

the SAM NOBLE OKLAHOMA MUSEUM of NATURAL HISTORY



Tracks

Summer 2008 Newsletter, Volume 20, Number 2

NEW LEADERSHIP ANNOUNCED

Michael A. Mares is appointed as the museum's new director

EXPLOROLOGY

Summer treats students to real-life science during museum's first Oklahoma Science Adventure

HATCHING THE PAST

Upcoming exhibition features real dinosaur eggs, reconstructed nests and more



INFORMATION

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SN MNH

Sam Noble Oklahoma Museum of Natural History

The University of Oklahoma

2401 Chautauqua Ave. Norman, OK | (405) 325-7975

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MUSEUM INFORMATION

Address: 2401 Chautauqua Ave.
Norman, OK 73072-7029
Telephone: (405) 325-4712
E-mail: snomnh@ou.edu
Web site: www.snomnh.ou.edu

OUR MISSION

The Sam Noble Oklahoma Museum of Natural History inspires minds to understand the natural and cultural world through collection-based discovery, interpretation and education.

We do this by:

- Collecting and maintaining specimens, cultural objects and associated data, including linguistic and ethnographic, for current and future research
- Conducting and disseminating research to increase knowledge
- Teaching university students to develop critical-thinking skills
- Educating the public through programs and exhibitions to increase scientific literacy
- Conducting K-12 school programs to enrich classroom experiences.

OUR VISION

As one of the finest museums in the country, we are at the heart of our community, collectively working to inspire understanding, appreciation and stewardship of the earth and its peoples.

Tracks

Editor in Chief: Ellen J. Censky
Managing Editor: Linda Coldwell
Layout: Krysten Marshall

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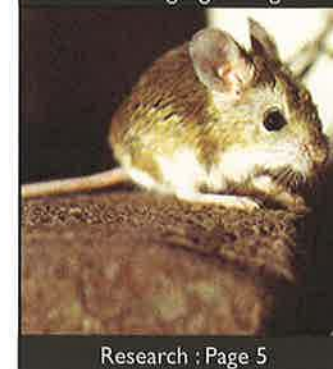
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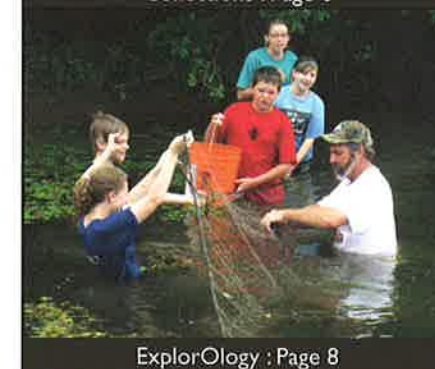
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Hatching the Past: THE GREAT DINOSAUR EGG HUNT



OCT. 11 THROUGH JAN. 19

Hatching the Past was developed by Charlie and Florence Magovern of The Stone Company, Boulder, Colorado in association with the Harvard Museum of Natural History.



Chesapeake Energy

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OKLAHOMA

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REFLECTING ON THE PAST FIVE YEARS



Dear friends,

It is with mixed emotion that I write this last letter to you. As many of you know, I have accepted the position of senior vice president at the Milwaukee Public Museum and I will be leaving here on Aug. 31. This move takes me back to the institution where I started my museum career more than 30 years ago. More importantly, it takes me back home to be close to my aging mother.

I have enjoyed the past five years as director of the Sam Noble Oklahoma Museum of Natural History. It is a wonderful museum and I had a rewarding experience. I shall take many memories with me to Wisconsin. During the past five years, with your support of the museum, we have been able to accomplish a tremendous amount. We opened two new galleries (Paleozoic and Explore Evolution) and are nearly complete with the third gallery (Orientation). We had several blockbuster exhibits, including *A T. rex Named Sue* and *SuperCroc*, and hosted several of our own short-term exhibits highlighting our collections, including *Collecting Oklahoma, Treasures from the Vault* and *Selections from the Fred and Enid Brown Collection*. At this writing, we have a full schedule of special exhibitions through the summer of 2010 when we will host *Chocolate*.

During the past five years, we provided more offerings from the education department. The newest program is *ExplorOlogy*, a series of programs for Oklahomans of all ages to "do science" by getting outside and experiencing the world we share. This program is generously funded by a grant from the Whitten-Newman Foundation. We increased the number of program offerings for schoolchildren, families and toddlers. Teachers also benefited, with teacher workshops being offered every summer for the past three years. And finally, to help schools with high fuel prices, we established the Fossil Fuel Fund, which pays for the fuel to get students to the museum.

On the research and collections side of things, we established the Oklahoma Genomic Resource Collection, now one of the fastest growing collections in the museum. We expanded the space for the Native American Language Collection, and we hired the museum's first conservator. Procedures were approved that allow the museum to be a full partner with other OU departments in making recommendations for tenure and promotion. In addition, we received the prestigious award for Outstanding Care and Preservation of Collections from the American Institute for Conservation and we were reaccredited by the American Association of Museums.

We also established the Board of Visitors for the museum. They have done an excellent job of helping with fund-raising by hosting the museum's fund-raising gala, "Muse-a-Palooza," for three years running. They also helped us to establish the Annual Corporate Sponsors, a program that provides the museum with funding for yearly operations and connects us with the community.

The museum has also made great strides toward becoming an environmentally sustainable museum. We have instituted many policies that minimize our environmental impact. We have also registered the building with the U.S. Green Building Council and are in the process of getting certified as a Leadership in Energy and Environmental Design – Existing Building.

These are just a few of the many things that have been accomplished by the museum's staff in the past five years. I am proud to have been associated with such a fine group of people – both members and staff. I will miss all of you deeply. I take solace in the fact that the museum is on firm footing and poised for the next chapter in its history. Thank you all so much for your support.



MUSEUM ANNOUNCES NEW LEADERSHIP

After five years at the helm of the Sam Noble Oklahoma Museum of Natural History, director Ellen Censky is leaving to accept another museum position in her home state of Wisconsin. Even as the museum bids a fond farewell to the former director, it welcomes back one of its own as the museum's new director. Michael A. Mares, former director and present curator of mammals, returns to the museum's top leadership position beginning Sept. 1. Mares served as director of the museum from 1983 through 2003, and was instrumental in gaining a permanent new facility for the institution during that time. Once the new facility was open and functioning smoothly, Mares resigned the directorship to commit himself full-time to his curatorial research and teaching. Following an internal search process, he has been selected to return to the director's office.

"Ellen Censky has done an excellent job as director," Mares said. "She left the next director with a great museum in an exciting stage of development. I am honored to have the opportunity to assume a role in this next stage of the museum's life. I did not plan on returning to the directorship, but there remains a great deal of important work to be done, including completion of the permanent exhibits and putting together museum programs that highlight the museum's great collections."

Mares said he plans to focus his efforts on encouraging increased productivity in research and increased fund-raising, including building the museum endowment. He plans to grow museum outreach and programmatic activities, expand production of internally produced special exhibitions, and increase museum promotion.

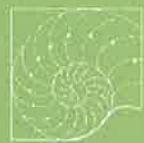
"My goal is to make this the finest university natural history museum in the world, and I look forward to working with President Boren and Provost Mergler, who are committed to excellence and to helping me build upon the museum's great strengths in its staff, collections, programs, supporters and physical plant," Mares said. "The people of Oklahoma deserve the best."

Censky's will begin her new position as senior vice president of museum programs at the Milwaukee Public Museum on Oct. 1. Her decision to leave the SNOMNH was motivated partly by her desire to be closer to her mother, who is now 89.

"While I have been honored to serve as director of this fine institution, I feel that my duties as a daughter are now taking precedent," Censky wrote in a message to the museum staff. "I want to thank you for all your hard work. You are a dedicated and talented group and we have made great strides in the past five years. This is truly one of the finest natural history museums in the country and something each of you can take pride in."



Michael A. Mares with his granddaughter, Abigail Elena. Photo Provided.



AT A LOSS FOR WORDS: *Saving Native American Languages*

Maggie Cumsey Marsey died this spring at the age of 89. She was a Euchee elder, and the oldest of only six remaining fluent speakers of the Euchee language. Now there are five, ranging in age from 78 to 86. At her funeral service in Sapulpa, she was remembered in Euchee songs and prayers.

The passing of Mrs. Marsey shines a spotlight on a harsh reality facing many Native American languages today. The fluent speakers are aging and dying. The knowledge they hold of the vocabulary and grammar of their native tongues also is becoming extinct. Slowly, with each loss of an elder, the language fades into silence.

Oklahoma is home to 43 Native languages and dialects, represented by different tribes, bands and towns. Of these, 19 have no fluent speakers remaining at all. Seven have only a handful of elderly speakers who can be considered truly "fluent," meaning they learned the language at home as children and can carry on a sustained conversation on many topics.

The remaining 17 languages are being kept afloat through preschool and classroom programs, taught to children as a second language by determined tribal organizations or schools. The question is, without the culture of fluent speakers to support them, are these programs enough to bring Native American languages back from the brink?

The hard fact is that no language has ever been revived once it was truly dead. A language that has lost all of its fluent speakers and leaves no significant written record will likely stay dead. Predictions say that 50-to-90 percent of all world languages will not be spoken by the end of this century.

"We really don't know how that will affect humankind," says Mary Linn, curator of Native American Languages. "Throughout recorded time, humans have always spoken thousands of languages. We are successful as a species because of our ability to adapt and cooperate. Languages may help give a culture a particular approach to solving problems. If only a handful of languages are spoken, are we reducing our survival chances? We've never played this game before, we don't know the outcome."

"If you think of it in a zoological context, losing a language is like unto losing a species," said Linn. "And with language, as with endangered species, you can help the species but you need to save their environment to really save them. You have to save the ecosystem. Many Native languages have been severely reduced to a purely religious or ceremonial context. You have to expand their use into every context to have a fully healthy language."

The key to a language's survival is for it to be successfully passed on to the younger generations. Encouraging children to learn and speak the languages is essential. There are a number of difficulties to overcome. Not the least of these is the lack of fluent speakers. Most Native American children don't hear their native language at home, let alone speak it. The home environment is one of English. Native languages are taught as a second language, and there are very few natural opportunities for immersion.

Perhaps a more insidious difficulty is the attitude held – not just across the state but across the country – that speaking another language in public, or even at home, is not acceptable. Speakers of Native languages are looked at with suspicion or outright hostility when their language is heard in the community – often mistaken for Spanish. The unwanted attention is a particular problem for children and teens who want nothing more than to blend with their peers, according to Linn. They are surrounded by a society that tells them, in subtle and not-so-subtle ways, and on a daily basis, that it's not 'OK' to be Indian.

There is hope, however. Linn finds that in many communities, attitudes are beginning to change among young people, for whom it is increasingly important to maintain cultural ties and identity.

"These kids want to live good, traditional lives, but be educated and work in the economy as well," Linn explains. "They want to be able to maintain their cultural identity while still interacting with the main culture. We have to show them that they are not hurting their chances of success by being bilingual."



Maggie Cumsey Marsey at age 88. Marsey died this spring and was one of only six remaining speakers of the Euchee language. Photo: Taken from high-definition video stills by Mike McCarty.

Statistical studies have shown that, in fact, children who have been through intensive Native language programs perform as well as or better than the non-Native norm.

"If young people can feel good about who they are and can be educated in both their language and culture, they do better than if they are told it's not OK to be Indian. Marginalized kids are not productive," says Linn. "We should support and help these language efforts because it helps us all."

Is it too late?

The recent success of the Osage language and other programs is an example of a step in the right direction. Though Osage is now alive through only a handful of partial speakers, a group of young, dedicated teachers and coordinators is making great strides in passing what they know along to the next generation. "The students are really getting into it," Linn says. "They are actively trying to use the language." Students of the Osage language programs swept this year's Oklahoma Native American Youth Language Fair, receiving nine awards.

"Nothing is impossible," says Linn. "If humans really want to do it, it probably can be done."

NEW MAMMAL SPECIES DISCOVERED BY MUSEUM SCIENTISTS

A little blonde mouse with a white tail is helping museum mammal curators make sense of the complicated evolution of South American rodents. The tiny creature, just a few inches long, is adapted to life in the deserts of Argentina. It was collected by Michael A. Mares and Janet Braun, who have recently authored a paper with colleagues from Oklahoma State University that designates it as a new species. *Eligmodontia bolsonensis* is a big name for such a small animal, but it helps to unravel the tangled genealogy of an entire group of rodents.

Eligmodontia is the genus name for a group of desert-adapted rodents, commonly referred to as "gerbil mice," found in South America. In 1832, Charles Darwin himself caught one of the first of this group as it scurried out of a bush placed on his campsite fire at Bahia Blanca, Argentina, during his famous journey on the *Beagle*. Darwin's *Eligmodontia elegans* was described the same year that the French zoologist Frederic Cuvier named *Eligmodontia typus*. Other naturalists later named as many as 10 species in the genus. But in 1962, all were "lumped" into the single species *Eligmodontia typus*. Modern genetic studies have returned some of the earlier named types to species status, but *E. typus* has remained a wide-ranging and diverse species. Its official range covers a very large geographical area: from sea level up to 15,000 feet and from southernmost South America to Peru.

"It would be very unusual for one species to cover that range without diversification or speciation having occurred," Mares said. In



Eligmodontia bolsonensis perches on a rock in its home in Argentina. Photo: Michael Mares

the 1980s, Mares and Braun began looking carefully at the genus, studying 800-to-900 animals deposited in museums in the United States, Argentina and Europe. Because of its wide range, there is a great deal of variation of size and coloring within the species. But Mares and his colleagues determined that some were indeed different.

Genetic studies have now confirmed that *E. bolsonensis* is another new species, and now all the earlier research done on *E. typus* (even Mares' own dissertation) will need to be looked at carefully to see if the "*Eligmodontia typus*" referenced are, in fact, *Eligmodontia bolsonensis*.

The specimens in the Sam Noble Oklahoma Museum of Natural History's collection have already been reclassified, and their tags reflect the change.

"We never erase a name on a tag," explained Braun. "We just cross out the old name and add in the new one in pencil, so the history is recorded. Some animals in our collection have several names crossed out as the names have changed over time."

Mares and Braun have been collecting genetic data on *Eligmodontia typus* and other rodents from a wide geographical area across Argentina, hoping to continue to learn more about the evolution of the genus.

A tiny mouse and a romantic tale

Mares had hoped to return another Argentine rodent to its former species status as part of his study of the genus *Eligmodontia*. In 1918, Oldfield Thomas – a zoologist from the British Museum who is credited with describing almost half the world's mammal species – named a new species of South American rodent "*Eligmodontia marica*," after his wife, Mary. "It was a tiny and beautiful little mouse," Mares explained, "and Thomas adored his wife and thought that such a beautiful little rodent should be named in her honor." After his wife died in 1928, Thomas was unable to live without her, and he committed suicide in 1929.



Eligmodontia bolsonensis (front) is shown with other mice in the *Eligmodontia* genus. The species "*typus*" has been marked out on the tag of *E. bolsonensis* and changed to reflect its new species designation. Photo: Krysten Marshall

Eligmodontia marica is a dainty, golden mouse – indeed an adorable little creature, and seemingly as different in appearance from specimens of *Eligmodontia typus* as it could be. However, *E. marica* was "lumped" with *E. typus* along with all the others in the early 1960s.

Familiar with the story, and faced with its so-obvious difference in size and coloration, Mares hoped to restore *E. marica* to species status. He returned to the site where he guessed the type specimen was first discovered, and was able to collect some just off the old railroad line. Repeated genetic testing, however, continued to confirm that, indeed, *marica* was no different than *Eligmodontia typus*.

"I kept telling them to run it again," Mares explained. "I was so sure it had to be different because it looked so different, but it just showed the geographic variation of *typus*. You have to give up your favorite ideas every once in a while, or else you wouldn't be a scientist."

Mares, Braun and their colleagues have described 11 new mammal species, including three new genera, and one new species of tapeworm from their work in Argentina. Future research will tell whether other new South American gerbil mice and mammals await discovery by field biologists.



AMATEUR ARCHAEOLOGISTS CRUCIAL TO COLLECTIONS

A recent donation to the museum's archaeology department of a private collection including nearly a 1,000 artifacts underlines once again the importance of the relationship between the museum and the "amateur" or "avocational" archaeologist.

Fred W. Bright, now in his 80s, spent his childhood in northern Caddo County. He began collecting archaeological artifacts in the 1930s, and continued to do so until the 1960s. He amassed hundreds of artifacts, mostly chipped stone tools dating from the mid-to-late Holocene period – 6,000 to 2,000 years ago – but some dating as far back as Folsom times (10,500 years ago and more). A highly private individual, Bright kept his finds to himself, rarely allowing even friends or colleagues, much less academics, to view the collection.

Bright attended school in Hinton with Terrell Nowka, another amateur archaeologist with property in Blaine County. Both men were members of the Oklahoma Anthropological Society (OAS), an organization of archaeology enthusiasts across the state that often works with the Oklahoma Archeological Survey to help out on digs. Many of these amateurs also amassed collec-

tions of objects they had found themselves – surface finds often washed out in canyons or gulches on their family property. In 2005, Nowka decided to donate his own sizable collection – comprised of more than 3,000 artifacts – to the museum, and eventually persuaded Bright to do so as well.

In the 1950s and '60s, Robert Bell was curator of archaeology for the museum. He founded OAS, and went to lengths to emphasize to its members the importance of stewardship of the artifacts they found and

collected. It was due to his influence that Bright, Nowka and many other amateurs developed systems for documenting the provenance of each artifact they collected.

In archaeology, an

artifact with no known provenance is a bit like a dictionary written in no particular order. Without specific information about where and under what conditions the object was found, it is impossible to guess at its age or intended use, unless the artifact is visibly identifiable as characteristic of a particular cultural group. Bell helped to encourage collectors to preserve this information so that the objects could be of use to researchers of the future.

"The value of surface finds is debated



In this 2006 file photo, Terrell Nowka shows an assortment of ground stone axes. The axes are part of the collection Nowka later donated to the museum. Photo: Don Wyckoff

among archaeologists," said Don Wyckoff, curator of archaeology. "These artifacts are often exposed by water and removed from a context that can firmly associate the object with a date or a people. Because of this they have a limited interpretive value as individual artifacts. However, I believe that when we get major collections like these, we can look at the overall accumulation of artifacts to tell us what people were doing in those general areas based on what type of artifacts are being found. What's important is that these collections are provenanced. They are

99 percent made up of chipped stone tools. By studying what stone was used and what they were likely used for, we learn about the lifeways of people from earliest times to the arrival of Coronado."

In the areas in which the Bright and Nowka collections were made, primarily among the canyons of northern Caddo county, there were not a lot of farming implements to be found. The collections tend toward spear and arrow points, which indicates that the people using them were in the area not for settlement but for the game. The canyons provided a ready source of water for both people and animals, and their shape made them amenable to trapping bison herds.

"I would say that up to nearly 20 percent of our present collection has come from private collectors or members of the OAS," Wyckoff said. "I have tried to continue in the tradition of Dr. Bell to work with the avocationists to be sure that these collections are preserved and don't get sold on the open market. Since I came to the museum in 1981, we have received at least nine major collections, nearly all from individuals I knew and worked with who believed it was important that the collection stay together, that it not leave Oklahoma but be used for study to better understand Oklahoma prehistory. It's probably the best, most important thing I do."

Donations and Museum Collections

How important are donations to the health and well-being of museum collections?

"Donations are all important," says museum registrar Julie Droke. "Our museum, like many university-based museums, has no real acquisitions budget. Donations are vital."

Donations are made regularly to every one of the museum's collection departments. Objects donated include fossils, spearpoints, taxidermied animals, recordings of spoken language, ethnographic cultural objects collected from around the world, Native American cultural objects, and much more.

The road to donation of an object often begins with a meeting between curator and donor to identify the object in question. The museum holds a special event each year at which members of the public may bring their natural history objects in for identification, but the curators and other staff are available to help identify objects year-round, and an in-person meeting is not always required. Sometimes identifications can be made long-distance through phone description or from a digital photograph.

Once the curator has decided to accept the object for the museum, a Deed of Gift is prepared. This is accompanied by any verifications that may be needed, such as hunting licenses. The donor then signs the deed of gift as the legal owner. This record gives the museum clear and unrestricted title to the object(s).

The registrar then prepares a permanent Accession Record for the object. The process of accessioning is the legal entry of the object into the museum. Sometimes ascertaining the specific location where an object was found is necessary to be sure the object (particularly fossils or archaeological artifacts) was collected from property legally belonging to the donor, rather than leased, public or federal lands.

For ethical reasons, the museum does not provide appraisal service, or list a value of the object on the Deed of Gift. If donors require an appraisal statement of value for tax purposes, they will need to have the object professionally appraised, and should seek the advice of a professional tax preparer prior to making a gift. Appraisers can be found on the website of the American Society of Appraisers: www.appraisers.org/findappraiser. The museum registrar also can provide a list of appraisers if needed.

"The museum tries to make the process as simple as possible," said Droke. "Anyone with questions about an object they have, or about a possible donation to the museum may contact us. You just never know what may come of it. Many times someone bringing in a piece of something results in a pretty cool find."

Julie Droke, museum registrar, can be contacted at (405) 325-4712, or by e-mail at jdroke@ou.edu.



Above are just a few of nearly 1,000 artifacts donated to the museum's archaeology department by Fred W. Bright. Photo: Krysten Marshall



EXPLOROLOGY STUDENTS TACKLE REAL-LIFE SCIENCE

On a July morning at the Rogers County Conservation District in Claremore, a group of middle-school students troop out onto a plank walkway over a pond laced with bright green algae. They are led by Edie Marsh-Matthews, the museum's curator of fishes, who carries a bucket and sports a pair of rubber boots. Dragonflies skim the water's surface and cicadas hum in the surrounding trees. It is already hot. Without hesitation, Marsh-Matthews and several of her charges step off into the pond's waist-deep, murky water and begin making their way along a net stretched under the water across the pond's length.

They lift the net in segments, scanning for trapped fish. Each time one is found there is a flurry of excitement as it is gingerly extracted from the net and dropped into the orange bucket full of pond water. Then the line moves on, lifting and scanning. In a different pond a few hundred yards away, another group, led by park naturalist Robert Gibbs, scans another net.

These are the 12 middle school students from across the state of Oklahoma who are participating in the museum's first Oklahoma Science Adventure, a week-long summer field program. OSA is a part of ExplorOlogy, an educational project funded by the Whitten-Newman Foundation. The students were selected from more than 130 applicants statewide to experience the life of working scientists first-hand.

The students worked with museum curators in real field situations to learn more

about how science is done. Like real scientists in the field, the students were asked to make hypotheses, collect data and draw conclusions based on their findings.

The pond collection, for example, was part of a project in which the students were studying a hypothetical "new world" filled with unknown species. After setting the nets and collecting their catch, the students were asked to sort the fish they had collected by type, name each "new species," and determine which of the two sites had a greater diversity of species based on their findings.

"Science is something you do, not just a bunch of facts," said Holli Langlieb, ExplorOlogy coordinator. "These students are doing science! From question and hypothesis to data collection and conclusions, students of the Oklahoma Science Adventure investigate just like real scientists."

The students also did some paleontology sleuthing at a site near Perry, OK. There, they crouched under gray skies at the edge of an oil field, investigating an ancient pond bed where prehistoric animals had left thousands of tracks in a layer of soft dolomite. Under the direction of vertebrate paleontology curator Richard Cifelli, the students mapped and measured the tracks to learn what they could about the number and types of animals that may have made them, and the conditions in which they were made. The students also made charcoal rubbings and plaster casts of some of the prints.

"My time at the Oklahoma



Participants of the Oklahoma Science Adventure, led by Robert Gibbs (right), catch fish in a pond near Claremore, OK. Photo: Linda Coldwell

Science Adventure has changed my view of science," said Dillon Chavez, an 8th-grader from Oklahoma City. "I used to think it was all about school work, but this week was really fun and unexpected."

"I learned that it takes a lot to be a scientist," said Sarah Shook, a Lawton 8th-grader. "At the end of the day you're wore out and tired, but you look back and think how much fun you had learning and experimenting with different things."

The Oklahoma Science Adventure was not all work. In addition to their scientific investigations, the students enjoyed recreational activities such as a ropes course, night hikes and swimming. Throughout the week, the students documented their experiences with digital cameras and weblogs.

Kayla Carr, a 7th-grader from Cyril, summed it up best. "The most important thing I learned," she said, "is that nature really does matter, and

science is a process."

In addition to the week-long field program, ExplorOlogy included Summer Explorers, a series of classes for children ages 4 to 14 (and some for families, as well) that are based at the museum and run each week from June 4 through Aug. 2. Next summer, ExplorOlogy will add an additional component that will take a group of high school students to a paleontology dig site.

Additional information about ExplorOlogy, and other programs at the museum is available online at www.snomnh.ou.edu. Applications for the 2009 ExplorOlogy programs for both middle- and high school students will become available in the spring.

ExplorOlogy is made possible by the generosity of the Whitten-Newman Foundation.



WHITTEN-NEWMAN FOUNDATION



PALEOZOIC GALLERY OPEN AND COMPLETE

The new Paleozoic gallery opened Friday, May 30, at a membership reception celebrating the joint opening of both the Paleozoic exhibits and the special exhibition, *The Science of SuperCroc Featuring Nigersaurus*. More than 300 members took advantage of this opportunity to be the first to tour the new gallery and get

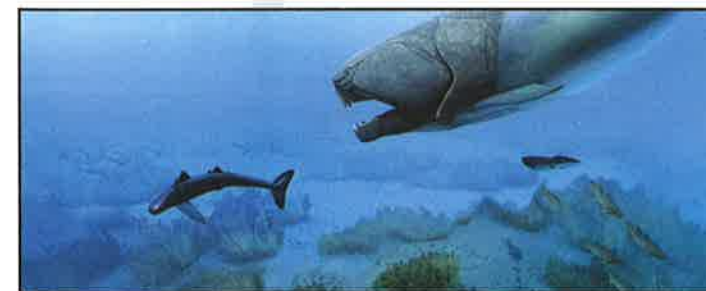
a sneak peek at SuperCroc.

Although the main exhibits and dioramas in the new Paleozoic gallery were complete by the May 31 public opening, the crew from Chase Studio continued to install exhibit features through the last week in August. New installations include "periscopes" in the marine

Devonian exhibits. These allow visitors to take a look at important evolutionary changes that were happening on dry land in other parts of the world during the same time period. Additional fossils and casts were installed, along with labeling, in cases and rail displays. Finally, interactive drawer features were installed

in the Carboniferous forest dioramas. With these final touches, the exhibits in the Hall of Ancient Life are complete.

The new Orientation gallery, also located on the ground floor, is currently in its construction phase, and the new gallery is set to open in the spring of 2009.



Top left: Museum members inspect a diorama at the entrance to the Paleozoic gallery during the members-only opening. Photo: Krysten Marshall

Top right: Detail of Permian diorama, featuring *Eryops* (left), *Dimetrodon*, (right) and a giant dragonfly (center). Photo: Krysten Marshall

Above, far left: A diorama of the Burgess Shale, featuring *Anomalocaris*. Photo: Chase Studio

Above, near left: An enlarged *Anomalocaris* model hangs from the ceiling in the Paleozoic gallery along with other underwater animals. Photo: Krysten Marshall

Above: Crinoids in the Ordovician diorama. Photo: Chase Studio

Left: A diorama featuring *Dunkleosteus*, a fearsome armored fish. Photo: Chase Studio



UPCOMING EVENTS

OPENING OCTOBER 11: HATCHING THE PAST: THE GREAT DINOSAUR EGG HUNT

This remarkable exhibition offers an array of authentic dinosaur eggs and nests collected from all over the globe. Included are eggs of each of the major plant- and meat-eating dinosaur groups. The exhibit will be on view through Jan. 19.

Hatching the Past invites visitors to touch real dinosaur

bones and reconstructed nests, dig for eggs, experience hands-on exploration stations and view animated video presentations featuring well-known dinosaur experts. Each science-rich section is enhanced with exciting life-like models of embryos and hatchlings, colorful illustrations of dinosaur family life and stunning photographs of some of the world's most renowned dinosaur hunters.

The amazing collection of real fossils on view includes a bowling ball-sized egg laid by a long-necked plant-eating titanosaur that lived in Argentina 75 million years ago; a large cluster of eggs laid by a duck-billed dinosaur; and the longest dinosaur eggs ever discovered – almost 18 inches long – laid by a new giant species of *oviraptor*, a carnivorous, ostrich-like dinosaur.

Hatching the Past was developed by Charlie and Florence Magovern of The Stone Company, Boulder, CO in association with the Harvard Museum of Natural History. Local exhibition of *Hatching the Past* was made possible by Chesapeake Energy, with media support from Cox Media, *The Oklahoman*, and KMGL and KOMA radio.



Adult Field Trips

Two adult field trips are being offered this fall. The popular "Invertebrate Fossil Dig Field Trip" is scheduled for Friday and Saturday, Oct. 3 and 4. The program, led by curator of invertebrate paleontology Steve Westrop, begins with an evening session that provides a close-up look at some of the museum's finest invertebrate specimens. The Saturday field trip will take participants to a site where they can search for and collect their own specimens of trilobites, ammonites, brachiopods and other prehistoric invertebrate fossils. The cost is \$60 per person for members and \$70 per person for non-members.

Plant buffs will enjoy "Plants of the Wichita Mountains," a day-trip scheduled for Saturday, Sept. 20. The program will be led by Wayne Elisens, curator of the Robert Bebb Herbarium and professor of botany, and Judy Jordan, ethnobotanist. Participants will spend the day exploring the Wichita Mountain Wildlife Refuge learning about its native plants and ways in which various Native American tribes utilized these natural resources. The cost is \$60 per person for members and \$70 per person for non-members.

Space in these programs is limited, and early registration is strongly suggested. To register, call the museum education department at (405) 325-4712.

Becoming an Eco-Family: Family Night Out Series

The Family Night Out series returns to the museum this fall with three new offerings focusing on ways families can learn more about Oklahoma's diverse natural areas and find new ways to enjoy them together. Family Night Out offers a fun family evening featuring a pizza dinner and hands-on activity for family members of all ages. At just \$10 per person for members, and \$12 per person for non-members, it's an affordable way to bring the family together for fun and exploration. The activities are geared for families with children in grade school and up, but younger siblings are welcome to come along. One adult for every two children is requested. To register, call the museum education department at (405) 325-4712.

Sept. 26: Name That Tree!

Join OU biologist Phil Gibson for a nature walk and lesson on plant identification, followed by a fun family art project.

Oct. 24: Nature Printing

Take a walk around the museum grounds and bring back your finds to make an embellished tote bag you can carry to the grocery store or library.

Nov. 14: Natural Dyeing

Learn to collect and prepare wild plants, then turn the plants into dye to make your own cloth napkins.

Museum Nominated for Nonprofit Honor

The SNOMNH was selected as a finalist for the Oklahoma Nonprofit Excellence (ONE) Awards, as one of the top organizations in the state of Oklahoma in the Arts and Humanities category.

Sponsored by the Oklahoma Center for Nonprofits, the ONE awards is a gala event honoring Oklahoma nonprofits statewide for their excellence and inspiration to other nonprofits. Awards are presented to a winner and two

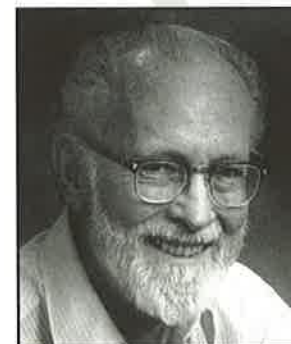
additional finalists in nine different categories. The two finalists in each of the nine categories received \$5,000. Winners received \$7,500.

Honorees do not apply for the awards, but are nominated and selected by the ONE Awards Selection Commission.

"We are honored to have been named a finalist for this award," said museum director Ellen Censky. "Part of our mission is to inspire understand-

ing and appreciation of the earth and its peoples. Our work in providing Oklahomans with opportunities to learn more about the cultural heritage of their state is an important part of fulfilling that mission. We are proud to have been nominated."

The first-place award in the Arts and Humanities category went to the Jasmine Moran Children's Museum.



Harley Brown. File photo

Former Curator Harley Brown Dies

Harley Brown, curator emeritus of invertebrates at the museum, died June 6 at the age of 87. Brown was a professor of zoology at the University of Oklahoma for 36 years and served as museum curator from 1961 until his retirement in 1984. A dedicated and enthusiastic entomologist, Brown was acknowledged as one of the world authorities on riffle beetles – small beetles that live in clear flowing streams – and he traveled all over the world conducting his research. The museum's invertebrate collection houses thousands of specimens collected by Brown, and the collection storage area was named in his honor when the museum moved into its new facility.

Museum Hosts International Conference

More than 225 specialists in the preservation and management of natural history museums and collections from around the world visited Oklahoma this spring. Members of the Natural Science Collections Alliance and the Society for the Preservation of Natural History Collections attended

a joint meeting from Tuesday through Friday, May 12 through 16. Attendees included museum directors, university administrators, curators, collection managers, conservators and other professionals whose job it is to maintain the integrity of natural history collections in museums,

universities and other institutions around the world. The meeting was hosted by the Sam Noble Oklahoma Museum of Natural History. Meeting sessions were held at the Skirvin Hotel in Oklahoma City.

Mares Honored for Service to Mammal Society

Michael A. Mares, research curator of mammals and professor of zoology at OU, has been awarded the Jackson Award for "long and outstanding service" to the American Society of Mammalogists. Mares served on the society's board of directors for 12 years and was vice president for 4 years. He edited the *Journal of Mammalogy* for 4 years and the ASM special publications for 5 years, chairing the Editorial

Committee for 3 years. Mares served on the society's Committee of International Relations for 18 years, eight of them as committee chair. He also organized two joint international conferences for the society: one with the Mexican Mammal Society in 1987 and one with the Argentine Mammal Society in 1990.

Sereno Visits the Museum

National Geographic Explorer-in-Residence Paul Sereno and his wife, Gabrielle Lyon, visited the museum in early June to give public talks about the animals in the *SuperCroc* exhibit. The pair gave informal talks in the gallery to point out details and answer visitors' questions about *Sarcosuchus imperator*, *Nigersaurus* and *Suchomimus*, all of which Sereno found on his expeditions into the Sahara desert for National Geographic. Sereno also was filmed in the museum gallery by a crew from National Geographic as part of an upcoming TV production about extreme dinosaurs. Sereno and Lyon's visit, as well as local exhibition of "The Science of SuperCroc Featuring Nigersaurus," was made possible by the Whitten-Newman Foundation.

Wyckoff Receives Professorship

Don Wyckoff, curator of archaeology and professor in the OU anthropology department, has been named a David Ross Boyd Professor by the University of Oklahoma. This lifetime professorship honors a faculty member who has consistently demonstrated outstanding teaching, guidance and leadership for students in an academic discipline or in an interdisciplinary program within the university. Wyckoff has been teaching at OU for 12 years. He served as Oklahoma State Archaeologist with the Oklahoma Archeological Survey from 1968 to 1996 and has been curator of archaeology at the museum since 1996.

NEWS





Sauroposeidon Reconstruction Under Way

One of the highlights of the upcoming Orientation gallery, scheduled to open in 2009, will be a full-scale reconstruction of the massive neck and skull of *Sauroposeidon proteles*, the world's tallest dinosaur, collected by museum curator Rich Cifelli and vertebrate paleontology staff in Atoka County, Oklahoma in 1994. The 39-foot neck with attached skull will be a dramatic addition to the first-floor exhibits, stretching from ceiling level across the gallery and peering out into the Great Hall to greet visitors.

The reconstruction is made particularly challenging because

the four neck bones that were discovered are extremely fragile – in some places the outer layer is as thin as a fingernail. They cannot be cast in traditional ways because they are too delicate to be completely removed from the rocky matrix that supports them, and so only one side of the bones is accessible. To make an accurate, three-dimensional reproduction, exhibit preparators from Research Casting International (RCI) in Canada made a visit to the museum to conduct a laser scan of the fossil bones. The laser reads the topography of the fossil's surface and sends its readings to a computer that

creates a virtual model of the bones. RCI will be able to use the computer model to produce a 3-D "print out" of the bones in a plastic material. To capture fine surface details, the team also made "surface peels" on the fossils, using thin layers of silicone rubber. These peels can be turned into molds that will allow the preparators to transfer the texture of the actual fossils to the model. Missing neck bones will be sculpted based on the existing bones and on what scientists know about the shape and size of neck bones in similar dinosaurs such as *Brachiosaurus*.



An exhibit preparator from Research Casting International monitors the laser scan of *Sauroposeidon* in the museum's vertebrate paleontology collections. RCI will use the laser scan to create a 3-D model of the bones. Photo: Krysten Marshall

Teen Volunteers Meet and Greet Visitors



The 2008 Teen Volunteers spent six weeks working with museum visitors at gallery carts and in the museum's Discovery Room this summer. Back row, from left: Melinda Fuson, Liam Holzer, Jacob Johnson, Lauren Reilly, Ashley Stewart, Robert Long, Kevin Anderson, Joel Chadney. Front row, from left: Marcus Long, Carmen Chilson, Haleigh Cline, Amrith Ramkumar, Aiden Reap, Megan Smith.

Mares Tapped For National Committee

Michael A. Mares, curator of mammals, has been chosen to serve on the steering committee for a workshop offered to museum professionals by the Smithsonian Institution. The workshop was funded by the National Science Foundation for the purpose of recommending how biological collections

should be incorporated into the National Ecological Observatory Network. NEON is a continental-scale research platform for discovering and understanding the impacts of climate change, land-use change and invasive species on ecology. NEON will gather long-term data on ecological responses of the

biosphere to changes in land use and climate, and on feedbacks with the geosphere, hydrosphere and atmosphere. The workshop steering committee, of which Mares is a member, is composed of eight experts from strong museums and collections around the country.

Peter Tirrell Receives Faculty Award

The museum's associate director, Peter Tirrell, received the 2008 Kenneth E. Cook Faculty Award from the College of Liberal Studies. The award is given to an individual who exemplifies the goals and purposes of the college, mainly the pursuit of interdisciplinary, liberal learning. Tirrell played a major role in developing the current Master of Arts in Liberal Studies Museum Studies Option. One of his students is quoted as saying: "His courses are extremely interesting and his presentations well thought out. He constantly provides quick and insightful feedback, is open to questions, and constantly shares new readings and materials with all museum students."



THE NEW PALEOZOIC GALLERY IN THE HALL OF ANCIENT LIFE IS NOW OPEN!

Here is an exciting walk-through of the new gallery.

The expansion of the Hall of Ancient Life is an exciting new addition to the Sam Noble Oklahoma Museum of Natural History. The new Paleozoic gallery covers more than 4 billion years of Earth's history, from the formation of the planet itself through the first stirrings of life in the early oceans, to the strange

plants and animals that inhabited the earth millions of years before the appearance of the dinosaurs.

There are colorful displays in the entryway that introduce you to the whole gallery – look up to see who is looking around for you!

When you enter the Paleozoic Era, you will need to look around and up to see enlarged animals from the famous Burgess Shale site. Watch out for the predator *Anomalocaris*, looking like it just might be targeting you



for its next meal. When you turn the next corner, you will see the huge placoderm fish *Dunkleosteus*.

When you enter the Carboniferous forest, you will be surrounded by strange trees and greeted by the huge invertebrate *Arthropleura*, rising out of the leaf litter.

The Permian exhibits bring back some of the museum's favorite Oklahoma skeletons, such as the sail-backed predator *Dimetrodon* and the early Norman

resident with the puny head and big gut, *Cotylorhynchus*.

The new exhibits show communities of plants and animals from half-a-billion years ago until



the end of the Paleozoic Era. There will be lots to see on your first visit and for many visits to come.

TEST YOUR SKILLS! Match each Paleozoic creature with its photo

Anomalocaris

an-NOM-ah-low-CARE-iss

This fearsome predator used the curved limbs on the underside of its head to capture and hold prey. This animal was probably a good swimmer, using the lobes on the sides of its body to move through the water.

Dimetrodon

dye-MEE-tro-don

This sail-backed animal is not a dinosaur, but actually a distant relative of mammals. During the Permian Period, this was probably the top land predator.

Dunkleosteus

DUNK-el-OST-ee-us

Look closely at this giant fish – those are not teeth in its mouth, but sharp edges of the jaw bones, which were used for biting and cutting smaller fish.

Crinoid

CRY-noid

It looks like a flower, but look again! Also called a sea lily, this sea creature has its long, delicate feeding tentacles extended to catch bits of food floating in the ocean. There are still crinoids in the ocean today, although most do not have stalks.

Trilobite

TRY-low-bite

These small animals moved around the sea floor using their many legs. Their hard shells may have protected them from other ocean predators.

Answers: 1) *Dunkleosteus* 2) *Anomalocaris* 3) *Trilobite* 4) *Dimetrodon* 5) *Crinoid*



1. _____



2. _____



3. _____



4. _____



5. _____

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