



Sam Noble Museum
THE UNIVERSITY OF OKLAHOMA

tracks

Fall 2011 Newsletter, Volume 22, Number 3

MUSEUMS FOR AMERICA

Museum Receives Prestigious Grant

NEW TECHNOLOGIES

In the Research Lab

HOLIDAY SHOPPING GUIDE

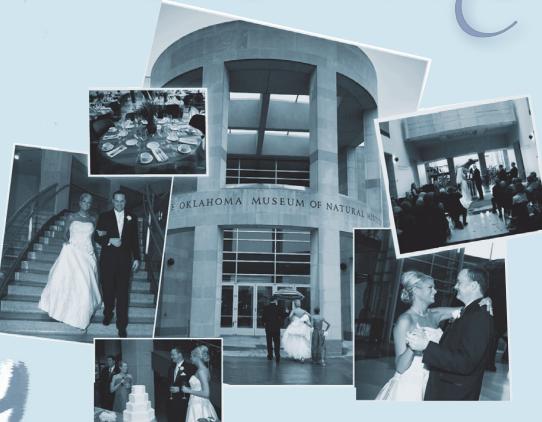


INFORMATION

The day you'll forever treasure...



*in Oklahoma's
treasure box.*



VISIT [WWW.SNOMNH.OU.EDU/](http://www.snomnh.ou.edu/)
EVENTS FOR MORE INFORMATION
OR CALL (405) 325-7975 TO BOOK
YOUR EVENT TODAY!

IMAGES COURTESY OF COURTNEY
MOREHEAD PHOTOGRAPHY AND
HUDSON PHOTOGRAPHY

MUSEUM INFORMATION

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

OUR MISSION

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

OUR VISION

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

**Have you ever thought
of making a planned gift to OU?**



Through a planned or deferred gift, you can reach across generations to touch the future of the University of Oklahoma and its students. Planned gifts are as unique as each individual and may be tailored in a way that best serves your needs, objectives, and wishes.

Find helpful tools to calculate your planned giving goals at the OU Office of Gift & Estate Planning's website, www.oulegacy.org. Or call (405) 325-9206 to speak with a planned giving staff member.

Office of Gift and Estate Planning
University of Oklahoma

Tracks

Editor-in-Chief: Michael A. Mares

Managing Editor: Linda Coldwell

Layout: Karalee Hirst

This publication is printed on paper containing
30% postconsumer recycled fiber.

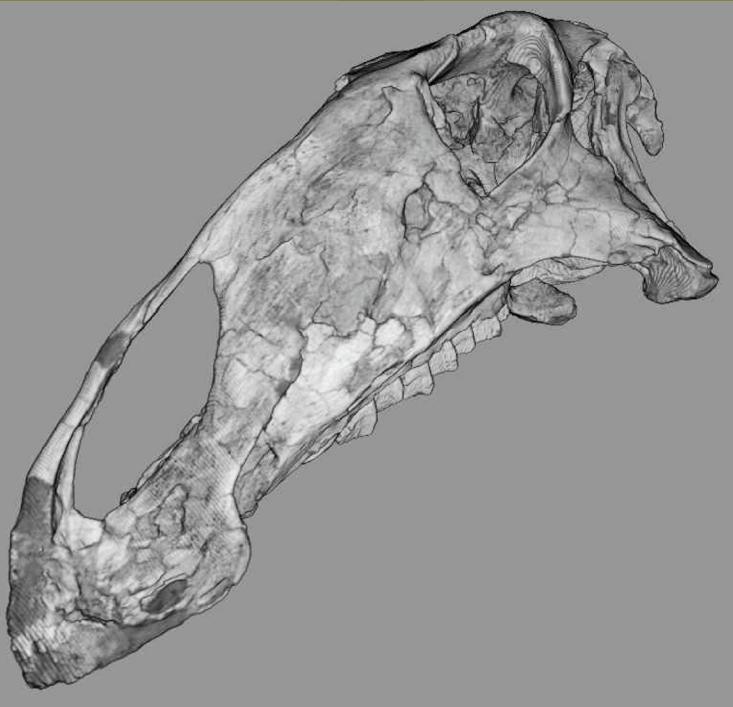
PLEASE RECYCLE



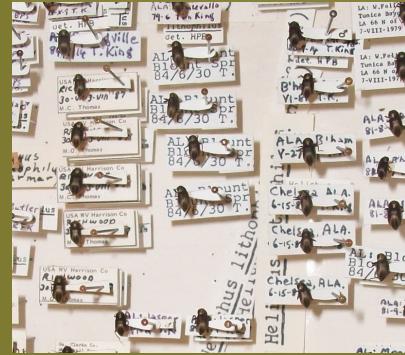
The University of Oklahoma is an equal opportunity institution. This publication is issued by the Sam Noble Oklahoma Museum of Natural History, the University of Oklahoma. It is printed at no cost to the taxpayers of the State of Oklahoma. 10/10.

CONTENTS

MUSEUM EVENTS AND HIGHLIGHTS



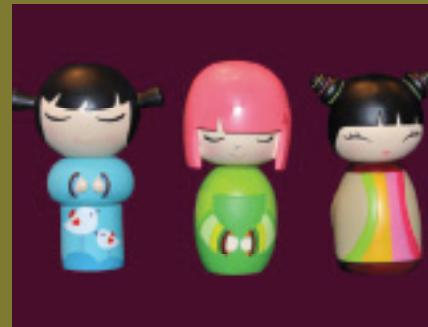
RESEARCH PAGE 4



MUSEUM: PAGE 3



COLLECTIONS: PAGE 7



EXCAVATIONS: PAGE 6



NEWS: PAGES 12 - 13

FEATURES & DEPARTMENTS

FROM THE DIRECTOR	2	COLLECTIONS	7	KIDS TRACKS	11
Thanks to Museum Members and Donors		False Gharials Discovered in Herpetology Collection		Mediterranean Art	
MUSEUM	3	EXHIBITS	9	Make Your Own Mosaic	
Museum Receives Prestigious Grant		Mediterranean Treasures: The Stories Behind the Stories			
RESEARCH	4 - 5	UPCOMING EVENTS	10	NEWS	12 - 13
New Technologies in the Research Lab		Cheese, Wine and Olives of the Mediterranean: a Tasting Seminar		Whitten-Newman ExplorOlogy® Update	
EXCAVATIONS	6	Art and the Animal		Norman's <i>Cotylorhynchus</i> May Have Italian Relative	
New Arrivals for Holiday Shopping		"Looking Back: Near the End of a Career in Archaeology"		Museum Welcomes New "Bug Lady"	
		Science in Action		Stress Linked to Gender Characteristics in Mosquitofish	
				William Cameron Joins Museum Board of Visitors	
				Farewell to a Long-Time Volunteer	
				New Education Staff	



FROM THE DIRECTOR

TITLE



Dear Members and Friends,

As 2010 comes to a close, we mark the end of a very important year for the Sam Noble Museum. May 1, 2000, was the day we opened the doors of this facility to the public and May 28, 2010, we held a big 10th birthday party for the "new" museum. More than 1,800 guests came through the front doors in less than two hours. It was an evening of free flowing chocolate, music, balloons and party hats as hundreds enjoyed the exhibit 'Chocolate' created by The Field Museum in Chicago.

This summer, we saw a 28% increase in visitation over 2009. It was the highest attendance since 2006. 'Chocolate', and our participation in the Blue Star Museums Program, brought more than 80,000 visitors into Norman's No. 1 attraction for a unique entertainment experience about the natural world and our history.

In addition to providing world-class in-house exhibits, our museum continues to be on the leading edge of best practices in collections care. Our recent receipt of a prestigious Museums for America grant from the IMLS will allow us to begin the long process of cataloging the half-a-million specimens in our invertebrates collection. When this process is complete, we will be the first museum in the nation whose invertebrates are fully cataloged.

We look forward to making the museum available to you and your family over the coming year as we work together to come through these difficult financial times together. You are our joy and wish you and your family a happy holiday period and a peaceful New Year. Come to your museum anytime and spend quality time with your family and friends in one of the great museums in the nation.

Michael A. Mares, Ph.D.
Director

THANKS TO MUSEUM MEMBERS AND DONORS

Each year, we like to acknowledge and thank our donors and members at the Curators' Circle level and above for their support for the museum. This year, in order to coordinate our membership program with upper-level donors to the museum's programs and exhibitions, we have created two new levels of donor recognition: The Museum Circle, for donations of \$5,000 to \$24,999; and the Sam Noble Circle, for donations of \$25,000 and up. We are grateful to all our members and donors, at every level, for their generous support of the Sam Noble Museum. Thank you.

Curator's Circle Members (\$500 - \$999)

Alloy, Inc.
Puterbaugh Fund
Dr. Rich Cifelli
Dr. Candace Greene
Sandy Kinney and Mike Sugg
Karol Kourtis
Hollie Langlieb
Sarah Jawm Marie
Jeff and Shelly Mullins
Chris and Jessie Nance
Dallas Pryor
Dr. William Randle
Dr. William and Janet Romanishin
Lee Sargent
Earl Ziegler

Director's Circle Members (\$1,000 - \$4,999)

Arvest Bank of Norman
Muscogee (Creek) Nation
OU Physicians
Dr. Craig and Maria Abbott
Dr. Mervin and Eleanor Barnes
Bill Cameron
James C. and Teresa K. Day
Rod and Janine Davis
Drs. John Dyer and Lynne Ozinga
Mark Goodman
Patrick and Melanie Hall
Enoch Kelly Haney
John Hargrave
Cal Hobson
Charles R. Hollingsworth

W.R. and Judy Howell
Mary Marks Jenkins
Lou C. Kerr
Dr. Richard Mallinson
Jim McAuley
Lars Noble
Bill and Barbara Paul
Bill and Doann Reed
Dr. Eric Sherburn and Leigh Ann Moss
Dr. Lucy Smith
Dr. Carolyn Thompson Taylor

Museum Circle Members (\$5,000 - \$24,999)

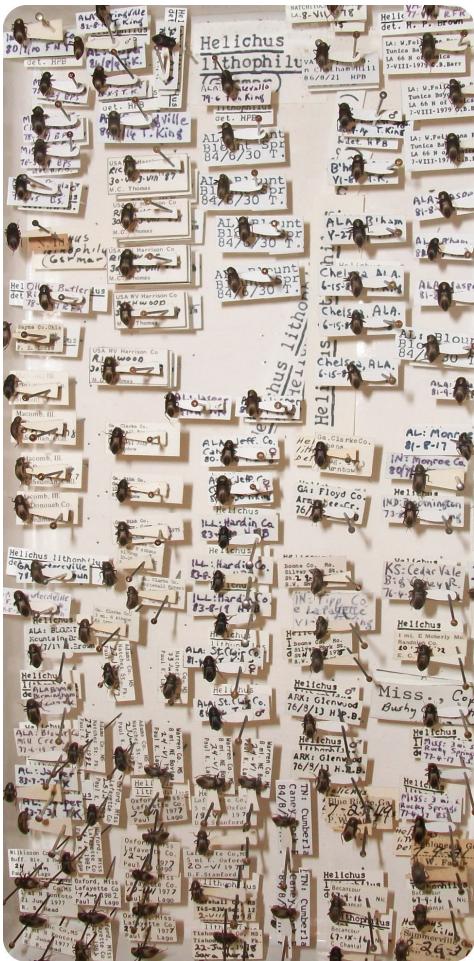
Chesapeake Energy
Grand River Dam Authority
Oklahoma Indian Gaming Association
The Boeing Company Charitable Trust
Cox Media
The Cyril Fund
The Oklahoman
Walton Family Foundation
Arnold L. Coldiron
Hal and Reynotta Hoberecht
Dr. Michael A. and Lynn B. Mares
Steven M. Peck
Dr. Don and Ruth Wyckoff

Sam Noble Circle Members (\$25,000 and up)

Anonymous
Mary Jane Noble Estate
Noble Corporation, Inc.
Noble Drilling Services
Whitten-Newman Foundation
Reggie and Rachelle Whitten



MUSEUM RECEIVES PRESTIGIOUS GRANT



Riffle beetles in the museum's invertebrate collection.

Photo: Linda Coldwell

Thanks to a grant from the federal Institute of Museum and Library Services (IMLS), the Sam Noble Museum at the University of Oklahoma has been able to embark upon a three-year project to catalog, database and georeference (assign geographic coordinates) specimens in its collection of recent invertebrates. The museum was one of 179 institutions chosen from more than 500 applicants to receive a prestigious "Museums for America" grant, designed to support the efforts of museums to continually improve their services and procedures.

The Sam Noble Museum's collection of recent invertebrates, which includes

insects, arachnids, shellfish, corals and other modern animals without backbones, comprises more than 500,000 specimens, most of which are uncataloged. The three-year, \$149,206 Museums for America grant will allow the museum to create a digital database of some 270,000 of these specimens, complete with geographic coordinates for the precise location where each specimen was collected. The project will allow access to accurate specimen and locality data which previously had not been available. This information will be made accessible to scientists, educators and the public worldwide through Web-based data portals for education programs, research, management, and the conservation of invertebrate species.

The museum's recent invertebrates collection is geographically, historically, and scientifically significant. It contains important and extensive collections from throughout the world, including one of the largest and most comprehensive collection of *Byrrhoidea*, or "riffle beetles" – an aquatic beetle superfamily in the world. These were amassed by Harley Brown, curator of the collection for more than 30 years. For Oklahoma, most specimens were collected before 1950 and many were collected in the late 1800s and early 1900s. In a state where natural habitats have been and are being replaced by agriculture, these specimens provide an invaluable record of the diversity before statehood and document a major component of the diversity prior to development that changed the state's ecosystems.

"Dr. Braun, acting curator of the collection, and Brenda Patten, collections manager, are to be applauded for developing an outstanding proposal to support their collection," said Michael Mares, director of the Sam Noble Museum. "During times of financial challenge, the hard

work involved in obtaining support from a national funding agency is what permits progress on what is an important scientific resource for Oklahoma, the museum's invertebrate collection."

"This year's MFA grant recipients are truly an exciting and diverse group of museums, representing the remarkable ways that large and small institutions are serving communities," said Marsha L. Semmel, acting director of the Institute of Museum and Library Services. "Funded projects support digitization and collections management plans, enhanced accessibility, environmental literacy, and much more. The work of these institutions will educate and inspire citizens of all ages. IMLS is pleased to support museums as they engage their communities through programming tailored to their specific needs, and this round of MFA grants furthers this work."

Museums for America is the Institute's largest grant program for museums, providing more than \$19 million in grants to support the role of museums in American society to sustain cultural heritage, to support lifelong learning and to be centers of community engagement. Museums for America grants strengthen a museum's ability to serve the public more effectively by supporting high-priority activities that advance the institution's mission and strategic goals.

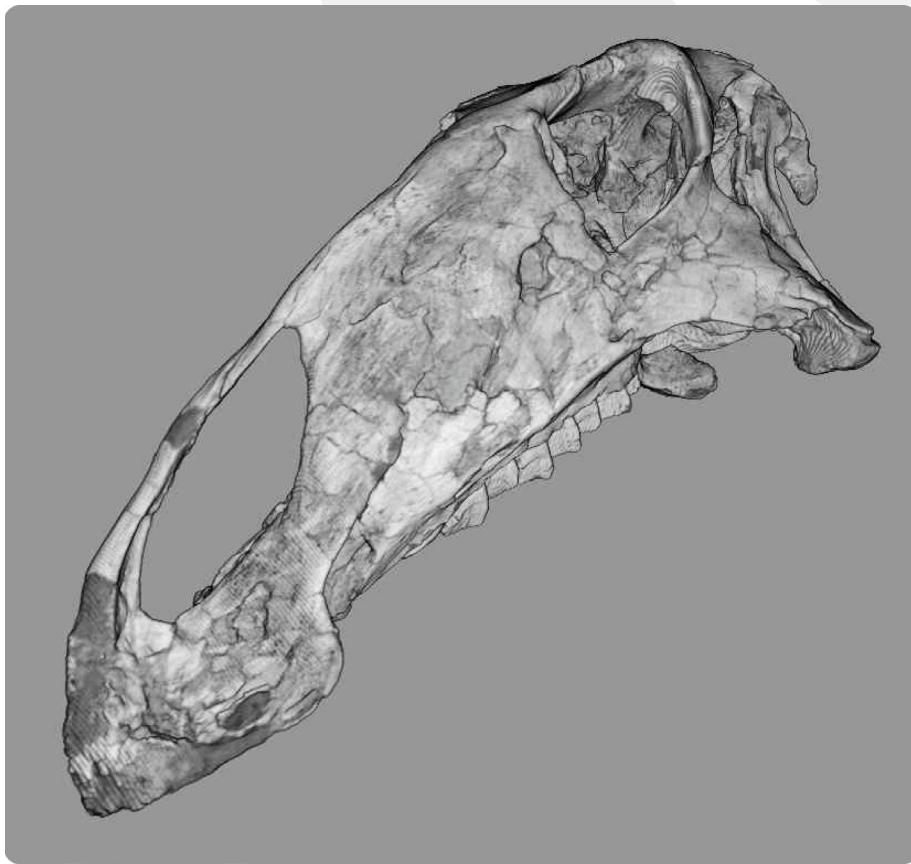
The Institute of Museum and Library Services is the primary source of federal support for the nation's 123,000 libraries and 17,500 museums. The Institute's mission is to create strong libraries and museums that connect people to information and ideas. The Institute works at the national level and in coordination with state and local organizations to sustain heritage, culture and knowledge; enhance learning and innovation; and support professional development. To learn more about the Institute, please visit www.imls.gov.





RESEARCH

NEW TECHNOLOGIES IN THE RESEARCH LAB



This 3-dimensional computer image of a *Tenontosaurus* skull is a composite of more than 200 layers of CT scans. Computer image created by Andrew Thomas using Volume Graphics®: Studio Max software.

A new computer software program at use in the museum's vertebrate paleontology program is opening up whole new worlds of fossil imaging for museum researchers. The software uses data from CT scans of fossils to render a 3-dimensional image that can be manipulated and viewed in a variety of different ways.

A normal CT, or "computed tomography" scan of a fossil creates hundreds—or even thousands—of layers of x-ray images in order to get a view of the interior shapes and densities of fossilized bone. Traditional viewing of these scans can be challenging to the

uninitiated—the viewer scrolls through the stacked-up flat images, which seem to morph into new shapes with each layer. Creating a mental 3D image from these abstract forms can be an exercise in creative visualization. The new software, called Volume Graphics® Studio Max, creates a 3-dimensional composite image of all the CT scan's x-ray "slices," rendering them into a recognizable—and highly detailed—3D shape. And that's only the beginning.

"What this is all about is working in three dimensions," said Rich Cifelli, curator of vertebrate paleontology. "The software allows us to see inside

specimens in incredible detail. A number of people's research in our department has taken this direction. Almost as soon as we had this thing up and running, there was a line of people waiting to use it."

The flexibility of the software is impressive. Once the program has created a composite image from the CT scans, a researcher can access the information in a number of remarkable ways. The program can create a virtual cross-section, for example, from any angle. This allows a fossil that was scanned vertically—due to the size constraints of the CT equipment—to be viewed via virtual slices cut horizontally—or diagonally, or any other way a researcher might want to "cut into" the image to see what's inside.

Researchers can also use the software's touch-screen computer to isolate specific sections of a scan. Graduate student Andrew Thomas is using the program to create individual images of some of the 40+ bones that make up the skull of an adult *Tenontosaurus*. The skull, which was collected in 2001, is beautifully preserved and nearly complete. This is both good news and bad news: good news because scientists for the first time have a truly accurate idea of what a complete *Tenontosaurus* skull looked like, but bad news because they are loathe to dismantle such a well-preserved specimen to see the structures inside. The new technology allows Thomas to isolate parts of the skull and look at them as if they were not incorporated into the whole.

Thomas points out the clear image he is able to produce of three layers of teeth stacked up inside the tenontosaur's jaw.

RESEARCH



"Forty million years after this animal lived, the really advanced duckbills had hundreds of teeth in waiting," he explains. "These had just three, but we weren't expecting that this early. This shows that the tenontosaurs were in the process of developing a sophisticated tooth replacement apparatus."

Brian Davis, another graduate student at the museum, is also using the software to scope out emerging teeth inside fossilized jaw bones. But the ones Davis is studying are minute – the tiny teeth of ancient mammals, some no larger than a modern shrew. As juveniles, these prehistoric mammals – like juvenile mammals today – lost their "milk teeth" and replaced them with adult teeth, which matured inside the animal's jaw before they emerged. The pattern of this replacement is different for different groups of animals. Prior to the development of sophisticated imaging technology, the jaws

would have had to be destroyed for scientists to be able to get accurate images of these pre-emergent teeth. X-rays and CT scans provide a flat picture, but the new software can bring the images to life.

Combining the imaging technology with new 3D digital casting techniques provided by the OU engineering department's Center for Shape Engineering and Advanced Manufacturing (SEAM) provides additional options, including prototyping.

"The digital casting technology means you can 'print out,' in 3 dimensions, a prototype that is larger or smaller than the original," explained Rich Cifelli, curator of vertebrate paleontology, whose research also focuses primarily on the tiny teeth of ancient mammals. "When you're dealing with specimens that are this small, it can be very helpful to have something larger that you can really handle and point to while you're discussing it."

Because they are based on CT scans, the prototypes are identical to the specimen, only larger."

The imaging and casting technology also allows researchers to examine hidden interior structures. Andrew Thomas is able to look inside the skull of the *Tenontosaurus* to examine – and even print out a 3D cast of – the animal's braincase, without damaging the fossil skull.

The size and shape of an animal's braincase can lend many clues to its lifestyle. A large opening for an optical nerve, for example, indicates that the animal's lifestyle required what Thomas calls "broadband" information from its eyes: in other words, it could see *really* well, either to target prey or spot potential predators. Similarly, large olfactory nerve would mean the animal relied heavily on its sense of smell.

"In the past, if scientists wanted to make a cast of a braincase, they would have to clean out the fossil, pour in plaster, and then break the skull open to get the cast out," Thomas explains. "Now we can look at the braincase digitally without damaging the fossil in any way."

Graduate student Sally Pine is using the software to see inside a fossilized turtle shell trapped in matrix as hard as concrete. Because the CT scan clearly shows the difference in density between bone and rock, Pine is able to digitally remove the rocky matrix from the image and view the interior structures that are well preserved, but too fragile to withstand the physical removal of the matrix that surrounds them.

The software has only been up and running in the VP lab since July, but has already proven to be an invaluable tool to these, and other, students and curators at the museum. The program promises to open windows on many more projects in the future.



One of the original CT scans of the *Tenontosaurus* skull, which shows a slice of the skull from crown to jaw.



EXCAVATIONS

NEW ARRIVALS FOR HOLIDAY SHOPPING

EXCAVATIONS

A NATURAL HISTORY STORE

Browse our selection of unique, hand-made gift items from around the world! Museum members receive a 20% discount every day!

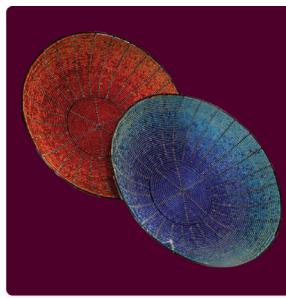
Located inside the Sam Noble Museum
(405) 325-7815
Open
Monday-Saturday
10 a.m. to 5 p.m.
Sunday
1 to 5 p.m.



Art glass and beaded wirework necklace from the Russian Princess collection, by Mary Lowe. \$70.



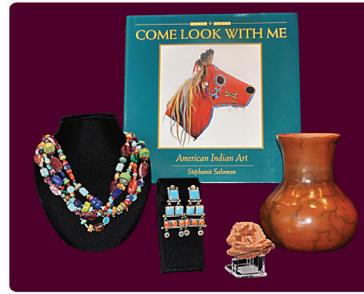
Wellspring of Color hand painted ceramics made in India. A fair trade item. Wooden rack of ceramic drawers, \$85.



Fair trade beaded bowls from Africa, \$135.



Appliquéd shopping bag, hand-made in India. Fair trade. \$31.



Excavations offers a wide variety of Native American jewelry, art work and books. Come browse our monthly staff favorites.



Cloisonné vase, \$39.95



Porcelain ring boxes in whimsical animal shapes come with a surprise porcelain "baby" animal inside. Choose from many different designs. Only \$6.50 each.



Japanese momiji, or "messenger" dolls personify your good wishes. Each comes with a message pin. "Luck," "Sister," "Best Friends" and more. \$10.95 each.



This little dragonfly box sparkles with crystals and holds your treasures. Many different animal shapes to choose from. Dragonfly ring box \$30.

COLLECTIONS



FALSE GHARIALS DISCOVERED IN HERPETOLOGY COLLECTION BY LAURIE VITT, CURATOR, HERPETOLOGY

Usually when we hear the word “Crocs,” we visualize footwear! Not so in the Herpetology Department. “Crocs” refer to the 23 living species of crocodilians distributed throughout the tropical and subtropical world. Without a doubt, crocs are the living monsters of the reptile world.

Crocs originated in the Late Triassic, more than 220 million years ago. Many more species existed at that time than today, and some were much larger. For example, *Sarcosuchus*, commonly known as the “SuperCroc” was nearly 40 feet long and weighed about eight tons! The modern Saltwater Crocodile can reach upwards of 20 feet in length and weigh more than a ton. Although widespread throughout southeastern Asia in the past, it now occurs primarily in southern Asia, New Guinea, and northern Australia. It is the largest living reptile.

Although the blunt-nosed American Alligator is the most familiar species in the U.S., several species of crocs in other parts of the world have very long, thin snouts that allow them to quickly grab a fish or other swimming animal in the water without pushing a large wave in front of them. The large Gavials (often called Gharials) of southern Asia, for example, have extremely long, narrow snouts. Based on morphological evidence, the Gavial has always been considered a distant relative to all other crocs.

Last year, while going through some large tanks in the Herpetology collection, Collection Manager Jessa Watters and graduate student Tim Colston discovered that we had several beautiful (beauty of course is in the eye of the beholder!) specimens of the False Gharial, *Tomistoma schlegelii*. The reason we were excited about this find is that fewer than 2,500 of these

remarkable animals currently exist in the wild, and conservation efforts have had limited success. Like many large species of exotic animals in the world, False Gharials in the wild will soon disappear because of loss of habitats and illegal harvest. The remaining False Gharials will unfortunately be found only in zoos and the halls of museums, like the Sam Noble Museum here in Norman, far from the waterways of Southeast Asia.

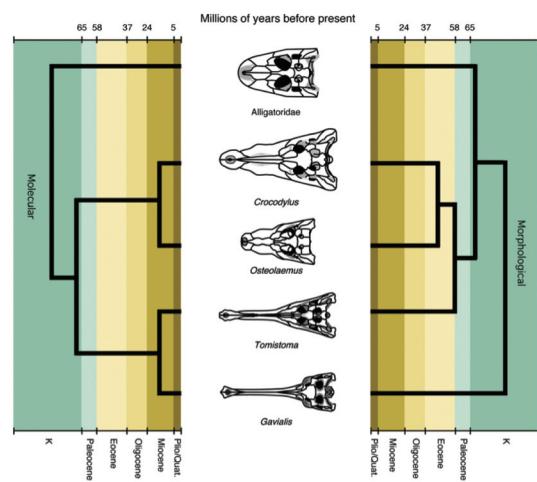
The generic name, *Tomistoma*, comes from two Greek words, “tomos” and “soma” and translates to “sharp mouth.” The species name, *schlegelii*, refers to the Dutch zoologist Hermann Schlegel, who apparently discovered the species. Morphological evidence historically placed this croc with the crocodiles, but more recent molecular studies place it in the same family with the Gavial. Like most crocodilians, False Gharials are on the IUCN (International Union for Conservation of Nature) Red List and cannot be legally taken from the wild. Consequently, finding these specimens hidden in the tanks of our collection was a real surprise, and useful for teaching and research.

False Gharials live in freshwater lakes, swamps, and rivers in Indonesia, Malaysia, and possibly Vietnam. They did occur in Thailand, but none has been seen there since 1970. Adults can reach total lengths up to 16 feet, so they are indeed impressive animals. False Gharials feed on fish, crustaceans, insects, and mammals, so their diet is relatively generalized. Unlike most other species of crocs, female False Gharials do not provide parental care to offspring.

So, the next time that you slip into our “Crocs,” visualize a False Gharial floating the waters of Southeast Asia waiting for its next meal to make the wrong move!



Jessa Watters, collection manager in herpetology, holding specimen of the False Gharial. Photo: Laurie Vitt



Relationships of living crocodilians based on molecular (gene sequences) data (left) and morphological data (right). The False Gharial (*Tomistoma*) is most closely related to the Gavial based on gene sequences, but more closely related to other crocs based on morphological data. Gene sequence data also indicate that the False Gharial originated much earlier (Miocene) compared with morphological data (early Eocene). Graphic: Laurie Vitt





EXHIBITION

MEDITERRANEAN TREASURES: THE STORIES BEHIND THE STORIES

BY KATE BARR, ETHNOLOGY COLLECTION, MANAGER AND CURATOR OF THE EXHIBITION

In preparation for our in-house exhibits we often uncover many fascinating and nearly forgotten stories about the history of both the objects

and the museum. Researching for the upcoming exhibit “Mediterranean Treasures: Selections from the Classics Collection” was no different.

Unfortunately, it is not always possible to include all of these details into our exhibits. In order to present a clear and coherent storyline in a limited amount of space, some information will inevitably be “lost on the cutting room floor.” Here are a few gems that did not make it into the exhibit, but were too good not to share.

Mosaic est divisa in tres partes

No doubt, one of the most noticeable and recognizable pieces of the Classics collection at the Sam Noble Museum is the Cilicia mosaic. This

mosaic fragment, now on display in the Gallery of World Cultures, was also a familiar fixture in the old Stovall Museum building. Despite being in the public eye for more than 50 years, many may be unaware of its rather dramatic history. This mosaic was excavated from Seleucia Pieria, the port of the ancient city of Antioch (located in modern day Turkey), in 1937 by a team of archaeologists from Princeton University. In 1950 the Sam Noble Museum acquired the mosaic for display at the Stovall Museum building. However, when the mosaic arrived the museum was somewhat unprepared for the large size of the piece. In order to get the mosaic to the second floor it had to be cut into three pieces. Rumor has it that members of the OU wrestling and/or football team(s) were recruited to help move the 500-plus-pound sections. Sadly, only two of the mosaic sections were ever displayed in the old Stovall Museum building. The third piece was kept in storage, in its original packing crate, until the late 1990s when all three pieces were finally reunited prior to installation here at the new museum facility.

Red Tape Meets Black Figure Kylix

One of the museum’s most significant early acquisitions, an Attic black figure *kylix*, or wine-drinking cup, has an equally entertaining history. The collection’s first curator, H. Lloyd Stow, stumbled upon the opportunity to purchase this rare cup in 1947 from a dealer in New York. This object was considered so important that J. Willis Stovall and the other museum curators agreed to allocate the entire museum’s



Cilicia mosaic. Photo: Kathryn S. Barr

EXHIBITION



acquisitions budget that year to its purchase. However, after submitting the order to the University's purchasing department, Dr. Stow was informed that payment could not be made because there "was only one bid for that order," a violation of the university's requirement for three formal bids on every purchase over a certain dollar amount. After a lengthy discussion with the purchasing department it was still unclear if the purchase could be approved. After a few weeks the university thought it had an acceptable solution for this dilemma and sent the dealer a form requesting the original manufacturer to swear that the cup, now used, was "priced at no more than its original sale price." In the end the university had to make an unusual exception to its normal purchasing procedures after they were assured that the original manufacturer was deceased.

An Unusual Reunion

Another interesting story uncovered while researching objects for the "Mediterranean Treasures" exhibit involves another fragmentary Attic red figure *kylix*. The museum purchased this *kylix* in 1957 from a dealer in Philadelphia. The cup – showing an image of a boy playing a flute on the interior – had been broken, presumably in antiquity, and the remaining pieces were glued back together. In 1986 a photo of this fragmentary cup appeared in the Stovall Museum Series publication, *Classical Antiquities: The Collection of the Stovall Museum of Science and History*. Less than a year later the museum received a letter from the Royal Ontario Museum in Toronto stating that they had five additional pieces of the same *kylix* in their collection. The Royal Ontario

Museum had obtained their pieces from a German collector in 1959, along with a copy of a photo from 1935 showing a reconstructed cup, made up of the pieces from both the Stovall and the Royal Ontario Museums. After some correspondence, an agreement was reached between the two institutions and these five "new" pieces were added to the Stovall museum's *kylix*, nearly 30 years after it was originally acquired.

Every area of the museum collection is overflowing with these anecdotes from the museum's past. With each exhibit museum staff are reminded of all the hard work that our predecessors went through to acquire objects for the museum and preserve them for the future. We also spend a great deal of time learning about the donors of many of our collection objects. Without these donors, exhibits like "Mediterranean Treasures: Selections from the Classics Collection" would not be possible. While many objects in the Classics Collection were museum purchases, a large portion of the collection has been donated to the museum. Significant donations from Dr. H. Lloyd Stow, Dr. & Mrs. Henry S. Robinson, E. E. Westervelt, Dr. Mark Allen Everett, Ambassador George C. McGhee, the Museum of Fine Arts



Attic black figure *kylix*. Photo: Kathryn S. Barr



Attic red figure *kylix*. Photo: Kathryn S. Barr

Boston, and the Fogg Art Museum, among others, have greatly enhanced the collection and made projects like this upcoming exhibit possible.

Each object in the museum has many stories to tell, both from its life inside and outside the museum. With each exhibit we at the museum get the opportunity to share only a few of these great details from the objects' histories. Luckily, that means we always have more to share for the next exhibit. So, stay tuned, there is more to come at the Sam Noble Museum.



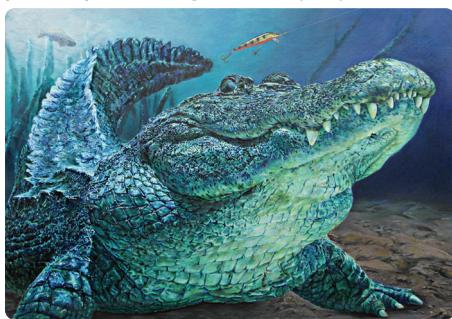
UPCOMING EVENTS

COMING UP

Cheese, Wine and Olives of the Mediterranean: a tasting seminar inspired by the special exhibition "Mediterranean Treasures: Selections from the Classics Collection."

Thursday, Dec. 9, 7 to 9 p.m.

Since Classical times, the sun-warmed regions around the Mediterranean Sea have been the source of some of the world's finest cheeses, wine and olives. Italy, Greece, Egypt and the Middle East each have their own traditional specialties and regional favorites. Enjoy a sensory expedition through some of the time-honored tastes of the Mediterranean region in this seminar sponsored by Forward Foods and The Spirit Shop. Participants will sample several different cheeses and pair them with white or red wine. Olives of many different varieties and regions also will be featured. Adults ages 21 and up only. Pre-registration is required, and space is limited. Cost: \$35 per individual or \$60 per couple. To register, call (405) 325-1008.

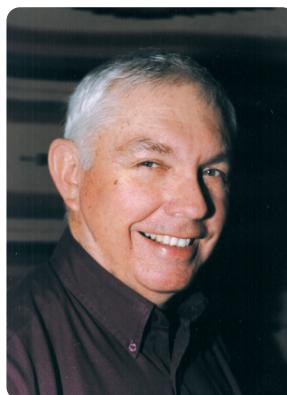


Art and the Animal

April 30 through Sept. 5

This beautiful traveling exhibition is selected each year from the works appearing in the annual Art and the Animal international juried show organized by the Society of Animal Artists. This year's exhibition features more than 100 works of art, selected from the 50th annual exhibition, which premiered at the San Diego Natural History Museum Sept. 4 through Oct. 30, 2010. Only the best animal art is selected for *Art and the Animal*. Consequently, it is extremely prestigious for artists to have

artwork accepted into the exhibition. The Society of Animal Artists is regarded worldwide as the most prestigious artist-membership organization dedicated to the theme of animals in art. Society members come from Africa, Asia, Australia, Europe, North America, and South America.



"Looking Back: Near the End of a Career in Archaeology"

Don Wyckoff, Curator of Archaeology

Date/time TBN

Join Don Wyckoff, curator of archaeology, as he looks back on his 50-year career in archaeology. Learn about the changes in archaeology over the past five decades and what Dr. Wyckoff sees for the future of archaeology. This program is free to the public.

On July 1, 1996, Don G. Wyckoff was hired as associate curator of archaeology for the Oklahoma Museum of Natural History. He also holds the position of Associate professor with the Department of Anthropology at the University of Oklahoma. Wyckoff has a long career association with archaeological studies in Oklahoma, including obtaining his B.A. and M.A. degrees in anthropology at OU, serving as staff archaeologist for the Oklahoma River Basin Survey Project from 1962 to 1968, and as State Archeologist and Director of the Oklahoma Archeological Survey from 1968 to 1996. During these years he conducted excavations at over 50 prehistoric sites in various parts of the state with special interests in the Caddoan

archaeological tradition in both the Arkansas and Red river basins of eastern Oklahoma, and ancient hunter-gatherer camps in eastern Oklahoma. He received his Ph.D. in 1980 from Washington State University where he specialized in the Quaternary Studies Program. Since 1985 he has used that knowledge to develop research on early Holocene-late Pleistocene archaeological, paleontological and geological sites eastern and northwestern Oklahoma. His research findings are published in such journals as *Geoarchaeology*, *Current Research in the Pleistocene*, *Southeastern Archaeology*, *Journal of American Archaeology*, *Plains Anthropologist*, and the *Bulletin of the Oklahoma Anthropological Society*. He has long advocated positive working relationships with avocational archaeologists and served many years as *Bulletin* editor of the Oklahoma Anthropological Society.

Science In Action

Sunday, Feb. 13, 1 to 5 p.m.

Bring in your natural history objects to be identified, or just come in to enjoy the scientific discovery and fun during Science in Action. Science in Action is a free, family-friendly science-packed day featuring demonstrations and hands-on activities provided by a number of different scientific disciplines, including museum staff and representatives from the University of Oklahoma and other institutions. Experts from a number of natural history disciplines will be on hand to identify objects brought in by visitors, including rocks and fossils, bones, Native American cultural objects and languages, archaeological objects and more.



MEDITERRANEAN ART

The Mediterranean is the name given to the countries that surround the Mediterranean Sea in southern Europe and Asia. These countries include Greece, Italy, Egypt, Turkey and Syria. Ancient Mediterranean cultures created many kinds of art that are still well known today. Pottery and mosaics were some popular kinds of art in these cultures.

Although it can sometimes look very fancy, pottery was made for everyday uses like cooking and eating, not just for decoration. Artists decorated pottery with all kinds of images from simple designs to heroic figures and mythical creatures. The pottery connected most often with ancient Greece is called Red Figure pottery. It is decorated with red figures on a black background.

Mosaics were made by using pieces of colored stone or glass to create a design or picture. These small pieces were set directly into walls or floors to decorate buildings. Some of the most well known mosaics found are from Roman houses and palaces in Italy and northern Africa.



MAKE YOUR OWN MOSAIC



You can make your own Mosaic! All you need is some colored paper, a pencil, and some glue.

Supplies:

Colored paper, Old magazines

Scissors

Pencil

Plain paper

Glue

1. Choose a color of paper for your background.
2. Lightly sketch an outline of the image you want to create.
3. Cut or tear small pieces of different colored paper or bits of old magazine. Make small piles for reds, oranges, yellows, and so on.
4. Use the colored paper squares like you would paint or crayon, and glue them to your sketched image one at a time to create your own work of ancient Mediterranean art!



NEWS

WHITTEN-NEWMAN EXPLOROLOGY® UPDATE

The past year saw the implementation of many exciting new projects for the Whitten-Newman ExplorOlogy® Program. In the fall and spring of 2010 / 2011, ExplorOlogy® in Motion brought a mobile program to the schools of each of the students who participated in Oklahoma Science Adventure and Paleo Expedition in the summer of 2009. The program traveled to 12 schools, and worked with 4,710 students across the state of Oklahoma.

SciencEscape is a new Spring Break program that brought 81 teachers and their students from four schools to the Sutton Wilderness in Norman where they completed a field research project working with herpetology collection manager Jessa Watters.

In addition to these new programs, the Whitten-Newman ExplorOlogy® program continued into its third year with another successful summer of residential programs for middle school and high school students.

Applications for the 2011 Oklahoma Science Adventure, Paleo Expedition, SciencEscape and Science Institute programs will be available in December, 2010. Watch the Whitten-Newman ExplorOlogy® Program Website for updates and information as the date draws near.

MUSEUM WELCOMES NEW “BUG LADY”



Photo: Karalee Hirst

Roxy Hites has joined the museum staff as the new manager of the integrated pest management system and “bug room.” Hite is in charge of overseeing the museum’s integrated pest management system, a detailed plan by which the entire facility is monitored for the presence of insect pests that could be potentially devastating to some collections.

A native of southern Illinois, Hite has recently completed a bachelor’s of Biology at the University of Central Oklahoma in Edmond, where she worked for the university’s fledgling natural history museum, cataloging and preparing vertebrate specimens and establishing a new dermestid beetle colony.

NORMAN’S COTYLORHYNCHUS MAY HAVE ITALIAN RELATIVE



Photo: Karalee Hirst

Visitors to the museum are familiar with the barrel-bodied, tiny-headed *Cotylorhynchus*. This bizarre animal was common to the area that would become Cleveland County during the Permian period, some 275 million years ago. It belongs to a group of animals called pelycosaurs, which are broadly ancestral to the so-called “mammal-like” reptiles. Other pelycosaurs, including *Dimetrodon* and *Edaphosaurus*, can be found both in North America and in Europe, but most are comparatively smaller. *Cotylorhynchus* is by far the largest in the group. Fossilized remains of

Cotylorhynchus romeri have been found near Norman, and similar species have been found as far away as northern Texas, but otherwise the animal is known almost exclusively as an Oklahoma native.

Imagine the surprise, therefore, of vertebrate paleontology curator Rich Cifelli when he received an e-mail from colleagues in Rome who believe *Cotylorhynchus* fossils have been found in Italy and wished to come compare their fossils to those in our collections. Marco Romano and Eva Sacchi, researchers at the University of Rome, are studying a large pelvic bone and other pieces discovered in Sardinia, an island north of Sicily, which look a lot like they could have belonged to a large pelycosaur... possibly *Cotylorhynchus*. The find is exciting for the Italian scientists. Their area offers a number of prehistoric trackways, but very little in the way of actual fossils. “It’s either *Cotylorhynchus* or very close to it,” said Cifelli.

“It shows a surprisingly broad distribution of something that is otherwise very localized. *Cotylorhynchus romeri* is just in our area—the Type specimen came from just north of Norman, and specimens in other museums, including The Field Museum in Chicago, are specimens we provided.”

Cifelli explains how fossils common to central Oklahoma might also be found in Italy, more than 5,000 miles away.

“This would have been a Pangaean distribution,” he said. “At that time, all the land masses were coming together into one continent. There had to be some close land connections between Oklahoma and Italy.”



Photo: Karalee Hirst



STRESS LINKED TO GENDER CHARACTERISTICS IN MOSQUITOFISH

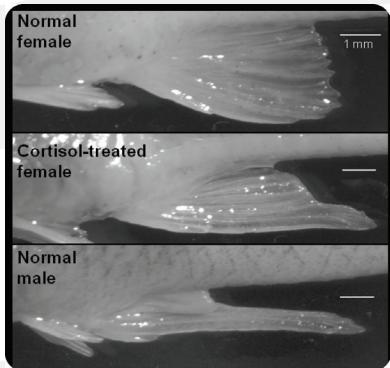


Photo: Edie Marsh-Matthews

A team of researchers from the University of Oklahoma, including museum curator of ichthyology Edie Marsh-Matthews, has found a fascinating link between stress and reproductive characteristics in a species of fish. The study was published in July in *Biology Letters*, an academic journal of the Royal Society, the national academy of sciences for the United Kingdom.

The team administered the stress hormone cortisol to female mosquitofish – a common Oklahoma species that gives birth to live young – originally with the intention of studying how stress affected the fishes' transfer of nutrients to their unborn young.

The female fish receiving the stress hormone developed an elongated anal fin typical of the male of the species, associated with the transfer of sperm. The affected females even began to behave like the males – pursuing other females as though attempting to mate.

Though the exact mechanisms are as yet unknown, the scientists think that the cortisol may be triggering increased production of an enzyme that helps deactivate the stress hormone. This same enzyme is involved in androgen production. The study may have implications for understanding the interaction between these two hormonal systems.

WILLIAM CAMERON JOINS MUSEUM BOARD OF VISITORS



Charles Baker, Heléna Cohen and Catherine Carter

Photo: Linda Coldwell

The museum education department welcomes three new staff members this season. Charles Baker has joined the full-time staff as an educator for the Whitten-Newman ExplorOlogy program. Baker is a vertebrate paleontology master's student at OU and assisted with the Paleo Expedition field programs in 2009 and 2010.

Heléna Cohen is the museum's new Discovery Room coordinator. A native of Irving, TX, she holds a bachelor's degree in anthropology from OU, and a master's degree in museum science from Texas Tech,

with a minor in curriculum instruction. Cohen has worked with museum ethnology curator Dan Swan on his ongoing research into Navajo Peyote music.

Catherine Carter, the museum's new coordinator of children's programs, is a native of Albuquerque, NM, and holds a bachelor's degree in anthropology from OU. She has worked with the museum since the summer of 2009, first as an intern in the Discovery Room, and then as a student employee.

FAREWELL TO A LONG TIME VOLUNTEER



Frank Lawrence

Frank Lawrence, long-time docent in the Hall of Ancient Life, died on Sept. 27. We will remember Lawrence as the jovial man with a Velociraptor skull in one hand and his hand-carved dinosaur-headed cane in the other, always ready to share his love of dinosaurs with museum visitors. Lawrence was among the museum's first crop of volunteers who underwent training in February, 2000. He served more than 4,000 hours as an Ancient Life docent. We will think of him often, and miss him greatly.

WILLIAM CAMERON JOINS MUSEUM BOARD OF VISITORS

The museum is proud to welcome William 'Bill' Cameron – Chairman, President and CEO of American Fidelity Assurance Co. – as the newest member of its Board of Visitors. Serving as an officer of American Fidelity companies since 1986, Cameron is active in several community and civic organizations in Oklahoma City and in the state. Appointed by OU President David L. Boren, Mr. Cameron began his two-year term last spring. The board meets three times a year to assist in fundraising and promotional efforts, and they serve as ambassadors for the museum in their communities. The museum is grateful to our Board of Visitors for their time and expertise.





Sam Noble Museum

2401 Chautauqua Ave.
Norman, OK 73072-7029

Nonprofit
Organization
U.S. Postage
PAID
Norman, OK
Permit No. 88

ADDRESS SERVICE REQUESTED