



SAM NOBLE MUSEUM ANNUAL REPORT 2015

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On the cover: Best in Heritage awards to be presented to selected Projects of Influence during the annual conference in Dubrovnik, Croatia.



SAM NOBLE MUSEUM **ANNUAL REPORT 2015**

FROM THE DIRECTOR

2015 was another truly exceptional year for the Sam Noble Museum. Following receipt of the National Medal from the Institute for Museum and Library Services (IMLS) and reaccreditation by the American Alliance of Museums in 2014, the museum was one of only two American museums invited to the Best in Heritage conference in Dubrovnik, Croatia.

Organized in 2002 by the European Heritage Association, Best in Heritage is an international annual conference of award-winning museums, heritage and conservation projects hosted every year in Dubrovnik, a UNESCO World Heritage Site.

As a result of presenting at the Best in Heritage, the Sam Noble Museum was inducted into the Excellence Club – a club consisting of museums and heritage and conservation projects that includes such members as the British Museum, Casa Batlló (Barcelona), Canadian Museum of Nature, Museum of London, National Museum of Ireland, New Acropolis Museum (Athens) and the Victoria and

Albert Museum. It was an honor to participate and be included with so many exceptional museums.

Educating the public through exhibitions and programs that increase scientific literacy for all ages is part of our mission and a mandate from the State of Oklahoma. Two very special exhibits were developed by curators and staff in 2015 in addition to the museum hosting three traveling exhibitions.

In celebration of the University of Oklahoma's 125th anniversary, staff developed several exhibits. *Collision & Creation: Indigenous Arts of the Americas, 1890–2015* included 177 objects from the ethnology collection displayed salon style. *Through the Eyes of the Lynx: Galileo, Natural History and the Americas* was the first of two



Museum director Michael Mares gives a presentation at the Best in Heritage award ceremony in Dubrovnik, Croatia.

Galileo's World exhibits developed with the History of Science Collection of the University of Oklahoma Libraries.

Last year, curators and staff received \$1.85 million in new and continuing research grants and work began on two infrastructure projects made possible with funds from the National Science Foundation and the Institute of Museum and Library Services. 172,599 specimens and objects were cataloged and digitized and 47 publications were published on research throughout Oklahoma and the world.

Education programs benefited more than 40,000 students in 2015, including 20,000 who visited the museum on school field trips. Activities and programs throughout the museum during Spring Break Escape attracted 5,000 and the 13th annual Oklahoma Native American Youth Language Fair had a record 2,600 participants during the two-day event.

Volunteers (232 adults) donated 22,000 hours of their time in our exhibits, collections and labs. ExplorOlogy®, made

possible by a grant from the Oklahoma Energy Resources Board (OERB), continued to provide young people with life-changing experiences in the field with scientists and educators showing the role that science can play in their future. 2,700 participated in ExplorOlogy® In Motion programs around the state.

Being recognized with a National Medal in 2014 and then internationally in 2015 as a member of the Excellence Club, has been one of the greatest honors for the museum and for me as director. My hope is that we will continue to grow with your support and the support of the University of Oklahoma and the state of Oklahoma.



Dr. Michael A. Mares, Director



The Sam Noble Museum
was one of only
28 MUSEUMS
worldwide to receive
recognition from the
Best in Heritage.

EXHIBITS



Charles M. Russell's *To the Victor Belong the Spoils* was included in the *Harmless Hunter* exhibit.

© Charles M. Russell, 1901. JKM Collection®, National Museum of Wildlife Art.

Temporary Exhibits

Fred E. and Enid Brown Gallery

Harmless Hunter: The Wildlife Work of Charles M. Russell, one of the most popular and influential American wildlife artists of his time, went on display in January featuring paintings, sketches and sculptures by the artist.

In May, *Audubon and the Art of Birds* celebrated the work of John James Audubon, one of the most enduring figures in American Art, the conservation of nature and the study of birds.

Some 35 of Audubon's works and those by about 70 other artists, from before and after his time, were featured in this beautifully organized exhibit, showing how bird art evolved from the 1500s to the present day and illustrating Audubon's unique genius. The exhibit included bird woodcuts, etchings and paintings by various artists from the Renaissance to the present.



A detail from Audubon's *Gyr Falcon*.
Bell Museum of Natural History, University of Minnesota.



I was taught that our arts carry the spirit of the people. It is through art that we know ourselves. It's through art that we will go forward into the world and it is through art that our cultures will be remembered.

—JC

A basket donated by OU President David Boren and his wife, Molly, anchors *Collision and Creation*.

Collision & Creation: Indigenous Arts of the Americas 1890 – 2015, was developed in celebration of the University of Oklahoma's 125th anniversary. The exhibit examined the conquest and colonization of the Western Hemisphere by Europeans beginning in the 1500s and the subsequent era of oppression of indigenous peoples. The harsh realities of European conquest fostered new forms of artistic expression and brought together a unique mixture of people, materials and ideas that influenced the history and future of indigenous arts. Today, indigenous arts in the Americas reflect people's efforts to balance traditions with contemporary community life.

Dorothy C. Higginbotham Gallery:

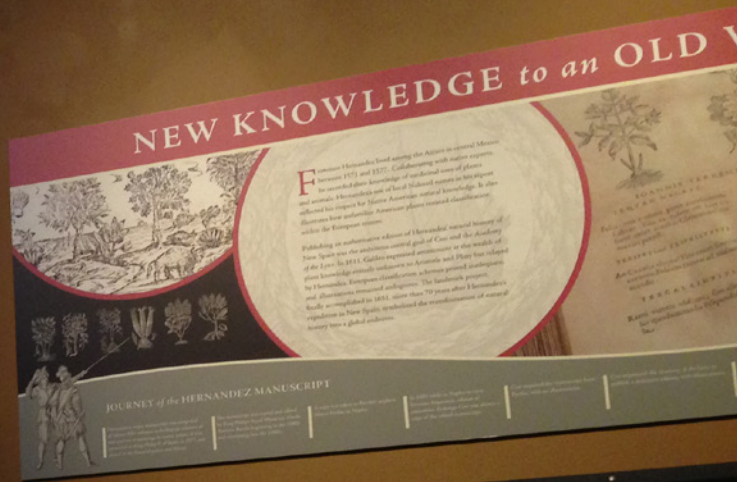
In January, we welcomed *A Forest Journey: How Trees Shape Our World*, a journey through time from modern day trees to their prehistoric counterparts. From deforestation and erosion, to fuel and product uses,



Navajo rugs adorn the north wall of the Fred E. and Enid Brown Gallery during *Collision and Creation*.



Collision and Creation
included an extraordinary
177 OBJECTS
from the museum's
Ethnology collection



10

this exhibit illustrated the diversity of needs and effects trees have environmentally, socially, communally and economically.

As part of OU's 125th anniversary celebration, *Through the Eyes of the Lynx*, the first of two *Galileo's World* exhibitions developed in collaboration with the University Libraries and the History of Science Collections, opened in August.

This exhibit showcased the written works of The Academy of the Lynx, one of the world's earliest scientific societies. Their work stretched Europeans' understanding of the life sciences, and its most well-known member, Galileo Galilei, brought his expertise in mathematics, engineering, literature, art and medicine, expanding the Lynx's understanding of the physical sciences.



In February, the museum hosted a special traveling exhibition, *Enriched! Paintings by Oklahoma City Zoo Animals*, which was displayed in the education hallway.

Animals at the Oklahoma City Zoo, such as the orangutan (work featured above) are encouraged to paint, which provides the animals with new sights, smells and textures that enrich their lives.

Periodically, the painted canvases are sold so that the proceeds can be donated to designated animal conservation projects.

EDUCATION



Collaboration

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

In 2015, the museum continued work on a multi-year grant awarded by the Institute of Museum and Library Sciences (IMLS) to make quality science resources accessible to all K–12 teachers in Oklahoma. In collaboration with collections departments, the museum developed transportable curricula kits with objects that can be shipped to any school in the state.

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 40,000 participants. School field trip visitation increased with over 19,500 students and teachers.

Explorology® completed a successful eighth year, giving students and teachers an opportunity to work with scientists in the field and actively engage with science. In 2015, through field programming and outreach to schools, Explorology® reached 3,131 participants.



40,000+
STUDENTS
benefitted from education
programs in 2015



12

*Paleo Expedition
participants*

27

*Science Escape
participants*

14

*Oklahoma Science
Adventure participants*

2,697

*ExplorOlogy® In Motion
participants*

SCHOOL PROGRAMS

19,723

Field trip participants

7,726

Education class participants

151

Teacher workshop participants

MSP, UOSSL, Science Institute



Charles Baker



Public Program
Participation

1,668 YOUTH

49 ADULT

145 FAMILY

PUBLIC OUTREACH

63

Discovery Kits

Over 1,650 participants

1,104

*Summer Explorers
participants*

98 Sessions

5,291

*Outreach event
participants*

54,124

Discovery Room visitors

9,537

Museum event attendance

Spring Break Escape Sooner
Museum Quest

91

Discovery Room sessions

1,059 Participants

452

Visitors

Science in Action and
Object ID Day

VOLUNTEERS

Our unique group of dedicated volunteers provided the museum 21,659 hours of service. The museum's volunteer program provided training sessions, lectures and field trips to 253 adult and teen volunteer participants.



232

Adult volunteers

Contributing 21,659 hours

21

Teen volunteers

Contributing 1,050 hours

Long-time volunteer, Bill Miller, discusses an object in the Hall of the People of Oklahoma



2015 Volunteer of the Year
RON W. HAYES

RESEARCH & COLLECTIONS



Overview

As Oklahoma's state museum of natural history, the Sam Noble Museum is mandated to collect and maintain specimens and objects for current and future 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 were begun in 2015. Funds from the National Science Foundation are providing a compactor system, new cases, and assistance in re-curating the rapidly growing Collection of Recent Invertebrates. With the support of the Institute of Museum and Library Services, tissues in the Oklahoma Collection of Genomic Resources are being moved into a liquid nitrogen storage system—a system that will provide state-of-the-art preservation and ensure the long-term security of the collection.

In 2015, 172,599 specimens and objects were cataloged and digitized, including about 125,000 archaeological objects, 25,000 fish, and 11,000 invertebrates. Digitization of the collections is

an ongoing process that began in the 1980s. Current digitization activities in the museum's biodiversity collection are part of a 10-year national commitment initiated by the National Science Foundation and the White House Office of Science and Technology Policy.

Curators, staff, students, volunteers and research associates use collection objects and specimens in education and in scientific research that preserves and develops a greater understanding and appreciation of natural resources and human cultural heritage. Research topics were diverse and, among others, examined tree bats and rodents of the New World, amphibians and reptiles of Southeast Asia, early Cretaceous small mammals, Cambrian and Ordovician invertebrates, pottery economics and life in Postclassic Mexico, and topics in museum studies. The Museum also contributes to educating the next generation.

In 2015, 39 undergraduate students were given opportunities to discover, learn, and preserve specimens through participation in research and collections management activities.



172,599
SPECIMENS
were cataloged and
digitized in 2015

Grants

During 2015, curators, staff and students conducted research throughout Oklahoma and the world. Approximately \$1.85 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. **\$45,045.**
- Davis, B. M., and R. L. Cifelli. In Quest of Middle Jurassic

Vertebrates from North America. National Geographic Society. **\$8,010.**

- Fishman-Armstrong, S. Cooperative Agreement, Bureau of Reclamation Modification 5 (10/1/2014–9/30/2015). **\$32,256**
- Levine, M., and S. Fishman-Armstrong. Archaeological Curation Services at the Sam Noble Oklahoma Museum of Natural History of the University of Oklahoma. U.S. Army Tulsa District, Corps of Engineers, Modification 6 (April 2014–March 2015). **\$26,552.**
- Levine, M., and S. Fishman-Armstrong. Archaeological Curation Services at the Sam Noble Oklahoma Museum Of Natural History of the University of Oklahoma. U.S. Army Tulsa District, Corps of Engineers, Modification 7 (April 2014–March 2015). **\$85,595.**
- Levine, M., and S. Fishman-Armstrong. Archaeological Curation Services at the Sam Noble Oklahoma Museum Of Natural History of the University of

24

Active grants
Totaling \$1,850,000

47

Publications
33 in press

75

Presentations

Oklahoma. U.S. Army Tulsa District, Corps of Engineers, five-year contract from 2015 to 2020 (August 2015 – 2016). **\$125,768.**

- Levine, M., and S. Fishman-Armstrong. Documentation and Consultation Grant. National NAGPRA. **\$90,000.**
- Lupia, R. Investigation of the Ultrastructure of Early Permian Taeniate Pollen from Oklahoma. University of Oklahoma Norman Campus Research Council Faculty Investment Program. **\$14,963.**
- 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 D. K. Lindauer. Morphological

Divergence of *Tropidophorus*. University of Oklahoma, Honors College, Undergraduate Research Opportunities Program. **\$500.**

- Siler, C. D. University of Oklahoma Junior Faculty Fellowship. **\$7,000.**
- Siler, C. D., and J. L. Watters. Conservation Action Now (CAN) Grant, Oklahoma City Zoo: Seasonal Variation in *Batrachochytrium dendrobatidis* (Bd) and Ranavirus Detection in Amphibians in Central Oklahoma. **\$2,500.**
- 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.**
- Siler, C. D., and M. L. Penrod. Differences in Microsatellite Loci for *Lithobates sphenoccephalus* in Oklahoma. University of Oklahoma, Honors College,



Undergraduate Research Opportunities Program.
\$999.

- 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. Native Explorers Program: Exploration and Collection of Fossil Vertebrates from Miocene Deposits in North Central New Mexico and the Oklahoma Panhandle and Western Counties. Chickasaw Nation and Whitten-Burrage Law Firm. **\$34,111.**
- Smith, K. S., and N. J. Czaplewski. Osage County Interlocal Cooperative (Oklahoma), including Native Explorers. Project AAIMS' (Advancing American Indians in Medical and STEM Careers). USDE, Demonstration Grants, Native Youth Community Projects. **~\$8,000/yr.**
- Swan, D. C. Exhibition/ Publication Grant, Osage

Weddings. Office of the Principal Chief, Osage Nation, Pawhuska, Oklahoma. **\$1,000.**

- Swan, D. C. Program Grant, Oklahoma Native American Youth Language Fair, Sam Noble Museum, Cyril Foundation. **\$10,000.**
- Swan, D. C. Program Grant, Oklahoma Native American Youth Language Fair, Sam Noble Museum, Chickasaw Nation. **\$2,500.**
- Swan, D. C. Program Grant, Oklahoma Native American Youth Language Fair, Sam Noble Museum, Sac and Fox Nation. **\$5,000.**
- Swan, D. C. Program Grant, Oklahoma Native American Youth Language Fair, Sam Noble Museum, Choctaw Nation of Oklahoma. **\$1,000.**
- Swan, D. C., and P. McIntosh. Exhibition Grant. Collision and Creation: Native Arts of the Americas, 1890–2015. Norman Arts Council. **\$5,000.**

COLLECTION GROWTH

How do we grow the collections?

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

10,825

Recent Invertebrates

24,772

Ichthyology

124,877

Archaeology



153

*Objects added to the
Ethnology collection*

Archaeology

The department celebrated “International Archaeology Day” at the museum on October 17th, 2015. Festivities included flintknapping and atlatl demonstrations, archaeology-themed arts and crafts, tours of the exhibits and collections. Through participation in the Army Corps of Engineers Veterans Curation Program, 97 boxes of archaeological material and three boxes of associated documentation was transferred to the St. Louis District to be processed by veterans. The museum will continue its compliance with the Native American Graves Protection and Repatriation Act with the awarding of a documentation/consultation grant from the National Park Service.

Ethnology

Ethnology continued to grow the collection, adding 153 objects through gifts and purchases, including a

gift of a set of George “Dutch” Silverhorn sketches and a purchase of a set of Osage wedding regalia. The department also facilitated an international loan of 52 Roman epigraphic fragments for study by the OU Classics Department, as well as engaged in a number of collection-based projects and research endeavors while supporting a robust undergraduate internship and volunteer program.



Osage wedding regalia added to the Ethnology collection in 2015.

The Aquilops skull is approximately
105 *million years old*

Vertebrate Paleontology

The skull of the *Aquilops*, the oldest species of horned dinosaur known from North America, was placed on permanent display in the Hall of Ancient Life. Curators and staff also worked with the Education Department to develop Discovery Kits for paleo and life sciences, a project funded by a grant from the Institute of Museum and Library Services.



170+ *Languages represented
in the Native American
Languages collection*

Invertebrate Paleontology

Curator **Steve Westrop** and former Ph.D. student **Jesse Carlucci** led a four day field trip of international researchers on the Ordovician of the Arbuckle and Ouachita Mountains of Southern Oklahoma as part of the 12th International Conference on the Ordovician System. The trip culminated with the establishment of an international reference point for part of the standard geological time scale (Katian Stage of the Ordovician Period) at Black Knob Ridge, near Atoka—one of only five such reference points defined in the United States.

Native American Languages

Native American Languages successfully executed the 13th Annual Oklahoma Native American Youth Language Fair, achieving record turnout. 2015 was also the 2nd year in a 3-year project to re-accession, re-house and re-number all print, audio and video materials within



**MORE THAN
40 LANGUAGES**
were performed or written
during the 13th annual
Oklahoma Native American
Youth Language Fair



the archive. The project will conclude in 2016. The department's standing amongst the world's language archives continues to grow, with the collection now representing more than 170 Native North American languages.

Ornithology

The search for a new Ornithology Curator was completed and **Matthew Miller, Ph.D.**, a genomic ornithologist, will join the staff in June 2016. With help of student assistants and volunteers, all mounts, a majority of skeletons and about a third of the egg collection were inventoried, and their labels and egg cards were photographed to preserve the information digitally. The Sam Noble Museum was a sponsor of the joint meeting of the North American Ornithological Societies and **Tamaki Yuri, Ph.D.**, collection manager, served as a local committee member.



Paleobotany, Micropaleontology, Mineralogy

The third-in-series Cretaceous megaspore flora from Maryland was published and included descriptions of two new species (one holotype in our collection). Dr. Leonard "Dick" Wilson's Permian Flowerpot Formation site, unstudied since his classic 1962 paper, was recollected and reprocessed. The ongoing inventory of the Gilbert A. Leisman Collection identified eight holotype specimens.

Mammalogy

Curatorial Associate **Brandi Coyner** was selected as the first University of Oklahoma College of Arts & Sciences Young Alumnus. Curator **Janet Braun** was recognized for 30 years of service to the University of Oklahoma. Inventory of the collection continues, including the imaging



Megaspore Arcellites hexapartitus

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



10,825

Specimens added to the Recent Invertebrates collection



of specimen labels. The department staff accepted the donation of the young female elephant Malee from the Oklahoma City Zoo. Over 30 staff, students, and volunteers contributed more than 170 hours to the preparation of the skeleton, which also was a teaching opportunity in the anatomy of these unique mammals.

Herpetology

The Siler Lab discovered and described eight new species (seven lizards and one nematode). The first study of historical records of infectious amphibian disease in the state of Oklahoma was completed through the screening of specimens in natural history collections. A Citizen Science Program that brings together collaborators from the Herpetology and Education Departments, the OKC Zoo, and Oklahoma K–12 teachers was initiated to monitor the presence of amphibian infectious disease in the state.

Recent Invertebrates

The collection is undergoing a major infrastructure upgrade with funding from the National Science Foundation. Compactors, new cases and drawers and new shelving that will begin to be installed in early 2016 will allow for proper housing of specimens and growth of the collection. Despite the spring flooding, the first year of the Linda's Roadside Skipper grant was successful and several new possible county and state records of Skipper butterflies were found.

Ichthyology

The Ichthyology department began and completed a project to preserve the original handwritten catalogue by encapsulating the pages in archival mylar. They also completed the cataloguing of 1,897 lots and 30,559 specimens that were the result of a state wildlife grant to Bill Matthews, Ph.D. and former curator Edie Marsh-Matthews, Ph.D.





13,903

*Samples in the Oklahoma
Collection of Genomic Resources*

Genomic Resources

A grant received from the Institute of Museum and Library Services will allow the installation of a new storage system using liquid nitrogen vapor. This will provide better long-term storage and eliminate the dependence on electrical power. The collection continues to grow in size, taxonomic diversity, and geographic coverage. It currently contains 13,903 samples and 36,872 aliquots from 421 genera and 732 species.



41%

Decrease in pest activity

Integrated Pest Management:

This year the museum replaced its carbon dioxide tent ("bubble") and continued its cycle of replacement of treatment freezers.

Registrar's Office

The Registrar's office completed a major revision of the Collections Management Policy, bringing it into line with current best practices. Work continued towards ensuring that all objects and specimens in the permanent collections have been properly accessioned with the completion of 237 new accessions and revision of 102 accessions. With assistance from volunteers, an inventory was completed, and digitization of audiovisual materials in the Institutional Archives began, including promotional materials from the museum campaign in the 1990s such as the "It's About Time" radio ads.



Lois Gould Bird and Robert D. Bird, two attendees of the first meeting of the Oklahoma Wildlife Conference in the Wichita National Forest in June 1926. Photos like this one are being digitized and preserved through the efforts of the Registrar's office.

PUBLIC RELATIONS & MARKETING



The museum partnered with P-Bar Farms in Hydro, Oklahoma to create a 10-acre dino-themed corn maze.

SOCIAL MEDIA IMPACT

Communication is the key

Public relations and marketing promotes exhibits, programs, special events and research at the Sam Noble Museum. Working with Public Affairs at The University of Oklahoma, the department plans year round marketing, and is responsible for the museum's website, calendar, blog and social media.

The department is committed to bringing history and nature to life. From features on innovative uses of 3-D technology, to university-wide collaboration for exhibitions, the museum continually searches out compelling stories to share with our audiences.

In addition to managing a blog, located at www.samnoblemuseum.tumblr.com, the museum is active on several social media platforms, including Facebook, Twitter, YouTube and Instagram. These platforms give us the opportunity to develop a relationship with our followers.



Museum visitors enjoy the Hall of Ancient Life during the first annual Spike's Spooktacular event.

99

Press releases

425

Stories published



9,458
Facebook fans
15% increase



2,469
Twitter followers
25% increase



889
Instagram subscribers
82% increase



3,410
Tumblr likes and shares
52% increase in followers



6,955
eNews subscribers
44% increase

2015 FINANCIALS

■\$11,096■

Parties

66 Birthday Parties

■\$1,900,000■

Grants and Contracts

28 Active Contracts

■\$322,837■

Museum Store

■\$74,201■

Program Fees

19,903 Visitors

■\$205,837■

Admissions

128,490 Total Attendance

■\$205,430■

Gifts

■\$51,747■

Memberships

1,169 Membership

■\$114,204■

Special Events

18 Events

TOTAL REVENUE: \$5.1 Million

TOTAL EXPENSES: \$5.1 Million

2015 NUMBERS

■128,490■

Museum visitors

■24■

*Active grants and contracts
awarded to museum staff*

■9,458■

"Likes" on facebook

■6■

Special exhibits

■10,825■

*Items added to the recent
invertebrates collection*

■2,469■

Followers on twitter

■172,599■

Collection objects cataloged

47

*Papers published by
museum staff*

2,000

Spooktacular visitors

75

*Conference presentations given
by collections staff*

5,064

Spring break escape visitors

5,265

Objects and specimens loaned
96 loans

5,079

Blue Star Museum visitors

2,592

ONAYLF participants

2015 DONORS

Corporate Sponsors

Arvest Bank
BancFirst
Love's Travel Stops and Country
Stores
OK Bride
OK Gazette
Republic Bank and Trust
Sonic, America's Drive-In
VisitNorman
2 Green Chicks LLC

Sam Noble Circle

\$25,000 and up

Oklahoma Energy Resources Board
(OERB)
Capitoline Project/ENEL
The Bilby Foundation

Museum Circle

\$5,000–\$24,999

Reynotta Hoberecht
Michael & Lynn Mares
Steven Peck
Sac and Fox Nation
The Cyril Fund

Director's Circle

\$1,000–\$4,999

Janet Braun
Choctaw Nation of Oklahoma
Candace Mitchell

Oklahoma Zoological Society, Inc.

John & Angie Peck
The Chickasaw Nation
The Puterbaugh Foundation
William & Janet Romanishin

Curator's Circle

\$500–\$999

Mary Boutin
Laurella Desborough
David & Connie Dillon
William Green & Candace Schober
Greene
Howard & Donna Hall

Supporters

\$250–\$499

Sterling & Cheryl Baker
Christopher & Leslie Demers
Claude & Helen Duchon

First National Bank

Louise James
Dr. Michael Madden
Emma Maggard
Suhas Purushottam Patwardhan

Contributors

\$100–\$249

Trasen & Aerial Akers
Billy & Linda Baldwin
John & Margaret Biggs
Glen Brown
Kristi Carlson
Fred & Meg Carr
Dr. Robert Coalson
Tom & Edie Cohoon
Robert & Patricia Culbert
Herbert G. & Shirley Davis
Jeff & Nance Diamond
Dr. M. Pilar Escobar

Diana Farris
John & Sue Francis
Kim & Nancy Hauger
Dr. Joel Holloway
Ufot Inamete
Josh & Julie Kershen
Mike Sugg & Sandy Kinney
Paul & Eilene Kleine
Tommy & Abby Klepper
Joseph Kopta
Steve & Julie LaFollette
S. Mark Leidner
Barbara Lentz
Rodney & Kathy Linehan
Sean Wang & Andree Liu
Tom & Betty Love
Stan & Charlotte Luczycki
Romeo Mandanas
Tom & Monica McCasland

Courtney & Alun McLaughlin-Skitt
Kirk Milby & Rebecca Darrow
Paul & Ann Mogridge
Dr. Bill Osborne, Jr.
Karen Powell
Barbara Reynolds
Patricia Riggs
Ted & Marilyn Roberts
Neil & Kathy Schemmer
Don & Mary Sherman
Clyde & Jerry Snow
Billie Spector
Gerald Spotts
Jim Stone
John & Lynette Sutterfield
Bob & Claudia Swisher
Yuhong Tang
Theresa Vaughan & Kieran Mullen
John & Wynn Walker

Wichita & Affiliated Tribes
Gordon Williams, III
Brant & Carol Worthington
Leon & Rachel Zelby
Jason Zielke



SELECTED MUSEUM PUBLICATIONS

Baird, A. B., **J. K. Braun**, **M. A. Mares**, J. C. Morales, J. C. Patton, C. Tran, and J. W. Bickham. Molecular systematics and taxonomic revision of tree bats (*Lasiurus*): phylogenetic analysis reveals multiple invasions of the Hawaiian Islands. *Journal of Mammalogy* 96:1255–1274.

Braun, J. K. *Andalgalomys*. Pp. 469–472 in *South American Mammals* (J. L. Patton, U. F. J. Pardiñas, and G. D'Elia, eds.). University of Chicago Press, Chicago.

Braun, J. K., and J. L. Patton. *Graomys*. Pp. 523–531 in *South American Mammals* (J. L. Patton, U. F. J. Pardiñas, and G. D'Elia, eds.). University of Chicago Press, Chicago.

Braun, J. K., and U. F. J. Pardiñas. *Euneomys*. Pp. 83–89 in *South American Mammals* (J. L. Patton, U. F. J. Pardiñas, and G. D'Elia, eds.). University of Chicago Press, Chicago.

Braun, J. K., B. Yang, **M. A. Mares**, and S. B. Gonzalez-Perez. *Myotis yumanensis*. *Mammalian Species* 47(918):1–14.

Brown, R. M., **C. D. Siler**, S. Richards, A. C. Diesmos, and D. C. Cannatella. Multilocus phylogeny and a new classification for Southeast Asian and Melanesian forest frogs (family Ceratobatrachidae). *Zoological Journal of the Linnean Society* 174:130–168.

Bursey, C. R., S. R. Goldberg, **C. D. Siler**, and R. M. Brown. A new species of *Cosmocerca* (Nematoda: Cosmocercidae) and other helminths in *Cyrtodactylus gubaot* (Squamata: Gekkonidae) from the Philippines. *Acta Parasitologica* 60(4):675–681.

Carlucci, J. R., D. Goldman, C. E. Brett, **S. R. Westrop**, and S. A. Leslie. Katian GSSP and carbonates of the Simpson and Arbuckle Groups in Oklahoma: field trip guidebook. Pp. 144–202 in *The Ordovician Exposed: Short papers and abstracts for the 12th International Symposium on the Ordovician System* (S. A. Leslie, D. E. Goldman, and R. C. Orndoff, eds.). *Stratigraphy* 12:1–413.

2015 BOARD OF VISITORS

Cifelli, R. L. Zofia Kielan-Jaworowska (1925–2015): pioneering discoverer of early mammals. *Nature* 520: 158.

Cifelli, R. L., and B. M. Davis. Tribosphenic mammals from the Lower Cretaceous Cloverly Formation of Montana and Wyoming. *Journal of Vertebrate Paleontology* 35(3): DOI:10.1080/02724634.2014.920848.

Cifelli, R. L., J. Hurum, M. Borsuk-Bialynicka, Z.-X. Luo, and A. Kaim. In memorium: Zofia Kielan-Jaworowska (1925–2015). *Acta Palaeontologica Polonica* 60 (2):287–290.

Coyner, B. S., P. J. Murphy, and M. D. Matocq. Hybridization and asymmetric introgression across a narrow zone of contact between *Neotoma fuscipes* and *N. macrotis* (Rodentia: Cricetidae). *Biological Journal of the Linnean Society* 115:162–172.

Czaplewski, N. J., G. S. Morgan, J. Arroyo-Cabrales, and J. I. Mead. Late Pleistocene shrews and bats (Mammalia,

Jonathan Fowler, Chair
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Soricomorpha and Chiroptera) from a Neotropical/ Nearctic transitional locality in Sonora, Mexico. *Southwestern Naturalist* 59(4):487–499.

Davis, D. R., **J. L. Watters**, G. Köhler, C. Whitsett, **N. A. Huron**, R. M. Brown, A. C. Diesmos, and **C. D. Siler**. Redescription of the rare Philippine false gecko *Pseudogekko brevipes* (Reptilia: Squamata: Gekkonidae) and description of a new species. *Zootaxa* 4020:357–374.

Diesmos, A. C., **J. L. Watters**, **N. A. Huron**, D. R. Davis, A. C. Alcalá, R. I. Crombie, L. E. Afuang, G. Gee-Das, R. V. Sison, M. B. Sanguila, M. L. Penrod, M. J. Labonte, C. S. Davey, E. A. Leone, M. L. Diesmos, E. Y. Sy, L. J. Welton, R. M. Brown, and **C. D. Siler**. Amphibians of the Philippines, Part I: checklist of the species. *Proceedings of the California Academy of Sciences*, series 4, 62 (3:20):457–539.

Fishman-Armstrong, S. Session review “Ideas for every museum from Colorado’s connecting to collection

project.” *Registrar’s Committee Newsletter, Mountain-Plains Museums Association* Spring 2015:5–7.

Fishman-Armstrong, S. Session review “Recharge/ repurpose/reinvent: strategies for museum ‘lifers.’” *Registrar’s Committee Newsletter, Mountain-Plains Museums Association* Spring 2015:3–5.

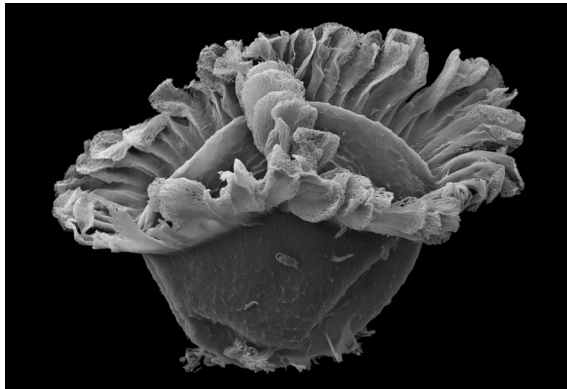
Landing, E., and **S. R. Westrop**. Late Cambrian (middle Furongian) shallow-marine, dysoxic mudstone with calcrete and brachiopod–olenid–*Lotagnostus* faunas in Avalonian Cape Breton Island, Nova Scotia. *Geological Magazine* 152:973–992.

Lanzone, C., and **J. K. Braun**. *Salinomys*. Pp. 555–556 in *South American Mammals* (J. L. Patton, U. F. J. Pardiñas, and G. D’Elia, eds.). University of Chicago Press, Chicago.

Lanzone, C., **J. K. Braun**, J. L. Patton, and U. F. J. Pardiñas. *Eligmodontia*. Pp. 508–522 in *South American Mammals*

(J. L. Patton, U. F. J. Pardiñas, and G. D'Elia, eds.). University of Chicago Press, Chicago.

Lupia, R. Mid-Cretaceous megaspores floras from Maryland, USA. *Journal of Paleontology* 89(3):494–521.



New species *Dijkstraiporites praetextus* Lupia 2015, first described in the *Journal of Paleontology*.

Levine, M. N., L. F. Fargher, L. G. Cecil, and J. E. Forde. Polychrome Pottery Economics and Ritual Life in Postclassic Oaxaca, Mexico. *Latin American Antiquity* 26(3):319–340.

Makowicz, A. M., J. Tanner, E. K. Dumas, **C. D. Siler**, and I. B. Schlupp. Pre-existing biases for swords in mollies (*Poecilia*). *Behavioral Ecology* doi:10.1093/beheco/arv130.

Mares, M.A. Does Bigfoot exist? *Tracks. Sam Noble Museum Newsletter* 27 (2): 14–15.

Mares, M.A. Foreword: The scope of museum studies. *Journal of Museum Studies* 9 (1):iii–v.

Mares, M.A. From horse barns to the White House: A prairie museum wins the National Medal. Pp. 18–21 in *The Best in Heritage: Projects of Influence. 16th Edition* (T. S. Solá, L. Cipek, and N. Chew, eds.). European Heritage Association. Zagreb, Croatia.



Director Michael Mares stands in front of the museum's presentation board at the Best in Heritage conference in Dubrovnik, Croatia.

Mares, M. A. Science matters. *Tracks. Sam Noble Museum Newsletter* 27 (3): 10–13.

Menard, K. L. A review of the genus *Spanagonicus* Berg (Miridae: Phylinae: Nasocorini) with the description of novel antennal characters, the description of a new species from Central America, and a key to currently known taxa. *Zootaxa* 3973 (1):139–158.

Ojeda, A. A., A. Novillo, R. J. A. Ovejero, P. A. Cuello, C. Lanzone, A. V. Borisenko, **J. K. Braun, M. A. Mares,** and R. A. Ojeda. A cytogenetic, molecular genetic and morphological study of Patagonian chinchilla mice *Euneomys* (Rodentia, Cricetidae) in the Southern Central Andes. *Mammal Research* 60:61–69.

Realubit, N. D. C., M. L. Diesmos, A. Lorenzo II, A. De Layola, A. C. Diesmos, J. C. Brown, R. M. Brown, K. A. Cobb, P. Bergmann, G. Morinaga, **C. D. Siler, N. A. Huron,** and J. M. Siler. Geographic distribution: *Draco Mindanensis* (Mindanao Flying Lizard). *Herpetological Review* 46:216.

Romano, M. and **R. L. Cifelli.** 100 years of continental drift: one hundred years ago, Alfred Wegener laid the foundations for the theory of plate tectonics. *Science* 350 (6263):915–916.

Romano, M. and **R. L. Cifelli.** Continental-drift opus turns 100. *Nature* 526:43.

Romano, M., and **R. L. Cifelli.** Evolving “creature”: an avoidable oxymoron. *Evolution & Development* 17 (3): 173–174.

Romano, M., **R. L. Cifelli,** and G. B. Vai. Natural history: first museologist's legacy. *Nature* 517:271.

Romano, M., **R. L. Cifelli,** and G. B. Vai. The first geological map: an Italian legacy. *Italian Journal of Geosciences* 134:DOI:10.3301/IJG.2015.23.

Saltzman, M. R., C. T. Edwards, J. M. Adrain, and **S. R. Westrop.** Persistent oceanic anoxia and elevated extinction rates separate the Cambrian and Ordovician radiations. *Geology* 43:807–810.

Sanguila, M. B., N. D. C. Realubit, M. L. Diesmos, A. Lorenzo II, A. De Layola. J. C. Brown, K. A. Cobb, P. Bergmann, G. Morinaga, E. S. Freitas, **N. A. Huron**, and **J. L. Watters**. Geographic distribution: *Pelophryne lighti* (Mindanao Flathead Toad). *Herpetological Review* 46:380.

Stigenberg, J., **C. A. Boring**, and F. Ronquist. Phylogeny of the parasitic wasp subfamily Euphorinae (Braconidae) and evolution of its host preferences. *Systematic Entomology* 40:570–591.

Swan, D. C. A museum anthropologist in academic practice. *Practicing Anthropology* 37(3):65.

Swan, D. C. Peyote fan. Pp. 260–61 in *North American Indian Art: Masterpieces and Museum Collections from the Netherlands* (P. Hovens and B. Bernstein, eds.). Rijksmuseum Volkenkunde, ZKF Publishers, Frankfurt.

Swan, D. C., and M. P. Jordan. Contingent collaborations: patterns of reciprocity in museum(s) - community relationships. *Journal of Folklore Research* 52(1):39–84.

Swisher, R. E., **S. R. Westrop**, and L. M. Amati. The Upper Ordovician trilobite *Raymondites* Sinclair, 1944 in North America. *Journal of Paleontology* 89:110–134.

Wang, K., K. Jiang, G. Pan, M. Hou, **C. D. Siler**, and J. Che. A new species of *Japalura* (Squamata: Sauria: Agamidae) from upper Lancang (Mekong) Valley of Eastern Tibet, China. *Asian Herpetological Research* 6(3):159–168

York, E. M., C. J. Creecy, W. D. Lord, and W. Caire. Geographic range expansion for the rat lungworm in North America. *Emerging Infectious Diseases* 21(7):1234–1236.



Museum Preparator, Kyle Davies, and Exhibit Technician, Garrett Stowe, made a presentation at the Society of Vertebrate Paleontology's annual meeting in Dallas, Texas.

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