

BUDDHA KARST PRESERVE MANAGEMENT PLAN LAWRENCE COUNTY, INDIANA

(As approved September 10, 2011)

INTRODUCTION: The Indiana Karst Conservancy, Inc. has purchased the 37-acre Buddha Karst Preserve. The Conservancy will manage the caves on the Buddha Karst Preserve for recreational access and scientific study by responsible cavers while at the same time protecting these resources for future generations. The surface property will be managed to maintain the karst values and enhance the overall natural setting.

Buddha Karst Preserve has also been dedicated as a state Nature Preserve. Management practices on the preserve will comply with the requirements of the Indiana Department of Natural Resources' Master Plan in addition to the contents of this document.

HISTORY OF THE CAVES: Two large-entrance caves and one smaller one are on the property. Buddha Cave is the largest and most-visited. Buddha Cave has likely been visited since people were in the area. The large entrance is located near the White River and undoubtedly was visited by Native Americans long before the nearby community of Buddha was settled.

The earliest reference from caving literature of Buddha Cave is found in the March 1961 *CIG Newsletter*, in a trip report by Ed Lavagnino. He writes: "We are calling this Buddha Cave temporarily until someone can supply the correct name, if there is one." Christian Cave, the downstream resurgence of Buddha Cave, but not located on the preserve, is also mentioned in the article; with an asterisk stating that this is a "temporary name."

John Reeves mentions in the October 1967 *CIG Newsletter* that the cave "currently known as Christian Cave" has palette formations in it.

In Volume 1,2 of the 1973 *I.U. Speleo Times*, an article states that "Buddha Cave gets its name from the town of Buddha near which the cave is located." Buddha and Christian caves were first documented to connect in November of 1966 by the Mound Caving Club of Miamisburg, Ohio (*NSS News*, February 1967). A photo of Buddha Cave by Steve Merry later appeared on the cover of the November 1979 issue of the same publication.

A formation photo in the lower stream passage of Buddha Cave was featured on the cover of *Caving in the Heartland*, the 1992 NSS Convention Guidebook (the convention was held in Salem, Indiana that year). The following description of subsurface resources has been partially paraphrased from the guidebook text.

SUBSURFACE RESOURCES:

Buddha Cave contains 3,119 feet of mapped passage with a vertical extent of 58 feet (see map, Appendix A). The entrance, impressive by Indiana standards, is in a large sink containing a normally-dry stream bed which drains a sizable area to the east and a wet-weather spring. Partially obscured by greenery, the entrance is nonetheless visible from the county road. Just inside, a small perennial cave stream makes a brief appearance before disappearing in a sump at

the far end of the entrance room. The upper level may be reached by climbing the ledge along the left wall. The upper level, now abandoned, is essentially dry. However, large logs and branches show that rare modern flooding still occurs. The ceiling, developed under phreatic conditions, maintains a very gentle gradient. For the first 525 feet, the passage is straightforward; then splits. Coincidentally, a large surface depression and farm pond (now dry) lie almost directly over the old passage at this point.

Shortly beyond the split one encounters a 25-foot fissure which intersects the lower level. Beyond the fissure on the upper level, the passage continues for approximately 200 feet to a squeeze into a T-junction. This cross passage has a few 1970's signatures. To the left the passage continues a short distance to a plug (this silted passage is speculated to lead back towards the entrance). To the right, the passage goes to a tight hole, beyond which one can see a larger passage.

Lower Buddha consists of a high, well-decorated and impressive canyon passage unmarred by vandalism. If the water is low you can work your way upstream through two near-sumps to another sump (the other side of the sump seen in the entrance room).

The lower, active level lies almost directly below the abandoned levels in most of the cave, but with its steeper gradient it cuts down through the geologic bedding to progressively greater depths until leveling-out at a depth of 58 feet. This lower limit seems to be set by an impermeable rock unit (likely shale), and creates conditions of dangerous flooding. Vegetal debris on the ceiling and walls of these areas shows temporary ponding to 13-16 feet, sumping numerous areas and isolating others.

The map profile of the lower level (from a 135° view) shows the bedrock ceiling has the same gentle gradient as the upper level. Down-cutting in vadose conditions has created the striking canyon of sections of the lower level. This canyon was likely continuous throughout the stream-way, and the low clearance at the near-sumps are nearly all associated with extensive deposition of speleothems at roof level that nearly fill the passage below.

As could be expected, the stream level is wet; but in time of drought, a rapid through-trip could be possible, entering Buddha and exiting via Christian Cave. The stream resurgence is just below the large, scenic entrance of Christian Cave, opening in the wooded escarpment southwest of the large open field that overlies most of the cave. A group of springs drop a further 30 feet or so to the valley bottom, then continue on to West Fork White River. The entrance to Christian Cave is not located on the preserve. *Therefore, this through-trip is not suggested.*

According to Dr Julian Lewis, Buddha Cave contains an undescribed species of *Pseudanophthalmus* beetle that is endemic to just Buddha as presently known. The cave also contains the isopod *Caecidotea stygia*, and an amphipod which is either *Crangonyx* undescribed species ("*indianensis*" manuscript name) or *Crangonyx packardi*.

Chase Cave lies about 200 yards northwest of the entrance of Buddha Cave, in the northernmost wall of a much smaller sink. The five-foot-high entrance immediately opens into a fairly large room about 30 feet by 50 feet in size, partially filled with mud-covered and somewhat unstable

breakdown. Two crawls leave this room to the east, but quickly become low and narrow.

An intermittent stream flows across the entrance room from the north and exits the cave just below the entrance. The source of water for this stream is likely a large, trash-filled swallow-hole about 1000 feet to the north. The surface stream from the cave almost immediately finds its way underground again in a swallow-hole located in the same sink. The nature of the cave suggests a small gulf or karst window in which ceiling collapse has exposed the passage and forced the intermittent stream to the surface. The stream has not been dye-traced. It may be an in-feeder to the stream in Buddha Cave, or (more likely) may be the source of water for one of the springs near the southwest corner of the preserve.

Chase Pit Cave consists of a small pit located about 200 yards west of Buddha Cave. The entrance is in a steep-sided sinkhole directly south of Chase Cave. It's been reported that the 15-foot pit opens into a small room with a stream, and that a steel cable was once used to facilitate entry. At the time of purchase, this pit was choked with debris, including several large rolls of woven-wire fencing. This fencing has since been removed but no subsequent exploration of the pit has occurred. The sinkhole floods completely to its rim on occasion, overflowing to the east.

Another interesting karst feature is located in the sink about halfway between Chase Cave and Buddha Cave. This feature consists of an enlarged joint opening to the surface, oriented roughly east-west. The highly elongated "entrance" is about 10 feet deep and 15 feet long, but less than two feet wide. A small stream was once observed flowing at the bottom. Much mud is currently slumping into the slot; the immediate area is very unstable and entry is neither possible nor desirable.

Another dynamic karst feature is located at the southeast corner of the property. When the property was purchased in 2001, this feature was little more than a ten-foot diameter hole, perhaps five feet deep. Subsequently, it has doubled in diameter and depth and the obvious drain at the bottom continues to open and slump closed. Exposed limestone can now be seen on the south wall of this "pit."

All cave passages on the preserve are formed in the Salem Limestone, or at the Salem/St Louis contact. The caves on the preserve are subject to flooding and should only be entered in dry weather when rain is not predicted. Other cave passages may occur on the property and are known to be present on adjacent properties.

MANAGEMENT PERSONNEL: Within this document, the following individuals and groups will have management responsibilities:

- ⤴ **IKC Executive Board** – The membership-elected governing board of the IKC.
- ⤴ **Property Manager** – The IKC Executive Board appointed individual whose primary responsibility is to oversee the property with the exception of the caves. The Property Manager is required to make an annual report to the IKC Executive Board pertaining to the property. The Property Manager will function as the back-up for the Cave Patron when the Patron is unavailable.

- ^ Cave Patron – The IKC Executive Board appointed individual whose primary responsibility is to oversee the caves on the property. This includes arranging access, monitoring impact, and maintaining usage records. The Cave Patron is also required to make an annual report to the IKC Executive Board pertaining to the cave, visitation usage, incidents, etc. The Cave Patron and the Property Manager may be the same person.
- ^ Property Management Committee – This committee generally will consist of the Property Manager and the Cave Patron, and any other designated volunteers who assist with maintaining the property and cave.
- ^ Grotto Liaisons – These are approved representatives from the grottos that have signed a cooperative agreement with the IKC for arranging access to specific caves covered in the agreement. Buddha Cave is one of these caves. The Grotto Liaison has the authority to grant access to visit Buddha Cave for the Liaison's respective grotto members. This is not only for the convenience of the grotto members, but also lessens the burden on the Cave Patron, and in theory the Grotto Liaison should be in a better position to know the grotto members requesting access. The Grotto Liaison has the responsibility to follow all rules under the cooperative agreement, handle all paperwork appropriately, maintain access records (submitted annually), and work with the Cave Patron.

SUBSURFACE MANAGEMENT: Buddha Cave, and the other caves on the property, will be managed as natural, wild caves. No improvements for the convenience of the visitors will be allowed or desired. Periodic maintenance or replacement of the bolts at the top of the drop will be necessary to maintain safe access to the lower levels of the cave. Digging or other alterations for exploration or expansion of the caves is prohibited without prior approval of the IKC board.

Cave restoration (other than trash removal) is limited to IKC-sponsored workdays and similar events. The purpose is to keep all restoration methods consistent with IKC approved practices. Contemporary signatures and dates (e.g.: in the upper level near the clay fill) will be removed or obliterated.

Due to the concerns about the impact of food, cooking, elimination, and the like, no camping will be allowed in the caves.

CAVE ACCESS POLICY: The caves are open to all organized, responsible cavers. Those wishing to visit the caves on the property must contact the Cave Patron or their Grotto Liaison (if applicable) to obtain permission. The Property Manager is also an authorized backup to grant access. All persons entering the cave must sign a liability waiver, follow surface and subsurface rules established by the IKC, and agree to protect the cave's natural resources. Entry beyond the drip-line of any cave on the property is considered caving and requires permission and the signing of a liability waiver.

The Cave Patron/Grotto Liaisons can authorize or deny ordinary (recreational) cave trips. Trips with some extra-ordinary purpose require IKC Board approval. Trip requests may be denied if there are concerns about the cavers' capability (poor gear, etc.). However, the authorizing parties are not expected to certify a caver's competence.

For safety purposes, and to minimize impact in Buddha Cave, the recommended number of participants on a trip is no fewer than three, nor more than ten cavers. A minimum of two participants in each group must be vertically competent. All cavers using a cable ladder must also be on belay. There must be an adult of the immediate family present for every child under the age of 12. Youth groups, and organizations such as the Boy Scouts, are not permitted to visit Buddha Cave beyond the entrance room.

Prior to the trip, the trip leader will receive a liability waiver (Appendix B) and the visitation rules to be followed (Appendix C) while on the property. Participants under 18 years of age must have a parent's or legal guardian's signature on the liability waiver. Permission to visit Buddha Cave implies permission to also visit the other caves on the preserve.

The trip leader will be responsible for having each participant read and sign a copy of the liability waiver, then return the waivers to the Cave Patron or Grotto Liaison *before the trip*. The trip leader will also inform all the participants of the visitation rules before entering the property. The rules cover the maximum number of participants per trip, where to park, appropriate precautions while changing clothes before and after the trip, rules to assure a low profile, the specific path to take from the parking area to the cave, precautions related to the weather, and information pertaining to emergencies. Any improper behavior may result in those persons being barred from future visits.

The liability waivers will be kept on file for at least two years. A current release is required for each caver the first time they visit each calendar year. The Cave Patron, with assistance from the Grotto Liaisons, will maintain a log of trips and visitors to the cave to assess visitation impact on the resource. The Patron, with assistance from the Property Manager, will prepare a report on visitation and impacts and present it to the IKC Board on an annual basis.

Monetary compensation of the trip leader (cave-for-fee) is strictly prohibited. The Conservancy will also vigorously prosecute any violations of the Indiana Cave Resource Protection Act, IC 35-43-1-3 (Appendix E), or any other vandalism on the property.

SURFACE RESOURCES: A legal description of the property is attached (Appendix F). The preserve consists of 36.84 acres of mostly pastured, rolling karst terrain. The only wooded areas when the property was acquired were along the edges of sinks that were too steep for hay harvest.

All drainage of the property is subterranean. Several springs are found to the southwest, both on and off the property, and are associated with a shallow west-facing escarpment. Beyond this escarpment all flow becomes surface again until its confluence with the West Fork White River.

A number of sinkholes are found on the property, several of which take water after rains. The more significant sinks are found in the northeastern two-thirds of the preserve, which corresponds to the location of the caves and other major karst features. The deepest sink, containing Buddha Cave, contains an intermittent stream. Quarrying appears to have occurred on the west wall above the entrance to Buddha Cave. The historical significance of this is unknown.

At the time of acquisition, two sinkholes had become plugged with clay fill and served as ponds. The ponds were located in the central and western portions of the preserve. Both ponds were fairly shallow and occasionally dried up in drought conditions. Several years after acquisition, both rarely retained water. It is thought that the cattle that previously inhabited the preserve kept the floor of the ponds sealed. In their absence, the “ponds” now drain.

SURFACE MANAGEMENT: As of 2010, the property has been enrolled in the DNR Classified Forest program and native deciduous trees are actively being re-introduced. No currently forested areas will be modified and no trees will be cut other than for safety considerations or to maintain road/trail access. Such native trees will be maintained using current best practices outlined by the DNR Division of Forestry. Volunteer trees seeded from wooded areas west of the property will not be removed unless the species are noxious or non-native. Controlled burning or minimal application of approved herbicides may be pursued as needed for vegetative management.

A vehicle gate exists along the roadway that allows entry onto the property at its highest elevation. Due to good drainage and accessibility, this is the optimal location for visitor parking. The gate is secured but not locked. Should problems arise, such that the site becomes a "party spot," a combination lock will be considered; with the combination freely available to IKC members. The parking site is approximately 4000 square feet in size and is maintained by periodic mowing. The lot is delineated with wooden posts. A sufficient gap has been left between two of the posts to allow access for maintenance equipment and emergency vehicles. Any signs other than the kiosk (see below) will be small in order to maintain the natural aesthetics of the property and avoid attracting attention.

The IKC has constructed and will maintain a self-guided, interpretive karst trail. Given that most of the karst features are located on the perimeter of the preserve, the trail skirts these features and roughly circles the property. No boardwalks, bridges, overlooks, or similar improvements will be installed unless needed to facilitate maintenance. Occasional mowing may be used to maintain the trail until sufficient foot traffic hardens the path. Other measures (such as water bars or aggregate) may be necessary to control erosion on steeper sections of the paths.

Riding of horses, ATVs, dirt bikes, mountain bikes, or similar conveyances is prohibited on the preserve. Hunting and trapping are also prohibited, except as needed for appropriate wildlife management; and will be performed in a manner in keeping with state wildlife regulations. The discharging of firearms, fireworks, or other explosive devices will not be allowed. Digging or other surface modifications are prohibited without prior approval of the IKC board. Collecting on the property is prohibited with the exception of mushrooms, berries, and nuts. The IKC will not maintain any camping facilities on the preserve.

Any remaining locations on the property where trash has been improperly disposed will be located and the trash removed.

A kiosk has been installed at the trail head, delineating the trail and highlighting points of interest. The kiosk also explains ownership and access rules, and displays the list of donors who helped purchase the property. No additional permanent structures will be placed on the site.

SURFACE ACCESS: Access to the property will be solely through the vehicle gate at the parking area. Walk-in access to the property by the public is neither encouraged nor discouraged, and permission to hike on the property is not required. However, other surface activities require permission and coordination through the management team.

BUDDHA CAVE VISITATION RULES

The following rules should be reviewed by all visitors BEFORE ENTERING ONTO THE BUDDHA KARST PRESERVE. These rules must be followed to protect the caves, the property, the IKC, and all visitors. It is also important to follow these rules to maintain a good working relationship with the adjacent landowners. Remember you are a guest on this property and represent all cavers that come after you, PLEASE be on your best behavior.

1. Follow all rules and requests of the Buddha Cave Patron and Grotto Liaisons.
2. Park in the designated parking area. Close the parking lot gate behind you.
3. Keep a low profile at all times while on the property. Talk quietly and no horse play.
4. Entering into any cave on the property beyond the drip-line requires a signed waiver. Participants younger than 18 requires a parent/guardian signature.
5. Remain on designated trails and do NOT trespass onto adjacent properties.
6. The group size for Buddha Cave should be no fewer than 3, nor more than 10. At least two of the participants must be vertically competent.
7. Youth groups are not allowed in Buddha Cave.
8. Each participant under the age of 12 must be accompanied by an adult of his immediate family.
9. All participants must wear a helmet and have three independent sources of light. Proper foot wear and clothing should be worn.
10. Vertical gear or a cable ladder is needed to reach the lower section of Buddha Cave. Do not attempt to free-climb.
11. Do not enter the caves under the influence of alcohol or other substances.
12. Do not enter the caves during high water conditions. Buddha Cave is known to COMPLETELY flood to the ceiling.
13. Do not change clothes in sight of the road or nearby property owners.
14. Before leaving the parking area, be sure to pick up all trash, clothing, cigarette butts, etc.
15. Tell someone where you have gone and when you will return. For rescue call Indiana State Police at (812)332-4411.

BUDDHA KARST PRESERVE LEGAL DESCRIPTION

Part of the northeast quarter of Section 16, Township 4 North, Range 1 East, Lawrence County, Indiana, and more particularly described as follows:

Beginning at a 5/8 inch rebar with cap set on the west line of said northeast quarter south one (01) degree, fifty-four (54) minutes, three (03) seconds east 1265.92 feet from a stone found marking the northwest corner of said northeast quarter; thence north eighty-one (81) degrees, thirty-eight (38) minutes, seven (07) seconds east 1191.42 feet to a 5/8 inch rebar with cap set; thence south ten (10) degrees, nineteen (19) minutes, fifty-six (56) seconds east 275.31 feet to a wood post found; thence north seventy-nine (79) degrees, thirty-eight (38) minutes, thirty-six (36) seconds east 270.00 feet to an iron pipe found in the centerline of a county road; thence along said centerline the following bearings and distances: south four (04) degrees, twelve (12) minutes, twenty-two (22) seconds east 87.06 feet; thence south fifteen (15) degrees, forty-eight (48) minutes, seventeen (17) seconds west 65.52 feet; thence south seventeen (17) degrees, sixteen (16) minutes, zero (00) seconds west 289.29 feet; thence south twenty-four (24) degrees, forty-nine (49) minutes, thirty-three (33) seconds west 321.72 feet; thence south twenty-three (23) degrees, eleven (11) minutes, fifty-eight (58) seconds west 175.96 feet; thence south seventeen (17) degrees, twenty-two (22) minutes, seven (07) seconds west 210.23 feet; thence south thirty (30) degrees, twenty-nine (29) minutes, forty (40) seconds west 31.30 feet; thence leaving said centerline north eighty-nine (89) degrees, forty-seven (47) minutes, fifty-three (53) seconds west 1075.11 feet to a 5/8 inch rebar with cap set on the west line of said northeast quarter (passing a 5/8 inch rebar with cap set at 25.00 feet); thence along said west line north one (01) degree, fifty-four (54) minutes, three (03) seconds west 1153.29 feet to the point of beginning.

Containing 36.84 acres, more or less.