

### Spring/Summer 2017 Newsletter Vol. 29, No. 2

IN THIS ISSUE

"Great Balls of Fire!"

"Ugly Bugs"

Volunteer of the Year

Curator honored for excellence in education

Curator receives national service award



To celebrate our 30th anniversary, please consider a gift to the museum's endowment fund and become a part of the Oklahoma Heritage Walkway.

VOLUME 29, NO. 2

Please contact Pam McIntosh, (405) 325-5020 or pjmcintosh@ou.edu for more information.

6

### TRACKS, SPRING/SUMMER 2017

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#### OUR MISSION

The Sam Noble Museum at the University of Oklahoma inspires minds to understand the world through collection-based research, interpretation and education.

### OUR VISION

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

### TRACKS

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## Contents



### FEATURES AND DEPARTMENTS

**4** FROM THE DIRECTOR

### **6** EXHIBITIONS

"Ugly Bugs! Celebrating 20 years of the Oklahoma Microscopy Society's Ugly Bug Contest"

### **8 EXHIBITIONS**

"Comets, Asteroids, Meteors: Great Balls of Fire!"

9 NEWS Volunteer of the Year

- 10 COLLECTIONS Curator honored for excellence in education
- Curator receives national service award

#### ON THE FRONT COVER:

"Comets, Asteroids, Meteors: Great Balls of Fire" Image courtesy of the Space Science Institute

### ON THE BACK COVER:

"Explore Evolution" Photo courtesy of the Sam Noble Museum

Thanks to our 2017 Corporate Sponsors and partners: Love's Travel Stops and Country Stores, Arvest Bank, Republic Bank & Trust, 2 Green Chicks, Visit Norman, Banc*First*, Sam's Club of Norman and the Adventure Road.



# From the Director



o keep you informed about what is happening at your state's natural history museum – in addition to celebrating 30 years in that role with our special editions of Tracks this year – I want to share some current news about exhibits and programs, as well as what's taking place with research and collections.

On May 5, it was announced that the Sam Noble Museum was named one of the top 50 most impressive college museums, according to College Values Online. Among both

private and public colleges included in the list, the University of Oklahoma is the only school in Oklahoma to be selected, joining the ranks of other universities such as Dartmouth, Harvard, Princeton and Yale.

2017 has seen 40,000 visitors to the museum to date. "Ugly Bugs: Celebrating 20 Years of the Oklahoma Microscopy Society's Ugly Bug Contest" opened in the Higginbotham Gallery in February and will be on display through the summer, along with "Comets, Asteroids and Meteors: Great Balls of Fire" in the Brown Gallery. Both exhibits are perfect for families, and we hope to see you and your family here this summer.

Since the beginning of our fiscal year last July, we have welcomed over 10,153 Oklahoma students, educators and chaperones from 203 schools on field trips. Thanks to the Fossil Fuel Fund, 29 of those schools brought 1,722 students to the museum. The financial assistance made possible by the FFF from gifts from the museum's board of visitors, members and other donors will reimburse a school for the cost of fuel and a bus driver. We want to encourage educators and their students to visit the museum, experience the galleries, take a class and be inspired by the natural and cultural history available to them at the award-winning Sam Noble Museum.

Two new curators will join the staff this summer. In August, we will welcome Hayley Lanier, Ph.D., a curator for the mammal department, and Raina Heaton, Ph.D., curator of Native American languages. We will profile these curators in the fall issue of Tracks. Lanier comes to us from the University of Wyoming and Heaton will join us from the University of Hawaii. As summer begins, curators will shift their OU teaching activities to doing field research across the globe, so in general there are fewer curators resident in the museum than at other times of the year. By fall, our newly hired curators and returning field researchers will be back on campus, continuing their research in the museum's laboratories and collections.

This spring, we said goodbye to four members of our board of visitors. Serving two consecutive terms each on the board were Kevin Easley, Taylor Hanson and Xavier Neira. Serving one term of three years was Gary England. I appreciate their generously offering their time on the board to move the museum forward. At the annual board meeting in April, we welcomed four new members –Joseph Siano, Ph.D., Brenda Jones Barwick, Rob Hatley and Ryan Deligans. The 15-member board again will be chaired this year by Jonathan Fowler. Other board members are Becky Franklin, Elaine Hobson, Ross Kirtley, Tim Munson, David Nimmo, Lars Noble, Carolyn Taylor, Ph.D., Reggie Whitten, Roy Williams and Zane Woods.



Front: Brenda Jones Barwick, Elaine Hobson, Becky Franklin, Michael Mares, Ph.D., Ryan Deligans Back: Tim Munson, Joseph Siano, Ph.D., Jonathan Fowler, Reggie Whitten Not pictured: Rob Hatley, Ross Kirtley, David Nimmo, Lars Noble, Carolyn Taylor, Ph.D., Roy Williams, Zame Woods

These impressive Oklahomans represent diverse backgrounds and careers and are wonderful ambassadors for the museum. Reggie Whitten, a lifetime member of the board, founded the ExplorOlogy® Program with a gift from the Whitten-Newman Foundation in 2007. He has continued to support the program and the museum and, most recently, announced a challenge to board members to match gifts to ExplorOlogy®. Through board member Tim Munson's advocacy with Oklahoma Energy Resources Board, ExplorOlogy® has received gifts since 2015 to support the program. In addition to being museum members and supporting programs, board members have personally carried requests for funding to the Bilby Foundation, the Walton Family Foundation, the Puterbaugh Foundation and ZZW Global Inc., which have awarded funds to ExplorOlogy® and the Fossil Fuel Fund. We are grateful to the board for its ongoing advocacy and support.

This summer, and over the rest of this year, I encourage you, your family and friends to visit the Sam Noble Museum and enjoy the exhibits and some of our many classes and workshops for students, adults and families. We offer exciting programs of learning for all ages across the myriad of disciplines represented in the Sam Noble Museum. Thank you for your continued support!

M. Maos

Michael A. Mares, Ph.D. Director

# "Ugly Bugs! Celebrating 20 years of the Oklahoma Microscopy Society's Ugly Bug Contest"

N ot a lot of people are eager to get their hands on tiny creatures that sting, scurry, pinch or make you itch. However, every year hundreds of kids around Oklahoma show their bravery — and curiosity by descending on parks, playgrounds and other insect habitats in search of Oklahoma's "ugliest" bugs.

Now in its 20th year, the Oklahoma Ugly Bug contest challenges students across the state to track down and capture caterpillars, beetles, cicadas, ants, moths and the like in hopes of finding the most unique insect.

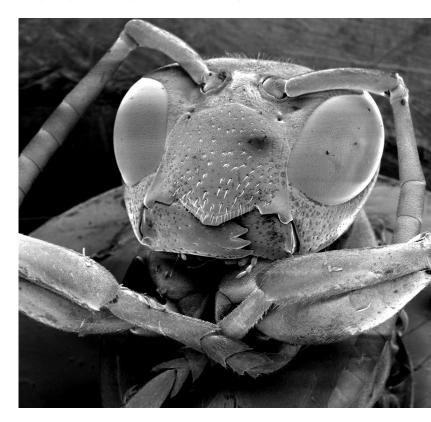
This year, the Sam Noble Oklahoma Museum of Natural History teamed up with the Oklahoma Microscopy Society (the entity that orchestrates the annual contest) to celebrate two decades of bug-catching and identification. Now through Sept. 4, the museum has on display 20 larger-than-life images of insects caught by contest winners during the past 20 years in its exhibit, "Ugly Bugs! Celebrating 20 Years of the Oklahoma Microscopy Society's Ugly Bug Contest."

"This exhibit provides a great opportunity for kids to learn more about the world around them and do so on a much different scale than they're used to," said Katrina Menard, entomology curator at the Sam Noble Museum.

One of the many "bugs" imaged by a scanning electron microscope over the years for the annual "Ugly Bug" contest.

"Visitors will be able to see the beauty of these bugs that they wouldn't be able to see with the naked eye."

Open to all Oklahoma elementary schools, the annual "Ugly Bug" competition is designed to get students interested in microscopy and entomology at a young age. The rules are simple: Each school can submit one bug — the "uglier," the better. Entries are processed at scanning electron microscope labs across the state, currently including Oklahoma State University, Phillips 66 and the Samuel Roberts Noble Microscopy Laboratory on the University of Oklahoma Norman campus, and imaged by a scanning electron microscope. The school



with the winning entry, judged by a group of OMS members, scientists and volunteer judges, receives a Leica stereomicroscope.

Jane Dmytryk, a second-grade teacher from Jackson Elementary in Norman, is known around her school as the "ugly bug teacher." Dmytryk has participated in the contest every year since its inception and has integrated the contest through the whole school. She said the students know once September rolls around, they better be ready to head outside and search for bugs.

"It's made them so much more aware of the outdoors, the environment, what kind of habitats these bugs need," said the one-time contest winner. "Some kids even build up a whole little habitat for their bug, and they check on it every day to see how it's doing."

### 20 years of surprises

The scientists inside the Samuel Roberts Noble Electron Microscopy Laboratory scan and image the bugs to produce the macro photos. Scott Russell, director of the Samuel Roberts Noble Microscopy Laboratory, said they've not only seen some downright ugly bugs in the past 20 years, but they've been sent some pretty unusual vermin as well.

"Among other things, we were occasionally getting tarantulas, scorpions and other spiders, and most of them do have venom," he said.

### Um, yikes?

The contest now prohibits arachnids, which include tarantulas and scorpions in addition to your harmless Daddy Long Leg spider and the venomous brown recluse found throughout Oklahoma. That rule is only partly for the child's safety, Russell said.

"Anybody who collects a honeybee is looking for trouble, too. Or a wasp, and we do get those."

Actually, the ban on spiders came about after a contestant submitted a tarantula not-so-wisely enveloped between two paper plates stapled together. The spider's mass (which could have been somewhere between I and 3 ounces), combined with the time it takes to mail something through the U.S. Postal Service, meant bad news for those who had to handle it in transit.

"Tarantulas are big, sort of wet insects; it was pretty stinky," said Greg Strout, research scientist at the Samuel Roberts Noble Electron Microscopy Laboratory. "We put it in the fume hood for a couple of weeks before we even dealt with it."

Russell chimed in, "We got a note from the post office. We got a long note."

The lab crew also received a delivery of a black widow spider nest, complete with a batch of eggs.

"That was really, really exciting," Russell added.

Aside from the arachnids, which, by the way, aren't even in the insect family, other questionable critters get caught and sent in.

"There are some that, when you get them, you kind of wonder what people were thinking," Russell said. "Like crab lice, you know? Yep, we've gotten lice before — not personally."

What's so funny, though, is the students are absolutely aware they're catching lice and sending it off to a stranger to scan and image.

"That's right, they have to identify it," Russell said. "That's part of the challenge. They have to state the kingdom, phylum, order, family. They have to do the complete scientific classification. The real exercise is doing science and collecting bugs."

Once, the scientists received a Madagascar stick insect that was found at Myriad Botanical Gardens in Oklahoma City.That prompted yet another rule:The contest will only accept bugs native to Oklahoma.

In addition to the ugly bug photos and explanation of the imaging process, the exhibit features the packaging used to transport the bugs from the classroom through the postal service and to the lab. Classmates often brainstorm the best ways to ship each bug, and those methods, OMS members say, can get interesting.

"They range from Ziploc bags where the bug may be crushed and unusable by us, to very elaborate ideas," said Preston Larson, research scientist at the Samuel Roberts Noble Electron Microscopy Laboratory. "You get a lot of Kodak film containers, some iPhone boxes, and I've even seen one in a Styrofoam egg."

### EXHIBITIONS

## "Comets, Asteroids, Meteors: Great Balls of Fire!"



he Sam Noble Oklahoma Museum of Natural History has opened its doors to the exhibit "Comets, Asteroids and Meteors: Great Balls of Fire," which takes a deep dive into the science of space and helps us understand where these celestial objects come from.

The exhibit is sponsored locally by Love's Travel Stops & Country Stores and will be on display from May 20 through Sept. 10.

"'Great Balls of Fire' allows us to explore how comets, asteroids and meteors are portrayed in pop culture," said Morgan Day, museum spokesperson. "We think this will be an exhibit that interests everyone from kids to movie buffs to adults of all ages."

Museum visitors can determine whether Hollywood movie clips are "Science Fact or Science Fiction

### A comet slices across the night sky in an artistic rendering of the beautiful space phenomenon. Photo courtesy of the Space Science Institute's National Center for Interactive Learning.

Theater." They can contemplate what would happen if one of these objects was hurtling toward Earth and hit their neighborhood in the "What If It Hit My Town" interactive display. Visitors can even take part in a datagathering mission as they climb aboard a spaceship and blast off to Jupiter.

The exhibit is divided into four areas, Origins, Asteroids, Comets and Impacts, and includes a variety of interactive multimedia experiences, ranging from straightforward computer-based activities to a larger-scale "pod" in which visitors play the role of "explorers-in-training" an important theme that threads throughout the exhibit.

The Space Science Institute's National Center for Interactive Learning, with funding from the National Science Foundation and NASA, developed this national traveling exhibit.

### NEWS

## Volunteer of the Year

asimir Mackey, 24, of Norman, is the museum's Tom Siegenthaler Volunteer of the Year for 2017. Mackey, a junior history major at the University of Oklahoma, volunteers in the museum's Native American languages collection. That collection includes audio and video recordings, manuscripts, books, journals, ephemera and teaching curricula from more than 175 Native North American languages.

Since 2014, Mackey has assisted the Native American languages department by processing and cataloging new permanent acquisitions and handling loans. In 2016, Mackey dedicated more than 420 hours of volunteer service to the department and digitized more than 5,200 pages from one-of-a-kind ledgers containing handwriting in the Chickasaw language.

Mackey works under the guidance of Daniel Swan, interim curator of the Native American languages department, and Nicholas Wojcik, collection manager. Her "inherent passion for preserving history" makes her an extraordinary asset to the museum, Wojcik said.

"In her volunteer work, she has demonstrated supreme dedication to the task at hand and to the museum at large, a thoughtful personality and work ethic, and the potential to be the Volunteer of the Year," Wojcik said. "She's my go-to person should I need someone to train incoming volunteers in cataloging or other collectionrelated tasks. I can always count on Kasimir."



Kasimir Mackey, 2017 Tom Siegenthaler Volunteer of the Year

Mackey, who works a full-time job and takes courses part time at OU, still finds new ways to help others and participate in museum-related activities outside of her volunteer duties. Most recently, she prepared materials for and helped execute the museum's 15th annual Oklahoma Native American Youth Language Fair.

Mackey has her sights set on a career in the museum field and believes volunteering at the Sam Noble Museum will help her narrow in on a potential career path. For now, her current assignment seems to be a perfect fit for Mackey, whose passion is to help others and change lives.

"I get put on so many different kinds of projects; I start one and then I move on to another one!" Mackey said. "I really like knowing I'm doing a service for others."

### COLLECTIONS

## Curator honored for excellence in education

he Sam Noble Oklahoma Museum of Natural History's assistant curator of herpetology, Cameron Siler, Ph.D., recently was honored as the Irene Rothbaum Award winner for Outstanding Assistant Professor in the University of Oklahoma's College of Arts and Sciences.

Siler's employment at OU is split between that of assistant professor in the Department of Biology and



assistant curator of herpetology at the Sam Noble Museum. Siler is the museum's first faculty curator to receive the prestigious award.

"As an educator, I always hope that I have opportunities to really connect with students," Siler said. "Whether it's simply exposing them to something new in science or providing a positive and memorable learning experience, it's always so humbling to learn that you've had a positive impact on student development. I'm honored to have received this award, and thankful for our undergraduate students at OU who inspire me every day."

The award is given to one recipient each year and was established with a generous donation from Julian Rothbaum in honor of his wife. Nominees should be model teachers, recognized for their dedication, effectiveness and ability to inspire students to high levels of achievement.

As a biodiversity and museum scientist, Siler often focuses his work on education outreach, which, for him, comes in the form of interaction with the public and K-12 student communities.

"Institutions like the Sam Noble Museum that are part of university systems provide unique opportunities to bring museum science and discovery to the undergraduate classroom," Siler added. "Whenever possible, I prioritize bringing my experiences as a biodiversity scientist and museum curator into the classroom in hopes of exposing students to a uniquely different perspective on topics in the broader field of biology. To me, this award underscores the intangible resource natural history museums represent in all facets of education."

Pictured: Cameron Siler, herpetology curator

# Curator receives national service award

ichard L. Cifelli, Ph.D., the Sam Noble Oklahoma Museum of Natural History's curator of vertebrate paleontology, was honored with the prestigious Joseph T. Gregory Award for outstanding service to the welfare of the Society of Vertebrate Paleontology.

Cifelli has dedicated many of his professional years to the Society of Vertebrate Paleontology as he's served on the society's executive committee, acted as the society's program officer and served as editor for several science journals.

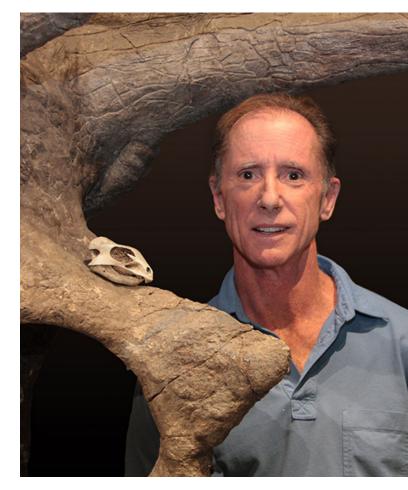
"This is a great honor," Cifelli said after accepting the award at the Society of Vertebrate Paleontology's annual meeting recently in Salt Lake City. "Within this society there's a culture or a tradition of service. It's everybody pitching in, so you're part of a team."

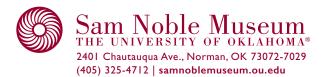
His service to the society, as well as his service to the Sam Noble Museum, led former student Randall L. Nydam to recommend Cifelli for the award. Nydam, Ph.D., a professor of anatomy at Midwestern University in Arizona, wrote in his nomination letter about Cifelli's arrival in 1986 to the museum, then named the Stovall Museum. Cifelli worked tirelessly to salvage collections that were improperly stored and on their way to being lost to neglect.

"He has been tremendously productive in his career, and the majority of what is known of early mammal evolution is largely based his numerous discoveries and contributions to the science," Nydam said. "Even in light of this tremendous success, Rich has also always been an everyday guy. When meeting people, he always introduces himself as 'Rich ... Rich Cifelli,' placing emphasis on being on a first-name basis with everyone. Rich is an excellent scientist, a valuable member of the vertebrate paleontology community, and a great person. The Joseph T. Gregory Award is one of many accolades he deserves."

The Society of Vertebrate Paleontology, founded in 1940, is an international organization with more than 2300 members.

Pictured: Richard Cifelli, vertebrate paleontology curator





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# Coming Soon!

Explore Evolution Saturday, Sept. 23, 2017, through Monday, Jan. 1, 2018

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