

SAM NOBLE MUSEUM ANNUAL REPORT 2013

CONTENTS

4 FROM THE DIRECTOR

6 EXHIBITS

12 EDUCATION

8 RESEARCH AND COLLECTIONS

28 public relations

 $30_{\text{FINANCIALS}}$

34 donors

 $37^{\,\,\text{curator}}_{\,\,\text{publications}}$

44 volunteers

On the cover Male Paraphidippus aurantius © Thomas Shahan, 2012



SAM NOBLE MUSEUM ANNUAL REPORT 2013

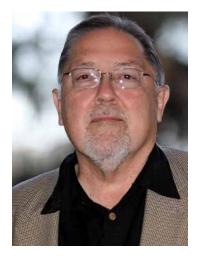
THE UNIVERSITY OF OKLAHOMA, NORMAN

FROM THE DIRECTOR

Throughout 2013, the Sam Noble Museum stayed one step ahead while a number of museums across the country faced cut backs and even closing their doors after months of economic downturn and a slow recovery. We managed to do this by restructuring following a wave of retirements in 2012. Although we have fewer staff, we expanded the duties of some staff members in order to meet our programmatic, curatorial and service requirements.

We hired three new curators — Drs. Katrina Menard (Recent Invertebrates), Marc Levine (Archeology) and Cameron Siler (Herpetology). We also filled our Registrar position (Dr. Elsbeth Dowd) and replaced three collection managers — Drs. Brandi Coyner (Mammalogy) and Andy Boring (Recent Invertebrates) and Susie Fishman-Armstrong (Archeology). 2013 was one of the busiest years since opening our doors in 2000. We had our highest attendance for the month of February ever as we featured two very special exhibitions—*Bugs Outside the Box* and *Beautiful Beasts: The Unseen Life of Oklahoma's Spiders and Insects.* You came face to face with close up photos of arthropods from your own back yard as well as butterflies with 5-foot wingspans. To highlight these exhibits, a giant inflatable spider greeted visitors at the front entrance of the museum. Photos with 'The Spider' were first and last on everyone's checklist.

During summer, *Bob Kuhn: Drawing on Instinct* was on display in the Brown Gallery. A beautiful retrospective exhibition of 155 rarely seen works of art organized by the National Museum of Wildlife Art in Jackson Hole, Wyoming, and curated by Adam Harris, showed a selection of masterpieces from Kuhn's lifetime and inspired visitors.



Dr. Michael A. Mares, Director

Curated by Dr. Dan Swan, *Masterworks of Native American Art: Selections from the Fred and Enid Brown Collection* went on display in fall. Selections of Native American paintings and drawings created from ca. 1960–2010 representing contemporary Native American artists were highlighted. *The Art of Sport* + *Play* was an exhibit of author Kevin Carroll's personal collection of handcrafted and other balls from around the world. Created for all ages, the exhibit showed that sport and play are common human denominators and that we 'all play + we all speak ball'.

18,545 Oklahoma students visited the museum on school field trips. The ExplorOlogy Program reached over 4,000 participants and students and we hosted the 11th Oklahoma Native American Youth Language Fair. Curator research, grants and publications were very active throughout the year and the museum completed a lengthy self-study and site visit by AAM to be re-accredited. Following the tornado disasters in May, the museum opened its doors to offer complimentary admission from May 22 through June. Volunteers and first responders came to Oklahoma from across the country. We opened our doors to offer a few hours of respite and a place away from the devastation, heat and clean-up and had approximately 5,000 more visitors than June 2012.

The dedication of our Board of Visitors, curators, staff and volunteers continues to provide an attractive venue to learn about science, nature and Oklahoma. We hosted more than 151,007 visitors and, as always, I invite you and your family to visit your museum and spend quality time in one of the finest museums in the nation!

Mares

Dr. Michael A. Mares Director



In 2013, the Sam Noble Museum welcomed 151,007 VISITORS

$E \times H I B I T S$

Temporary Exhibits

In February Bugs Outside the Box and Beautiful Beasts: The Unseen Life of Oklahoma's Spiders and Insects featured the world of insects all around us. In Bugs Outside the Box a selection of greatly enlarged insect sculptures showcasing the hidden beauty of these (mini) beasts filled the Fred E. and Enid Brown Gallery. Butterflies with 5-foot wingspans and beetles 4-feet long created with remarkable accuracy by Italian artist Lorenzo Possenti offered intricate details not visible to the naked eye.

Immense color macrophotographs of Oklahoma arthropods were on display in *Beautiful Beasts* in the Dorothy C. Higginbotham Gallery. Photographer Thomas Shahan is an outspoken advocate for education about the role these little creatures play in our lives. The exhibit chronicles his tireless search for the up-close views of the spiders and insects and takes you on a journey about where and how the photographs were made.



Photographer Thomas Shahan gives a gallery talk about his exhibition, Beautiful Beasts.

SAM NOBLE OKLAHOMA MUSEUM OF NATIO

8

A giant, inflatable spider greets guests visiting the Beautiful Beasts exhibition

Bob Kuhn: Drawing on Instinct filled the Fred E. and Enid Brown Gallery with a beautiful retrospective exhibition of 155 rarely seen works of art organized by the National Museum of Wildlife Art in Jackson Hole, Wyoming, and curated by Adam Harris, showed a selection of masterpieces from Kuhn's lifetime and inspired visitors.

Curated by Dr. Dan Swan, *Masterworks of Native American Art: Selections from the Fred and Enid Brown Collection* went on display in fall. Selections of Native American paintings and drawings created from ca. 1960–2010 representing contemporary Native American artists were highlighted.



Two paintings by Yatika Starr Fields grace the north wall of the Fred E. and Enid Brown Gallery

Bob Kuhn Drawing on Instinct

June 1 - Sept. 8 from The National Museum of Wildlife Art

The Bob Kuhn retrospective exhibition featured ISS WORKS The Art of Sport + Play was an exhibit of author Kevin Carroll's personal collection of handcrafted and other balls from around the world. Created for all ages, the exhibit showed that sport and play are common human denominators and that we 'all play + speak ball'.









EDUCATION

OF ANCIN

12

Collaboration

In 2013, the Sam Noble Museum continued to collaborate with schools across the state to advance the role of science and extend the impact of the museum's educational programs, workshops and events to students throughout Oklahoma.

The museum offered a variety of education programs, designed for lifelong learners to explore natural history through workshops, field trips and lectures. In 2013, the museum reached 106 participants in adult programming and 606 Oklahoma teachers through workshops.

Opportunities for out-of-school science exploration are not widely available in all areas of Oklahoma or in communities whose teachers and students are working with few resources. The Whitten-Newman ExplorOlogy® Program, a series of informal science education programs that partners participants with actual scientists to conduct investigation, was created by the Sam Noble Museum at the University of Oklahoma to encourage Oklahomans of all ages, locations and backgrounds to "do science." This year, ExplorOlogy® educators facilitated programming for 4,614 participants.





Public Program Participation I,408 YOUTH I06 ADULTS I36 FAMILY



PEDITION



OKLAHOMA SCIENCE ADVENTURE PARTICIPANTS

SCIENCE INSTITUTE PARTICIPANTS EXPLOROLOGY® IN MOTION PARTICIPANTS



SCHOOL PROGRAMS

22,017 DISCOVERY KITS

FIELD 18,545



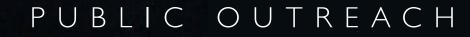
Conferences, ScienceFest, SeptemberFest

TEACHER WORKSHOP 606 MSP, UOSSL, Science Institute

6,66 EDUCATION



The ExplorOlogy[®] program welcomed a total of 5,255 STUDENTS



VISITORS Ilth Annual ONAYLF 2,050

,024 VISITORS PLS Library Day

> 976 VISITORS Science in Action and Object ID Day

discovery room sessions 28

DISCOVERY ROOM VISITORS 66,273



VOLUNTEERS

The museum welcomed Genevieve Wagner as the museum's Volunteer Coordinator. Our unique group of dedicated volunteers provided the museum 19,393 hours of service. The museum's volunteer program provided training sessions, lectures and field trips to 231 adult and teen volunteer participants.





22 TEEN VOLUNTEERS Contributing 1,409 hours

> Congratulations to 2013 Volunteer of the Year MARY LEBLANC

(11

RESEARCH & COLLECTIONS

Overview

The Sam Noble Museum houses more than 10 million objects and specimens representing 12 different fields of science. 161,779 items were cataloged in 2013 with the most growth in Archeology and Recent Invertebrates.

Collection databases continued to play a major role as a provider of electronic and web-based information to provide access to, and use of, object and object-based data, thus promoting its use in both basic and applied research and education, and by the public.



Grants

During 2013, curators, staff, and students conducted research throughout Oklahoma and the world. Approximately \$900,000 in new and continuing multiyear grants supported field and laboratory research, collections, and exhibitions.

Dr. Marc Levine continued directing "Collections Stewardship: Inventory and Databasing of Archeology", a multi-year grant awarded from the Institute of Museum and Library Services to **Dr. Janet Braun**. The project will inventory, catalog, and database artifacts and associated archives from the Spiro Mounds Group and numerous other sites, including those excavated by the Works Progress Administration from 1934 to 1942. At the completion of the three-year project, more than 1,500 boxes of artifacts will have been processed and the museum will be able to provide accurate information for some of the most important and requested collections from Oklahoma.



The Sam Noble Museum houses more than I 0 MILLION OBJECTS Dr. Edie Marsh-Matthews' multi-year grant awarded by the Great Plains Landscape Conservation Cooperative continued in 2013. Dr. Marsh-Matthews is examining the historic and current habitat use by the Arkansas River Shiner in the South Canadian River in central Oklahoma as affected by river flow. The project will allow predictions of potential habitat changes under future climate scenarios and the impact of these changes on this federally threatened species. Once abundant in the Canadian River drainage in central Oklahoma and the panhandle of Texas, today this species only is found in the South Canadian River.

Dr. Rich Cifelli and a team of paleontologists received funding from the National Geographic Society for a twoyear project—In quest of Middle Jurassic vertebrates from North America. Stick to the plant or be like an ant? **Dr. Katrina Menard** is exploring the relationships of a group of ant-mimicking bugs (the plant-bug group Leucophoropterini) and the evolution of ant mimicry using molecular DNA and morphology. The close relatives of the Australian group are unknown, but may be distributed in California or Asia.

NSF-DEL 2013 Supplement-Dr. Mary Linn

Archaeology

Marc Levine began as Curator, January 2013. He cocurated an exhibit, "Maya: Hidden Worlds Revealed" which debuted at the Science Museum of Minnesota in 2013 and recently opened at the Denver Museum of Nature & Science in February of 2014.

The department completed a revision of its website, began a blog on Archaeology collections

8 ACTIVE GRANTS Totaling \$900,000

44 PUBLICATIONS 34 in press

86 Presentations



(samnoblearchaeology.wordpress.com) and digitized all of its 16mm films, including those from Spiro Mounds.

The **Spiro lace** (above) in the collection was identified as one of Oklahoma's top 10 most endangered artifacts in "Oklahoma's Top Ten Endangered Artifacts Campaign" by the Oklahoma Cultural Heritage Trust.

Susie Fishman-Armstrong was hired as Collection Manager, December 2013.

Ethnology

In 2013 the Ethnology department deinstalled two exhibits: Southwest Visions: Paintings from the James T. Bialac Native American Art Collection and Dancers and Deities: Kachinas from the James T. Bialac Native American Art Collection, installed rotation objects in The Hall of the People of Oklahoma and installed one exhibit: Masterworks of Native American Art: Selections form the Fred and Enid Brown Collection.

The collection continued to grow by the addition of 147 objects to the catalog in 2013, including 122 objects acquired through gifts and purchases. A total of 865 objects were inventoried. Approximately 50,000 cyber visitors from 174 countries visited the Ethnology weblog: ethnology.wordpress.com.

Masterworks of NATIVE AMERICAN

Selections from the Fred and Enid Brown Collection

Sept 28th -Jan 5th2014



22

SAMPLES 64

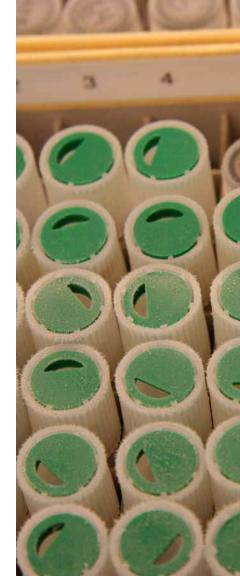
Curator **Dan Swan** was instrumental in bringing "Star Wars: Episode IV, A New Beginning in the Navajo Language" to the museum in October 2013.

Genomic Resources

In September 2013, **Dr. Brandi Coyner** began as Curatorial Associate for the Genomic Resources and Mammalogy Collections.

The collection was relocated from the 3rd floor to a room on the first floor. The new space not only is larger, but also addresses an emergency preparedness concern.

The collection currently contains 11,641 samples (32,634 aliquots) from 344 genera and 611 species of mammals, birds, reptiles, and amphibians.





Herpetology

Cameron Siler began as Curator in August, 2013.

The Herpetology department underwent a largescale rearrangement of lab spaces while developing a new Genetic Resources Core Facility that will be fully operational early in 2014. The shared facility will allow for new research, education, and training initiatives in the museum that incorporate genetic data in studying the planet's biodiversity.

Dr. Siler developed new research and education initiatives with foreign collaborators in Thailand, Malaysia, and Brunei, implemented the development of a new study abroad program at the University of Oklahoma for summer research and education courses in Thailand and worked with **Dr. Marites Sanguila** to sponsor a funded Philippine Fulbright Senior Researcher Fellowship for **Dr. Maritess Bonachita**, who will spend five months working at the museum starting Fall 2014.

Ichthyology

326 lots and 6,290 specimens were cataloged in 2013.

Major collection management activities included receiving and cataloging 205 lots (3,441 specimens) of fishes from collection at UCLA (which is being redistributed).

Invertebrate Paleontology

1,218 specimens were cataloged in 2013. Staff developed a website, "Understanding Extinction" as part of the "broader impacts" of NSF EAR-0819715. The site, which is integrated with "Common Fossils of Oklahoma", is targeted towards K–12 students and educators, and the general public. It is intended to increase public awareness and understanding of extinction in the past and present, as well as prospects for the future.

7,788 OBJECTS TREATED BY IPM

specimens 570 mammalogy

Steve Westrop continued photography of type and figured specimens and advanced a working goal of at least one image per species present in the collection. Working with collection staff, Dr. Westrop compiled information for an NSF Collections Storage Grant submission and re-housed specimens in a new OK-GLX case.

IPM, Isolation and Dermestid

The department completed an IPM Plan and Procedures manual for the department, trained museum security staff on how to identify pests within flower arrangements and trained incoming IPM Collection Technician and IPM Manager on the museum's IPM policies and procedures.

Approximately 8,003 objects were inspected upon entering the museum as temporary deposits, donations, etc. Approximately 7,788 objects were treated in the CO2 bubble and 4,623 skeletons were processed in the Dermestid facility. The department staff assisted the new Chickasaw Cultural Center in use and maintenance of CO2 tent and an IPM program.

Mammalogy

Cataloging and integration of the University of Memphis Collection of Mammals (~26,000) continued throughout the year. The three-year National Science Foundation funded project will be completed in March 2014.

11,191 specimens were cataloged and 570 specimens prepared in 2013. The collection currently contains 27 orders, 95 families, and over 900 species of mammals from around the world.

Michael Mares continues to serve on the Board of Directors of the International Federation of Mammalogists, the world's largest organization of



45 NATIVE NORTH AMERICAN LANGUAGES Represented at the ONAYLF



Native American Languages

In 2013, the Native American Languages (NAL) department accessioned 912 items and digitized more than 3,000 individual manuscript pages from the Carolyn Quinter Collection of Osage materials creating highresolution .TIFF files. NAL received a rare collection of Plains Apache elicitation materials with the last fluent speaker and a major collection of Ponca hymns and church services.

The 11th annual Oklahoma Native American Youth Language Fair (ONAYLF) in April drew over 2,000 attendees including performers, authors and artists representing 45 Native North American languages.

25% Ornithology specimens Accessioned

Mary Linn, Curator of NAL worked with museum videographer Mike McCarty to record Wichita hymns and audio for Seminole Nation Immersion School K-I curricula. She worked with Ethnology Curator Dan Swan to co-present the *Star Wars, Episode IV: A New Hope* translated into the Navajo language and shown at the museum in October.

Ornithology

1,557 specimens were accessioned for research collections and 192 tissue-sample aliquots from 76 bird specimens were deposited in the museum's Genetic Resources Collection. The department continued its efforts to retroactively accession specimens in the research collection, and approximately 25% of the current holdings are now accessioned.

Tamaki Yuri, Gary Schnell, and Joseph Grzybowski continued their collaborative research project on the



I I th Annual ONAYLF OVER 2,000 ATTENDEES



hybridization of White-faced and Glossy Ibises and collected specimens from southwestern coastal areas of Louisiana in July 2013.

The department received specimens of African Pygmy Falcon (*Polihierax semitorquatus*), Oriole Warbler (*Hypergerus atriceps*), Marbled Teal (*Marmaronetta angustirostris*), Andean Condor (*Vultur gryphus*), and



PALEOBOTANY DATABASE ENTRIES

Sunbittern (*Eurypyga helias*) from the Oklahoma City Zoo. Of these, 3 are the first specimens in the respective genera, and 2 are the second specimens of the species in the Ornithology Collection. All of the tissue samples are the first in the Genetic Resources Collection.

Paleobotany

In 2013, the catalog and database entered specimens surpassed 14,000 entries.

- Updated integrated web database with more entries of Paleobotany & Micropaleontology specimens.
- Reorganized collection floor plan to better stabilize cases in earthquakes.
- Added scanning/photography procedures online (added on 09/19/2013 and had 386 visits through 12/17/2013).
- Invited participation in iDigBio's Paleocollections Digitization Workshop.



Recent Invertebrates

Specimens already housed in the collection continued to be cataloged, rehoused and re-curated as part of the IMLS grant awarded to Dr. Braun. Incoming material from Colorado, California, and Oklahoma done as part of survey work by **Katrina Menard** for the Research Council Grant and other research continued to be processed, identified and cataloged.

Seven major donations of material occurred in 2013, including over 2,451 identified mollusk shells collected by Dr. Perry Jackson, 402 identified chironomid slides from Oklahoma as part of an ecological survey by Dr. Jan Hoover, 418 gastropod specimens as part of a snail survey of Oklahoma by Dr. Liz Bergey and student Laura Figueroa, 20 identified butterflies and moths reared from Entoblitz 2012 by Mary Currie, nearly 2,000 chironomid and other invertebrate specimens from surveys of Lake Texoma transferred

2,451 MOLLUSK SHELLS IDENTIFIED

by former Ornithology curator Dr. Gary Schnell, over 200 specimens of Guatemalan Heteroptera collected by Dr. Jack Schuster of the University of Guatemala, and at least 10 specimens of Oklahoman and Arkansas centipedes from Dr. Chris McAllister as part of his work on centipede ecology.

Dr. Menard served as curator for the development of the exhibit Beautiful Beasts: The Unseen Life of Oklahoma Spiders and Insects that went on display in February.

Vertebrate Paleontology

543 specimens or artifacts were cataloged during the year.

Major field collecting initiatives included:

- Mesozoic of Utah
- Morrison Formation of Oklahoma
- Miocene of western Oklahoma



PUBLIC RELATIONS & MARKETING

THI DIVE

The Marketing and Public Relations department is responsible for museum social interactions, including blogs and online social media such as Facebook and Twitter.

Each year the department prepares and distributes monthly eNewsletters; printed newsletters and calendars; maintains website content; and promotes events, programs and workshops for the museum.

The museum markets to a variety of audiences through printed and online advertisements and coupon distribution. The department planned year-



round general marketing of the museum and special marketing campaigns such as the University of Oklahoma collaborative opening of the Art of Sport + Play.

The museum has a long-standing marketing partnership with the Fred Jones Jr. Museum of Art through advertising and publicity events. This helps promote both attractions in Norman and on the campus of the University of Oklahoma. Additionally, this department is responsible for all corporate sponsorship accounts.

press 132

1,044 STORIES PUBLISHED



Complimentary admission in June 2013 brought in **5,000 MORE** visitors than normal

2013 FINANCIALS



PARTIES 68 Birthday Parties

\$900,000 GRANTS AND CONTRACTS

18 Active Contracts

\$372,949 MUSEUM STORE

\$65,225 PROGRAM FEES

18,545 Visitors

\$154,558 ADMISSIONS

150,974 Total Attendance

\$276,915

\$107,175 SPECIAL EVENTS

127 Events

\$46,470 MEMBERSHIPS

949 Memberships

TOTAL REVENUE: \$5.8 Million TOTAL EXPENSES: \$5.8 Million

31

2013 NUMBERS

135,506 VISITS TO WEBSITE

SPECIAL 4

subscribers 3,583

7,058 "LIKES" ON FACEBOOK

ITEMS ADDED TO THE RECENT INVERTEBRATES 26,512

1,431 FOLLOWERS ON TWITTER

OBJECTS AND 12,585

44 PAPERS PUBLISHED BY MUSEUM STAFF

ACTIVE GRANTS AND CONTRACTS AWARDED TO MUSEUM STAFF

MUSEUM 150,974

PRESS B2

conference presentations given by collections staff 86

161,779 COLLECTION OBJECTS

6,25 | SPRING BREAK ESCAPE

2013 DONORS

Sam Noble Circle

\$25,000 and up

The Bilby Foundation Karen Langston Sandra Langston Estate of Wann Langston, PhD

Museum Circle

\$5,000-\$24,999

Reynotta Hoberecht Joel & Kathy Katz Michael and Lynn Mares Larry & Patricia Merchant Steven Peck Puterbaugh Foundation Matt Siler Brooke Siler Essapen The Boeing Company Walton Family Foundation

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

Craig & Maria Abbott Janet Braun Bill Cameron Nancy Pees Coleman Kevin Easley Taylor Hanson W.R. & Judy Howell Homer Hulme Lars Noble John & Angie Peck Carolyn Thompson Taylor Roy Williams

Curator's Circle \$500–\$999

Mervin & Eleanor Barnes Rod & Janene Davis William & Candace Greene John Greene Hanmin Liu and Jennifer Mei Emma Maggard

Supporters

\$250-\$499

Sterling & Cheryl Baker Darin & Dianne Chambers Christopher Demers David & Connie Dillon Claude & Helen Duchon William & Callie Habekott Don Kash & Elizabeth Gunn Dr. Michael Madden Carren Denise Moham Cristine Morris Laura Ogle William Randle Earl Ziegler

Contributors

\$100-\$249

Marcus & Patricia Adams B. Gen. Wayne & Mrs. Marie Alley David Andra & Beverly Reese Bill & Millie Audas Martha Banz Cecelia Barrington Karen Beckman Karl Bergey Robert Berry Bunny Biggers William & Ruth Braun Jock & Cia Campbell Fred & Meg Carr

Brandt & Kathaleen Cassidy Tom & Edie Cohoon lan Davis leff & Nance Diamond William Dyke Louis & Anne Ederington Mary Irene Felkner Linda Friels Don & Judy Garrett Paul & Ann Gilje Marshal & Melissa Gimpel Bob Glasgow Elliott & Betty Hale Kim & Nancy Hauger George & Barbara Henderson Elaine Hobson Dr. Joel Holloway Marilyn Hugon Carol Kellison

losh & Julie Kershen Mike Sugg & Sandy Kinney Michael D. Kiser Paul & Eilene Kleine Roy & Judi Knapp Joseph Kopta Rodney & Kathy Linehan Mary Linn Stan & Charlotte Luczycki Sarah Jawm Marie Tom & Monica McCasland Shellie McClary lames Menard Kirk Milby & Rebecca Darrow Keith & Linda Miller Paul & Ann Mogridge C. F. & Nelwyn Moore Virgil Morris David & Judy Morse

2013 BOARD OF VISITORS

Reggie Whitten, Chair Mary Beth Babcock Bill Cameron Kevin Easley Jonathan Fowler Taylor Hanson Elaine Hobson Charles Hollingsworth Xavier Neira Lars Noble Laura K. Ogle Eric Sherburn, M.D. Carolyn Taylor, PhD Roy Williams Edmond, Oklahoma Tulsa, Oklahoma Oklahoma City, Oklahoma Tulsa, Oklahoma Norman, Oklahoma Norman, Oklahoma Norman, Oklahoma Oklahoma City, Oklahoma Oklahoma City, Oklahoma Oklahoma City, Oklahoma Tulsa, Oklahoma Claremore, Oklahoma

2013 DONORS

Shannon & Wanda Murchison Ioan Mustoe Dr. Bill Osborne, Jr. Guy & Caroline Patton Robert & Karen Petry Dr. Harriette Porter Dr. Ron Powell Barbara Reynolds Patricia Riggs Ted & Marilyn Roberts Jerry & Nancy Roop Kay Sandridge Neil & Kathy Schemmer Dr. Judith Schiebout Dr. Francis Schmitz Rose Sharp Don & Mary Sherman Libba Smith Clyde & Jerry Snow

Billie Spector Stacey Spivey Ron & Pat Stiehler Victoria Sullivan John & Lynette Sutterfield Kyle & Sara Sweet Dr. Robert Talley Sandy Tennekoon Wayne & Marilyn Tolle Craig Tomlin Judson Troop Theresa Vaughan & Kieran Mullen Earl & Gerry Whitman Kim Wiar Gordon Williams, III Brant & Carol Worthington Don Wyckoff Leon & Rachel Zelby Laural Zimmerman

Corporate Sponsors

Arvest Bank Chesapeake Energy Love's Travel Stops and Country Stores Norman Convention and Visitors Bureau OU Outreach Republic Bank and Trust

SELECTED CURATOR PUBLICATIONS, 2013

Blackburn, D.C., **C.D. Siler**, A.C. Diesmos, J.A. McGuire, D.C. Cannatella, and R.M. Brown. 2013. An adaptive radiation of frogs in a Southeast Asian island archipelago. Evolution 67:2631–2646.

Braun, J.K., S.B. Gonzalez-Perez, G.M. Street, J.M. Mook, and **N.J. Czaplewski**. 2013. *Phenacomys ungava*. (Rodentia: Cricetidae). Mammalian Species 45(899):18-29.

Brown, R.M., **C.D. Siler**, C.H. Oliveros, J. A. Esselstyn, A.C. Diesmos, P.A. Hosner, C.W. Linkem, A.J. Barley, J.R. Oaks, M.B. Sanguila, L. J. Welton, R.G. Moyle, A.T. Peterson, and A.C. Alcala. 2013. Evolutionary processes of diversification in a model island archipelago. Annual Review of Ecology, Evolution, and Systematics 44:411–435.

Brown, R.M., **C.D. Siler**, C.H. Oliveros, L.J. Welton, A.A. Rock, J. Swab, M. Van Weerd, D. Rodrigues, E. Jose, and A.C. Diesmos. 2013. The amphibians and reptiles of Luzon Island, Philippines, VIII: the herpetofauna of Cagayan and Isabela Provinces, northern Sierra Madre Mountain Range. Zookeys 266:1–120.

Chen, X., S. Huang, P. Guo, G.R. Colli, A.N. Montes de Oca, L. J.Vitt, R.A. Pyron, and F. Burbrink. 2013. Understanding the formation of ancient intertropical disjunct distributions using Asian and Neotropical hinged-teeth snakes (*Sibynophis* and *Scaphiodontophis* (Serpentes: Colubridae). Molecular Phylogenetics and Evolution 66:254–261.

Cifelli, R.L. 2013. Foreword. Pp. ix-xi in In pursuit of early mammals (Z. Kielan-Jaworowska, ed.). Indiana University Press, Bloomington.

Cifelli, R.L. 2013. End of an era: Wann Langston, Jr. (1921–2013). Sam Noble Museum Tracks 25 (3):3.

Cifelli, R.L., and B.M. Davis. 2013. Jurassic fossils and mammalian antiquity. Nature 500: 160-161.



CURATOR PUBLICATIONS, CONT.

Cifelli, R.L., C.L. Gordon, and T.R. Lipka. 2013. New multituberculate mammal from the Early Cretaceous of eastern North America. Canadian Journal of Earth Sciences 50: 315-323.

Colston, T.J., F.G. Grazziotin, D.B. Shepard, **L. J.Vitt**, G.R. Colli, R.W. Henderson, S.B. Hedges, S. Bonatto, H. Zaher, B.P. Noonan, and F.T. Burbrink. 2913. Molecular systematics and historical biogeography of tree boas (*Corallus* spp.). Molecular Phylogenetics and Evolution 66: 953–959.

Coyner, B.S., J.K. Braun, M.A. Mares, and R.A. Van Den Bussche. 2013. Taxonomic validity of species groups in the genus *Akodon* (Rodentia, Cricetidae), with comments on systematic relationships and dates of divergence among species. Zoologica Scripta 42:335-350.

Czaplewski, N.J., and S. Willsey. 2013. Late Quaternary brown bear (Ursidae: *Ursus* cf. arctos) from a Cave

in the Huachuca Mountains, Arizona. Pp. 468-471 in Merging science and management in a rapidly changing world: Biodiversity and management of the Madrean Archipelago III (G.J. Gottfried, P.F. Ffolliott, S. Brooke, L.G. Eskew, L.C. Collins, and C. Loa, compilers). USDA Forest Service Proceedings RMRS-P-67, Rocky Mountain Research Station, Fort Collins, CO.

Czaplewski, N.J., J.O. Farlow, and A. Argast. 2013. A fossil shrew (Mammalia, Soricidae) from the Pipe Creek Sinkhole, Indiana. Proceedings of the Indiana Academy of Science 121:79-86.

Eaton, J.G., and **R.L. Cifelli**. 2013. Review of Late Cretaceous mammalian faunas of the Kaiparowits and Paunsaugunt plateaus, southwestern Utah. Pp. 319-328 in At the top of the Grand Staircase (A.L. Titus and M.A. Loewen, eds.). Indiana University Press, Bloomington. Esselstyn, J.A., Maharadatunkamsi, A.S. Achmadi, **C.D. Siler**, and B.J. Evans. 2013. Carving out turf in a biodiversity hotspot: multiple, previously unrecognized shrew species co-occur on Java Island, Indonesia. Molecular Ecology 22:1972–4987.

Fitzgerald, C., and **M.S. Linn**. 2013. Training communities, training graduate students: the 2012 Oklahoma Breath of Life Workshop. Language Documentation and Conservation 7:185-206.

Gardner, J.D., J.G. Eaton, and **R.L. Cifelli**. 2013. Preliminary report on salamanders (Lissamphibia; Caudata) from the Late Cretaceous (late Cenomanian-late Campanian) of southern Utah, U.S.A. Pp. 237-272 in At the top of the Grand Staircase (A.L. Titus and M.A. Loewen, eds.). Indiana University Press, Bloomington.

Goldberg, S.R., C.R. Bursey, and L.J. Vitt. 2013. Gastrointestinal nematodes of four species of *Gonatodes* (Squamata: Sphaerodactylidae) from Central and South America. Comparative Parasitology 80:143–146.

Goldberg, S.R., C.R. Bursey, **L.J.Vitt**, and J. Arreola. 2013. *Copeoglossum nigropunctatum*. Endoparasites. Herpetological Review 44:321.

Goldberg, S.R., C.R. Bursey, **L.J.Vitt**, and J. Arreola. 2013. Gastrointestinal helminths of the wandering grass lizard, *Cnemidophorus gramivagus* (Squamata: Teiidae) from Brazil. Comparative Parasitology 80:301–303.

Hites, R., G. Caddell, M.E.B. Stone, and P.A. Stone. 2013. Relationship of body size and male melanism to biting propensity in Red-eared sliders (*Trachemys scripta*). Herpetological Review 44:46-49.

Jackson, J.B., and **M.S. Linn**. 2013. Trickster tales. Pp. 44-56 in Yuchi folklore: customary and expressive life in a southeastern Native American community (J.B. Jackson, ed.). University of Oklahoma Press, Norman.

CURATOR PUBLICATIONS, CONT.

Jackson, J.B., and **M.S. Linn**. 2013. Calling in the members. Pp. 57-73 in Yuchi folklore: customary and expressive life in a southeastern Native American community (J.B. Jackson, ed.). University of Oklahoma Press, Norman.

Jadin, R.C., F.T. Burbrink, G.A. Rivas, **L.J.Vitt**, C.L. Barrio-Amorós, and R.P. Guralnick. 2013. Finding arboreal snakes in an evolutionary tree: phylogenetic placement and systematic revision of the Neotropical birdsnakes. Journal of Zoological Systematics and Evolutionary Research (published online 23 December 2013; doi: 10.1111/ jzs.12055).

Joyce, A., **M.N. Levine**, and S.B. Barber. 2013. Placemaking and power in the terminal formative: excavations on Río Viejo's Acropolis. Pp. 135-163 in Polity and ecology in formative period coastal Oaxaca (A. Joyce, ed.). University Press of Colorado, Boulder. Lack, J.B., M.J. Hamilton, J.K. Braun, M.A. Mares, and R.A. Van Den Bussche. 2013. Comparative phylogeography of invasive *Rattus rattus* and *Rattus norvegicus* in the U.S. reveals distinct colonization histories and dispersal. Biological Invasions 15:1067-1087.

Landing, E., **S.R. Westrop**, and S.A. Bowring. 2013. Reconstructing the Avalonian palaeocontinent in the Cambrian: a 519 Ma caliche in South Wales and transcontinental middle Terreneuvian sandstones. Geological Magazine (published online 20 May 2013; DOI:http://dx.doi.org.ezproxy.lib.ou.edu/10.1017/ S0016756813000228).

Levine, M.N. 2013. Caracol Stela 3. Catalyst: Denver Museum of Nature & Science Magazine August/ September:8-9.

Levine, M.N. 2013. Examining ceramic evidence for the Zapotec imperialism hypothesis in the Lower Río Verde

region of Oaxaca, Mexico. Pp. 227-263 in Polity and ecology in formative period coastal Oaxaca (A. Joyce, ed.). University Press of Colorado, Boulder.

Levine, M.N., and L.M. Luna. 2013. Museum salvage: a case study of Mesoamerican artifacts in museum collections and on the antiquities market. Journal of Field Archaeology 38:264-276.

Lupia, R., and J.L. Armitage. 2013. Late Pennsylvanian– Early Permian vegetational transition in Oklahoma: palynological record. International Journal of Coal Geology 119:165-176.

Mares, M.A. 2013. Foreword: exhibits and labels. CLS Journal of Museum Studies 6(1):vi-viii.

Marsh-Matthews, E., J. Thompson, W.J. Matthews, A. Geheber, N. Franssen, and J. Barkstedt. 2013. Differential survival of two minnow species under experimental

sunfish predation: implications for re-invasion of a species into its native range. Freshwater Biology 58:1745-1754.

Matthews, W.J., **E. Marsh-Matthews**, R.C. Cashner, and F.P. Gelwick. 2013. Disturbance and trajectory of change in a stream fish community over four decades. Oecologia 173:955-969.

Menard, K.L., and J.M. Mitchel. 2013. Velvet ants, past and present: a county-wide checklist of the distribution and diversity of Mutillidae (Insecta: Hymenoptera) in Oklahoma including two new state records, and new behavioral observations for *Dasymutilla foxi* (Cockerell). Entomologica Americana 119:57-79.

Menard, K.L., R.T. Schuh, and J.B. Woolley. 2013. Totalevidence phylogenetic analysis and reclassification of the Phylinae (Insecta: Heteroptera: Miridae), with the recognition of new tribes and subtribes and a

CURATOR PUBLICATIONS, CONT.

redefinition of Phylini. Cladistics (published online 30 August 2013; DOI: 10.1111/cla.12052).

Nash, S., C. Colwell-Chanthaphonh, S. Holen, and **M.N.** Levine. 2013. Anthropology: unearthing the human experience. Pp. 277-329 in Denver's natural history museum: a history (K. Johnson, B. Armstrong, C. Colwell-Chanthaphonh, F. Kruger, K.A. Haglund, and F.-T. Krell, eds.). Denver Museum of Nature & Science Annals 4.

Nydam, R.L., T.B. Rowe, and **R.L. Cifelli**. 2013. Lizards and snakes of the Terlingua Local Fauna (late Campanian), Aguja Formation, Texas with comments on the distribution of paracontemporaneous squamates throughout the Western Interior of North America. Journal of Vertebrate Paleontology 33: 1081-1099.

Oaks, J.R., J. Sukumaran, J.A. Esselstyn, C.W. Linkem, **C.D. Siler**, M.T. Holder, and R.M. Brown. 2013. Evidence for Pleistocene-driven diversification? A caution for interpreting ABC inferences of clustered historical events. Evolution 67:991–1010.

Pfau, R.S., and J.K. Braun. 2013. Occurrence of the northern short-tailed shrew (Mammalia: Soricomorpha: Soricidae: *Blarina brevicauda*) in Oklahoma. Proceedings of the Oklahoma Academy of Science 93:1-6.

Schuh, R.T., and **K.L. Menard**. 2013. A revised classification of the Phylinae (Insecta: Heteroptera: Miridae): arguments for the placement of genera. American Museum Novitates 3785:1-72.

Scott, C.S., J.D. Gardner, W.A. Clemens, and **R.L. Cifelli**. 2013. Richard C. Fox, Canadian paleontologist. Canadian Journal of Earth Sciences 50: v-xi.

Siler, C.D., C.H. Oliveros, A. Santanen, and R.M. Brown. 2013. Multilocus phylogeny reveals unexpected diversification patterns in Asian wolf snakes (genus *Lycodon*) Zoologica Scripta 43:262–277. Siler, C.D., L.J. Welton, A.A. Rock, and R.M. Brown. 2013. Population genetic structure and revised geographic range for the tridactyl skink (*Brachymeles muntingkamay*) from Luzon Island, Philippines. Herpetological Review 44:30–33.

Vitt, L.J. 2013. Point of view: walking the natural history trail. Herpetologica 69:105–117.

Welton, L.J., **C.D. Siler**, A.C. Diesmos, and R.M. Brown. 2013. Multilocus phylogeny and Bayesian estimates of species boundaries reveal hidden evolutionary relationships and cryptic diversity in Southeast Asian water monitors (genus *Varanus*). Molecular Ecology 22:3495–3510.

Welton, L.J.*, **C.D. Siler***, C.W. Linkem, A.C. Diesmos, M.L. Diesmos, and R.M. Brown*. 2013. Dragons in our midst: phyloforensics of illegally traded Philippine water monitors. Biological Conservation 159:7-15. *Authors contributed equally. Westrop, S.R. 2013. The Late Cambrian (Furongian) trilobite *Tangshanaspis* Zhou and Zhang, 1978 in North America. Canadian Journal of Earth Sciences 50:797-807.

Westrop, S.R., and J.M. Adrain. 2013. Biogeographic shifts in a transgressive succession: the Cambrian (Furongian: Jianshanian: latest Steptoean-earliest Sunwaptan) agnostoid arthropods *Kormagnostella* Romanenko and *Biciragnostus* Ergaliev in North America. Journal of Paleontology 87:804-817.

V O L U N T E E R S

Allen, John Alvarez Zambrano. Maria Anthony, Isaiah Arrington, Sally Ash, Darlene Bailey, Robert Baker, Paula Barnes, William Batchelor, Donald Baugher, John Beevers, Leonard Bentin, Alice Bentin, Nick Bert, Charlotte Botzer, Angela Bowerman, Jane Braun, Betty Brecheen, Danielle (Barbara) Brent, Alex Buckley, Dylan Buckley, Justis

Buswell, Jordan Callahan, Ann Carr, Meg Castillo-Aguirre, Yuriza Chagouri , Julie Chanes, Kathy Chapman, Rhota Jean Christopher, Jessica Clements, Darla Cole, James Coleman, Joyce Coleman, Nancy Connell, Devin Copp, Helen Cornelius, Melanie Cornelius, Terry Cummings, Patty Dalke, DeAnna Dalke, Sandra Dame, Sara Davis, Darren DeSilver, Ruth Dorffler, Theresa

Edwards, laden Enox, Betty Eppard, Danielle Erfourth, Dennis Estrada, Ruben Evilsizer, Zachary Fagan, Cathy Fallon, Maisy Felkner, Irene Fergason, Karen Flanagan, Rachel Flansburg, Sage Flygare, Gordon Freeman, Virginia Garreston, Hesston Garrett, Patricia Garrison, Carmelita Garrison, Neil Garrison, Pat Gilliam, lim Godec, Christie Grant, Delfar Grant, Lana

Graumann, Megan Greer, Marjorie Grubbs, Eileen Gunning, Tom Haines, Howard Haley, Kathleen Hammond, Marilyn Han, Shugi (Casey) Hasty-Pratte, Sandy Hayes, Ron Heinrich, Samantha Heird, Lindsay Heise, Shelby Henderson, Taya Hendricks, Alicia Hertzke, Simon Hickson, Christine Holden, Amanda Hooten, Karen Hopkins, John Huber, Sara Hull, Zac Hulsey, Patricia

Humphreys, Peggy Hunt, Mason Hunt, Tyler Hutton, Carol Hwang, Michael Iman, Carol laime, Kayla Johnson, Michael R. Johnston, Norman Johnston, Sally Mae lones, Ashley Ketchum, Diana Ketchum, Dillon Klopfenstein, Julie Kring, Tearle Kubier, Lauren Kugler, Ken Laing, Michael Lane, Judy Larsen, Lawrence Leader, Pam LeBlanc, Mary Lee, Soo lin

Lewis, Dennis Lewis, Kirsten Lilly, Carolyn Lilly, Chuck Linehan, Liane Long, Kassidy Luther, Rachael Lynch, Jolynn Madison, Sue Makowicz, Amber Martin, Brian Martin, Reagan May, Bill May, Julie McCarroll, Barry McGary, Rebecca McKenzie, Emily McKinley, Leona McLachlin, Mary McWherter, Marie Melendez, Parker Menor, Ellen Meyer, Becky

Milgrim, Tanner Miller, Bill Million, Rob Mitchell, James Mock, Sarah Morris, Stella Moxley, Ella Nadarajan, Melissa Narr, Brianna Nash, Derek Nash, Megan Nath, Abhinandan Nguyen, Debra O'Neil, Wanda Padgett, Donna Pailes, Roberta Peek, Chester Peek, Marian Perry, John Pershica, Branson Phan, Ouan Phillips, Aaron Phillips, Maria

Pollis, Edna Powers, Britni Pruett, Carolyn Pyatt, Susanna Rabon, Allison Randolph, Ernest (Clay) Raper, Lorraine Reap, Katie Reed, Astrud Reese, Beverly Reif. Pat Reust, Marlee Robinson, Daniel Rogers, Rachel Roselius, Austen Ross, Nance Rubin, Diane Sancho, Barbara Schultz, Tyler Sexton, Ellis Shell, Rodger Simon, Cecilia

Smith, Patricia Sohl, Cindy Soreghan, Ana Staat, Jan Starling, Kelsi Stonecipher, John Straham, LaVerta Stroud, Dan Stuligross, Anna Summers, Randy Sutton, Bridget Taylor, Ian Taylor, Katherine Taylor, Norma Taylor, William Teasdale, Nolan Tempelmeyer, Reginald Thoes, Emily Thompson, Lily Tishko, Linda Traynor, Joshua Urguhart, Robin Vickers, Neil

Von-Dollen, Anamarie Wagner, Genevieve Weeks, Lynda Wilcox, Elizabeth Williamson, Mary Ann Williford, Kimberly Wilson, Danielle Winton, Brett Wood, Hunter Wood, Rachel Workman, Amber Wright, John Wu, Christina Zahrai, Soren



Sam Noble Museum volunteers contributed a total of I 9,393 HOURS

CONTACT US

Sam Noble Museum

University of Oklahoma 2401 Chautauqua Avenue Norman, Oklahoma 73072

www.samnoblemuseum.org

405.325.4712 (phone) 405.325.7699 (fax)

Find us on Facebook! Follow us on Twitter! NOBLE OKLAHOMA MUSEUM OF NATURAL HIS

187





www.samnoblemuseum.org