



# Sam Noble Museum

## Annual Report 2016



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SAM NOBLE MUSEUM **ANNUAL REPORT 2016**

## FROM THE DIRECTOR

The year 2016 was a difficult year for Oklahoma and for the museum. The downturn in the price of oil affected all aspects of life in the state. The tough economic year had an impact on education, higher education and the museum. After several years of poor economic news and regular budget reductions in the single digits, we were suddenly faced with a 19 percent reduction in our overall budget!

Working with the University of Oklahoma's leadership, which recognized and appreciated the museum's national and international accomplishments and successes and the excellence of its programs, we reduced the proposed cut to 11 percent. This meant adjustments in maintenance and operations, but we protected staff positions. In fact, following a national search for an ornithology curator, Matthew Miller, Ph.D., joined the staff in August.

Curators carried on their cutting-edge research around the world, across the U.S., and in Oklahoma. Herpetologists and entomologists worked in the Philippines; archaeologists

studied Zapotec ruins in Mexico; vertebrate paleontologists collected fossils in Oklahoma and several western states; fish, insects, amphibians and small mammals were studied in Oklahoma, where the search for a species that likely no longer occurs in the state (the Texas kangaroo rat), continued. More than \$2 million in outside funding was received by curators, and they published 75 scientific articles and three books. It was a successful year for research and specimen collection by the very talented and dedicated scholars of the Sam Noble Museum.

We hosted some very special exhibits in 2016. The museum was selected to be the debut site in January for the nationwide tour of "First Folio! The Book That Gave Us Shakespeare," organized to honor the 400th anniversary of Shakespeare's death in 1616. The book, which saved Shakespeare's plays for humanity, was on display for a month. Almost 9,000 visitors gloried in the presence of this great book during January and an array of unique events



*Museum director Michael Mares*

and programs, from readings to performance of some scenes from Shakespeare's plays, drew visitors from across the state.

We collaborated with the University of Oklahoma Libraries History of Science Collections for our second exhibit in conjunction with "Galileo's World: An Exhibition Without Walls." "Through the Eyes of the Lynx: Galileo and the Microscope" explored the first published observations made with a microscope.

A highlight of our visitors' experience from March through early September was a state-of-the-art video game exhibit featuring life in the Late Cretaceous. "Be the Dinosaur" allowed the visitor to "become" a dinosaur and live as a dinosaur on a virtual adventure. "Titanoboa: Monster Snake" brought the world's largest snake from the Paleocene to our Brown Gallery. In April, we celebrated the 14th annual Oklahoma Native American Language Fair with a record attendance of 3,300 for the two-day event. Some

instructors in the language fair were students in the first fair 14 years earlier! The education department completed a two-year grant funded by the Institute of Museum and Library Service for Discovery Kits. These kits feature museum specimens and artifacts, in addition to science and social studies curricula for grades K–12, that can be borrowed by teachers for their classrooms.

Excellence is our standard and our expectation for the museum. With the continued support of our board of visitors, donors, sponsors, members and the people of Oklahoma, excellence will continue to be our path.



Michael A. Mares, Ph.D.

Director



The Sam Noble Museum was the first to display Shakespeare's "First Folio!" on its tour of all 50 states, Washington, D.C., and Puerto Rico in 2016.

# EXHIBITS

Shakespeare's First Folio opened to the famous *Hamlet* soliloquy that begins, "To be or not to be."



## Temporary Exhibits

The museum was honored to be the only host in the state of Oklahoma for *First Folio! The Book that Gave Us Shakespeare*. During the exhibition, the University of Oklahoma, with the cooperation of the university's medieval and early modern faculty, presented numerous public programs. This special collaboration was in honor of the 400th anniversary of Shakespeare's death in 1616.

### Fred E. and Enid Brown Gallery:

In one of the world's most extensive restorations of an extinct ecosystem, *Be the Dinosaur: Life in the Cretaceous* used state-of-the-art video game technology to teach visitors about the Cretaceous period by allowing them to experience a virtual adventure for survival. Kids and adults alike enjoyed this opportunity to experience a day in the life of a dinosaur.



A father and son enjoy the interactive experience of the *Be the Dinosaur* exhibit.



Visitors are encouraged to enter four glyphs to reveal the Mystery of the Mayan Medallion.



Running concurrently with *Be the Dinosaur* was *Titanoboa: Monster Snake*, a jaw-dropping exhibit featuring a full-scale model of a 40-foot-long, 2,900-pound snake that lived 60 million years ago. The exhibit explored the snake's discovery, reconstruction and the implications of the enormous, fearsome reptile.

In *Mystery of the Mayan Medallion*, visitors were transported to Palenque, Mexico, where an archaeological team had mysteriously disappeared from a dig site while investigating rumors of a priceless jade medallion. Visitors followed the clues the team left behind to locate the precious medallion while avoiding the dangers lurking in the ruins. Activities included translating glyphs, studying rainforest animals, learning how the Maya recorded dates, taking rubbings from a sarcophagus and interpreting a battle mural to solve the mystery.



A representation of an ancient sarcophagus offers clues to the *Mystery of the Mayan Medallion*.



Titanoboa measured  
**40 FEET LONG**  
and weighed  
**2,900 POUNDS.**



**Culpeper Microscopes**  
The two original microscopes are similar to the design of Captain John and Adam. They were used to examine small specimens such as Edward Culpeper when he was a young man in his home and educational settings through the 18th century.  
To view Culpeper microscopes, one must slide the cover microscope side and down, while the other supporting table.  
Two brass supports secure the microscope to the right, and the stage to the middle base with its mirror for lighting. One microscope is made like Culpeper and Adams provided a standard assortment of accessories, including ivory specimen clips.

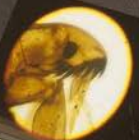


Image of a flea viewed through the large Culpeper Microscope.  
Image captured by of the University of Oklahoma Samuel Roberts Noble Microscopy Laboratory

Original Culpeper microscopes on display with an example of a flea magnification. Culpeper microscopes were popular in homes and educational settings through the 18th century.

### Dorothy C. Higginbotham Gallery:

In February, the Dorothy C. Higginbotham gallery hosted the second half of the university-wide *Galileo's World* exhibition, *Galileo and the Microscope*, which explored the microscopic research of the *Accademia dei Lincei*. The exhibit included a copy of the *Apiarium*, the first published report of observations made with a microscope. The museum also developed an English version of this important document, creating a tool for learning that could be shared via the OU Libraries website.

In September, *When the Earth Shakes* explored the science of earthquakes, tsunamis and tectonic plates with an interactive exhibit that included a real-time seismic monitor; a "Puzzled Earth" display featuring a map of giant tectonic plates, and blocks and reinforcing rods to design and build a model of an earthquake-safe building and then test it out in slow motion.



A close-up view of the *Apiarium*. Because only a handful were printed, the type has bitten deeply into the paper. The University of Oklahoma holds one of only four extant printed copies.



# EDUCATION



## Overview

The Sam Noble Museum, an important resource for science education, seeks to provide the community and learners of all ages with opportunities to expand their curiosity of the natural world.

In 2016, the museum launched the Discovery Kit Project in partnership with the Institute of Museum and Library Sciences (IMLS) to make quality science resources accessible to all K–12 students and teachers in Oklahoma. Twelve mobile kits featuring museum specimens and curricula traveled to schools across the state, bringing Oklahoma natural history to the classroom. Evaluation of the project found that 100 percent of student groups experienced an increase of content knowledge after using the kits and 71 percent of groups experienced an overall increase of positive attitudes toward science.

Through on-site events and programs, including field trips, summer camps, family programs and Scout programs, and

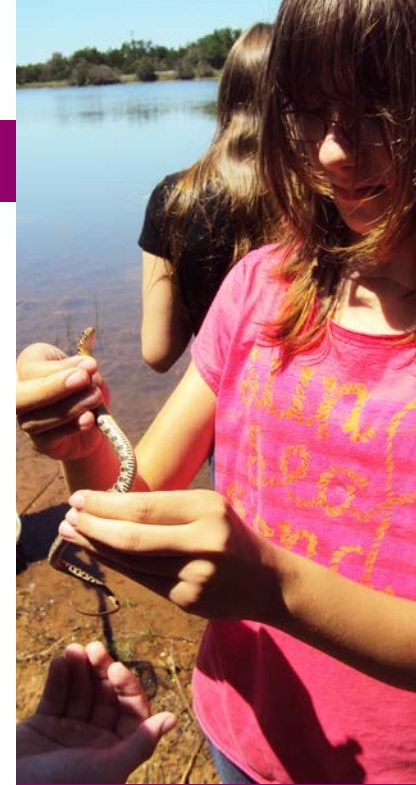
outreach into the community, the museum reached over 45,000 participants with educational activities.

Continuing the highly successful experience of bringing teachers and students to the field to actively engage with scientists and science, ExplorOlogy® completed its ninth year. Through a combination of summer field science programs and providing outreach programming to schools during the school year, ExplorOlogy® reached 3,683 participants.

“Discovering Dinosaurs”  
Discovery Kit for students  
in grades K–2.



45,000+  
STUDENTS  
benefitted from education  
programs in 2016.







12

*Paleo Expedition  
participants*

28

*Science Escape  
participants*

13

*Oklahoma Science  
Adventure participants*

3,302

*ExplorOlogy<sup>®</sup> In Motion  
participants*



## SCHOOL PROGRAMS

# 17,156

*Field trip participants*

# 6,813

*Education class participants*

# 116

*Teacher workshop participants*

MSP, UOSSL, Science Institute



Public Program  
Participation

1,946 YOUTH

53 ADULT

217 FAMILY

## PUBLIC OUTREACH

85

*Discovery Kits*

Over 2,942 participants

1,129

*Summer Explorers  
participants*

100 Sessions

10,318

*Outreach event  
participants*

50,316

*Discovery Room visitors*

9,858

*Museum event attendance*

Spring Break Escape

Sooner Museum Quest

96

*Discovery Room sessions*

1,178 Participants

408

*Visitors*

Science in Action and  
Object ID Day

## VOLUNTEERS

Our unique group of dedicated volunteers provided the museum 22,129 hours of service. The museum's volunteer program provided training sessions, lectures and field trips to 241 adult and teen volunteer participants.



Docent Meg Carr shares her expertise with a young visitor in the Hall of Ancient Life.

# 218

*Adult volunteers*

Contributing 21,119 hours

# 23

*Teen volunteers*

Contributing 1,010 hours



2016 Volunteer of the Year  
**JOHN  
STONECIPHER**



# RESEARCH & COLLECTIONS



## Overview

The Sam Noble Museum is mandated to collect and maintain objects for research, and conduct and disseminate research to increase knowledge. In fulfilling our mandate to provide long-term stewardship of the collections that we hold in trust for the People of Oklahoma, two infrastructure projects continued in 2016. Funds from the National Science Foundation are providing compactors, cases and assistance in re-curating the rapidly growing collection of recent invertebrates. With the support of the Institute of Museum and Library Services (IMLS), tissues in the collection of genomic resources are being moved into a liquid nitrogen storage system—a system that will provide state-of-the-art preservation.

In 2016, 480,366 objects were cataloged and digitized, including 13,321 invertebrates and 434,952,000 archaeological objects. Inventory, cataloging and digitization projects in archaeology are being supported by contracts and grants from federal agencies, IMLS and the National

Park Service. Other highlights include the preservation of 160 recordings and 5,200 pages of text in the Native American languages collection, imaging of more than 48,000 mammal tags and curation of more than 700 type specimens in paleobotany, micropaleontology and minerals.

Curators, staff, students, volunteers and research associates use collection objects in education and scientific research that preserves and develop a greater understanding of natural resources and human cultural heritage. Research topics were diverse, and included objects from throughout the world. The museum also contributes to educating the next generation. In 2016, 44 undergraduate students and 22 graduate students were given opportunities to discover, learn and participate in collections management activities with the support from grants, contracts, internships, scholarships, OU Honors Research Assistantships and OU Undergraduate Research Opportunities Awards.



**480,366**  
**SPECIMENS**  
were cataloged and  
digitized in 2016.

## Grants

During 2016, curators, staff and students conducted research throughout Oklahoma and the world. Approximately \$2.7 million in new and continuing multi-year grants supported field and laboratory research, collections and exhibitions. These include:

- Braun, J. K. Collections Stewardship: Inventory and Databasing of Archaeology. Institute of Museum and Library Services. **\$149,956.**
- Braun, J. K., C. D. Siler, and B. S. Coyner. Environmental Improvement for the Genetic Resources Collection. Institute of Museum and Library Services. **\$128,863.**
- Braun, J. K., M. A. Mares, and B. S. Coyner. Assessment and Survey of the Presence, Distribution, and Habitat of the Texas Kangaroo Rat, *Dipodomys elator*, in Oklahoma. Oklahoma Department of Wildlife Conservation. **\$69,936.**
- Braun, J. K., C. D. Siler, and B. S. Coyner. Environmental Improvement for the Genetic Resources Collection. Institute of Museum and Library Services. **\$272,071.**
- Brown, J. C. USGS and San Diego Zoo Global Fiji Internship. **\$15,000.**
- Czaplewski, N. J. Subcontract for OCIC Project Advancing American Indians in Medical and STEM careers. **\$8,570.**
- Davis, B. M., and R. L. Cifelli. Excavation of a New Small Vertebrate Locality in the Upper Jurassic Morrison Formation, Canyonlands Natural History Association. **\$9,415.**
- Frederickson, J. A., and B. Tweedy. Ecology-based Video for Public Schools. Creativity in Motion. \$10,000.
- Freitas, E. S. Investigating Amphibian Infectious Diseases Across Environmental Gradients. Fulbright U.S. Scholar Program (Thailand). **\$15,200.**

# 42

*Active grants*  
Totaling \$2,700,000

# 61

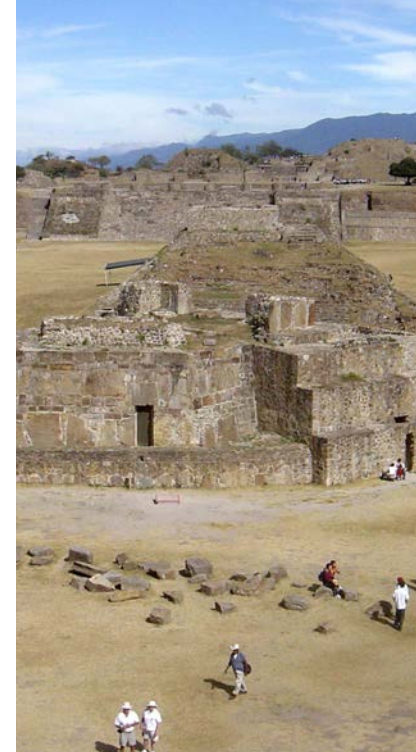
*Publications*  
12 in press

# 75+

*Presentations*



- Freitas, E. S. Using Environmental DNA to Detect Amphibians Across Oklahoma. University of Oklahoma Graduate Student Senate Student Research Funds. **\$750.**
- Gilman, R., M. J. Miller, and J. Loaiza. Infectious Diseases Training Program in Bolivia: South-South Training with Peru. NIH Supplement to R. H. Gilman's Fogarty D43 Training Grant 2016-2017. Co-PI **\$54,000.**
- Labonte, M. J., and C. D. Siler. Development of Novel Species Detection Methods for Oklahoma Amphibians. University of Oklahoma Undergraduate Research Opportunities Program (UROP). **\$961.**
- Levine, M. Monte Albán's Main Plaza: Geophysical Prospection in the Heart of Oaxaca's First City. National Geographic Society/Waitt Grant. **\$10,922.**
- Levine, M. Funding Investment Program, Office of the Vice President of Research, University of Oklahoma. **\$14,423.**
- Levine, M. Presidential International Travel Fellowship, College of International Studies, University of Oklahoma. **\$320.**
- Levine, M., and S. Fishman-Armstrong. Documentation and Consultation Grant. National NAGPRA. **\$90,000.**
- Levine, M., and S. Fishman-Armstrong. Archaeological Curation Services at the Sam Noble Oklahoma Museum of Natural History. U.S. Army Tulsa District, Corps of Engineers, five-year contract 2015–2020 (August 2015–2020). **\$254,225.**
- Levine, M., and S. Fishman-Armstrong. Native American Graves Protection and Repatriation Consultation/ Documentation Grant. National Park Service, U.S. Department of the Interior. **\$89,996.**
- Levine, M., and S. Fishman-Armstrong. Bureau of Reclamation Cooperative Agreement RI IAC60079 2011–2016. **\$121,085.**



Marc Levine was awarded a National Geographic Society/ Waitt grant and a Faculty Investment Program grant to carry out fieldwork at Monte Albán in Oaxaca, Mexico.

- Levine, M., and S. Fishman-Armstrong. Curation Fees for 52 Cubic Feet of Archaeological Material from 34Gr0177. Oklahoma Department of Transportation. **\$22,138.**
- Levine, M., and S. Fishman-Armstrong. Long-Term Curation of Reclamation Controlled Collections. Bureau of Reclamation, U.S. Department of the Interior, five-year contract (2016–2021). **\$152,789.**
- Loaiza, J., M. J. Miller, and O. W. McMillan. Demographic Connectivity and Gene Flow Among the Mosquito Vectors of Dengue and Chikungunya Viruses: *Aedes aegypti* and *Aedes albopictus* in Panama. FID14-IP-085. Senacyt (Panamá) Award. **\$65,000.**
- Marhanka, E. C., and C. D. Siler. Ranavirus Infectious Disease Screening in Central Oklahoma Amphibians. University of Oklahoma Undergraduate Research Opportunities Program (UROP). **\$990.**
- McMillin, S., and C. D. Siler. Preliminary Screening for Ranavirus in Southeast Oklahoma. University of

Oklahoma Undergraduate Research Opportunities Program (UROP). **\$990.**

- Menard, K. L., and C. A. Boring. A Biological Survey of the Imperiled Linda's Roadside Skipper Butterfly, *Amblyscirtes linda* H. Freeman (Lepidoptera: Hesperiidae). Oklahoma Department of Wildlife Conservation. **\$81,633.**
- Menard, K. L., and C. A. Boring. CSBR: Natural History Collections: Curation, and Re-housing of the Insect Collection of Recent Invertebrates. National Science Foundation. **\$368,695.**
- Siler, C. D., and J. L. Watters. Tracking the Emergence of Infectious Disease Among Amphibian Species of Greatest Conservation Need: Amphibian Surveys of Wildlife Management Areas in Oklahoma to Determine Current Distribution, Status, and Health of Native Communities. Oklahoma Department of Wildlife Conservation. **\$89,560.**



Monarch butterflies in the recent invertebrates collection.

- Siler, C. D., J. L. Watters, T. Yuri, and L. Souza. Detecting Native Aquatics Network (DNANet)—A Novel Biodiversity Freshwater Monitoring Program for Native Aquatic and Semi-aquatic Species Using Environmental DNA. Oklahoma Department of Wildlife Conservation. **\$134,235.**
- Siler, C. D., P. Bergmann, D. Irschick, and G. Wagner. Collaborative Research: Developmental and Functional Mechanisms of Complex Trait Re-evolution: Limb Loss and Gain in Skink Lizards. National Science Foundation. **\$665,963.**
- Smith, K. S., and N. J. Czaplewski. Exploration and Collection of Fossil Vertebrates from the Oklahoma Panhandle and Western Counties with the Chickasaw Nation's Junior Explorers. Chickasaw Nation. **\$3,311.**
- Smith, K. S., and N. J. Czaplewski. Geochronology of the Monarch Mill Formation and Eastgate Fauna in West Central Nevada, and Exploration and Collection of Fossil Vertebrates from Pliocene Deposits in Southwestern New Mexico. Cherokee Nation, Chickasaw Nation, Native Explorers Foundation, and Whitten-Burrage Law Firm. **\$32,151.**
- Swan, D. Dissertation research grant (with J. Doucette), Oklahoma Educators Evolve, OSU-EPSCoR, National Science Foundation. **\$23,935.**
- Swan, D. Exhibition/Publication Grant, Osage Weddings. Office of the Principal Chief, Osage Nation, Pawhuska, Oklahoma. **\$1,000.**
- Swan, D. Foundations Grant (with A. Minks and J. Nelson). Community Archiving of Native American Music: Best Practices for Institutional Facilitation. National Endowment for the Humanities. **\$39,838.**
- Swan, D. Program Grant, Oklahoma Native American Youth Language Fair, Sam Noble Museum. Wyandotte Nation, Oklahoma. **\$5,500.**
- Swan, D. Program Grant, Oklahoma Native American Youth Language Fair, Sam Noble Museum. Chickasaw Nation, Oklahoma. **\$2,500.**



**5,200**  
**LEDGER**  
**PAGES**  
 digitally preserved by  
 the Native American  
 Languages department





- Swan, D. Publication Grant, Fields Family Exhibition Catalog. Osage Nation Foundation, Southlake, TX. **\$15,000.**
- Swan, D. Research Travel Award, Publication Development. College of Arts and Sciences, University of Oklahoma. **\$1,043.**
- Swan, D. Research Travel Award, Publication Development. Department of Anthropology, University of Oklahoma. **\$522.**
- Swan, D. Native American Youth Language Fair Coordinator. Ronald Coleman Fund, University of Oklahoma Foundation. **\$2,000.**
- Swan, D. Travel Award. American Folklore Society,

Miami, FL, Committee A, Sam Noble Oklahoma Museum of Natural History, University of Oklahoma. **\$1,800.**

- Wang, K. Rapid Herpetofaunal Diversity Survey of the Upper-middle Reaches of Lancang River in Tibet and Yunnan, China. Lancang River Conservation Fund from the Shanshui Conservation Center, China. **\$7,467.**
- Wang, K. Comparative Phylogeography of Agamid Lizards of the Genus *Japalura* Across Montane-river Corridors in the Hengduan Mountain Region. Open-Access Research Grant of State Key Laboratory of Genetic Resources and Evolution, Kunming Institute of Zoology, Chinese Academy of Sciences. **\$18,000.**

*The Cherokee Immersion Charter School performs in the Oklahoma Native American Youth Language Fair.*



Volunteer Neil Garrison demonstrates his flint knapping skills during Archaeology Day.

## Archaeology

The archaeology department was awarded three new curation contracts with federal agencies and grants for NAGPRA-related collections work and archaeological research. Archaeology department staff published several peer-reviewed publications, presented at national and international conferences, and welcomed the public to the museum to celebrate Archaeology Day, which was held in October.

## Ethnology

Ethnology grew the collection, adding 289 objects through gifts and purchases. The planning and development of publications to complement the upcoming Fields Family Art and the Osage Weddings exhibitions continued. The department also supported a robust undergraduate internship and volunteer program, providing opportunities for 19 and 11 individuals, respectively.



Osage wedding regalia from the Ethnology collection that will be featured in the upcoming Osage Weddings exhibition.

## Vertebrate Paleontology

**Richard Cifelli, Ph.D.**, was awarded the Joseph T. Gregory Award from the Society of Vertebrate Paleontology for his outstanding service to the welfare of the society. Curators, staff and students conducted field work at various sites in the United States, including Oklahoma, Texas, New Mexico, Nevada, Utah and Montana. In collaboration with the museum's exhibits department, the department loaned the holotype skull of *Aquilops americanus* to the Fukui Prefecture Museum in Japan, where it was featured in a major exhibit.

## Integrated Pest Management:

Staff in the Department of Integrated Pest Management revised and updated the Isolation, Trapping and Bugroom databases, reviewed and updated IPM and Dermestid Facility Procedures, and cleaned and decluttered isolation and bugroom spaces. The O2 monitor and HEPA vacuum were both replaced.



Poster for the *Aquilops americanus* exhibit at the Fukui Prefecture Museum in Japan





A new brochure highlighting the work of the Native American Languages collection.

**160** *rare audio recordings digitally preserved by the Native American Languages department*

## Invertebrate Paleontology

Staff of the invertebrate paleontology collection published six articles in referred journals; a seventh article is in press. They also participated in the first official National Park Service "Paleoblitz" at the Chickasaw National Recreation Area in Sulphur, Oklahoma, in May. The two-day event allowed the public to work with expert paleontologists and researchers to examine and inventory fossils in the park.

## Ichthyology

The ichthyology department began a collection-wide inventory, the first since the collection was moved into the new building. This project includes a reorganization of the collection to maximize space and to create a system for better finding individual lots. This project also includes data clean-up and addresses conservation and preservation issues of failing gaskets and low alcohol levels.

## Native American Languages

In collaboration with representatives of two Oklahoma tribes, the Wichita & Affiliated Tribes of Oklahoma and the Chickasaw Nation, 160 rare audio recordings and more than 5,200 ledger pages containing handwritten text and establishing associated metadata were preserved, archived and made accessible. A three-year project to re-catalog the collection backlog from years 2002-2015 and update the collection's standardized cataloging guide and department policies and forms was completed. A campaign to generate new interest in the services of NAL and its successes since its inception was initiated.

## Ornithology

**Matthew J. Miller, Ph.D.**, assumed the new ornithology curator position in June 2016. Miller led four collecting trips covering eight counties in Oklahoma and six counties in Texas and collected 215 specimens that

*The genomic resources  
collection currently contains*

**16,947** *samples*

include 36 species. The collecting efforts focused on the species that hybridize in Oklahoma, including *Melanerpes* woodpeckers. The ornithology collection acquired four additional specimen cases that will allow the expansion of the collection that is projected for the next several years.

## Genomic Resources

The collection continues to grow in size and taxonomic diversity; it currently contains 16,947 samples and 40,546 aliquots from 492 genera and 847 species. With support from the Institute of Museum and Library Services, the entire collection was moved from the minus 80 C freezers to the new liquid nitrogen freezers. This new storage system will provide better long-term storage and eliminate the collection's dependence on electrical power.

## Mammalogy

Inventory of the collection is nearing completion; more than 48,000 images of specimen tags have been added to

**10** *New species  
discovered and  
described by the  
Siler Lab*



the database. The project to assess the presence of the Texas Kangaroo Rat in Oklahoma began its final year. The results will provide critical information for evaluating the status of this species. **Brandi Coyner** was selected for NormanNEXT Under 40 and for the OU Staff Leadership Council. A search for a new curator of mammals was initiated; **Hayley Lanier, Ph.D.**, will be joining the museum staff in fall 2017.

## Herpetology

**Cameron Siler, Ph.D.**, his staff and students were responsible for the discovery and description of 10 new species, one new genus and one new family of amphibians and reptiles in 2016. An exciting new state wildlife grant will initiate a new pilot program for applying environmental DNA technologies to monitor rare and threatened, or invasive, aquatic species in Oklahoma. The method can screen filtered freshwater for trace amounts of organismal genetic material floating in the environment.

## COLLECTION GROWTH

How do we grow the collections?

- Field collections
- Repository agreement depositions
- Donations
- Inter-institutional transfers

**289**

*Ethnology*

**13,321**

*Recent Invertebrates*

**434,952**

*Archaeology*

**700+** *type specimens from  
the Leisman collection  
were located.*

## Paleobotany, Micropaleontology, Mineralogy

Staff and an undergraduate student found and collected a new productive locality of Permian Flowerpot Formation palynomorphs from Greer County, Oklahoma. More than 700 type specimens ("type series") of seven taxa from the adopted Dr. Gilbert A. Leisman orphan collection were located. And, a "Gallery of Collectors" web feature was launched to recognize some of the major builders of the collection and to share data about their specimens while collecting feedback (crowdsourcing) about specimens with missing data.

## Recent Invertebrates

Activities continued for the three-year NSF-funded collection revitalization project. The construction of the compactor system was completed and 80 percent of the pinned insect collection (the largest part of the

collection) has been re-curated. **Melissa Sadir** joined the department as collection manager in October and has been instrumental in helping reorganize the new Alcohol and Mollusk collection space. Research continues on Linda's Roadside Skippers in Oklahoma and the museum's Centennial Prairie was established as a Monarch Butterfly Waystation.

## Registrar's Office

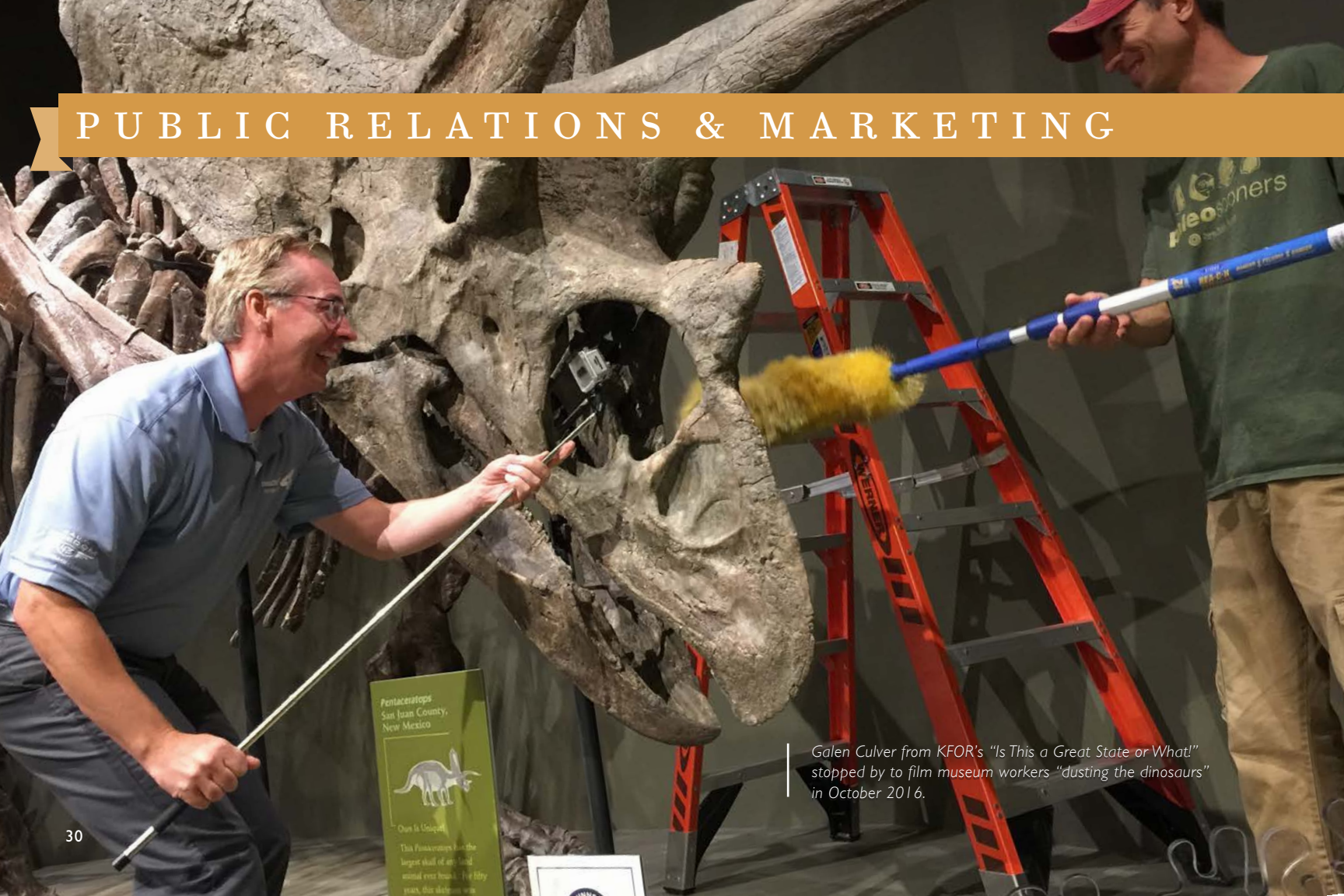
**Karen Whitecotton** joined the museum staff as registrar in September. Many museum permits and policies were revised and renewed, including the Museum's Collection Response and Recovery Plan, three USDA APHIS permits, three USFWS permits and one CITES permit. Collections records were updated, including 283 new accessions and 168 record modifications. Donor and accession records were combined and work continues to rehouse these records in acid-free folders. The departmental library was completely reorganized.



*Linda's Roadside Skipper.*  
Photo courtesy of Nick V. Grishin.



## PUBLIC RELATIONS & MARKETING



Galen Culver from KFOR's "Is This a Great State or What!" stopped by to film museum workers "dusting the dinosaurs" in October 2016.

## MARKETING IMPACT

### Communication is the key

The museum's PR and marketing team promotes the museum and its programs, special events, collections and exhibits through social media, news releases, website content, media spots, paid advertising and email marketing. The department strives to connect the right audience to the right information and increase museum attendance, program participation and all-around awareness of the museum and its mission.

PR and marketing team members helped organize the arrival of the traveling exhibit "First Folio! The Book That Gave Us Shakespeare" and promoted the once-in-a-lifetime event to audiences throughout the state. The museum hosted the rare book in honor of the 400th anniversary of Shakespeare's death in 1616.

In summer 2016, the department collaborated with the National Endowment of the Arts, Blue Star Families, the Department of Defense and more than 2,000 museums across the country to offer complimentary admission to all

active duty military personnel, veterans and their families from Memorial Day through Labor Day. The museum welcomed 5,192 individuals during the 2016 program.

Responding to a surge in Pokémon GO fans, the PR and marketing team partnered with the Fred Jones Jr. Museum of Art to orchestrate a "Pokémon & Popsicles" event that brought about 300 people to the natural history museum to hunt for Pokemon among the dinosaurs and other exhibits and enjoy complimentary admission during the special evening event.

For the first time ever, the department invited one of Norman's favorite sno-cone vendors, Eskimo Sno, to serve up free sno-cones on the museum lawn throughout summer 2016. The museum kicked off its first "Sno-Cones at the Sam" on World Snake Day in July as hundreds flocked to the museum to see live snakes, witness snake demonstrations and learn more about these fascinating slithering creatures.



**10,572**  
Facebook fans  
12% increase



**2,887**  
Twitter followers  
17% increase



**1,272**  
Instagram subscribers  
43% increase



**10,431**  
eNews subscribers  
50% increase



**76**  
News releases



**239**  
Stories published

## 2016 NUMBERS

■ 119,215 ■

*Museum visitors*

■ 42 ■

*Active grants and contracts  
awarded to museum staff*

■ 10,572 ■

*Followers on facebook*

■ 13,321 ■

*Items added to the recent  
invertebrates collection*

■ 8 ■

*Special exhibits*

■ 2,887 ■

*Followers on Twitter*

■ 480,366 ■

*Collection objects cataloged*



■61■

*Papers published by  
museum staff*

■1,339■

*Spooktacular visitors*

■70+■

*Conference presentations given  
by collections staff*

■4,363■

*Spring break escape visitors*

■9,059■

*Objects and specimens loaned*

121 loans

■5,192■

*Blue Star Museum visitors*

■1,186■

*ONAYLF participants*

## 2016 FINANCIALS

■\$10,258■

*Birthday parties*

1,207 participants

■\$2,700,000■

*Grants and contracts*

42 active contracts

■\$302,753■

*Museum store*

■\$96,950■

*Program fees*

17,156 visitors

■\$265,225■

*Admissions*

119,215 total attendance

■\$108,268■

*Gifts*

■\$69,831■

*Memberships*

1,386 memberships

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*Special events*

14,462 participants

TOTAL REVENUE: \$4.9 Million

TOTAL EXPENSES: \$4.9 Million



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in the Philippines.

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Jessa Watters, collection manager  
for the herpetology collection,  
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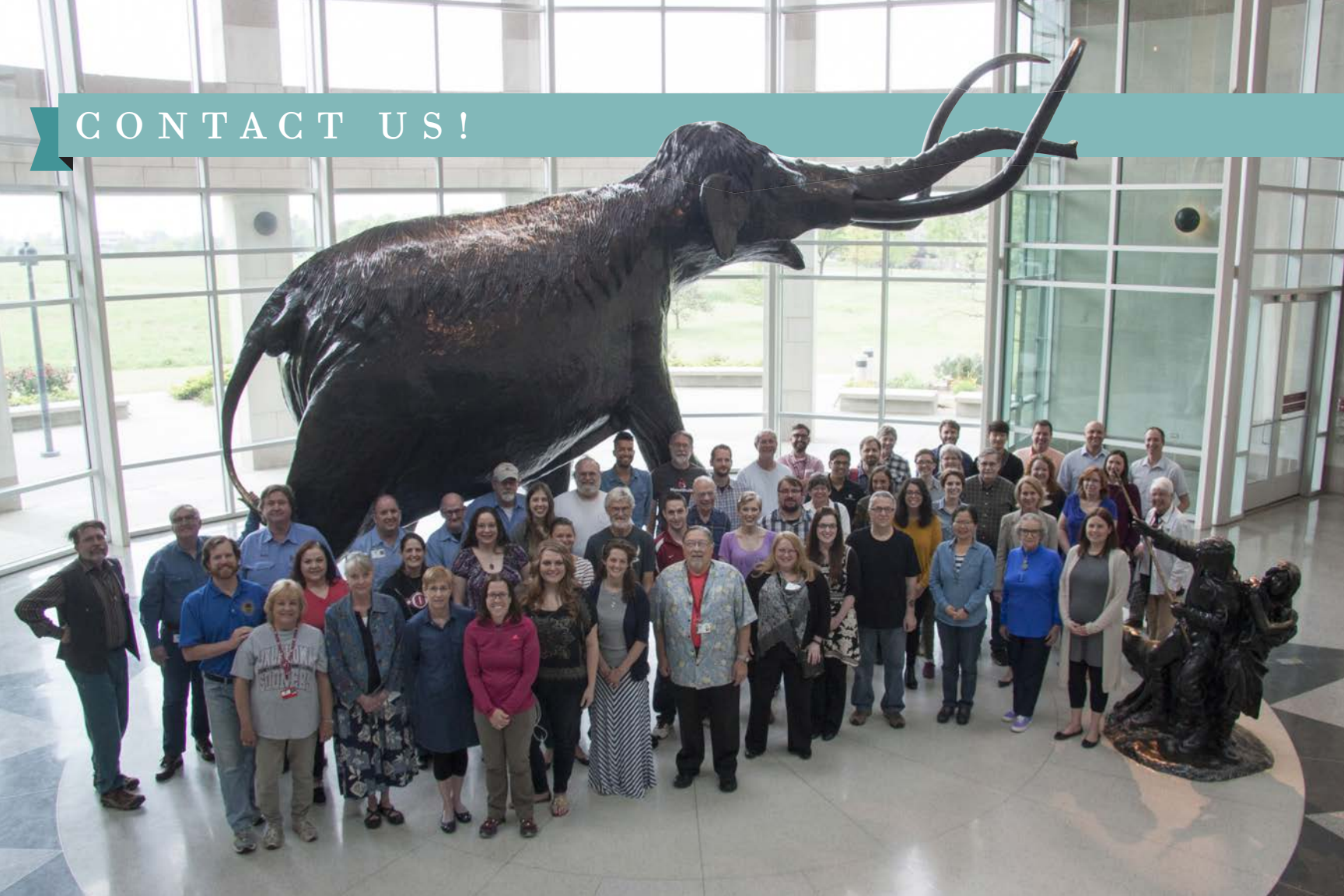
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Warner, Emily  
Weaver, Ryan  
Weeks, Bob  
Wellham, Emily  
Welsh, Dorothy  
Whipkey, Benjamin  
Whitecotton, Karen  
Whitsett, Collin  
Wilbert, Greg  
Williams, Katelyn  
Williams, Mary  
Williamson, Mary Ann  
Wilson, Heather  
Winfrey, Claire  
Woods, Jessica  
Workman, Amber  
Yeakley, Heather  
Zhou, Chelsea



Sam Noble Museum  
volunteers contributed  
a total of  
**22,129**  
**HOURS.**



CONTACT US!





## Sam Noble Museum

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Norman, OK 73072-7029

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