY MEETING MINUTES

Saturday, September 19th, 1998

Mitchell, Indiana

## BOARD MEMBERS PRESENT:

James Adams  
Bruce Bowman  
Bruce DeVore (by proxy)  
Keith Dunlap  
Dave Haun  
Kriste Lindberg  
Steve Lockwood  
Nick Noe  
Tom Rea  
Bob Sergesketter  
Tom Sollman  
Bill Tozer  
Bob Vandeventer (by Proxy)  
Richard Vernier  
Kathy Welling

## BOARD MEMBERS ABSENT:

none

The September meeting was called to order at 5:13 PM at the home of Steve Lockwood in Mitchell, Indiana with President Bruce Bowman presiding. Two proxies were accepted: Tony Cunningham for Bruce DeVore and Bambi Erwin for Bob Vandeventer. Minutes of the June Meeting were accepted as published in the September *IKC Update*.

Treasurer Keith Dunlap reported that \$8,507.15 is in the IKC general fund and \$1,563.79 in the restricted funds excluding the Sullivan fund. This is a total of \$10,070.94. For the Sullivan Cave Fund, \$47,800.70 has been collected with \$11,995 additionally pledged. This is a total of \$59,795.70 for the Sullivan Fund.

Secretary James Adams reported that about \$450 is expected to be received from the on-line auction. The auction will end for four items on September 30 and three other items will be available for bids until October 31.

A grant from IPALCO, the Golden Eagle Grant, has been awarded to the IKC for \$7,000. We should receive our check at a the awards banquet on Saturday, October 17.

Hats are now available which feature the IKC logo; a notice was included in the most recent newsletter.

There was some discussion about other ways of raising money and of expenses associated with owning the property. One question which came up concerned the establishment of an escrow account to cover on-going expenses. There was no motion to establish this account, with the Directors feeling that expenses would be minimal.

Bowman suggested that certain land trust groups might be interested in buying a conservation ease-

ment on a portion of the property. The Directors felt that we are very close to achieving our fund raising goals and it would not be necessary to pursue this avenue.

Bill Tozer moved to extend the last meeting's motion to allow the Sullivan Committee to spend up to \$200 for fund raising. Dunlap seconded. Motion approved, 15-0.

Dunlap noted that an offer has been received on the house and the deal is expected to close within a week. The transfer of the property to the IKC will take place as soon as possible after the sale of the house has closed. Since fund-raising is not yet complete and there are several thousand dollars still out in pledges, it may be necessary to secure a short-term loan.

Tozer moved to authorize the Sullivan Committee to make loan arrangements up to \$12,000 with an interest rate of no greater than 0.5% per month. Kathy Welling seconded. The Sullivan Committee will meet to finalize the details. Motion passed, 15-0.

Dunlap moved to authorize the Treasurer, under the direction of the Sullivan Committee, to allocate up to \$2,500 from the General Fund as a loan toward the purchase of the Sullivan property if needed. Nick Noe seconded. Motion passed, 15-0.

Bob Sergesketter moved to purchase liability insurance for the Sullivan property up to \$300 per year and fund this from the general fund. Seconded by Steve Lockwood. Motion passed, 15-0.

Dave Haun moved to offer Bob Vandeventer the job of Sullivan Cave Patron. Seconded by Tony Cunningham. Motion approved, 14-0-1 with Dunlap abstaining.

Amanda Clark spoke about the possibility of the National Cave Rescue Commission of the National Speleological Society holding a Basic Cave Rescue Orientation at Sullivan Cave. This would be a two-day seminar with the second day as an in-cave exercise at Sullivan Cave. This would probably happen in the Spring, perhaps in mid-March. The NCRC has liability insurance and the IKC can be added. Dunlap moved to approve the NCRC mock rescue at Sullivan Cave. Seconded by Tom Rea. Motion passed, 15-0.

Bowman spoke about other possible cave acquisitions. We have no "hot" expectations at this time.

There will be an Indian Creek Sinks work day on November 7.

Bob Armstrong spoke about Lost River tour activities and land owner relations.



The IKC's Hoosier Environmental Council dues are due. Dunlap moved to renew the IKC's membership at the \$100 level. Tom Rea seconded. Motion passed, 15-0.

Tom Sollman spoke about the Binkley Cave water sampling project that is being partially funded by the IKC. They have made eleven trips, so far.

Pat Merchant, who attended the meeting, was introduced as our new contact with the Hoosier National Forest. He is serving in an interim basis until the position previously held by Ellen Jacquart is filled. Pat passed on some information concerning the Beaver Creek area. An alternate route is being studied for the proposed horse trail and the Special Interest Area management plan would be completed prior to the trail being finalized.

Concerning Wesley Chapel Gulf, Merchant noted that a lot of wire and junk is going to be removed this Fall from the edge of the gulf and other sink-holes on the property.

Dunlap briefly noted that the Indiana Department of Environmental Management is looking at their regulations on confined cattle/hog farms. Also, Dunlap spoke about building bat-friendly gates on old coal mines that have known populations of Indiana

bats. There may be up to nine gates built by the Division of Reclamation. Roy Powers has been contracted as a consultant. A cooperative agreement may be sought with the IKC that might act as a fund raiser. This work will be in Pike County.

Amanda Clark announced that the NCRC's Basic Cave Rescue Orientation will be held on March 13 and 14.

A new caving group, the Indiana Spelunkers Society, has produced a web site with links to the IKC.

The next IKC meeting will be on Saturday, December 5 in Bloomington at the IU Geology Building beginning at 7:00 PM.

The meeting adjourned at 7:15 PM.

Following the cookout, members and guests enjoyed sharing their favorite side dishes. The annual dessert competition was held with first place being taken by the chocolate bat cake created by Bob and Phyllis Sergesketter. Glenn Lemaster's banana-cherry sweet bread took second place with Sue Vernier's brownies taking the third place spot. Congratulations to all the cooks!

Submitted by James Adams, Secretary

continued from page 7...

this site is quite a significant karst resource and we need to persevere in our efforts. We've definitely have made a substantial dent and we should be able to complete it with one more attempt.

Thanks to the following people for participating this time around: IKC: Bruce Bow-

man, Terry Clark, Keith Dunlap, Bambi Erwin, Tom Sollman, Dave Strickland, Dick Vernier, Sue Vernier; TNC: Meri Behr, Lou Bubala, Steve Grubbs, Vita Grubbs, Eric Hansen, Darel Heithkamp, Nicholash Heithkamp, Dick Lemon, Allen Pursell, Bob Sawtelle, Jack Weddle, David Welch, Pat Whitesell, and Charles Willmering.

### INDIANA KARST CONSERVANCY, PO BOX 2401, INDIANAPOLIS, IN 46206-2401

I would like to help the IKC protect Indiana's unique caves and other karst features. Enclosed is:

\$ \_\_\_\_\_ for IKC membership dues at \$15 per year (dues expire March 31st of each year, please pro-rate @ \$1.25/month).

\$ \_\_\_\_\_ donation to the general IKC fund.

\$ \_\_\_\_\_ donation restricted to a specific IKC project. Please specify: \_\_\_\_\_

\_\_\_\_\_ I know of an area worthy of protection. Please contact me.

\_\_\_\_\_ I would like to volunteer to help. Please contact me.

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY/STATE/ZIP \_\_\_\_\_

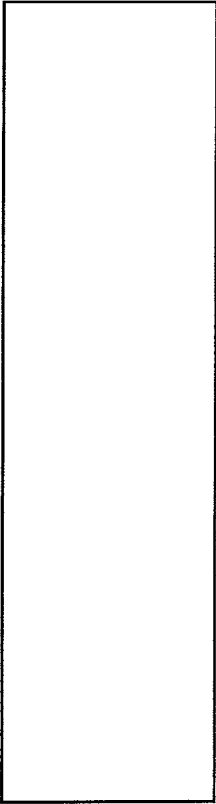
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Make checks payable to the Indiana Karst Conservancy, Inc. and mail to the IKC Treasurer, c/o Indiana Karst Conservancy, PO Box 2401, Indianapolis, IN 46206-2401. The IKC is an IRS recognized 501(c)(3) non-profit organization with membership dues and donations fully tax deductible.

**Indiana Karst Conservancy**  
**PO Box 2401**  
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