



TSA Activities Newsletter

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News & Notes

TSS Affairs

July TSS Work Session

The TSS will hold an evening work session at the TSS office in Austin, July 12th from 5:00 to 8:00 p.m. Come help with the organization of Texas cave information. **Contacts:** Jim Kennedy (512)-663-2287 <jkennedy@batcon.org> or Ron Ralph <ronralph@austin.rr.com>

TCMA Affairs

Robber Baron Cave Restoration Project

The TCMA and the Bexar Grotto will be hosting another work day at Robber Baron Cave on Saturday, July 12th. I'll send out a note with more details as the date nears, but please put this on your calendar and in your newsletters. We are at the place where we need warm bodies and lots of expendable calories. If you need places to stay or camp, please let me know as soon as you can and we will work something out. Our plan is to work one weekend of every month until the major work is finished. We can visit the cave any time we work. After the summer, the cave will be open again for general visitation. Please let me know if you are planning to attend. I'll make sure I have enough cold drinks to keep us hydrated during the work.

Linda Palit <lcpalit@sbcglobal.net>.

National News

Proposed Fee Increase for GUMO

Dear (Sir or Madam):

Guadalupe Mountains National Park is contemplating a fee increase to be effective January 1, 2007. The Federal Lands Recreation Enhancement Act of 2004 requires that I give you an opportunity to participate and/or comment on the proposed fee increase. Your input is important and I hope that you will give some consideration to the ramifications of this proposal.

The proposed fee increase will raise fees from the current rate of \$3.00 per person 16 and over to \$10.00 per person 16 and over. If allowed to do so, I'd like to petition the Regional Director to graduate that increase over the next three years. Basically, we would begin by changing the fee to \$7.00 per person in January of 2007 and elevating the fee to the full level in January of 2009.

Camping fees will remain unchanged for the time being. Should a need to change the camping fees arise, I will again notify the public prior to implementing any changes.

In addition to the entrance fee changes, we would like to propose the creation of an annual park pass. The pass will be offered at an annual rate of \$40.00. This pass will allow the user unlimited visits to the park. However, this pass covers entrance fees only (camping fees are excluded).

Again, I hope that you will give careful consideration to our proposal to increase fees at Guadalupe. The entrance fees collected are used to enhance the park visitor experience and improve our infrastructure. As a result of the fee demonstration program, we have been able to make repairs to the campground septic system, develop several interpretive wayside projects, and improve trail conditions in several areas of the park.

Should you care to provide comments, please contact me either in writing at the address above, or give me a call at 915-828-3251 x104. Should you care to reply electronically, my address is gumo_superintendent@nps.gov. Thanks again for your consideration of this extremely important issue.

Sincerely, John V. Lujan, (Park Superintendent)

Remains of James G. Mitchell Recovered

New York – James Mitchell was a 23-year-old chemist from Winthrop whose death made national headlines in February 1965 when he died of exposure while exploring a cave in central New York. Mitchell had come to Dolgeville, some 200 miles northwest of New York City, on Feb. 13, 1965, to explore Schroeder's Pants Cave with two friends from the Boston Grotto Club — Hedy Miller, a nurse, and Charles Bennett, a graduate student at Harvard. Mitchell, then Miller and Bennett, inched through sections named by previous cavers — Lemon Squeeze, Z-bend, Gunbarrel — until they reached an open area. There, they stared down a vertical shaft that extended to a bell-shaped cavern about 80 feet below. Despite the frigid water cascading around them, Mitchell hooked his safety lines and started down. Then he stopped. "Something went wrong," Miller told reporters afterward. "He tried to wiggle lower and then could not move. He tried to pull himself up on the rope with one hand, but his hand kept slipping." About 10 gallons of icy water were pouring on his head every minute. "He told me not to worry, that he'd get out. Later on, he could not talk at all," Miller said.

After 45 frantic minutes trying to lift Mitchell to safety, Bennett left the cave to find help. And when the newly formed National Capital Grotto Rescue Squad flew in from Washington, D.C. on the Vice-president's plane, Air Force 2, the story became front-page news. Doug Bradford was among the six young men on the rescue team, which had virtually no experience. "We had done a lot of practicing, but boy, was that little cave tight," Bradford said. "The first thing we did was try to haul him up. We got hold of him, and it was clear he was lifeless and wasn't going to help us much. It wasn't long before we figured out he was dead." Rescuers glumly turned to recovery of the 5-foot-11, 185-pound Mitchell's remains. "We worked on some of the narrow places for three days and were going nowhere, so we

mapped the cave," Bradford said. "They drilled a test hole where he had been hanging and did some more heavy drilling. But when we went down to rig him for extrication, part of the cave collapsed. Dirt was coming down the shaft. We had to get the hell out of there." The rescue effort was halted on the sixth day. The cave was subsequently blasted shut in the young spelunker's honor. But the many limestone entrances to the cave, about 20 miles east of Utica, N.Y., were never fully closed, leaving Mitchell's body without a private resting place for the past 40 years.

Now, Christian Lyon, 36, an actor from Los Angeles and the son of the local Dolgeville, N.Y., mayor, has returned to not only retrieve Mitchell's body, but also make a documentary about Mitchell's death and the recovery, which is planned for this weekend [June 24th]. "I want to do justice by Jim," Lyon said from Dolgeville yesterday. "I was not alive when this happened, but for some reason he matters to me."

Mitchell mattered to a lot of people, especially cave explorers. His death was a milestone in the spelunking world, with rescue teams forming around the world after his much-publicized tragedy. In fact, the National Speleological Society gives a James G. Mitchell Award for best scientific paper presented at any of the sessions of their annual convention by a member (or members) of the Society age 25 or younger.

Mitchell's family is from Waterville, Ohio, and when contacted by Lyon about the rescue, they approved of the project and said they hoped to bring the remains home. Lyon said members of the original rescue team and Mitchell's family will gather in Dolgeville on Friday and begin the private rescue on Saturday, led by a caver who has been inside the cave, which is said to be one of the trickiest in the Northeast.

Once recovered, the remains will be passed over to the New York State doctor of forensics who, with the local coroner, will bring the remains to a local morgue for examination. James Mitchell's remains will be cremated, with some of his ashes given to family members and the rest buried near the site of the cave, where the Lyon family placed a marker years ago marking the tragedy, which affected that family as well. Lyon's grandfather discovered the cave in 1947, and the marker and cave are on family property.

(Excerpted from:

http://www.boston.com/news/local/articles/2006/06/20/decades_later_effort_revived_to_retrieve_body_from_cave_shaft/ and http://news.yahoo.com/s/ap/20060622/ap_on_re_us/cave_remains).

Postscript: Rescuers on Saturday, June 24th recovered the remains of James Mitchell. It took six workers about four hours to finish the recovery of Mitchell's bones. Bill Mitchell, now 62, who hadn't been inside a cave since his brother died, collected all the bones. The crew also discovered Mitchell's helmet, which bore 18 markings representing the number of caves he'd explored. Plans are under way to bury a small amount of Mitchell's remains under a headstone at the entrance to the cave on Tuesday.

Lincoln National Forest Reopens

Alamogordo, NM – Effective June 30, 2006 at 8 a.m., the Lincoln National Forest will lift the forest closure and open the Forest for public use. Moving from Stage IV Forest Closure to Stage II Fire restrictions and opening the Forest aligns with other federal agencies that are open and continue with fire restrictions on their lands. Additionally, the Bureau of Land Management will lift closures in the Fort Stanton Area of Environmental Concern. The Mescalero Apache Tribe is considering similar actions on tribal lands.

Stage II Fire restrictions remain in place on the Lincoln National Forest. The following acts are prohibited: Building, maintaining, attending or using a fire, campfire, charcoal, coal, or stove fire and smoking. Pressurized liquid gas or propane stoves, lanterns and heaters meeting safety specifications are allowed. Additional fire restrictions remain on Bureau of Land Management and National Park Service lands and at local levels. Open burning is still prohibited on non-federal, non-municipal lands in southeastern New Mexico. Please check with local agencies and authorities. As always, fireworks are always prohibited on all federal lands.

"The moisture we have recently received on the Smokey Bear, Sacramento and Guadalupe Ranger Districts is allowing me to lift the forest closure," said Lou Woltering, Lincoln National Forest Supervisor. "Hotshot crews and air resources are and will remain in place. Community protection and public safety are always a first priority and keeping the Stage II Fire Restrictions in place is a continuing reminder to practice good fire safety while recreating on public lands."

For additional information on National Forest restrictions, please contact the Smokey Bear Ranger District Office at (505) 257-4095; the Sacramento Ranger District Office at (505) 682-2551 and the Guadalupe Ranger District at (505) 885-4181. For more information on fire or the Lincoln National Forest, please review our website at: www.fs.fed.us/r3/lincoln and additional fire information can be obtained at <http://www.fs.fed.us/r3/fire> and <http://www.nmfireinfo.com>.

Joe Garcia

Local News

Protecting Barton Springs is a Regional Effort

Even before May's crushing defeat of an environmentalist-inspired referendum to halt development in the sensitive Barton Springs watershed, a compromise was under way. A proposed ordinance to protect the Barton Springs Zone has been working its way through the ponderous City of Austin approval process. As drafted, the ordinance would direct the City Council to steer development away from the watershed and punish companies that locate on "grandfathered" property. Grandfathered land is property platted before the restrictive Save Our Springs ordinance became law in 1992.

After the defeat of Proposition 2 in the spring election, Council Member Lee Leffingwell looked at a breakdown of development in Austin and the Barton Springs Zone and wondered if the city was having the right conversation. Only 2,727 acres in Austin are grandfathered under pre-SOS

regulations. That's not much to fight over. More startling is a chart of the larger Barton Springs watershed, which shows that 60 percent of the zone is undeveloped. That's 143,800 acres, almost all outside the Austin city limits and in counties with little power to control development.

Leffingwell has pulled together a Barton Springs Zone advisory group to look at the draft ordinance and consider what else might be done to protect the iconic springs. It includes city officials and members of the Hill Country Conservancy, Barton Springs/Edwards Aquifer Conservation District, Save Barton Creek Association, SOS Alliance, Greater Austin Chamber of Commerce, Real Estate Council of Austin, Oak Hill Association of Neighbors, Austin Neighborhoods Council and members of the city's environmental board and planning commission. Their charge is to help craft ordinances that will protect Barton Springs but not impede economic development, Leffingwell said. But it's clear from the maps and charts that the greater challenge is to try to find ways to influence development in that huge swath of the watershed in Hays and Travis counties (plus a sliver in Blanco County).

SOS Alliance attorney Sarah Baker, a member of the advisory group, said it is too early to tell what will come of the effort, but she finds the project encouraging. At least the main players are talking with, and not at, each other, as they did during the acerbic debate over the ill-advised Proposition 2 referendum. That was a fiasco of name-calling and finger-pointing, and the voters handed SOS a humiliating defeat. Leffingwell is on the right track with the advisory group. A free and open discussion is the only way to have an effect on the thousands of undeveloped acres outside the Austin city limits.

Whatever ordinance Austin approves will have some effect on the health of Barton Creek and Barton Springs. But to a larger extent, their future depends on what happens beyond the city limits. Developers and county officials must understand that Barton Springs is not just about salamanders and Keeping Austin Weird. It is a rare and precious urban jewel that the entire region ought to have an interest in protecting.

(Excerpted from: http://www.statesman.com/opinion/content/editorial/stories/07/5springs_edit.html).



The Barton Springs Salamander (*Eurycea sosorum*), known only from Barton Springs.

Rescue at Airman's Cave

The weather didn't help much when it came to an overnight cave rescue in South Austin. At around 10 p.m. Sunday, July 2nd, a woman and her friends were down the Barton Creek Greenbelt about a half-mile exploring the caves. They went inside what's called Airman's Cave at around 4 p.m. Officials say the group went back in about 1,000 feet, through tight twists and turns inside the cave. However, one of the women was having a hard time getting out. So the group exited the cave and called 911 for help. A special operations team with the Austin Fire Department arrived. In all, about 50 firefighters and EMS personnel were on the scene to go inside the cave and rescue the woman. Officials said that these types of rescues are common. "In this cave, again, it's very difficult, physically demanding to get back there, and then after going through a couple of tight fits where you literally have to breathe out all of your air and then squeeze through," Palmer Buck with AFD said, "We've had some people that just couldn't make themselves go back in. That might have been the case here." Once the rescuers got inside the cave, they say the woman was able to walk out on her own and is doing fine. Officials told reporters that with 300 caves along the greenbelts in Austin, their special operations team trains for these types of situations.

(Excerpted from:

<http://www.kxan.com/Global/story.asp?S=5107833&nav=0s3d>).

Cave Biology

New Genus of Cricket Found in Arizona Cave

In a rare type of discovery, researchers have identified a whole new genus of cricket in caves in Grand Canyon-Parashant National Monument in northwestern Arizona. The discovery was made by Northern Arizona University doctoral candidate J. Judson Wynne and National Park Service researcher Kyle Voyles. The new genus has yet to be named. It was identified by cricket expert Theodore Cohn of San Diego State University.

Most crickets have a pair of non-clasping cerci at their hind ends. Earwigs have cerci, which are commonly known as pinchers. The newfound genus has cerci that do clasp, Wynne said in a telephone interview. The plate that covers its reproductive zone is also unlike any known on other crickets, he said. Cave crickets tend to sleep and reproduce in the cave but go outside to feed at night. It is not known if the newfound critters live that way, but Wynne suspects they do, having found them during the day near the cave entrance in semi-darkness. "I don't think there's enough food there to support the crickets," he said. "I think they come out to feed."

The finding suggests there's a lot more to discover in Southwest caves. Of more than 1,000 known caves in Arizona, only 3 percent have been significantly surveyed by biologists. "Cave ecosystems are one of the most poorly understood and fragile ecosystems," Wynne said. "The discovery of a new cricket genus from a northwestern Arizona cave emphasizes how little is known about these ecosystems. "A genus is a major subdivision within a family of living things that typically includes more than one

species. The newfound crickets belong to the Rhabdophoridae family, which is within the order called Orthoptera. This order also includes grasshoppers.

Neil Cobb, curator of the Colorado Plateau Museum of Arthropod Biodiversity, said the discovery of a new genus in such a well-known order in North America is rare. "Caves are one of the final frontiers in temperate regions for discovering new taxa," Cobb said today. "Because caves are extreme environments, cave arthropods are very specialized and possibly endemic to a single cave system or region. They present interesting and odd evolutionary forms that reflect the extreme environments found in caves."

(Excerpted from: Britt, Robert R. 2006. <http://www.live.science.com/animalworld/060505_cricket_genus.html>).



New genus of cave cricket from NW Arizona.

Volunteer Project at Carlsbad Caverns Provides Information on Cave Swallows

Carlsbad Caverns, NM – Nobody knows for certain how many cave swallows share the home of the Mexican free-tail bats at Carlsbad Caverns, but for the past 26 years, volunteers have come back year after year to learn more about them. Since 1980, Steve West, a science teacher at Carlsbad High School and an avid birder and researcher, has been part of a cave swallow banding project that he helped initiate to determine their migratory range and lifespan. Also a member of the Chihuahuan Desert Conservation Alliance, West said that members of his organization and volunteers from 38 states and 15 countries have over the years banded an estimated 17,000 cave swallows starting each spring and ending in the fall when the birds leave the cave for the winter and head to Mexico.

"We needed to know their winter range and where they spend half a year when they are not living in the entrance to the caverns," West said, explaining the project's mission. "But we have collected a lot of other data about them in the past 26 years. West said the cave swallows at Carlsbad Caverns National Park were discovered inside the big entrance to the caverns in 1966. "There were three nesting pairs found there in 1966. There was a population explosion in the 1970s, but by the early 1980s, the population had maxed out," he said.

West said although the banding project has been ongoing since 1980, determining the number of cave swallows is difficult at best. However, he said if he had to guess, he would estimate about 1,600 cave swallows make their home at Carlsbad Caverns during the summer months. "The number that return in the early spring varies from year-to-year, so there could be a little more or slightly less," he said.

"The oldest bird that we recaptured in the cave that I know of was last year. It was about 12 years old," West said. "It had a band on that shows it was banded in the cave in 1993. Normally, these birds don't live that long. Generally, about 65 percent die off in the first year. If they pass the two-year mark, generally they can live about eight years. In England, they recaptured a banded cave swallow 17 years after it had been banded. That was amazing."

West said he became interested in cave swallows shortly after he left military service in the 1970s. "My mother and brother were living in Alpine, Texas, at the time. When I got out of the army that's where I went," he recalled. "They had a small group of people there that were members of the Texas Bird Banding Association, which is no longer in existence. I joined the group and someone said that we needed a project, and the suggestion was made to band cave swallows. There was a place in Alpine that had a small colony of cave swallows, and I banded my first cave swallow in 1978."

West said banding generally takes place in the evenings after visitors have left, and before the bats leave for a night of feeding. Like the cave swallows, the bats summer in the cave and head south for the winter. "The bats and the cave swallows co-exist. The birds fly out in the morning when the bats come in after being out all night," he said.

West said that through his research it has been determined the cave swallows winter in Puerto Vallarta and Acapulco, Mexico, and El Salvador. "A few of them will winter in Texas," he added. "Before we started the research, nobody knew for sure how far these birds flew for the winter."

West said that since he first started his research, he has seen a shift in the migratory pattern of the cave swallows summering at Carlsbad Caverns. "They are coming back earlier and leaving later," he said. "Since the birds are living in the cave at night, they are expending less energy. They are protected in the cave. I think another reason the birds are leaving later is because of the global warming effect. The birds used to come back around early March. Now, we are seeing them return in January."

West said that currently volunteers are spending one to three evenings per week in the cave banding birds. However, he said extra volunteers are also needed and welcome. Anyone interested in spending an hour or two inside the entrance of the cave helping with banding or tasks associated with the project can contact West at 302-6187.

(Excerpted from: Davis, Stella. 2006.

<<http://www.currentargus.com/apps/pbcs.dll/article?AID=/20060613/NEWS01/606130302/1001>>).



Cave Archeology

Nevada's Spirit Cave Man Continues to Fuel Debate and Student's Interest

Fernley, NV – Two Fernley Elementary School teachers never meant to get in the middle of a political battle over who controls the history of North America. “It’s been quite a ride for 10 years, but the kids love it,” said Vivian Olds, a fifth-grade teacher. “Here’s one of the most important archaeological discoveries in North America, just 30 miles from Fernley, and yet we had no access to that information.” The secrecy, she said, just “drove us to find out more.”

Olds and her colleague, Deb Sutherland, wanted to teach students about a 10,600-year-old Nevadan called Spirit Cave Man. The man’s partially mummified remains were found 66 years ago in a cave near Fallon, NV, but his antiquity wasn’t known until 12 years ago. Northern Nevada Indian tribes want to rebury the remains in a secret location, so that the man’s soul may continue its journey into the next world. Tribal leaders filed suit against the government to get the remains.

But some scientists want to study him further because they say he may hold keys to understanding how – and when – human beings came to the New World tens of thousands of years ago. Most anthropologists say Spirit Cave Man probably isn’t related to modern Indians, and represents a group that predated the ancestors of tribes now in the Great Basin. A few other researchers disagree. The legal, cultural, scientific and political battle has spilled into the classroom.

“The Indians think Spirit Cave Man is one of them, and maybe he is,” said Courtney Stapleton, 13, of Fernley. “We want to learn about him, but the tribes and the government are trying to keep everything on the down-low. They don’t want people to know about him. . . . We learned a lot anyway, though.”

Stapleton began learning about Spirit Cave Man in the third grade and continued to study the prehistory of Nevada in the fifth grade. She and other Fernley students have made presentations about the ancient human at conferences, weaved duck decoys from reeds, studied Indian stories, wrote poems about Nevada 10,000 years ago and used clay to put faces on plastic skulls.

The students and teachers said government officials ignored them when they’ve asked for information about the remains. They said they’ve been shunned by some Nevada anthropologists, who have told reporters they don’t want to offend the tribes by discussing Spirit Cave Man.

At the Great Basin Anthropology Conference in Elko in 2002, teachers said an Indian woman in the audience wept when the students talked about Spirit Cave Man during a lecture. The teachers said the woman was upset that her ancestor and his burial were being discussed in public.

But the kids kept talking – and they kept learning. “It’s fun learning about history and about this man who lived so long ago,” said Julia Thompson, 11. “I loved making the tule duck decoys and writing poems about who he was and how he lived when Nevada was a place of lakes and swamps. “He’s so important to history, to everyone’s history.”

Olds and Sutherland became interested in Spirit Cave Man after the Nevada State Museum announced in 1994 that a

mummy in its collection was dated at 9,400 C-14 years – or about 10,600 calendar years. The museum spent \$7,500 for a CAT scan of the remains and to employ a forensic artist put a clay face on a replica of the skull. The man’s cranium, scientists said, has little in common with the skulls of any group of humans, living or dead, including American Indians. The mummy and ancient remains found elsewhere could rewrite the history of the human occupation of the continent, experts said. The remains may tell a story of people who were here before the ancestors of the Indians came.

In 1998, the state museum said it would display the busts of Spirit Cave Man and Wizards Beach Man, another set of ancient human remains found at Pyramid Lake. Nevada tribes objected, saying that public viewing of anything connected with the burial of persons they consider their ancestors would be a desecration. So the state government locked up the busts and the artifacts and promised never to allow the public to see them. The museum also withdrew requests for more testing of the Spirit Cave Man remains.



Facial reconstruction of Spirit Cave Man *Chip Clark, Smithsonian.*

The controversy over the remains spawned a Nevada State Museum exhibition called “Under One Sky,” which centers on the tribal perspective of prehistoric Nevada. In the museum, Spirit Cave Man is a footnote on one panel and is mentioned on another display. Gene Hatori, museum curator, said the “Under One Sky” exhibit was an attempt to mend fences with the tribes who had been excluded from early researchers’ work and reports concerning Spirit Cave Man. He said Indians initially didn’t want any mention of the case and what resulted was a compromise that tried to present both sides. “We tried to balance the presentation, and it’s up to the viewer to decide,” he said. “I think we succeeded. I thought it was balanced.”

But Olds said the 2001 exhibit sheds no light on new theories, and for years it’s been difficult to find out anything about Spirit Cave Man. “It became a total blackout, a code of silence, here in Nevada,” Olds said. “We could not find anything out. We took kids to the (Nevada State) Museum on field trips only to find out there was nothing about Spirit Cave Man there. They couldn’t tell us anything. We asked why. We got no answers.” So the teachers and the students did research. They interviewed people. Some Indian leaders

didn't accept the students' invitations to the classroom, Olds said, but others did.

Douglas Owsley, director of anthropology at the Smithsonian Institution, shared information. Sharon Long, the artist who did the busts of the ancient Nevadans and who has reconstructed the faces of more than 150 other historic Americans, came for a visit. Olds said she doesn't dwell on what people wouldn't tell her students or what the state government won't show them. She's said she is more interested in what the students learned – and keep learning. Last month, the two teachers and a few of their students located the ancient cave where Spirit Cave Man was found. The site had remained secret for 66 years, and neither government agencies nor Indian leaders would reveal its location.

After years of searching in archives and on the ground, the party of adults and children from Fernley Elementary School finally saw the place where the remains of Spirit Cave Man were laid to rest. The cave matches the 1940 site report exactly. "It was here, more than 10,000 years ago that his people wrapped him in a tule blanket and buried him," Stapleton said. "In this dry cave he became mummified."

Olds and Sutherland said they present both sides of the battle for the bones. They ask students to role-play as Indians who want their ancient grandfather reburied and as the scientists who want to study him. The students study Indian creation stories and scientific theories. "Balance is important," Olds said. "We don't want the students to see it as an either-or, one-sided thing. We don't have any self-interest in this. But we do have a human interest, and we want the students to come to their own positions."

Young Julia Thompson stood at the grave site of a man who died 500 generations ago and gazed out across the sagebrush ocean. She said she tried to imagine the waves, water birds and people of long ago. She said scientists should learn what they can from the ancient witness, but the old man needs to go home. "He's been in a box in Carson City for 66 years, and he shouldn't be trapped in a box," she said. "He should be brought here and put back where he was found. Here's where he was meant to be."

(Excerpted from: Mullen, Frank X. 2006.

<<http://www.signonsandiego.com/news/nation/20060523-2358-nv-battleforbones.html>>).

Recent Archeological Seminars at Little Salt Spring, Florida

North Port, Florida – Trained archaeologists were at Little Salt Spring in June to give area residents the lowdown on Little Salt Spring. And in the case of North Port's most famous archaeological site, "lowdown" means just that: about 70 meters, the known depth of the sinkhole. The sinkhole is a classic "cenote," a sinkhole caused by the erosion of limestone by underground water. It is fed by underwater springs, and except for the water close to the surface, it is devoid of oxygen in much of its depth.

Little Salt Spring is round at the surface and consists of a funnel-like depression 78 meters across with its water surface 5 meters above mean sea level. The submerged portion of the spring displays an hourglass shape in profile.

The upper basin slopes at 25° to 12 meters in depth where a roughly circular opening 25 to 30 meters across occupies the center of the depression. Below this opening, the walls are generally overhanging with two prominent encircling ledges at depths of 18 and 26 meters below the surface. About half way down, the sides begin to slope outward to form an inverted funnel. At its base, the sinkhole is about 60 meters in diameter with a water depth of 72 meters near the center, but the floor slopes downward around the perimeter to unknown depths. The bottom of the spring, as well as the upper basin, is covered with several meters of soft detritus and organic sediments.



Little Salt Spring, Florida.



Artist's Cross Section of Little Salt Spring, Florida.

Gifted to the University of Miami in 1982, Little Salt Spring was first recognized as an archeological site in the late 1950s. The spring is fed from an underground source that has no dissolved oxygen in the water. Consequently, bacteria cannot grow and decompose wood and other organic materials, offering unique artifact preservation.

Subsequent archeological explorations took place in the 1970s, yielding artifacts that date to more than 12,000 years ago. The University has been excavating the site since 1992, conducting an interdisciplinary field school for its undergraduate and graduate students. Meticulous technique and very minimal funding have limited excavation progress to only what can be accomplished in an annual two-week field class.

The spring is believed to have served as an oasis for migratory early residents of Florida; a convenient stopping place where they could get water and food. Extensive and well-preserved archaeological materials have been unearthed from the spring's upper basin and underwater ledges and they suggest that human utilization of the spring was not only a result of water quality, but of water levels as well. Recent findings indicate that human occupation took place almost continuously since the end of the Pleistocene to about 5,000 years ago, but mainly during the Paleo-Indian (~12,500 to 9,000 years ago) and the middle Archaic (~7,200 to ~5,000 years ago) periods. Periods of major human utilization are associated with lower water levels in the spring, which in turn reflect periods when surface water was scarce on the karstic Florida carbonate platform. These periods are associated with lower sea level and cooler world climate, which created drier, semiarid conditions in much of Florida. In contrast, when water levels in Little Salt Spring were high, there was apparently little need for the spring's water, as surface water was readily available everywhere. In addition, with the rise of sea level to its present elevation, mineralized water began to flow into Little Salt Spring and its usefulness to prehistoric man apparently ended.

Artifacts found in the spring, including carved and shaped wood tools and some intriguing carved greenstone pendants, provide just a glimpse of the people who may have stopped here on their way to the coast. Archaeologists and students from the University of Miami gave tours this past June, leading dozens of visitors out to the dock that straddles the sinkhole and guiding them through the laboratories where they could see some of the artifacts that have been retrieved from the depths. Divers were also on hand to demonstrate how their meticulous work is done. Most of the excavation at this site is underwater at depths of more than 20 meters. The work can be very tedious due to the care that must be taken with delicate artifacts.

Researchers presented a free symposium in Mid-June at the North Port Performing Arts Center explaining some of the work they have done at Little Salt Spring and elsewhere. Speakers described some of their research findings and underwater archaeology in general.

(Excerpted from: Hoffman, Susan E. 2006.

<<http://www.sun-herald.com/NewsArchive2/061106/np15.htm?date=061106&story=np15.htm>> and <<http://mgs.rsmas.miami.edu/students/caz/LLS.htm>> and <<http://www.rsmas.miami.edu/pressreleases/20050629-little-salt.html>>).



Tales of the Sinkhole:

Giant Sinkholes Swallowing Florida Lake

Lakeland, FL — Hundreds of residents living around Scott Lake can only watch and wait to see whether their lake — and a few homes — will be swallowed by two sinkholes. The sinkholes opened Tuesday, June 13th at the south end of the 291-acre lake, and have been growing at a rate of six-to-eight inches a day. The largest of the two sinkholes grew Wednesday into a gaping crevice at least 200 feet in diameter and 15-20 feet deep, collapsing a dock, a concrete walkway and a chain-link fence. The private lake, ringed with exclusive sprawling homes in one of Lakeland's most exclusive neighborhoods, has abruptly dropped several feet, and had receded from the shoreline at least 20 feet by Wednesday night. A week later, the entire lake was essentially drained.

Glenda Fontaine, a lakefront resident, was at home with her husband, Steve Beebe, Tuesday afternoon when they heard a terrible sound. "It was just cricking and cracking and cricking and cracking," she said. The ground behind their house sank about a foot, leaving a brown jagged seam running up their lawn. Part of the large dining room built on the back of their home, facing the lake, sank. Huge cracks are now spider-webbing up the walls, windows have shattered, and the swimming pool is split open and drained.

Engineers think there are two sinkholes on the bottom of the southeast part of the lake, which is just south of Lakeland city limits, said Ted Smith of BCI Engineers & Scientists Inc. of Lakeland. It has been estimated that the sinkholes are swallowing as much as 100,000 gallons of water a minute.

Polk County officials say there is nothing that can be done, and that it is simply an unfortunate act of nature. "My understanding is, if it's a natural phenomena, it's not the county's responsibility," said Jay Jarvis, drainage manager with the Polk County Natural Resources Division.

(Excerpted from: <<http://www.foxnews.com/story/0,2933,200475,00.html>> and <<http://lledit.us.publicus.com/apps/pbcs.dll/article?AID=/20060615/NEWS/606150424/0/FRONTPAGE>> and <<http://news.tbo.com/news/metro/MGBV1L5LQOE.html>>).

Sinkhole Shuts Down Portion of Virginia Highway

Leesburg, VA. Jun 29, 2006 – The eastern lane of Rt. 15 north in Leesburg is closed because of a massive sinkhole that has developed on the roadway this afternoon. A Leesburg police officer spotted what at the time was a 3-foot-wide hole about 12-feet deep at 11:15 a.m. The police department had to bring Virginia Department of Transportation engineers to the scene to cover the hole. About an hour later, the hole expanded to about 20-feet wide and 15-18-feet deep.

VDOT Maintenance Superintendent Mark Spring said the sinkhole is the first one reported. The week's heavy rainfall coupled with what Spring believes are underground caverns beneath Rt. 15 led to the hole forming. "Just one of them gave in with all the rain this week," Spring said. It is estimated the road won't be open for traffic until tomorrow morning. Spring said VDOT would have to use 30 tons of

shot rock, 70 tons of No. 57 stone, and 30 tons of black top to fill the hole.

(Excerpted from:

<http://www.leesburg2day.com/current.cfm?catid=6&newsid=12207>>).



New sinkhole in Leesburg, Virginia.

International News

Million-Dollar Redevelopment for Harrison's Cave

Harrison's Cave, Barbados – A 31 million-dollar project has been launched, to assist in the redevelopment of Harrison's Cave. Dubbed "De Heart uh Barbados", the program is also geared towards generating financial and social benefits for people living near the cave. Speaking last night during "De Heart uh Barbados" awards presentation ceremony, at the environmental special projects unit, in Sturges St. Thomas, Minister of the Environment Elizabeth Thompson, said that as a result of the proposed plans visitors to the cave will soon see a new and improved product. Minister Thompson said in addition to a farm and craft market, the redeveloped cave will include a water treatment plant, recycling of grey water and rain water for irrigation purposes, extensive composting and solar power, to provide 30 percent of the cave's power requirement.



Harrison's Cave, Barbados

Although historical references were made to Harrison's Cave from as early as 1796, no serious exploration of the cave was done until 1970, when speleologist Ole Sorensen and Anthony Mason were commissioned by the Barbados

National Trust to make a survey of the cave. Sorensen immediately recognized the potential of the cave and recommended that it be landscaped and developed. Four years later, work on the cave began, drawing on scientific, artistic, technological and geological resources. The work involved digging tunnels, improving lighting and diverting of underground streams.

The cave was officially opened to the public in 1981. Visitors are driven in electrically operated trams down through the extensive system of caves and at the lowest level in the cave, visitors are invited to leave the tram and walk alongside a spectacular waterfall which plunges into a deep pool below.

(Excerpted from:

<http://www.cbc.bb/content/view/5949/10>>).

Fairy Dragon Cave to Open in Huangguoshu Waterfall Scenic Area

Guizhou, China — A new scenic spot, Fairy Dragon Cave, will be added to the list of attractions at the Huangguoshu Waterfall Scenic Area, a famous tourist destination in southwest China's Guizhou Province. With a typical karst topography, the area around the Huangguoshu Waterfall boasts a cluster of fascinating water-eroded caves. Fairy Dragon Cave, located four kilometers upstream from the waterfall, is one of the most interesting among all the area's caves with a 1600-meter-long sightseeing pathway in the cave. Besides its karst features, it was also used as a military stronghold by the local ethnic minority groups, and some of the old military facilities still remain.

(Excerpted from: http://news.xinhuanet.com/english/2006-05/24/content_4592679.htm>>



Huangguoshu Waterfall Scenic Area, China



Announcements

Strickland Pond Party, Austin, Texas

The POND PARTY (the big event of the summer) will be Saturday July 15th, 2006. Sunday Swims (smaller events with no organized food or drinks) will be June 11th, 18th, 25th, July 2nd, 9th, 23rd, and 30th. For more information call Pete Strickland at (512)-258-8384.

The Descent (Lionsgate Films)

Movie Opens in US on Friday, August 4, 2006

Plot: One year after a tragic accident, six girlfriends meet in a remote part of the Appalachians for their annual extreme outdoor adventure, on this occasion the exploration of a cave hidden deep in the woods. Far below the surface of the earth, disaster strikes, and there's no way out. The group splinters and each woman pushes on, praying for another exit. But there is something else lurking under the earth. As the friends realize they are now prey, they are forced to unleash their most primal instincts in an all-out war against an unspeakable horror – one that attacks without warning, again and again and again.

"The Descent" is Neil Marshall's hotly anticipated follow up to his 2002 hit "Dog Soldiers." Directed by Marshall from his own script, it tells the story of an all-female caving expedition that goes horribly wrong, and stars Shauna Macdonald, Natalie Mendoza, Alex Reid, Saskia Mulder, Nora-Jane Noone and Myanna Buring. Set in a cave system deep in the Appalachian Mountains, Marshall describes his film as 'Deliverance goes underground'. Visit the website at <http://www.thedescentfilm.com/>.

Caving Calendar

Note: Effective June 30, 2006 at 8 a.m., Lincoln National Forest in New Mexico was reopened for public use. Additionally, the Bureau of Land Management will lift closures in the **Fort Stanton Area** of Environmental Concern. For details, see : <http://www.fs.fed.us/r3/lincoln>.

July 3-8, 2006 : XII International Symposium on Vulcanospeleology (Tepoztlán, Mexico). Sponsored by the UIS Commission on Volcanic Caves, SMES (Sociedad Mexicana de Exploraciones Subterráneas), and Grupo Espeleológico ZOTZ. Two days of formal presentations and three days of field trips including a trip to the longest lava tube in America (Iglesia Cave at ~6 km). For details, see: www.saudicaves.com.

July 12, 2006 : Texas Speleological Survey Work Session (Austin). Held at the TSS office in Austin from 5:00 to 8:00 p.m. Come help with the organization of Texas cave information. **Contacts:** Jim Kennedy (512)-663-2287 <jkennedy@batcon.org> or Ron Ralph <ronralph@austin.rr.com>.

July 22, 2006 : Robber Baron Cave Restoration Project (San Antonio). Final phase of TCMA's Robber Baron Cave

entrance restoration project. Work will begin around 8 a.m. on Saturday morning to beat the heat. **Contact:** Linda Palit <lkpalit@sbcglobal.net>.

July 29-30, 2006 : High Guads Restoration Project (Carlsbad, NM). Ongoing restoration work in the caves of the Lincoln National Forest. Last weekend of the month, permits often include Three Fingers, Virgin, Pink Dragon, Pink Panther, Hidden, Wonderland, and Black Cave. Activities vary from month to month. **Contacts:** Susan Herpin or Jennifer Foote <highguads@yahoo.com>.

August 7-11, 2006 : NSS Convention (Bellingham, Washington). The 2006 NSS Convention will be hosted at beautiful Western Washington University. The university is located between the Puget Sound and the Cascade Mountains, just outside of downtown Bellingham. Situated between Seattle, Washington and Vancouver, British Columbia, the spectacular surroundings of this region will make a stunning backdrop for the convention. For more information, visit the website at <www.nss2006.org>. **Contact:** Michael McCormack (Chairman) <michmcco@exchange.microsoft.com>.

August 18-20, 2006 : EspeleoCoahuila 2006 (Saltillo, Mexico). This year's event will be held in Saltillo, Coahuila at the auditorium of the Secretaria de Seguridad Pública y Protección Civil. For details, see announcement in this newsletter and also the websites <<http://www.oztotl.com/ps/EC/>>, (English) and <<http://scintilena.clarence.com/permalink/219095.html>> (Spanish). **Contacts:** Monica Ponce <mppg7@yahoo.com>, Peter Sprouse <petersprouse@yahoo.com>.

September 2-4, 2006 : Southwestern Region Labor Day Regional (Sacramento Mtns., NM). The scenic Sacramento Mountains are located near Alamogordo. Cave trips and conservation projects in the region will be available. **Contact:** Kenny Stabinsky <nmbatty@zianet.com>.

November 18-26, 2006 : Proyecto Espeleológico Sierra Oxmolon (Aquismon, Mexico). Ongoing project to explore and map the caves in the mountains near S. de Golondrinas. **Contacts:** Ron Rutherford <rcrutherford@gmail.com>, Jerry Fant <jerryfant@verizon.net>. For information on the project, see: <www.pesoproject.esotericvision.com>.

2007

August 13-19, 2007 : International Conference on Karst Hydrogeology and Ecosystems (Bowling Green, KY). The conference will be held at Western Kentucky University in Bowling Green, Kentucky, August 13-15, followed by a four-day field trip (August 16-19) to the karst of the Cumberland Plateau and southern Appalachian Mountains of Kentucky and Tennessee. For details see : <<http://hoffman.wku.edu/karst2007/k2007.html>>.

From the Editor of the TSA Activities Newsletter

The *TSA Activities Newsletter* is an adjunct publication to the *Texas Caver*, the official publication of the Texas Speleological Association. The ANL's purpose is to provide a timely forum for Texas caving news, events, and announcements that cannot be shared with the general caving community through the *Texas Caver*. The *Texas Caver* is a bi-monthly publication at best, and has a history of dependable tardiness. The intent of the ANL is to fill these communication gaps, but not to replace the *Texas Caver*. The TSA encourages cavers to continue to support the *Texas Caver* by sending in trip reports, articles, and photographs to the *Texas Caver* editor(s) that are not suitable for publication in the ANL.

It is the intent of the editor to post the ANL monthly to the TSA website. Due to the prohibitive cost of printing and mailing a monthly hardcopy publication, the ANL will be distributed to all cavers in a digital pdf format which can be downloaded free-of-charge from the TSA website at <http://www.cavetexas.org/>.

As in all endeavors of this sort, a large part of its future success will be based on whether people contribute material. Please send all grotto announcements, calendar events, general caving news and information items that you would like to have included in the ANL to: Jerry Atkinson <jerryatkin@aol.com>.

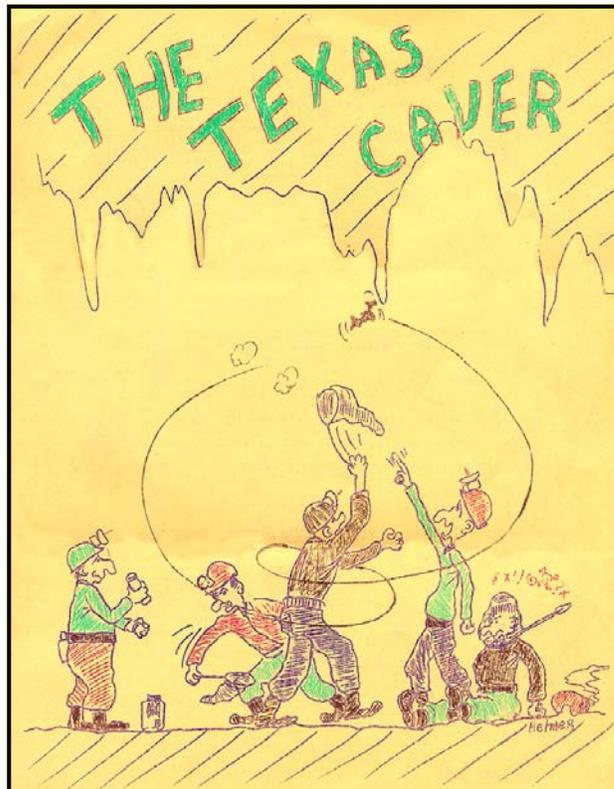
Editor : Jerry Atkinson
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Cover from the July 1956 issue of the *Texas Caver*.