



Kentucky Naturalist News

Official Newsletter of the Kentucky Society of Natural History

Volume 72 Number 1 - Winter 2013-14

FROM THE PRESIDENT

I want to thank Jeff Foster for his great work as State President of KSNH for the last two years. He has worked hard to provide great conferences and maintain the goals of KSNH. As the incoming president I will strive to serve our members to the best of my ability. I plan to make our Spring and Fall Conferences entertaining, informative, and accessible to all. I look forward to the challenges ahead and working with key members to maintain and encourage growth in KSNH. I turn the Falls of the Ohio chapter over to Wayne Kimbel who has new and exciting ideas to promote our wonderful organization. I know he will serve with distinction and make a great chapter president. Please continue to support Wayne and me as we keep KSNH development a top priority. Our Spring conference agenda to the Great Smoky Mountains is on our website. Please get your rooms reserved now. We have several KSNH members who are willing to share a ride to the conference for those not able to drive themselves. The agenda has motor tours/trips each day and those who can't drive will not have a problem car pooling to easily accessible sites/events. Looking forward to 2014.

Happy New Year to all!

Chris Bidwell ☺



Photos by Dave Luzader

Nature Notes:

The extreme cold weather this winter might give us some reprieve from exotic pest. Some insects cannot cope with extreme cold temperatures. One small blurb I read recently said the Emerald Ash Borer larvae might die from the recent extreme cold.

Emerald ash borer (EAB), *Agrilus planipennis*, attacks only ash trees. It was introduced into Michigan 15 to 20 years ago on wood packing material from Asia. Since then, the destructive insect has been found in numerous states including Tennessee. Typically, the emerald ash borer beetles can kill an ash tree within three years of the initial infestation. ☺

We welcome Nancy Lawler, who joined when she attended our last Fall Conference at Shawnee, Ohio. Ms. Lawler is from Baltimore, Maryland.



WWW.KSNH.ORG

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Falls of the Ohio (Louisville, Ky)

Meets every third Thursday of each month except Jan, Jul, Aug & Dec at the Louisville Nature Center, 3745 Illinois Ave. Chapter President: Wayne Kimbel
Email: waykim1@twc.com

“As the afternoon wore on, we seemed more and more transported in a kind of Crystal Age. Everything around us had become smooth and unmarred, clean and shining, hard and transparent. We moved through a realm of cold and lifeless beauty. A breeze sprang up, but the dry music of the winter grasses was stilled. We heard when we paused—and then only rarely—the small tinkling sounds of the striking ice.

The beauty of a glaze storm is almost exclusively visual beauty. But that beauty has endless variety. Like specimens preserved in colorless amber, each weed head was displayed within the envelope of ice. A teasel became a crystalline work of art and all the woven fences bordering pasture fields were converted into gleaming meshes of ice and wire. Under a line of locust trees, every branch shining with its glinting burden, an embankment fell away in a steep descent. From top to bottom, it was clothed with wild honeysuckle vines. All the intertwining stems and tendrils were enveloped in ice. The picture presented suggested some tumbling waterfall, its airy grace stilled by cold in the midst of its descent.

A little later, we passed a cornfield where all the stalks lay prostrate, each yellow line visible through its coating of ice.”

From: “Wandering Through Winter” by Edwin Way Teale,

Dodd, Mead, and Company, 1965

Great Smoky Mountains

Spring Conference April 10 - 13, 2014

Quality Inn Creekside, Gatlinburg, TN

Make your reservations now!

The phone number is 865-436-4865. No deposit is required. Pay when you check in.

Starting a Fringe Movement



This is perhaps the first anti-promotional piece for the KSNH newsletter. What's an anti-promotional article? Well, it's the opposite of a promotional one, right? My purpose is to speak out against a very common and popular part of our spring landscape that has been promoted and sold by nurseries to happy homeowners and builders for many years. It has delighted suburbanites for a long time who perhaps get a rush of hormonal pleasure with this showy white bloom along monotonous subdivision roadways. It most likely evokes a mental "Ahhh...spring has finally arrived" at the end of our gray and dreary Midwest winters. It is indeed attractive, reasonably priced and fast growing. Never mind that it's non-native, invasive, short lived, and subject to limb breakage (Translation=bad choice).

By now you've probably already figured out that I'm referring to the

Bradford Pear (*Pyrus calleryana*).

It's become such a ubiquitous part of our landscape that it is almost a default planting in front yards in our area. Although KSNH is not a large body, I would like its members to be on the forefront of a new wave of change in our communities. I make no pretense of being impartial or unbiased here. The message I wish to impart is to banish this tree and replace it with native stock. One that I want to hone in on here is the White Fringe Tree (*Chionanthus virginicus*). Now, I'm not going to go into all the botanical nuances of why this is a great substitute, however just know that it is A) Native B) Sturdy, and C) Suitable for small to medium sized residential lots. The White Fringe Tree is in the Olive Family (*Oleaceae*) that includes Forsythia, Privet, Ash, and Lilac. Its name originates from the Greek Chion (snow) anthus (flower) and is sometimes referred to by common names like Old Man's Beard and Grancy Greybeard. When you see it in bloom, those monikers make sense. In terms of my own backyard, it really is the "Goldilocks" tree; not too big or small, but just right. It grows to a maximum of about 30 feet, is tolerant to pollution and limb breakage, and is moderately drought tolerant. Another positive is that it has no thorns. Now, it is a bit slow growing; 6" to 10" annually, but to me that's a good thing. It will tolerate temperatures down to -30 degrees (Zone 4 to 9) and will do well in shade or full sun. The fruit bearing female is good for attracting birds, however, the male is showier. This native tree hits its full bloom glory just as the Dogwoods are fading, which is a good signal for the end of spring and the onset of summer.

What I enjoy are its leaves which are simple, obovate-oblong, opposite, and about 4" to 8" in length. They really are attractive and distinctive looking with their glossy surface. They also turn to an attractive yellow-brownish color in the fall. However, the showy white flowering petals or panicles are the real draw for this tree. They hang down about 6 to 8 inches and shimmer like a cloud. In addition, they create a pleasant fragrance; rather like a Lilac shrub. They are pollinated by insects.

The light brown bark was used by Native Americans to treat sores. It has been shown to contain phytochemicals that can increase resistance to TB, malaria, along with diabetes, and can be a tonic for digestive ailments. So, it shows versatility, sort of like a Swiss Army knife. Although neither threatened nor endangered, except in Ohio, it is not a common sight in the wild. This is partially due to its blooming late after other trees leaf out, which makes it hard to spot. It can be found in uplands woods but primarily along stream banks and prefers moist, acidic soils.

This native tree was introduced to England by John Bartram (1699-1777) a personal friend of Benjamin Franklin. It was one of his favorites, which says a lot since he was a big time plant collector and somewhat of an elitist of his time.

Ok, now there are just a few negatives. First, it is often hard to find in nurseries. The general public wants fast growing stock, which doesn't fit the description of this species. Native plant folks are willing to devote time with it, but others not so much. It is difficult to propagate, so buyers will have to purchase stock mature enough to transplant. No, you won't find it at Wal-Mart or Meijer garden sections. Also, it is sensitive to plants that are alleopathic such as the Walnut Tree, so location can be important.

A large amount of information is available on this species on Wikipedia. I'm not going to drone on with endless facts; just look it up. One word of caution, don't confuse this tree for the non-native Chinese Fringe Tree (*Chionanthus retusus*) or Chinese Fringe Flower (*Loropetalum chinense*).

Be a good shopper.

If, for some reason, you or someone needs a replacement for a Bradford Pear and the White Fringe Tree is either unavailable or unappealing, try one of the following: Serviceberry (*Amelanchier*) Dogwood (*Cornus florida*, Redbud (Royal White) (*Cercis canadensis*), or Yoshino Cherry (*Prunus x yedoensis*).

The Cherry isn't native, but it was the one given to the USA by Japan and graces our Nation's Capital, which is cool. Also, it isn't invasive.

So, KSNH members, please steer friends, family, and yourself away from the invasive Bradford Pear and toward trees like the White Fringe Tree. You will be doing everyone and the natural world a big favor. Who knows? This could become a Fringe movement spawned by KSNH that could spread and help make our natural world a wee bit better. --- Happy Trails Wayne Kimbel

The Year the Monarch Didn't Appear

By JIM ROBBINS

Published: November 22, 2013

On the first of November, when Mexicans celebrate a holiday called the Day of the Dead, some also celebrate the millions of monarch butterflies that, without fail, fly to the mountainous fir forests of central Mexico on that day. They are believed to be souls of the dead, returned.

This year, for the first time in memory, the monarch butterflies didn't come, at least not on the Day of the Dead. They began to straggle in a week later than usual, in record-low numbers. Last year's low of 60 million now seems great compared with the fewer than three million that have shown up so far this year. Some experts fear that the spectacular migration could be near collapse.

"It does not look good," said Lincoln P. Brower, a monarch expert at Sweet Briar College.

It is only the latest bad news about the dramatic decline of insect populations.

Another insect in serious trouble is the wild bee, which has thousands of species. Nicotine-based pesticides called neonicotinoids are implicated in their decline, but even if they were no longer used, experts say, bees, monarchs and many other species of insect would still be in serious trouble.

That's because of another major factor that has not been widely recognized: the precipitous loss of native vegetation across the United States.

"There's no question that the loss of habitat is huge," said Douglas Tallamy, a professor of entomology at the University of Delaware, who has long warned of the perils of disappearing insects. "We notice the monarch and bees because they are iconic insects," he said. "But what do you think is happening to everything else?"

A big part of it is the way the United States farms. As the price of corn has soared in recent years, driven by federal subsidies for biofuels, farmers have expanded their fields. That has meant plowing every scrap of earth that can grow a corn plant, including millions of acres of land once reserved in a federal program for conservation purposes.

Another major cause is farming with Roundup, a herbicide that kills virtually all plants except crops that are genetically modified to survive it.

As a result, millions of acres of native plants, especially milkweed, an important source of nectar for many species, and vital for monarch butterfly larvae, have been wiped out. One study showed that Iowa has lost almost 60 percent of its milkweed, and another found 90 percent was gone. "The agricultural landscape has been sterilized," said Dr. Brower.

The loss of bugs is no small matter. Insects help stitch together the web of life with essential services, breaking plants down into organic matter, for example, and dispersing seeds. They are a prime source of food for birds. Critically, some 80 percent of our food crops are pollinated by insects, primarily the 4,000 or so species of the flying dust mops called bees. "All of them are in trouble," said Marla Spivak, a professor of apiculture at the University of Minnesota.

Farm fields are not the only problem. Around the world people have replaced diverse natural habitat with the biological deserts that are roads, parking lots and bluegrass lawns. Meanwhile, the plants people choose for their yards are appealing for showy colors or shapes, not for their ecological role. Studies show that native oak trees in the mid-Atlantic states host as many as 537 species of caterpillars, which are important food for birds and other insects. Willows come in second with 456 species. Ginkgo, on the other hand, which is not native, supports three species, and zelkova, an exotic plant used to replace elm trees that died from disease, supports none. So the shelves are nearly bare for bugs and birds.

Native trees are not only grocery stores, but insect pharmacies as well. Trees and other plants have beneficial chemicals essential to the health of bugs. Some monarchs, when afflicted with parasites, seek out more toxic types of milkweed because they kill the parasites. Bees use medicinal resins from aspen and willow trees that are antifungal, antimicrobial and antiviral, to line their nests and to fight infection and diseases. "Bees scrape off the resins from the leaves, which is kind of awesome, stick them on their back legs and take them home," said Dr. Spivak.

Besides pesticides and lack of habitat, the other big problem bees face is disease. But these problems are not separate. "Say you have a bee with viruses," and they are run-down, Dr. Spivak said. "And they are in a food desert and have to fly a long distance, and when you find food it has complicated neurotoxins and the immune system just goes 'uh-uh.' Or they become disoriented and can't find their way home. It's too many stressors all at once."

There are numerous organizations and individuals dedicated to rebuilding native plant communities one sterile lawn and farm field at a time. Dr. Tallamy, a longtime evangelizer for native plants, and the author of one of the movement's manuals, "Bringing Nature Home," says it's a cause everyone with a garden or yard can serve. And he says support for it needs to develop quickly to slow down the worsening crisis in biodiversity.

When the Florida Department of Transportation last year mowed down roadside wildflowers where monarch butterflies fed on their epic migratory journey, "there was a huge outcry," said Eleanor Dietrich, a wildflower activist in Florida. So much so, transportation officials created a new policy that left critical insect habitat unmowed.

That means reversing the hegemony of chemically green lawns. "If you've got just lawn grass, you've got nothing," said Mace Vaughan of the Xerces Society, a leading organization in insect conservation. "But as soon as you create a front yard wildflower meadow you go from an occasional honeybee to a lawn that might be full of 20 or 30 species of bees and butterflies and monarchs."

First and foremost, said Dr. Tallamy, a home for bugs is a matter of food security. "If the bees were to truly disappear, we would lose 80 percent of the plants," he said. "That is not an option. That's a huge problem for mankind."

Jim Robbins is a frequent contributor to The New York Times and the author of "The Man Who Planted Trees."

Thanks go to the generous members who donated to our Grant/Scholarship fund during 2013. Your money will be used to help fund our scholarship awards in 2014.

A little reminder that we still have \$50 in the Allen Lake Memorial Scholarship Fund from which \$500 was awarded in 2012. If you wish to donate to this specific fund, please make a note of it when you send in your donation. Otherwise, donations will be used for general scholarship awards.

The Kentucky Society of Natural History is organized under section 502(c) (3) nonprofit tax exempt section of the Internal Revenue Code. As such, donations are tax deductible to the fullest extent permitted by law. Please send any donations to KSNH, Post Office Box 883, Fairdale, Kentucky 40118.

Your membership dues for the Kentucky Society of Natural History are due in January, unless you are a new member and joined in October or after. Please keep in mind that a portion of these dues is used to fund our grant program for students in Kentucky universities. Your membership is critical in preserving our mission. We appreciate your past support and hope that you will again decide to renew your membership. If you are a Falls of the Ohio Chapter member you should have received a reminder from Treasurer Cindy Payne.

We have been able to keep our dues low because of our e-newsletters. Please provide a current email address. **Your email is important to us** in order to keep you current on important information regarding the Society. If you have any questions, feel free to contact me by email at treasurer@ksnh.org or by phone (502)368-4378.

Dues are as follows:

Family	\$25	Individual	\$15
Full-time student	\$7.50	Life:	\$300

There is a mail-in form on the website. You may also go to www.ksnh.org, and pay your dues using PayPal or your own credit card. You may also send a check to KY Society of Natural History, P.O. Box 883, Fairdale, KY 40118-0883. You may also choose to pay at a chapter meeting. Please make your check payable to KSNH, and mail to P.O. Box 883, Fairdale, KY 40118.

2013 Financial Statement
Kentucky Society of Natural History

Income

Pine Mountain SRP Spring Conference registrations	1,160.00
Pine Mountain SRP Spring Lodging prepaid	3,534.00
Shawnee Ohio Fall Conference registrations	1,385.00
Smoky Mountain Spring Conference registrations	
Grant/Scholarship Donations	390.00
Merchandise	230.00
Falls of the Ohio Membership Dues	502.44
Falls of the Ohio Membership Dues (paypal)	150.00
State Dues	50.00
State Dues (paypal)	162.50

Total Receipts **7,563.94**

Expenses

Grants-KSNH General (4 @ \$500 each)	2,000.00
Grants-Bernadine Meyer-2 (\$500 + \$700)	1,200.00
Postage	52.06
Printing (newsletters)	119.01
Door Prizes	86.57
Office Supplies	68.28
paypal fees (state)	6.58
Lincoln Memorial Museum-18 members@3.50-spring conference	63.00
Refund-Miller cancellation-spring conference	247.00
Refund-Stahlgren cancellation-spring conference	222.00
1. Pine Mountain State Resort Park-Spring 2013 lodging	3,024.45
Pine Mountain State Resort Park-Spring 2013 lodging (Bidwells)	180.28 (lodge error)
2013 Naturalist of the Year Award	125.00
Shawnee Lodge & Conference Center-deposit	500.00
Shawnee Fall Conference-parking at Serpent Mound	42.00
Shawnee Fall Conference-30 dinners-OVCTC Rest. Mgmt.	300.00
Shawnee Fall Conference-coffee	6.89
Post Office Box Rental-Fairdale-annual	40.00
The University Press of KY-Pat Haragan's book	500.00
Kentucky Farm Bureau Insurance-2014 liability policy	364.59

Total Expenses **9,147.71**

Jefferson County Federal Credit Union		interest ytd
Certificate #1-12 month-12/5/14	4,047.52	18.02
Certificate #3-12 month-1/10/14	7,484.84	34.05
Certificate #4-12 month-5/4/14	3,286.30	15.32
Certificate #6-6 month-1/10/14	7,544.77	11.73
Total \$ in cd's	22,363.43	
JCFCU-Checking	2,247.55	6.78
JCFCU-Savings	5,236.64	4.44
	7,484.19	

Patricia E. Meyer, KSNH State Treasurer
3-Jan-14

Continued from the Fall newsletter

THE LEGEND OF ELEVEN JONES

Robert Barry's 1913 article refers to a "shack" on a hill overlooking the cave. This farm house, dilapidated by 1913, was an ideal site for a farmstead since it had a nearby spring (Eleven Jones' Cave) that ran all year round. Good perennial springs in the Louisville area were very hard to find unless one were to look to the east and to the north of Louisville where geologic conditions favor the occurrence of springs. It would be foolish for a farmer to disregard this place for one on which he might have to dig a hard-rock well. During the hunting season of 1912, a hunting dog went into the cave and it was said that it never returned to the surface. Possibly this is the basis for the story of people finding human bones in the cave. Our investigation of the cave uncovered no bones whatsoever.

There are six acceptable names for the cave, all are derived from a common ancestor. The name, Eleven Jones' Cave, has persisted from before 1848, but not before 1822; then there is the contraction, 'leven Jones, which was used as early as 1913 and possibly before that, although there is no written record of it. A twist in the name occurred in 1948 -- Leben Jones' Cave, then Leven Jones in 1949. The name in rather common use today is Eleven Jones Brothers Cave; one of the last variations is Lebanon Jones' Cave. Legend relates that years ago the entrance was big enough to drive a horse and carriage through! If this be true, then the entrance -- surrounded by solid rock - has shrunk to a height of 4.5 feet and a width of 2.5 feet. Or, the spring entrance now in use as Eleven Jones' Cave is not the real entrance at all. An entrance big enough to accommodate a horse and carriage would have to be about six feet tall and five feet wide. This size entrance is not easily obscured by slumping overburden, nor would its geographic location be easily forgotten by the people of Germantown.

What makes the legend much more intriguing is that over the years eight entrances are said to have been found at one time or another; all are said to connect with the spring cave on Beargrass Creek. There is the Eleven Jones' Cave spring entrance on Beargrass Creek. Around the turn of the century, two enterable openings were reported 100 feet and 900 feet upstream from the main spring entrance. Other entrances reported have been at Seventh Street, a quarry entrance in Louisville Cemetery, a cave in St. Michael's Cemetery, a cave on the side of Fort Hill (Preston Street exit), and one on Frankfort Avenue.

What is the possibility of the caves above connecting with Eleven Jones' Cave? The only cave in existence today connecting directly to the main cave is the spring on the west side of Beargrass Creek south of Eastern Parkway. Other openings are said to have been entered on the same side of the creek. There is a spring seepage 100 feet upstream from Eleven Jones' Cave that could possibly have been an entrance, but the author did not find any evidence of solution action that would indicate a cave entrance. In this vicinity, Beargrass Creek has been deepened, railings from the dredging operations have built up and formed a levee between the seepage spring and the hill side slope. The spring issues from beneath a three-foot high rock ledge (Louisville Limestone). The elevation of the spring discharge is about the same as that of the main cave spring. The affluence from this small seepage spring has formed a swampy area and there is no sign of an entrance. The cave supposedly located 900 feet upstream from Eleven Jones' Cave was field checked, but none could be found.

Mrs. Charles (Ann) Plamp relates that when she was a little girl (circa 1939) she used to venture back into a cave located in the rock quarry, 800 feet north of the spring entrance. This quarry was also field checked in 1967, but the caretaker of the Louisville Cemetery said that there was never an entrance there. Investigation of the quarry revealed that if there were an entrance it has since been sealed by a concrete block wall, in front of which stood a chicken coop. There is, however, a spring seep at the base of the free face in the quarry forming a small pond on the quarry floor. The water seeps back into the rock face on the other side of the quarry. This quarry is about 80 feet in diameter and 13 feet high on one end. The pond is from one to four feet deep; this water level approximately corresponds with that of the two other springs in the area.

There are many stories of people entering the cave spring entrance and subsequently emerging from a cave elsewhere in the city - especially caves on the east side of Beargrass Creek. If these stories are true then scuba equipment must have existed around the turn of the century! For a human to connect the spring cave with, for instance, the Fort Hill Cave, he would have to cross under the water table, which at that time was unquestionably higher than it is today (by 12 feet at least). This one physical limitation deters the author from considering the Frankfort Avenue entrance and the Fort Hill entrance at the Preston Street exit as connecting with the spring cave. The Fort Hill opening poses several problems because many people insist that the cave there on the hill does connect with Eleven Jones' Cave. This cave has been covered up for years but a cave of sorts did exist there. Mr. Maurice C. Fuller, who is 76 and came to Louisville in 1918, says that he saw the cave and that it did not go

back into the hill very far. He relates that the “cave was made in that yellow sand” that is so prevalent in the Fort Hill section. This “sand” is actually loess, an aeolian deposit, blown there during one of the inter-glacial phases during the Pleistocene epoch. Kids even today are always digging into the hillside and making their own “caves” since the loess will hold up very well and will resist collapse because of the interconnecting nature of the jagged grains of dust. The Seventh Street entrance is equally out of the question since its location is also geologically unfavorable to the occurrence of caves -- the sand and gravel glacial outwash material of the Ohio River. Caves in general do not develop in unconsolidated glacial material.

The years between 1913 and 1948 were quiet ones so far as the history and legends surrounding the Eleven Jones' Cave. Between 1880 and 1936 a dairy was situated across from the cave on Beargrass Creek. This dairy was started by Fred Sehurch in 1880, and by 1887 he had expanded his pasture land to encompass the acreage around the cave spring. Sehurch, a Swiss migrant, died in 1927 at the age of 79. After some litigation his will was finally executed in May of 1931, transferring the land along the creek and the cave to the Louisville Sewage Commission.

Stories about the Eleven Jones' Cave began to resurface in 1948. In fact, 1948-49 proved to be the most fruitful years for the cave with its myths in the news media. William J. Sprau, capitalizing on Edwin Finch's offer for Kentucky folk tales and trivia, printed a letter (dated 1948) which revived the legend. Sprau testified that there were 11 brothers of which the last born was named (ironically) Eleven Jones.

He said, “... at one time a fine stream of water, flowed from the cave, and the area was a popular recreation and fishing spot.” Today the waters of Beargrass Creek are so polluted in this vicinity as to make fish life almost impossible. As for the recreational side of the story, the cave entrance site still plays host to many amorous adventures.

Sprau revived the persistent legend of the iron (doors) gates located somewhere in the innermost recesses of the cave. In 1956 Robert Stussie reported that he went back to the Fourth Turn and found iron bars spaced so close together that he could not get through. The bars were three inches in circumference. Kenneth A. Alderson upon hearing of the above exploit, accompanied by Michael Cunningham, went into the cave armed with a hack saw. After the Fifth Turn had been negotiated and still no gates or iron bars had materialized, the two spelunkers returned to the entrance. On September 8, 1971 the Milton Metz Radio listener participation program had as its subject “Cave Exploration.” One of the persons who called the station said exactly the same thing as had Stussie. Sprau added a new twist to the legend when he said that above the two iron gates there was fastened a beer keg. He said that this story dated back to 1872 when he had been a lad. The beer keg, although new to the legend, does seem to have a German ethnic overtone.

Beer, beer kegs, beer lest -- all are typical of the German culture transported to Louisville from Germany. Sprau, while adventuring with three other lads near the cave spring entrance, found what they thought was another cave entrance, 100 feet away from the main entrance. “Poking with a fence rail, they uncovered a nest of 16 water moccasins.”

The unearthing of a pre-Civil War Army sword in the cave by eight year-old Robert L. Reeves in September of 1949 may give some authenticity to the shrouded legend of a saber. The sword was described as follows: “The heavy bronze ‘fish scale’ hilt of the sword bears an American eagle of old design on each side. Its broad two-edge steel blade, originally 24 inches long, has a heavy covering of rust and the point is gone.” Walter H. Kelly, an authority on guns and swords, identified the weapon as a sidearm used by artillery soldiers “from 1830 up to the time of the War Between the States.” The identification was made possible by means of etched initials in the hand guard of the sword; the initials were “W.A.T.,” which according to Kelly belonged to the Inspector of Arms for the US Army, Colonel William A. Thornton.

Colonel Lucien Beckner, then Curator of the Louisville Museum, substantiated Kelly's deductions. Colonel Beckner went on to say, “The boys have found a valuable trophy.” If the sword had been used by one of the Jones brothers, said the Times article, then it would “... indicate that at least one of the band may have served in the US Army.” Or, the Jones gang used the sword to cut the throats of some of their robbery victims. The article went on to suggest that the Joneses were Army deserters, or that billeted soldiers in the area had discarded or lost the sword around the time of the Civil War.

This sword could have been placed in the cave any time from 1830 to just within a few years before young Reeves excavated it from the cave. The buried position of the sword in the cave may shed some light on the mystery. “The sword was found submerged in mud and water in a recess off of the main passage of the cave. The location of this section of the cave is 50 feet from the entrance at the First Turn. The hiding place is the extension of the

main entrance, now filled nearly to the ceiling with cave fill. In this section of the cave the twilight zone offers enough light so that one can move around, once one's eyes become accustomed to the subdued light from the entrance.

As a result of this researcher's inquiry printed in the "Letters to the Editor's column" of the Courier-Journal and Times Magazine, June 10, 1973, two additional sword stories surfaced. An ivory handled, 36-inch long sword was claimed to have been found in the cave circa 1962 by Gene Shircliff and his two cousins, Steve and Greg Shircliff. One of the ivory handgrips is purported to have been broken off. Gene Shircliff said that he found the sword far back in the cave on a shelf, on the right wall. Dirt had been pushed over the sword to hide it from view. Gene said that the sword now is in the possession of Steve Shircliff who lives in Rolla, North Carolina.

Another sword legend, supposedly based upon an old newspaper article, holds that a boy was found in front of the mouth of the cave in a state of shock. In his hand he held a sword -- the handgrip was studded with jewels. He was taken to a hospital for treatment, and when asked where he found the sword, he replied, "If I told you, you would not believe me."

Many legends are based upon some physical event which actually took place, but which later became shrouded in mystery and embellished to fill in gaps which had evaded the storyteller. This was the fate of the Eleven Jones Cave. We know that one bona fide sword was found in the cave in 1949, but who placed it in the cave, when, and for what purpose have eluded this researcher since 1965. On June 4, 1973, at the conclusion of the formal public presentation of this paper to The Filson Club, Miss M. M. Wyman stated that her brother, George, could provide much needed insight into the actual origin of the sword in the cave.

George Wyman recounted the following childhood adventure in the Eleven Jones Cave. In July 1910, George (then 12 years old) with three other lads, Lonnie Osborne, Wilton Dohrman, and Jesse Reynolds, went into the cave in search of the legendary iron gates. Even then the cave was said to conceal a treasure of gold and had a strong reputation as a hideout for bandits -- the Eleven Jones Gang. For protection the boys went spelunking well fortified: Wyman armed himself with a gum-ball shooter; Osborne carried his grandfather's sword, taken from his home where it was displayed on a wall; one of the other boys had a B-B gun.

Well protected, and with caution, they ventured forth into the unknown depths of the cave -- ready to meet any adversary on equal grounds. Somewhere back in the cave their lantern went out (carbon dioxide build-up?). Startled they turned around and groped their way out of the cave in pitch darkness. Almost simultaneously, an electrical storm commenced outside the cave. The noise from the thunder was so loud it produced resounding echoes throughout the interior of the cave, and added much to the youngsters' already frightened state. This induced an even more hasty retreat -- young Osborne dropped his grandfather's sword somewhere in the cave. For sometime after this incident, Lonnie Osborne tried to organize another party of cave explorers to retrieve the prize sword but found no takers. George Wyman was asked if he could describe the physical characteristics of the sword. The only thing that he could remember was that the sword had a shiny point. The sword found in 1949 by Robert L. Reeves had a broken point. This sword may have been damaged in the cave during the boys' hasty retreat during the thunder storm. The saber legend grew and the sword that was found in 1949 is now being attributed to Confederate operations in this area. Other artifacts reportedly have been unearthed in this same section of the cave. Christopher Gray told this author about a pistol which had been found in the cave. The pistol, like the sword, was rusty with age and the action was missing. There are other unsubstantiated stories about brass buttons of Civil War issue being found in the cave. In short, the main entrance passage of the cave makes a splendid hiding place for all sorts of things. The author found a transistor radio in the room between Turn Three and Four.

In September 1949, Stewart Taylor, in a letter to the Louisville Times Editor, relates another version of the cave legend. He tells of the old Fort Hill cave entrance to Eleven Jones' Cave. He says that the Joneses lived during the latter part of the 19th century (1890), and that the sword belonged to "... guerrilla band in the country around. Likely this cave on Beargrass Creek was a hiding place of fugitive members...Louisville during the war also harbored many escaped prisoners." Taylor was in disagreement as to the true identity of the Joneses. He said that they lived on Fort Hill between the bottom of the hill and the L&N railroad tracks, and that their dwelling had been a general store -- a two-story frame building, which by the 1890's had become weather-beaten. Taylor insists that the name "Leven" is the correct spelling for the name. Presumably several of the Joneses sons, "... crawled into a cave-like hole in that escarpment on which the Old Fort was built, and kept on going until they emerged from an opening on the bank of Beargrass Creek." He does admit that the story does sound like "... a tale of youthful adventure." An Eleven Jones' Cave story with a different twist was reported in 1965. Two teen-

age boys, Christopher Riley, 15, and his brother Thomas, 16, on April 16, 1965 went into the vicinity of the cave on an "exploring expedition" (according to their mother, Mrs. Thomas Riley). The boys did not return home, so a search party was organized to look for them. Articles of their clothing were identified by the mother -- which were found near the entrance to the cave. WHAS Television News carried film clips of the cave and the search parties of Boy Scouts looking for the missing boys. The Louisville Police made a 45-minute search inside the cave. The Boy Scouts also sent a Scout to check out the interior of the cave. On the evening of April 18, 1965, The Under Water, Under Ground Rescue Association made a search of the cave. On April 19 the boys were located near St. Louis, Missouri. They had hitchhiked all the way, and were found living in an abandoned cabin in a wooded section near a Passionist Seminary in Warrenton, Missouri, near St. Louis. Perhaps one of the newer cave stories, about 1964, is the one about a skeleton hand protruding from one of the walls inside the cave. This is somewhat fantastic, when coupled with the fact that the Louisville Cemetery is above the cave. As to skeletons being found inside the cave, there just might be some truth in it after all. Around 1964, students at Highland Junior High School brought human bones taken from the cave to their 7th Grade science teacher Virginia Boebinger. In the Fall of 1971, this author found that approximately 50% of the 7th Grade science classes at Highland Junior High knew about the location of Eleven Jones' Cave, and even about the assortment of legends attributed to the cave. All through the years the legend has been retold of the Eleven Jones' Cave and its compliment of dastardly deeds and strange disappearances, most of which have been based upon hearsay. Joe Creason in one of his articles wrote that the Joneses were pirates. However, he was actually extending his literary license and by his own admission had no real evidence to justify his statement.

PHYSICAL DESCRIPTION OF THE CAVE

The entrance to the cave is a stoop way passage 2.5 feet wide, 4.5 feet high, and 40 feet long. The entrance passage intersects the First Turn leading off to the right. The main entrance passage extends for another 25 feet which terminates in a small room. The passage between the First and Second Turn is a 90-foot long tubular crawlway intersected by a narrow canyon passage 4 to 5 feet high. Next a 25-foot long sewer-type tubular passage connects the Second Turn with the Third Turn. Between Turn Three and Four, a composite tube and canyon passage predominates; half way through this segment a small room large enough to stand erect in is encountered. The length of this section is 50 feet. The cave then starts to take on a different character in that between Turn Four and Five the passage is almost a 100-foot long stoop way, containing the only sizable piece of breakdown in the whole cave. Extending to the left from Turn Five is a crawlway into another sewer-type passage for 50 feet. After the Sixth Turn, there are several smaller sharp bends in the passage. The cave extends past the Eighth Turn, but no cave survey has progressed beyond that point. A flee-flowing stream traverses the entire length of the cave. Eleven Jones' Cave is essentially a joint determined passage with a main narrow vertical joint which has intersected a horizontal tube passage.

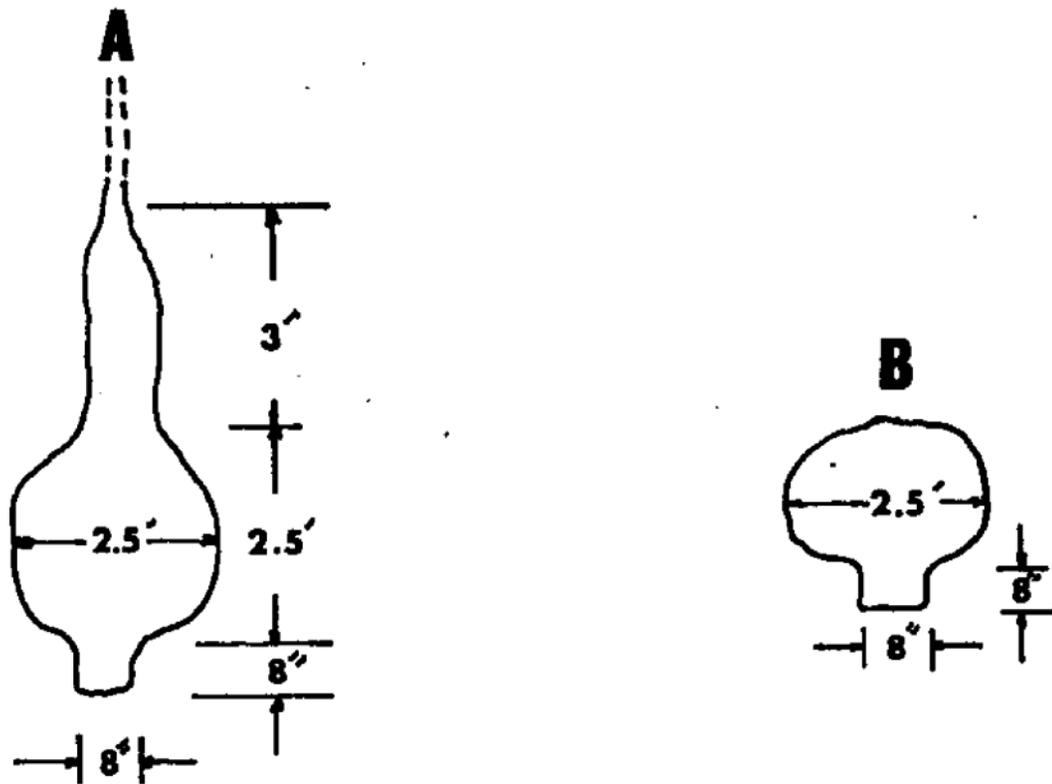
This cave closely resembles Bretz's network pattern, in which he ascribes speleogenesis by solution along controlling joint traces in completely saturated carbonate rocks. Once the ground water flow was established, one joint compliment developed faster than the rest. Observation revealed that most side passages have undergone little solutional development. At each passage junction of two joint sets, a small room has formed at the intersection. This is very prominent at the Second and Fourth Turns, but is represented at every junction on a minor scale.

The intrenchment of the South Fork of Beargrass Creek during Pleistocene times perhaps was influential in the development of a vadose trench cut into the floor throughout the length of the cave. At the entrance the trench is 12 inches wide, but a little past the Fourth Turn its dimensions decrease to 8 inches by 8 inches. Genesis of this trench could be ascribed to a rapid lowering of local base level within the cave. The passage encountered after the Second Turn is a key-way type, 2.5 feet in diameter -- this is a semi-elliptical passage (Fig. 1).

Two cave passage cross-sections in Eleven Jones' Cave. Section A is taken between the First and Second Turn, whereas Section B is between Turn Two and Three can be observed in the Grinstead Drive Quarry Cave. The quarry is also near Beargrass Creek. The free slope of the hill in which the cave is developed has been cut back 28 feet from the creek. Major erosional cutback has resulted from the meandering of Beargrass Creek. This meander plaining worked along the bedding plains of the Louisville Limestone, which is massively bedded in the vicinity of the entrance, but grading upward into a ground water shale zone has greatly facilitated erosional cutback. The upper part of the entrance has been stripped away leaving an enlarged trench 3 feet wide and 3 feet deep and tapering down toward the creek to 1 foot high and 3 feet wide. The whole configuration resembles a sluice box.

-----to be continued in the Spring Newsletter.

Fig. 1



Antarctic Emperor Penguins May Be Adapting to Warmer Temperatures

Jan. 9, 2014 — A new study of four Antarctic emperor penguin colonies suggest that unexpected breeding behavior may be a sign that the birds are adapting to environmental change.

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Analysis of satellite observations reveals that penguin colonies moved from their traditional breeding grounds during years when the thin layer of ice (sea ice) formed later than usual to the much thicker floating ice shelves that surround the continent.

Reporting this week in the online journal, PLOS ONE, a team of scientists from British Antarctic Survey (BAS), the Australian Antarctic Division and the Scripps Institution of Oceanography at UC San Diego in California, describe this extraordinary change in behavior.

Lead author, Peter Fretwell of BAS said, “These charismatic birds tend to breed on the sea ice because it gives them relatively easy access to waters where they hunt for food. Satellite observations captured of one colony in 2008, 2009 and 2010 show that the concentration of annual sea ice was dense enough to sustain a colony. But this was not the case in 2011 and 2012 when the sea ice did not form until a month after the breeding season began. During those years the birds moved up onto the neighboring floating ice shelf to raise their young. “What’s particularly surprising is that climbing up the sides of a floating ice shelf -- which at this site can be up to 30 meters high -- is a very difficult maneuver for emperor penguins. Whilst they are very agile swimmers they have often been thought of as clumsy out of the water.”

The emperor penguins’ reliance on sea ice as a breeding platform coupled with recent concern about changing patterns of sea ice has led to the species being designated as ‘near threatened’ by the IUCN red list. The discovery suggests the species may be capable of adapting their behavior.

In recent years satellite technology has significantly enhanced the scientists’ ability to locate and monitor emperor penguin populations.

Barbara Wienecke of the Australian Antarctic Division said, “These new findings are an important step forward in helping us understand what the future may hold for these animals, however, we cannot assume that this behavior is widespread in other penguin populations. The ability of these four colonies to relocate to a different environment -- from sea ice to ice shelf -- in order to cope with local circumstances, was totally unexpected. We have yet to discover whether or not other species may also be adapting to changing environmental conditions.”

Gerald Kooyman, of the Scripps Institution added: “Without satellite imagery these moves onto shelf ice would not have been detected. It is likely that there are other nuances of the emperor penguin environment that will be detected sooner through their behavior than by more conventional means of measuring environmental changes.”

Whereas sea-ice is frozen salt water, ice shelves are made up of glacial ice that has flowed from the land onto the sea. At the outer edge of an ice shelf ice cliffs can form and these can be anything up to 60 meters high.

Story Source:

The above story is based on materials provided by British Antarctic Survey.

Note: Materials may be edited for content and length. For further information, please contact the source cited above.

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1. Peter T. Fretwell, Phil N. Trathan, Barbara Wienecke, Gerald L. Kooyman. Emperor Penguins Breeding on Iceshelves. PLoS ONE, 2014; 9 (1): e85285 DOI:10.1371/journal.pone.0085285

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