

CATALYST

DENVER MUSEUM OF NATURE & SCIENCE MAGAZINE

OCTOBER | NOVEMBER 2013

INSIDE /// MYTHBUSTERS: THE EXPLOSIVE EXHIBITION
FIELD TRIP ADVENTURES
MEERKATS 3D



NATIONAL GEOGRAPHIC PRESENTS



MEERKATS 3D

Unafraid. Unstoppable. Unbelievably cute.

NATIONAL GEOGRAPHIC PRESENTS "MEERKATS 3D" WRITTEN BY EMILY WATSON PRODUCED BY CAROLINE HAWKINS DIRECTED BY ANDREW GRAHAM-BROWN AND ANNE SOMMERFIELD
EDITED BY RENDIR TUAHENE CHARACTER DESIGNER ROBIN COX STEEL DRAUGHTSMAN PHIL STREATHER AND RALSTON HUMBLE EXECUTIVE PRODUCERS FOR NATIONAL GEOGRAPHIC CHANNELS AND IMAX CLARE BIRKS
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MEMBERS SAVE 30% ON TICKETS EVERY DAY

Dear Members,

We had a great summer this year and were pleased to see so many of you at the Museum with your family and friends. We now turn our attention to presenting MythBusters: The Explosive Exhibition and preparing for the opening of the new wing in 2014, which will be home to the Morgridge Family Exploration Center and the Rocky Mountain Science Collections Center.



During the warm weather months, our scientists and their teams spread out around the country—and sometimes the world—conducting fieldwork. Two of our paleontologists were recently cited in the national news. Joe Sertich named *Dahalokely tokana*, a new species of dinosaur from Madagascar that helps fill a gap in the fossil record. Scott Sampson led a team that unearthed a new big-nosed, long-horned dinosaur named *Nasutoceratops titusi* from Kaiparowits in southern Utah, the greatest unexplored paleontological boneyard in the lower 48 states.

As we saw with the Snowmass Village Ice Age site three years ago, our scientists are right in the thick of collecting specimens that unlock mysteries about this amazing planet of ours. The Museum has the awesome responsibility of caring for new discoveries as well as the other nearly 1.5 million artifacts and specimens in our vast collections, from our very first collection of Edwin Carter's birds and mammals to thousands of fossils from the Snowmass site. Beginning in 2014, the collections will be consolidated in the new Rocky Mountain Science Collections Center.

The new facility is providing an unprecedented opportunity for the Museum to give the collections the level of care that had become extremely challenging after 113 years as a collecting institution. The collections managers and conservators and their steadfast volunteers have devoted hours upon hours to activities that are preparing the collections for this historic move. Every item is being assessed and stabilized. In the new facility, temperature and relative humidity are controlled; new closed cabinets protect against light, dust, and pests; and properly equipped spaces will promote increased access by researchers, volunteers, and students.

We realize that our visitors' passion for seeing the "real thing" is just one reason the Museum is committed to safely guarding these invaluable collections, ensuring that endless possibilities for new discoveries will endure for years to come. We thank you for your support and look forward to welcoming you to the new Rocky Mountain Science Collections Center.

George Sparks
President and CEO

You may contact George Sparks by e-mail at president@dmns.org.

CONTENTS

2 IN THE KNOW

Here's the latest about what's going on inside and outside the Museum.

4 FEATURED EXHIBITIONS

Myth confirmed! MythBusters: The Explosive Exhibition opens at the Museum.

6 MUSEUM INSIDER

Field Trip Adventures is a new way for students to experience all the Museum has to offer.

8 MUSEUM TREASURES

Plastinated slices in the health sciences collection take a deeper look at the amazing human body.

10 GET INVOLVED

Let's work together to inspire the scientist in everyone.

12 DISCOVER SCIENCE

Teen Science Scholars make contributions to science, including naming a new ancient insectivore.

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- Tickets for MythBusters: The Explosive Exhibition, Planetarium and IMAX shows, lectures, and programs
- Reservations for members events
- Hours and showtimes
- Calendar of events
- Museum Scientists
- Today's Weather at the Museum
- Heavens Above sky information
- Membership renewals and purchases

ON THE COVER

From the anthropology collections

Moccasins

AN-2009-30.21A-B

Beaded hide with blue cotton lining

Northern Plains, likely Blackfoot

ca. mid-19th century



Rick Wicker



COLLECTIONS MILESTONES

When curator Paula Cushing arrived at the Museum in 1998, there was no arachnology collection. On August 20, 2013, Zoology Department volunteer Mark Christopher cataloged the Museum's 30,000th vial of identified arachnids! "ZA.30000" is an orb weaving spider of the species *Argiope trifasciata*. It was identified by Pete Philpott, a participant in the Colorado Spider Survey, and photographed by curatorial assistant Chris Grinter. All the data from the Museum's arachnology collection can now be searched @ <http://symbiota1.acis.ufl.edu/scan/portal/>. Cushing established the Colorado Spider Survey, which over the past 15 years has engaged amateur and professional arachnologists from around the state to help establish one of the most significant collections of arachnids in the country. Find out more @ <http://spiders.dmns.org/default.aspx>.

The fossil vertebrate collection also recently reached a milestone when the 65,000th specimen was cataloged. It is the skull of *Megalonyx jeffersoni*, aka "Ziggy," the sloth collected from the Snowmass Village Ice Age site. In 1987, the fossil vertebrate collection had only 2,152 specimens. Because only a small percentage of the fossils from Snowmass have been cataloged so far, this collection will continue to grow.

Both of these collections will move to the new Rocky Mountain Science Collections Center, scheduled for completion in February 2014. The new facility will help fulfill the Museum's ongoing commitment to ensuring that the world's natural treasures are forever protected for the community's enjoyment and scientific advancement. Find out more @ www.dmns.org/futureplans.



CONSTRUCTION UPDATE

Sunrise is reflected in the glass on the south side of the new Morgridge Family Exploration Center. The brick work on the south wall is nearly complete and limestone is being installed over the blue moisture barrier. Construction continues to be on time for a February 2014 opening. Visitors of all ages will receive engaging new ways to interact with science through a new Discovery Zone for early learners, Exploration Studios for 21st-century students, the Anschutz Gallery for special exhibitions, a lively atrium space, and an outdoor nature plaza. Find out more @ www.dmns.org/futureplans.

HEAVENS ABOVE

Comet ISON, officially C/2012 S1 (ISON), was discovered in September 2012 at the International Scientific Optical Network (ISON) in Russia. Although early on many astronomers predicted the comet would shine brighter than the full moon, recent observations suggest it will be about the same brightness as Venus. The brightness of comets is notoriously difficult to predict, but Comet ISON will be worth keeping an eye on.

Based on ISON's orbital elements, the comet is believed to be making its first trip into the inner solar system from the distant Oort cloud, a cosmic warehouse of comet nuclei in the outer regions of the solar system. ISON is expected to skim past the sun, more than 1.1 million miles above the solar surface. The comet is estimated to be about 3.1 miles in diameter and appears to be unusually active. Hubble astronomers determined its dust tail extends more than 57,000 miles, more than twice the circumference of Earth. Many NASA and ESA spacecraft will be engaged in observing ISON throughout its journey.

Opportunities for observing by telescopes and binoculars will occur in October and November as the comet heads toward the sun; however, December is expected to be the best month for the majority of sky watchers to observe the comet. ISON's closest pass to our planet is on December 26 when it is about 39.9 million miles from Earth.

Find sky information for October and November @ www.dmns.org/heavensabove.

BRING A FRIEND TO NIGHT AT THE MUSEUMS

Show off your favorite Museum during Denver Arts Week! On Saturday, November 2, the Museum will be open for free from 5 to 10 p.m. for the annual Night at the Museums. Admission for you and your nonmember friends will be free. MythBusters: The Explosive Exhibition will be open; reservations and timed tickets will be required at evening prices. Find out more @ www.dmns.org/mythbusters.

NEW MENU IN T-REX CAFE

The Museum's new executive chef, Patrick Hartnett, is committed to offering healthy, locally sourced food to enhance the visitor experience and special events at the Museum. He has introduced a new menu in T-Rex Cafe that reflects these goals for the Museum's food offerings. Hartnett has been cooking professionally for more than 30 years in restaurants, hotels, and resorts. He trained under various acclaimed European and American chefs and traveled the world to become well-versed in many styles of cuisine. Prior to joining the Museum, Hartnett served as the head chef at the Westin Westminster, where he helped open Kachina Southwest Grill.

Members always receive a 10% discount in T-Rex Cafe, which is open daily from 11 a.m. to 2 p.m.



CELEBRATE FOSSILS!

Celebrate National Fossil Day from 10 a.m. to 4 p.m. on Saturday, October 19. A variety of activities will be free with admission. Meet paleontologists, and see specimens from our earth sciences collections. Partner organizations, including the National Park Service, will present fun activities for fossil enthusiasts of all ages. You will also enjoy your Museum favorites such as exploring Prehistoric Journey and watching volunteers clean fossils in the Schlessman Family Laboratory of Earth Sciences. Find out more @ <http://nature.nps.gov/geology/nationalfossilday/>.





MYTHBUSTERS

THE EXPLOSIVE EXHIBITION.

*Can you really huff and puff and blow a house down?
Can you hang from a cliff by your fingertips? Can a
playing card really act as a weapon?*

MythBusters: The Explosive Exhibition brings the wildly popular Discovery Channel television series to life, as you uncover truths behind popular myths by mixing the scientific method with gleeful curiosity and old-fashioned ingenuity to create a memorable experience for all ages. You and your family will participate in fun, hands-on experiments and live demonstrations.

On their Emmy-nominated show, *MythBusters*, cohosts Adam Savage, Jamie Hyneman, Tory Belleci, Kari Byron, and Grant Imahara take scientific investigation to exciting new levels by proving or disproving myths using their highly experimental approach and extensive backgrounds in special effects. Savage and Hyneman were heavily involved throughout the development of the exhibition to ensure guests experience a true MythBusting encounter.



© Photos: Discovery Communications



During their 10 years on air, the MythBusters have tested more than 833 myths, with 461 busted, 194 confirmed, and 178 plausible. “It’s exciting to see fans take on some of our favorite experiments from the show while drawing their own conclusions and data,” said Savage. “Although they are tackling the same myths and questions, each guest can have a unique experience within the exhibition.”

The experiments you and your family will test cover topics such as flight, friction, gravity, and speed. The exhibition has three main experiences:

Blueprint Room—Based on the real-life operations room of the iconic *MythBusters* set, this room acts as an introduction to MythBusting and is filled with gadgets, props, videos, and, of course, blueprints used by the hosts to explore myths on the show. Fans will recognize the jet pack, Jamie’s tornado shelter, and, of course, Buster, the infamous stunt dummy.

Workshop—This is the place where you will turn into a MythBuster and use real science with real results to test actual myths featured on the television series. “Warning: Science Content” videos, starring Tory, Kari, and Grant, provide an in-depth look at the science behind your experiments. Find out if you get wetter running versus walking in the rain, if you can pull a tablecloth out from under a place setting without a spill, or if toast really always lands buttered-side down.

Live MythBusters Demonstration Stage—You have the opportunity to be a part of a high-energy, group MythBusting session! Live demonstrations offer a dynamic and fun deep-dive into the scientific method to explore some of the myths associated with human reaction time and momentum. Don’t be surprised if you are asked to test your reaction time against a paintball gun. (Yes, we supply the protective gear!)

MythBusters: The Explosive Exhibition is going to blow your mind!

VISITING TIPS FOR MEMBERS

Members will be among the **FIRST** to see **MythBusters: The Explosive Exhibition** and will be included in exclusive opportunities to meet some of the MythBusters in person! Find members events on the back cover or @ www.dmns.org/memberevents.

MythBusters: The Explosive Exhibition will be open daily from 9 a.m. to 5 p.m. beginning October 11, with some extended hours during the run. Timed tickets are required. Find ticket availability @ www.dmns.org/mythbusters.

Members receive a deep discount on admission: \$7 adult, \$6 senior (65+), and junior (3–18). Book online @ www.dmns.org/mythbusters and avoid a handling fee! Phone reservations are also accepted @ 303.370.6000 (daily, 9–5). There is a \$2 fee per ticket by phone. Afternoon is the best time to call.

Complimentary “pink” member guest vouchers are valid only for general Museum admission and cannot be used for special exhibitions.

Advance tickets are recommended. Weekday late afternoons and weekend early mornings tend to be less busy. School groups generally visit during weekday mornings.

Please arrive at the Museum least 15 minutes before your entry time, and allow time for parking and ticketing.

Pictured above from left: Kari Byron, Jamie Hyneman, Adam Savage, Tori Belleci, and Grant Imahara.

MythBusters: The Explosive Exhibition was created by Discovery Communications and Exhibits Development Group (EDG), in partnership with the Museum of Science and Industry, Chicago (MSI) and Geoffrey M. Curley + Associates (GMC+A). MythBusters, the series, is developed and produced by Beyond Entertainment Limited. Financing for this exhibition has been made possible by Olympus Capital Investments, LLC, a unit of Olympus Holdings, LLC. MYTHBUSTERS™ and the MYTHBUSTERS logo are trademarks of Discovery Communications, LLC, used under license. All rights reserved.

FIELD TRIP ADVENTURES

When Better Denver voters said yes to our bond proposal for a new science education center in 2007, the Museum immediately began dreaming of new ways to serve our community. Hundreds of thousands of children have memories of visiting the Museum over the years, but what could we do to make science come alive for today's young learners?



On September 24, we will begin taking reservations for Field Trip Adventures, a new approach to school visits that takes the best of what the Museum has always offered and combines it with engaging eye-popping new opportunities that will be available when the Morgridge Family Exploration Center opens in February.

“Field Trip Adventures stitches together many features of the Museum into an amazingly immersive and comprehensive field trip experience,” said Karen Hays, the manager of school program development. “We are going to give our school groups an experience they will remember the whole school year—if not a lifetime!”

Museum educators, scientists, and exhibit and digital designers have been collaborating to develop Field Trip Adventures for school groups, which incorporate many of the new wing's features with exhibits throughout the Museum. For months, the team has been testing their ideas with teachers and school-aged children. The result is five preplanned, three-hour field trips that maximize the students' learning and support the new Colorado Academic Standards.

Hays described “Super Animal Adaptations,” one of the Field Trip Adventures. Using a customized itinerary, students rotate through a series of experiences. In an Exploration Studio, transformed into “superhero headquarters,” students become superhero cadets. Large screens and new technology in the studios provide a dynamic multimedia presentation that introduces the students to three animals and their superpowers: the octopus, the peregrine falcon, and the dung beetle. At experiment stations, students explore adaptations using specimens from the Museum's collections and kid-sized props to create their own superpower adaptations.

The Morgridge Family Exploration Center was intentionally designed to allow students and teachers to easily

flow outside as part of their Museum program. The Exploration Studios open directly out into the park, and a new Nature Plaza on the center's east side will also be used for school groups. For Super Animal Adaptations, the students will enjoy some Colorado sunshine while using physical activities to test their own environmental adaptations. In times of inclement weather, the students can easily be moved indoors to the new Science Atrium, a flexible, vibrant area located in the heart of the new addition.

Another key component of Super Animal Adaptations is that each group of students, teachers, and chaperones receives an iPad loaded with a special app to guide their time in the rest of the Museum. Following one of the superhero animals, the students explore the Museum, investigating other animal adaptations in the Wildlife Halls, comparing them to the adaptations of their own animal superhero, and doing fun full-body activities. In Expedition Health, they will examine how humans use their own adaptations. The app allows each group to customize their own adventure, and all told, between the three animal superheroes, 96 stops are possible throughout the Museum.

The other four Field Trip Adventures follow similar formats and are focused on bears and natural habitats, dinosaurs and paleontology, heart and lung labs, and Maya: Hidden Worlds Revealed, the temporary exhibition opening early next year.

“The Museum has taken a collaborative approach to find the best ways to serve our schools where they are today,” said Nancy Walsh, director of Museum Programs. “We talked to teachers about what would make their time at the Museum most productive, so that their visits were educationally powerful and fun for their students. We heard a need to make the best of the entire

Museum and provide experiences students could never have in the classroom. From the moment a teacher begins planning a field trip until the moment the school bus drives away, school groups will receive focused attention and service from staff and volunteers. We want school groups, and all visitors, to be able to relax and really engage with their Museum experience.”



FIND IT @ DMNS.ORG

Spread the news to your favorite student! Reservations for the all-new Field Trip Adventures open on Tuesday, September 24. Field Trip Adventures will begin on February 14, 2014, as part of the grand opening of the Morgridge Family Exploration Center. Reservations for school visits for anytime between now

and February are currently available. Find out more @ www.dmns.org/teachers/reservations or by calling 303.370.6000.

A free Educators Night will be held on Monday, October 21. Find out more @ www.dmns.org/teachers.





Rick Wicker

HUMAN PLASTINATED SLICES

BY NICOLE GARNEAU, PhD

Most of us tend to take our bodies for granted every day, giving little thought to their amazing capacity to function under myriad conditions and circumstances. However, science provides us with compelling opportunities to not only take a deeper look at the mechanics of the human body but also at its sheer beauty. This is something I consider each time I tour someone behind the scenes at the Museum and hold a plastinated section of the human body up to the light. Intrigue turns to reverence, for both my guests and for me.

I didn't always feel this way about the plastinated slices in our collection. I generally took them for granted as yet another necessary scientific artifact. However, in May 2012, I had the unique opportunity to visit the Plastination Institute in Guben, Germany, and my perspective dramatically changed. In their exhibition area, I was drawn to a plastinated slice of an elephant hoof, and I was startled that I recognized the same structures as in the human ankle. The elegance of the bones themselves, and the way in which they came together, led me to reconsider the way in which I view joints such as my own ankle. This recognition drew me to the institute's beautiful array of lighted drawers holding hundreds of human plastinated slices. I can best describe it as an experience similar to looking at a visual illusion where only after intense focusing does the 3D image emerge and you find yourself wowed.

Considering this newfound appreciation, you can imagine my disappointment when I learned during our visit that with the exception of brain slices, the Plastination Institute is no longer producing the human slices. The group has moved more systematically to plastination of human and animal bodies and organs for medical schools and scientific exhibition. In that instant I realized the incredible distinction of the slices in our own collection.

I returned to Denver anxious to reexamine the 14 slices in our collection. The process used to generate the slices is a fairly straightforward variation of the technique used for whole specimens. Donors elect to leave their remains to the Plastination Institute for anatomical education. The remains are deeply frozen, down to -94 degrees F. This prepares the body for an extremely accurate and delicate process of creating slices that are a mere 1 to 5 millimeters thick. (Pennies are 1.55 mm thick.) The slices are stained so that various sections of the body, such as bones and muscles, can be easily identified. They are transferred to a plastic grid inserted into a steel frame basket. The basket is placed in a series of acetone baths to remove all water from the cells. Water is the primary cause of decomposition, so removing the water preserves the tissues. The slices are finally plastinated using a heat-cured epoxy resin. The slices show authentic cross-sectional anatomy, allowing incredible insight into the human body.

Because this preservation technique is relatively new, we don't know the long-term consequences of ultraviolet light, heat, and other environmental stressors on the slices, so the Museum's conservators pay special attention to caring for them. The actual specimens are kept behind the scenes, but high-resolution scans of the slices are featured on the beautifully lit Anatomy Cart in Expedition Health until we have a better understanding of long-term preservation.

I recently had the pleasure of sharing these specimens with the founder of the Plastination Institute, Gunther von Hagens himself! He and his son, Rurik, were attending a medical conference in Denver, and they requested a tour with our health team. Gunther was also pleased to see the full-body plastinates, The Hikers, in their new home in Expedition Health. During this visit, I lamented that human plastinated slice production had ceased operations, and to my surprise Rurik and Gunther looked at each other, then at me. Rurik said, "Not necessarily." He didn't explain further, but I have



Rick Wicker

hope now that perhaps more slices will be available in the future. At the end of their tour, I was proud when they told us that they have visited many medical and educational institutes and organizations with plastinated collections across the world, but none matched the storage and care they had seen at our Museum.

Pictured on facing page: A plastinated slice of a human head. The nose is located at the top, with the eyes on either side. The brain is in the lower half of the head. Above: A human hand slice shows a complexity of nerves, bones, and tendons.



FIND IT @ DMNS.ORG

Dr. Nicole Garneau is curator of human health. Find out more about her research @ www.dmns.org/genetics.

The Museum is responsible for preserving collections, such as the plastinated slices, that are timeless in origin and value. To fulfill this responsibility, the Museum will open the Rocky Mountain Science Collections Center in February 2014. Find out more @ www.dmns.org/futureplans.



ENJOY SPECIAL PERKS IN THE GIVING CLUB

Upgrade your membership today to the Giving Club and experience exclusive events and perks! Membership in the Giving Club provides unique access to the Museum, allowing you to receive new opportunities for discovery and learning, while providing critical support for the Museum.

Last Call! Behind-the-Scenes Bonus: On Wednesday, October 23, Giving Club members and their families will be treated to an exclusive Behind-the-Scenes Night. This free event will offer unique opportunities to meet Museum scientists, explore treasures and collections not on public display, and enjoy a Halloween-themed buffet and cash bar. Costumes are encouraged!

“Anytime” Tickets: All Giving Club members receive free “anytime” tickets to all surcharged exhibitions, including MythBusters: The Explosive Exhibition, opening in October, and Maya: Hidden Worlds Revealed, opening in early 2014. This benefit guarantees quick and easy access to temporary exhibitions, making your visit even more convenient. No reservations needed, even if it’s sold out! The number of tickets you receive is determined by your membership level.

Membership in the Giving Club starts at \$300. Find out more about Giving Club levels and benefits @ www.dmns.org/join/giving-club.



Become a lasting part of the new Morgridge Family Exploration Center and help excite and inspire generations to come. Compose a special message to honor family or cherished friends ... remember a loved one ... celebrate your children or grandchildren ... recognize your business or an important milestone.

YOUR LASTING TRIBUTE.

For \$500 or \$1,000 we invite you to personalize a leaf that will be displayed on a new Nature Art Wall on the second-floor entryway to the new wing, home to a brand-new Discovery Zone for young children, a second temporary exhibition gallery, and engaging science studios for 21st-century learners.

BE AN INSPIRATION.

Give online at www.dmns.org/InspireCuriosity.

Your support will help ensure that generations of Coloradans will view the world with a sense of awe, renewed respect for science, and fully energized curiosity.

For more information, e-mail InspireCuriosity@dmns.org or call 303.370.8251.



MUSEUM *after* DARK

ACROSS THE UNIVERSE

11.08.2013

You are invited to become immersed in the awe-inspiring world of constellations and planets, where mystery and brilliance reign. Enjoy cocktails, dinner, dancing, and a unique silent auction among fascinating scientific treasures.

6:30–11:00 p.m.
Black-tie
Tickets start at \$300*

One-hundred percent of the funds raised will provide educational programs that seek to inspire young minds to think, learn, and grow through science.

OR JOIN US LATER FOR THE AFTER DARK SOIREE

The party continues as we dance across the universe and explore the Museum after dark. Sip cocktails and bid on silent auction items that are out of this world.

9:30 p.m.–1:00 a.m.

Cocktail attire

Tickets are \$50 and include appetizers, desserts, and two drinks

TICKETS AND INFORMATION

www.dmns.org/mad or
303.370.6000

**After Dark Soiree ticket included in price.*



TEEN SCHOLAR NAMES A SHREW

BY RICHARD STUCKY, PhD

At the Wind River Basin of central Wyoming, the wind does indeed blow, sometimes at hurricane gale force. The basin is at about 6,000 feet, nestled within mountain ranges completely surrounding its trapezoidal shape. These mountains began to rise about 58 to 55 million years ago and on into the middle Eocene. The mountains shed their sediments and filled the basin. More recent erosion has carved out its rocky badland landscape.

The rocks are gorgeous: layers of candy-striped light grey, light bluish, and deep red lateral horizons, yellow sandstones, and mosaic conglomerates that look like pages of a closed book, each



telling a different episode in Earth's history. They tell ancient tales of catastrophic floods, tumultuous mudflows, massive flowing rivers, expansive lake beds, and quiet backwater swamps. They also speak of an ancient tropical ecosystem with the most diverse mammalian fauna to occur in the past 100 million years.

Since the 1880s, Wind River has been a hunting ground for fossils that span the bridge between the early and middle Eocene (52 to 49 million years ago) when the climate was some 20° F warmer annually than today. Over the years, paleontologists from across the country have trekked the basin looking for fossils of ancient primates, horses, and tapirs; small even-toed ancestors of today's cows, pigs, antelope, and bison; and primitive insectivores. Thousands of specimens have been collected.

I began working one of the basin's sites, the Buck Springs Quarries, while I was at the Carnegie Museum of Natural History in the early days of my career. Since joining our Museum in 1989, I have continued exploring this site, collecting hundreds of specimens that are now in the Museum's collections. When the Teen Science Scholars program for high school students began in 2007, I realized that Buck Springs would be a perfect location for the teens to conduct authentic scientific research.

We had seven students the first year of the program, including Michael Christiansen. He has a keen eye for fossils and a passion for science. He was then in his final year of high school, and he decided to study some of the Wind River fossil insectivores for his senior thesis. These nyctitheres are a group of tiny animals with jaws only a couple of centimeters long. Michael and I then joined forces to study the entire group of nyctitheres found in North America. We discovered that the Buck Springs sample contained two new species and a new genus. One of the species was discovered by the Teen Science Scholars, and it was different, more primitive, and completely unknown.

Paul Rosen has long been a volunteer helping us hunt fossils in the Wind River Basin. Paul and his wife, Harriet, donated the seed money for Teen Science Scholars and helped select the first class of scholars. In honor of the Rosens' generous support, Michael and I named the new animal *Acrodentis rosenorum*. The fossils may have been an ancestor or a close relative of modern shrews. Weighing only a few grams, they scampered in the underbrush on the wet forest floor of the rich tropical rainforest, hunting down small insects and invertebrates.

Teen Science Scholars has flourished since its founding by the Rosens. This past summer, 30 students worked in the field and onsite at the Museum. The scholars conducted authentic research that they presented during a poster session. Through the generous support of the Rosens, the Hugh and Michelle Harvey Foundation, John and Suzanne Oró, Lee and Susan McIntyre, and Newmont Mining, more than 75 students have participated in the program, encouraging their interest in science and preparing them for potential careers in science. There is

little doubt that future paleontology scholars will find many more new ancient animals and plants. Although today Michael is a PhD graduate student in materials science and engineering at MIT, he still joins us each summer during his "vacation" to discover more ancient 50 million-year-old fossils.

Above: Michael Christiansen (right), a graduate of the Teen Science Scholars program, works alongside Teen Scholar Marc Thomson at the Wind River Basin in summer 2013.



FIND IT @ DMNS.ORG

Dr. Richard Stucky is curator of paleoecology and evolution. Find out about his research @ www.dmns.org/science/museum-scientists/richard-stucky/. This fall, Stucky and former Teen Scholar Michael Christiansen published their naming of *Acrodentis rosenorum* in the *Annals of the Denver Museum of Nature & Science*. Find it @ www.dmns.org/science/museum-publications/.

Find out more about Teen Science Scholars @ www.dmns.org/sciencescholars

SAVE THE DATE!

Members Appreciation Weekend and Museum Shop Holiday Sale

Friday–Sunday, November 15–17

Celebrate the holidays with us and enjoy special rewards just for you, all weekend long!

- Save 25%* in the Museum Shop during the annual holiday sale. Spend \$50 or more and receive a reusable holiday tote.**
- Save 20% in T-Rex Cafe—an extra 10% off for lunch.
- Save 10% on gift memberships to share with your family and friends.
- Buy one Phipps IMAX Theater or Gates Planetarium ticket and get one free.
- Save up to 68% off general admission to experience MythBusters: The Explosive Exhibition.

Questions? Please contact Membership @ 303.370.6306 (daily, 9–5) or members@dmns.org.

* Additional 15% discount does not apply to DVDs, CDs, and books. Special offers valid in person only November 15–17, 2013, and cannot be redeemed over the phone or online.

** While supplies last.

Your purchases support the Museum's science education and research.

NEW MEMBERSHIP CARDS COMING IN OCTOBER

On October 10, we will introduce our new eCard and begin issuing new membership cards. Your membership number stays the same; only the card's bar code will change to complement our improved ticketing system.

Go electronic and keep your membership card on your smart phone!

- Simply download the free eCard app from your device's app store and never leave home without your membership card! The app will be available on iOS and Android phones beginning October 10.
- The eCard is limited to the named adults on the membership.

Or pick up your new card at your convenience

- When you make your next purchase at the Museum—such as for IMAX tickets or in the Museum Shop—we will replace your blue card with a new green card featuring the mighty *T. rex*.

NEW! MEMBERS EXPRESS LANE

On your next visit to the Museum, look for a new and improved Members Express Lane just for members! Quickly renew your membership, purchase tickets, and take care of all of your membership needs. Enter through the doors marked Members Entrance and the express lane will be just to your right. We look forward to seeing you!



PRINT-AT-HOME TICKETS NOW AVAILABLE

Purchasing exhibition, IMAX, Planetarium, and program tickets online is now even more convenient. Print-at-home allows you to print your tickets as soon as you finish making your purchase online—with no handling fee! When you arrive at the Museum, you'll proceed directly to the Ticket Taker booth. No more waiting in line for tickets.

QUESTIONS?

- Stop by the Members Express Lane at the Museum
- Call 303.370.6306 (daily, 9–5)
- E-mail members@dmns.org
- Online @ www.dmns.org/members

THANK YOU FOR YOUR MEMBERSHIP SUPPORT!

BE A MYTHBUSTER FOR A DAY OR NIGHT and test wild hypotheses in wildly entertaining experiments at one of these special events exclusively for members!



MEMBERS-ONLY PREVIEW

Be the FIRST to see MythBusters AND get a chance to meet cast members!
Thursday, October 10

Exhibit only: 9 a.m.–12:45 p.m.

\$7 adult member, \$6 junior/senior member, RSVP required

Exhibit and meet-and-greet with cast members: 1–4 p.m.

\$20 adult member, \$15 junior/senior member, RSVP required

Enjoy a 20% discount for members in the T-Rex Cafe on this day only.

MEMBERS-ONLY PREMIERE

Explore MythBusters after hours!

Wednesday, October 16, 6–10 p.m.

\$7 adult member, \$6 junior/senior member,
RSVP required

Optional pasta dinner, 6–8 p.m. Additional
fee: \$9 adult, \$9 junior (ages 13–18), \$6 child
(ages 3–12), RSVP required. See full menu at
www.dmns.org/memberevents.

MEMBERS-ONLY ADULT PREMIERE (ages 21+)

Enjoy dinner, entertainment, and the exhibition!

Thursday, October 24, 6–10 p.m.

\$50 member, \$60 nonmember, RSVP required,
limited seating

Dinner served at 6 p.m. Enjoy tomato and crab salad,
grass-fed beef tenderloin or vegetarian option,
Yukon-sweet potato gratin, bacon-honey glazed brus-
sels sprouts, mango cheesecake, iced tea, and coffee.
Cash bar.

ADVANCE RESERVATIONS REQUIRED FOR ALL EVENTS at 303.370.6000 (daily, 9–5) or www.dmns.org/memberevents.

No handling fee when you make your reservation online and print your tickets at home! Space is limited; no walk-up tickets. Dinner reservations due the Sunday prior to each event. Exhibition entry by timed ticket only. Please arrive 15 minutes before your scheduled ticket time. We regret that nonmember guests cannot be accommodated on October 10 and 16.